ENVIRONMENTAL IMPACT REPORT FOR A REPLACEMENT AIRLINE PASSENGER TERMINAL AT BURBANK BOB HOPE AIRPORT

VOLUME 1

JUNE 2016

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ENVIRONMENTAL IMPACT REPORT FOR A REPLACEMENT AIRLINE PASSENGER TERMINAL AT BURBANK BOB HOPE AIRPORT

VOLUME 1

FINAL
June 2016
Burbank, California

State Clearinghouse No.:
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Prepared by RS&H, Inc. at the direction of the Burbank-Glendale-Pasadena Airport Authority

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ES.1 BACKGROUND

The purpose of this Draft Environmental Impact Report (DEIR) is to study the construction and operation of a replacement passenger terminal and ancillary improvements (proposed project) at the Burbank Bob Hope Airport (Airport). The Burbank-Glendale-Pasadena Airport Authority (Authority) has commissioned this EIR for the following purposes:

- to evaluate the environmental effects associated with the implementation of the proposed project, as required by California Environmental Quality Act (CEQA);
- to inform the general public, the local community, and responsible, trustee, state, and federal agencies of the nature of the proposed project, its potentially significant environmental effects, feasible mitigation measures to mitigate those effects, and its reasonable and feasible alternatives;
- to enable the Authority and other government decision-makers to consider the environmental consequences of the proposed project; and
- to facilitate responsible agencies in issuing permits and approvals for the proposed project.

The Authority is studying the proposed project because the existing passenger terminal does not meet current Federal Aviation Administration (FAA) standards (it is closer to the centerline of the runways than specified in the federal design standards and guidance). It should be noted that none of the project alternatives being studied will increase the number of aircraft parking gates[1] at the Airport or the number of public parking spaces. It should also be noted that if any but the No Project Alternative is pursued, the existing passenger terminal will be demolished and removed.

ES.2 PURPOSE AND NEED FOR THE PROPOSED PROJECT

In compliance with Section 15124(b) of the CEQA Guidelines, the Authority is required to identify its objectives associated with the proposed project. As the project proponent, the Authority has identified eleven objectives to be achieved through implementation of the proposed project. The primary objectives are to enhance airport safety by meeting state and federal airport design standards. The other objectives are related to the replacement passenger terminal, such as its efficiency, cost-effectiveness, and convenience, among others. The eleven objectives are to:

- Enhance airport safety by building a replacement passenger terminal that meets FAA airport design standards.
- Build a replacement passenger terminal that meets California seismic safety design standards.
- Consolidate passenger and baggage screening functions to more efficiently meet Transportation Security Administration (TSA) security requirements.
- Build a replacement passenger terminal that meets Americans with Disability Act (ADA) standards.
- Build a replacement passenger terminal that consolidates air facilities (including passenger, tenant and Authority facilities) into a single terminal building.
- Provide a new, modern, energy-efficient passenger terminal with no change in the number of gates or in the total number of public parking spaces for commercial passengers.

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[1] A gate is defined as the aircraft parking location and associated waiting area for passengers before boarding a flight. Only one aircraft can park at a gate at any time.

- Provide an economical and cost-effective facility for the Airport tenants that use the passenger terminal.
- Provide a passenger terminal with a level of convenience that is equivalent to or exceeds that of the existing passenger terminal.
- Provide a distinctive passenger terminal that enhances the community image and sense of place.
- Provide intermodal connectivity between the replacement passenger terminal and the various fixed-rail and bus options located near the Airport.
- Improve the airfield to maximize the safety and efficiency of aircraft movements on the ground.

ES.3 PROPOSED PROJECT

The proposed project would replace the existing 14-gate, 232,000-square-foot passenger terminal with a 14-gate passenger terminal that meets current California seismic design and FAA airport design standards. The replacement passenger terminal would be developed in accordance with modern design standards to provide enhanced passenger amenities; security screening facilities that meet the latest TSA requirements; and other airport facilities (including holdrooms, baggage claim areas, and public areas) that are designed and sized for the kinds of aircraft the airlines routinely operate.

ES.4 DEVELOPMENT OPTIONS

As required under Section 15126(d) of the CEQA Guidelines, an EIR must discuss a range of reasonable alternatives to the proposed project that would feasibly attain most of the basic objectives of the project while avoiding or lessening significant environmental effects. The Authority is considering three development options for the proposed project; the Adjacent Property Full-Size Terminal Option (on the so called B-6 Adjacent site), the Southwest Quadrant Full-Size Terminal Option, and the Southwest Quadrant Same-Size Terminal Option, each of which is analyzed at an equal level of detail in this EIR. The Authority considered other project alternatives, as discussed in **Chapter 4**, however, none were found to warrant further analysis due to infeasibility.

ES.4.1 Adjacent Property Full-Size Terminal Option

The Authority's preferred development option is a 355,000-square-foot replacement passenger terminal on the B-6 Adjacent Property. In addition, the following associated actions (as more fully described in **Chapter 2**) would occur under this development option: construction of aircraft ramp to accommodate 14 replacement parking positions, construction of internal public access roadways and curbfront areas, construction of public and employee parking structures, construction of a replacement air cargo building, construction of a ground service equipment maintenance building, electric substation, realignment of the existing terminal loop road, taxiway improvements, engineered material arresting system (EMAS) improvements, airside service road relocation, perimeter security fencing relocation, potential extension of the existing Tulare Avenue, staging of ground access vehicles (such as taxis, shuttles, and ride hailing vehicles), a relocated air traffic control tower access road, and aircraft rescue and fire fighting (ARFF) station relocation. Demolition activities under this development option would include demolition of the existing terminal and parking structure.

ES.4.2 Southwest Quadrant Full-Size Terminal Option

This development option proposes to construct a 355,000-square-foot replacement passenger terminal in the southwest quadrant. In addition, the following associated actions (as more fully described in **Chapter 2**) would occur under this development option: construction of aircraft ramp to accommodate 14 replacement parking positions, construction of public and employee parking structures, construction of a ground service equipment maintenance building, realignment of the existing terminal loop road, taxiway improvements, EMAS improvements, airside service road relocation, perimeter security fencing relocation, construction of a new terminal access road, ARFF station relocation, relocation of rental car storage, relocation of the air freighter facility, relocation of the air cargo building that would also house the ground service equipment maintenance operations, shuttle bus drop-off/pick-up area, relocation of general aviation facilities, and a relocated air traffic control tower access road. Demolition activities under this development option would include demolition of the existing terminal and parking structure, as well as existing general aviation facilities.

ES.4.3 Southwest Quadrant Same-Size Terminal Option

This development option proposes to construct a 232,000-square-foot replacement passenger terminal in the southwest quadrant. In addition, the following associated actions (as more fully described in **Chapter 2**) would occur under this development option: construction of aircraft ramp to accommodate 14 replacement parking positions, construction of public and employee parking structures, relocation of the air freighter facility, relocation of the air cargo building that would also house the ground service equipment maintenance operations, realignment of the existing terminal loop road, taxiway improvements, EMAS improvements, airside service road relocation, perimeter security fencing relocation, and construction of a new terminal access road. Demolition activities under this development option would include demolition of the existing terminal and parking structure, as well as existing general aviation facilities.

Table ES-1 shows the comparison of all three development options for the replacement passenger terminal.

ES.5 ENVIRONMENTAL IMPACTS

Three development options are studied in this EIR: the Adjacent Property Full-Size Terminal Option, the Southwest Quadrant Full-Size Terminal Option, and the Southwest Quadrant Same-Size Terminal Option. **Table ES-2** presents the results of the environmental analyses and compares the three development options with existing conditions. For each environmental impact category, the matrix identifies whether any significant impacts would occur as a result of the proposed project. With the implementation of identified mitigation measures, four impacts would be considered significant and unavoidable.

Table ES-1
Comparison of Development Options – Replacement Passenger Terminal

		Existing Passenger Terminal	Adjacent Property Full-Size Terminal Option	Southwest Quadrant Full-Size Terminal Option	Southwest Quadrant Same-Size Terminal Option
Passenger Terminal Space					
Floor	**Space Category**	**Areas (All Values Square Feet)**			
First Floor	Tenant Space	15,594	17,037	17,563	17,342
	Tenant Common Areas	34,382	81,861	61,481	61,571
	Mechanical	1,972	7,917	7,034	7,033
	Authority Space	27,503	6,877	5,664	4,282
	Concession Space	17,102	24,173	23,380	25,363
	Security Space	27,913	17,538	17,518	17,223
	Public Space	49,283	73,935	73,563	65,780
	Unenclosed	25,512	0	0	0
Subtotal First Floor (Square Feet)		***199,261***	***229,338***	***206,203***	***198,594***
Second Floor	Tenant Space	3,322	17,178	18,576	0
	Tenant Common Areas	0	0	0	0
	Mechanical	0	9,070	7,495	0
	Authority Space	21,370	50,344	54,589	0
	Concession Space	0	11,882	14,181	0
	Security Space	0	2,851	3,850	0
	Public Space	0	17,041	12,081	0
Subtotal Second Floor (Square Feet)		***24,692***	***108,366***	***110,772***	***0***
Other Levels	Authority Space	3,653	0	0	0
Subtotal Other Levels (Square Feet)		***3,653***	***0***	***0***	***0***
Basement	Tenant Common Areas	0	0	22,723	18,885
	Security Space	0	17,296	15,302	14,521
Subtotal Basement (Square Feet)		***4,394***	***17,296***	***38,025***	***33,406***
TOTAL All Spaces / All Floors (Square Feet)		**232,000**	**355,000**	**355,000**	**232,000**
Other Terminal-Related Improvements					
New Central Utility Plant		No	In Terminal	In Terminal	In Terminal
New Air Cargo Building		No	Yes	Yes	Yes
New Maintenance Building		No	Yes	No	No
Maintain Authority Offices on Airport		Yes	Yes	Yes	No

Sources: Authority, 2016, RS&H, 2016.

Table ES-2
Environmental Impacts Summary Matrix

	No Project Alternative Impact Significance	Adjacent Property Full-Size Terminal Option Impact Significance	Alt. # 1 Southwest Quadrant Full-Size Terminal Option Impact Significance	Alt #2 Southwest Quadrant Same-Size Terminal Option Impact Significance
Environmental Impact Categories				
Aesthetics				
Impacts on Scenic Vistas	N	N	N	N
Impacts on Scenic Resources	N	LTS	LTS w M *Mitigation Measure SW QUAD FULL-AESTH-2*	LTS w M *Mitigation Measure SW QUAD SAME-AESTH-2*
Impacts on Visual Character of Airport Vicinity	N	N	N	N
Impacts on Light and Glare	N	N	LTS	LTS
Cumulative Impacts on Aesthetics	N	N	N	N
Agriculture and Forestry Resources				
Impacts to Farmlands	N	N	N	N
Impacts to Forestry Lands	N	N	N	N
Cumulative Impacts to Farmlands and Forestry Lands	N	N	N	N
Air Quality				
Consistency with Applicable Plans and Policies	N	LTS	LTS	LTS
Violation of Construction Air Quality Standards	N	LTS	LTS	LTS
Violation of Operational Air Quality Standards	S	SU	SU	SU
Increase in Non-Attainment Criteria Pollutants	S	SU	SU	SU
Generation of Pollutant Emissions Greater Than Localized Significance Thresholds	S	LTS	LTS	LTS
Contribution to an Exceedance of CO Standards	S	LTS	LTS	LTS
Generation of Toxic Air Contaminants	LTS	LTS	SU	SU

Note: N – No impact. S – Significant impact. LTS – Less than significant. LTS w M – Less than significant with mitigation. Impact is initially significant and with the implementation of mitigation measures, becomes less than significant. SU – Significant unavoidable.

Table ES-2 (cont.)

Environmental Impacts Summary Matrix

	No Project Alternative Impact Significance	Adjacent Property Full-Size Terminal Option Impact Significance	Alt. # 1 Southwest Quadrant Full-Size Terminal Option Impact Significance	Alt #2 Southwest Quadrant Same-Size Terminal Option Impact Significance
Environmental Impact Categories				
Air Quality cont.				
Creation of Objectionable Odors	N	LTS	LTS	LTS
Cumulative Air Quality Impacts	S	LTS	SU	SU
Biological Resources				
Impacts on Special-Status Species	N	N	N	N
Impacts on Riparian Habitat or Sensitive Natural Communities	N	N	N	N
Impacts on Wetlands	N	N	N	N
Impacts on Wildlife Movement	N	LTS w M *Mitigation Measure ADJ PROP FULL-BIO-4*	LTS w M *Mitigation Measure SW QUAD FULL-BIO-4*	LTS w M *Mitigation Measure SW QUAD SAME-BIO-4*
Conflict with Local Policies or Ordinances	N	N	LTS w M *Mitigation Measure SW QUAD FULL-BIO-5*	LTS w M *Mitigation Measure SW QUAD SAME-BIO-5*
Conflict with Adopted Plans	N	N	N	N
Cumulative Impacts on Biological Resources	N	N	N	N
Cultural Resources				
Impacts on Archaeological Resources	N	LTS w M *Mitigation Measure ADJ PROP FULL-CULT-1A* *Mitigation Measure ADJ PROP FULL-CULT-1B*	LTS w M *Mitigation Measure SW QUAD FULL-CULT-1A* *Mitigation Measure SW QUAD FULL-CULT-1B*	LTS w M *Mitigation Measure SW QUAD SAME-CULT-1A* *Mitigation Measure SW QUAD SAME-CULT-1B*
Impacts on Paleontological Resources	N	LTS w M *Mitigation Measure ADJ PROP FULL-CULT-2A* *Mitigation Measure ADJ PROP FULL-CULT-2B* *Mitigation Measure ADJ PROP FULL-CULT-2C*	LTS w M *Mitigation Measure SW QUAD FULL-CULT-2A* *Mitigation Measure SW QUAD FULL-CULT-2B* *Mitigation Measure SW QUAD FULL-CULT-2C*	LTS w M *Mitigation Measure SW QUAD SAME-CULT-2A* *Mitigation Measure SW QUAD SAME-CULT-2B* *Mitigation Measure SW QUAD SAME-CULT-2C*
Impacts on Tribal Cultural Resources	N	LTS w M *Mitigation Measure ADJ PROP FULL-CULT-3*	LTS w M *Mitigation Measure SW QUAD FULL-CULT-3*	LTS w M *Mitigation Measure SW QUAD SAME-CULT-3*
Impacts on Historical Resources	N	LTS	LTS w M *Mitigation Measure SW QUAD FULL-CULT-4A* *Mitigation Measure SW QUAD FULL-CULT-4B* *Mitigation Measure SW QUAD FULL-CULT-4C* *Mitigation Measure SW QUAD FULL-CULT-4D*	LTS w M *Mitigation Measure SW QUAD SAME-CULT-4A* *Mitigation Measure SW QUAD SAME-CULT-4B* *Mitigation Measure SW QUAD SAME-CULT-4C* *Mitigation Measure SW QUAD SAME-CULT-4D*
Cumulative Impacts to Cultural Resources	N	N	N	N

Note: N – No impact. S – Significant impact. LTS – Less than significant. LTS w M – Less than significant with mitigation. Impact is initially significant and with the implementation of mitigation measures, becomes less than significant. SU – Significant unavoidable.

Table ES-2 (cont.)

Environmental Impacts Summary Matrix

	No Project Alternative Impact Significance	Adjacent Property Full-Size Terminal Option Impact Significance	Alt. # 1 Southwest Quadrant Full-Size Terminal Option Impact Significance	Alt #2 Southwest Quadrant Same-Size Terminal Option Impact Significance
Environmental Impact Categories				
Energy Considerations	N	N	N	N
Geology and Soils				
Expose People or Structures to Surface Rupture	N	LTS	LTS	LTS
Expose People or Structures to Strong Seismic Ground Shaking or Liquefaction	N	LTS	LTS	LTS
Result in Substantial Soil Erosion or the Loss of Topsoil	N	LTS	LTS	LTS
Potential for Impacts from a Landslide	N	LTS	LTS	LTS
Impacts due to Expansive or Corrosive Soils	N	LTS	LTS	LTS
Cumulative Impacts related to Seismic Shaking, Liquefaction, Landslide, and Expansive Soils	N	N	N	N
Greenhouse Gas Emissions				
Generation of Greenhouse Gas Emissions	S	LTS	LTS	LTS
Conflict with Applicable Plan, Policy, or Regulation Regarding Emissions of Greenhouse Gases	N	LTS	LTS	LTS
Hazards and Hazardous Materials				
Impacts Related to Transport, Use, or Disposal of Hazardous Materials	N	LTS w M *Mitigation Measure ADJ PROP FULL-HAZ-1A* *Mitigation Measure ADJ PROP FULL-HAZ-1B*	LTS w M *Mitigation Measure SW QUAD FULL-HAZ-1A* *Mitigation Measure SW QUAD FULL-HAZ-1B*	LTS w M *Mitigation Measure SW QUAD SAME-HAZ-1A* *Mitigation Measure SW QUAD SAME-HAZ-1B*
Impacts from Release of Hazardous Materials Through Foreseeable Upset or Accident Conditions	N	LTS	LTS	LTS

Note: N – No impact. S – Significant impact. LTS – Less than significant. LTS w M – Less than significant with mitigation. Impact is initially significant and with the implementation of mitigation measures, becomes less than significant. SU – Significant unavoidable.

Table ES-2 (cont.)
Environmental Impacts Summary Matrix

	No Project Alternative Impact Significance	Adjacent Property Full-Size Terminal Option Impact Significance	Alt. # 1 Southwest Quadrant Full-Size Terminal Option Impact Significance	Alt #2 Southwest Quadrant Same-Size Terminal Option Impact Significance
Environmental Impact Categories				
Hazards and Hazardous Materials cont.				
Impacts Related to Hazardous Emissions Near a School	N	LTS	LTS	LTS
Impacts Related to Location on a Site on the Cortese List	N	LTS	LTS	LTS
Impacts Related to Safety Hazard for People in Airport Vicinity	N	LTS	LTS	LTS
Impacts Related to Emergency Response or Evacuation Plans	N	LTS	LTS	LTS
Impacts Related to Wildland Fires	N	LTS	LTS	LTS
Cumulative Impacts Related to Hazards and Hazardous Materials	N	LTS	LTS	LTS
Hydrology and Water Quality				
Violation of Water Quality Standards	LTS	LTS	LTS	LTS
Groundwater Impacts	LTS	LTS	LTS	LTS
Impacts to Drainage Patterns	LTS	LTS	LTS	LTS
Change in Runoff / Flooding	LTS	LTS	LTS	LTS
Impacts to Drainage System Capacity	LTS	LTS	LTS	LTS
Water Quality Impacts	LTS	LTS	LTS	LTS
Impacts Related to Placement of Structures in a Floodplain	N	N	N	N
Exposure of People or Structures to Flooding	N	N	N	N
Cumulative Impacts Related to Hydrology and Water Quality	LTS	LTS	LTS	LTS
Land Use and Planning				
Division of an Established Community	N	LTS	LTS	LTS
Consistency with Existing Plans and Zoning	N	LTS	LTS	LTS
Cumulative Land Use Impacts	N	N	N	N

Note: N – No impact. S – Significant impact. LTS – Less than significant. LTS w M – Less than significant with mitigation. Impact is initially significant and with the implementation of mitigation measures, becomes less than significant. SU – Significant unavoidable.

Table ES-2 (cont.)
Environmental Impacts Summary Matrix

	No Project Alternative Impact Significance	Adjacent Property Full-Size Terminal Option Impact Significance	Alt. # 1 Southwest Quadrant Full-Size Terminal Option Impact Significance	Alt #2 Southwest Quadrant Same-Size Terminal Option Impact Significance
Environmental Impact Categories				
Mineral Resources				
Impacts on Mineral Facilities	N	N	N	N
Cumulative Impacts on Mineral Facilities	N	N	N	N
Noise				
Impacts Related to Construction Vibration	N	N	LTS w M *Mitigation Measure SW QUAD FULL-NOISE-1*	LTS w M *Mitigation Measure SW QUAD SAME-NOISE-1*
Impacts Related to Aircraft Noise	N	N	N	N
Cumulative Impacts on Noise	N	N	N	N
Population and Housing				
Impacts Related on Population Growth	N	LTS	LTS	LTS
Impacts on Housing Demand	N	LTS	LTS	LTS
Cumulative Impacts on Employment, Population, and Housing	N	N	N	N
Public Services				
Impacts on Fire Protection Services	N	N	N	N
Impacts on Police Protection Services	N	N	N	N
Impacts on School Services	N	N	N	N
Cumulative Impacts to Public Services	N	N	N	N
Recreation				
Construction-Related Impacts on Recreational Facilities	N	N	N	N
Impacts on Recreational Facilities	N	LTS	LTS	LTS
Cumulative Impacts on Recreational Facilities	N	N	N	N

Note: N – No impact. S – Significant impact. LTS – Less than significant. LTS w M – Less than significant with mitigation. Impact is initially significant and with the implementation of mitigation measures, becomes less than significant. SU – Significant unavoidable.

Table ES-2 (cont.)

Environmental Impacts Summary Matrix

	No Project Alternative Impact Significance	Adjacent Property Full-Size Terminal Option Impact Significance	Alt. # 1 Southwest Quadrant Full-Size Terminal Option Impact Significance	Alt #2 Southwest Quadrant Same-Size Terminal Option Impact Significance
Environmental Impact Categories				
Traffic and Transportation				
Traffic at Signalized Intersections	S	LTS w M *Mitigation Measure ADJ PROP FULL-TRANS-1*	N	N
Traffic at Unsignalized Intersections	S	LTS w M *Mitigation Measure ADJ PROP FULL-TRANS-2A* *Mitigation Measure ADJ PROP FULL-TRANS-2B*	LTS *Mitigation Measure SW QUAD FULL-TRANS-2*	N
Impacts Related to Congestion Management Program	N	N	N	N
Impacts to Caltrans Facilities	N	N	N	N
Impacts to Local Streets in Burbank	N	N	N	N
Construction-related Traffic Impacts	N	LTS w M *Mitigation Measure ADJ PROP FULL-TRANS-6*	LTS w M *Mitigation Measure SW QUAD FULL-TRANS-6*	LTS w M *Mitigation Measure SW QUAD SAME-TRANS-6*
Utilities and Service Systems				
Impacts to Water Supply Systems	N	LTS	LTS	LTS
Impacts to Wastewater Systems	N	LTS	LTS	LTS
Impacts to Landfill Capacity	N	LTS	LTS	LTS
Compliance with Statutes and Regulations Related to Solid Waste	N	LTS	LTS	LTS
Cumulative Impacts Related to Utilities and Service Systems	N	LTS	LTS	LTS

Source: RS&H, 2016

Note: N – No impact. S – Significant impact. LTS – Less than significant. LTS w M – Less than significant with mitigation. Impact is initially significant and with the implementation of mitigation measures, becomes less than significant. SU – Significant unavoidable.

ES.6 COMPARISON OF IMPACTS OF THE DEVELOPMENT OPTIONS AGAINST THE NO PROJECT ALTERNATIVE

In compliance with the California Environmental Quality Act (CEQA), the impacts identified for each of the development options and the no project alternative have been compared to the Base Year (2015). This is presented in **Table ES-2**. However, to provide a complete and accurate understanding of the magnitude of the impacts disclosed, it is important to also compare the impacts of the development options against the no project alternative in the future as well as to compare the number of aircraft operations and passengers in a historical context.

Table ES-3 provides a comparison of the impacts of each of the development options with the no project alternative in the future (i.e., comparing the conditions that would occur in 2025 for each development option against the conditions in 2025 that would occur for the no project alternative). This table shows that the impacts of each development option generally are the same or similar to the impacts that would occur under the no project alternative. The impacts that would be greater are generally related to construction impacts and not related to operational impacts. Thus, the impacts associated with the implementation of each of the development options is related to relocating the passenger terminal to another location at the Airport and not to the increase in aircraft operations or annual passengers.

Table ES-3

Comparison of Development Options to the No Project Alternative in 2025

	Adjacent Property Full-Size Terminal Option Compared to the No Action Alternative	**Southwest Quadrant Full-Size Terminal Option Compared to the No Action Alternative**	**Southwest Quadrant Same-Size Terminal Option Compared to the No Action Alternative**
Environmental Impact Categories			
Aesthetics			
Impacts on Scenic Vistas	Same	Same	Same
Impacts on Scenic Resources	Greater, but not Significant	Greater, but not Significant with Mitigation	Greater, but not Significant with Mitigation
Impacts on Visual Character of Airport Vicinity	Similar	Similar	Similar
Impacts on Light and Glare	Similar	Similar	Similar
Cumulative Impacts on Aesthetics	Same	Same	Same

Table ES-3 (cont.)

Comparison of Development Options to the No Project Alternative in 2025

	Adjacent Property Full-Size Terminal Option	**Southwest Quadrant Full-Size Terminal Option**	**Southwest Quadrant Same-Size Terminal Option**
Environmental Impact Categories			
Agriculture and Forestry Resources			
Impacts to Farmlands	Same	Same	Same
Impacts to Forestry Lands	Same	Same	Same
Cumulative Impacts to Farmlands and Forestry Lands	Same	Same	Same
Air Quality			
Consistency with Applicable Plans and Policies	Same	Same	Same
Violation of Construction Air Quality Standards	Greater, but not Significant	Greater, but not Significant	Greater, but not Significant
Violation of Operational Air Quality Standards	Same and Significant	Same and Significant	Same and Significant
Increase in Non-Attainment Criteria Pollutants	Same and Significant	Same and Significant	Same and Significant
Generation of Pollutant Emissions Greater Than Localized Significance Thresholds	Same	Same	Same
Contribution to an Exceedance of CO Standards	Same	Same	Same
Generation of Toxic Air Contaminants	Greater, but not Significant	Greater and Significant	Greater and Significant
Creation of Objectionable Odors	Same	Same	Same
Cumulative Air Quality Impacts	Same	Greater and Significant	Greater and Significant

Table ES-3 (cont.)

Comparison of Development Options to the No Project Alternative in 2025

	Adjacent Property Full-Size Terminal Option	Southwest Quadrant Full-Size Terminal Option	Southwest Quadrant Same-Size Terminal Option
Environmental Impact Categories			
Biological Resources			
Impacts on Special-Status Species	Same	Same	Same
Impacts on Riparian Habitat or Sensitive Natural Communities	Same	Same	Same
Impacts on Wetlands	Same	Same	Same
Impacts on Wildlife Movement	Greater, but not Significant with Mitigation	Greater, but not Significant with Mitigation	Greater, but not Significant with Mitigation
Conflict with Local Policies or Ordinances	Same	Greater, but not Significant with Mitigation	Greater, but not Significant with Mitigation
Conflict with Adopted Plans	Same	Same	Same
Cumulative Impacts on Biological Resources	Same	Same	Same
Cultural Resources			
Impacts on Archaeological Resources	Greater, but not Significant with Mitigation	Greater, but not Significant with Mitigation	Greater, but not Significant with Mitigation
Impacts on Paleontological Resources	Greater, but not Significant with Mitigation	Greater, but not Significant with Mitigation	Greater, but not Significant with Mitigation
Impacts on Tribal Cultural Resources	Same	Same	Same
Impacts on Historical Resources	Greater, but not Significant	Greater, but not Significant with Mitigation	Greater, but not Significant with Mitigation
Cumulative Impacts to Cultural Resources	Same	Same	Same

Table ES-3 (cont.)

Comparison of Development Options to the No Project Alternative in 2025

	Adjacent Property Full-Size Terminal Option	Southwest Quadrant Full-Size Terminal Option	Southwest Quadrant Same-Size Terminal Option
Environmental Impact Categories			
Energy Considerations	Less	Less	Less
Geology and Soils			
Expose People or Structures to Surface Rupture	Less	Less	Less
Expose People or Structures to Strong Seismic Ground Shaking or Liquefaction	Less	Less	Less
Result in Substantial Soil Erosion or the Loss of Topsoil	Same	Same	Same
Potential for Impacts from a Landslide	Same	Same	Same
Impacts due to Expansive or Corrosive Soils	Same	Same	Same
Cumulative Impacts related to Seismic Shaking, Liquefaction, Landslide, and Expansive Soils	Same	Same	Same
Greenhouse Gas Emissions			
Generation of Greenhouse Gas Emissions	Same	Same	Same
Conflict with Applicable Plan, Policy, or Regulation Regarding Emissions of Greenhouse Gases	Same	Same	Same
Hazards and Hazardous Materials			
Impacts Related to Transport, Use, or Disposal of Hazardous Materials	Greater, but not Significant with Mitigation	Greater, but not Significant with Mitigation	Greater, but not Significant with Mitigation
Impacts from Release of Hazardous Materials Through Foreseeable Upset or Accident Conditions	Greater, but not Significant with Mitigation	Greater, but not Significant with Mitigation	Greater, but not Significant with Mitigation

Table ES-3 (cont.)

Comparison of Development Options to the No Project Alternative in 2025

	Adjacent Property Full-Size Terminal Option	Southwest Quadrant Full-Size Terminal Option	Southwest Quadrant Same-Size Terminal Option
Environmental Impact Categories			
Hazards and Hazardous Materials			
Impacts Related to Hazardous Emissions Near a School	Greater, but not Significant with Mitigation	Greater, but not Significant with Mitigation	Greater, but not Significant with Mitigation
Impacts Related to Location on a Site on the Cortese List	Greater, but not Significant	Greater, but not Significant	Greater, but not Significant
Impacts Related to Safety Hazard for People in Airport Vicinity	Same	Same	Same
Impacts Related to Emergency Response or Evacuation Plans	Same	Same	Same
Impacts Related to Wildland Fires	Same	Same	Same
Cumulative Impacts Related to Hazards and Hazardous Materials	Same	Same	Same
Hydrology and Water Quality			
Violation of Water Quality Standards	Same	Same	Same
Groundwater Impacts	Same	Same	Same
Impacts to Drainage Patterns	Same	Same	Same
3.1.1.1 Change in Runoff / Flooding	Same	Same	Same
Impacts to Drainage System Capacity	Same	Same	Same
Water Quality Impacts	Same	Same	Same
Impacts Related to Placement of Structures in a Floodplain	Same	Same	Same
Exposure of People or Structures to Flooding	Same	Same	Same
3.1.1.2 Cumulative Impacts Related to Hydrology and Water Quality	Same	Same	Same

Table ES-3 (cont.)

Comparison of Development Options to the No Project Alternative in 2025

	Adjacent Property Full-Size Terminal Option	**Southwest Quadrant Full-Size Terminal Option**	**Southwest Quadrant Same-Size Terminal Option**
Environmental Impact Categories			
Land Use and Planning			
Division of an Established Community	Same	Same	Same
Consistency with Existing Plans and Zoning	Same	Same	Same
Cumulative Land Use Impacts	Same	Same	Same
Mineral Resources			
Impacts on Mineral Facilities	Same	Same	Same
Cumulative Impacts on Mineral Facilities	Same	Same	Same
Noise			
Impacts Related to Construction Vibration	Same	Greater, but not Significant with Mitigation	Greater, but not Significant with Mitigation
Impacts Related to Aircraft Noise	Same	Same	Same
Cumulative Impacts on Noise	Same	Same	Same
Population and Housing			
Impacts Related on Population Growth	Same	Same	Same
Impacts on Housing Demand	Same	Same	Same
Cumulative Impacts on Employment, Population, and Housing	Same	Same	Same
Public Services			
Impacts on Fire Protection Services	Same	Same	Same
Impacts on Police Protection Services	Same	Same	Same

Table ES-3 (cont.)

Comparison of Development Options to the No Project Alternative in 2025

	Adjacent Property Full-Size Terminal Option	Southwest Quadrant Full-Size Terminal Option	Southwest Quadrant Same-Size Terminal Option
Environmental Impact Categories			
Population and Housing cont.			
Impacts on School Services	Same	Same	Same
Cumulative Impacts to Public Services	Same	Same	Same
Recreation			
Construction-Related Impacts on Recreational Facilities	Same	Same	Same
Impacts on Recreational Facilities	Same	Same	Same
Cumulative Impacts on Recreational Facilities	Same	Same	Same
Traffic and Transportation			
Traffic at Signalized Intersections	Less, with Mitigation	Same	Same
Traffic at Unsignalized Intersections	Less, with Mitigation	Less, with Mitigation	Same
Impacts Related to Congestion Management Program	Same	Same	Same
Impacts to Caltrans Facilities	Same	Same	Same
Impacts to Local Streets in Burbank	Same	Same	Same
Construction-related Traffic Impacts	Greater, but not Significant with Mitigation	Greater, but not Significant with Mitigation	Greater, but not Significant with Mitigation
Utilities and Service Systems			
Impacts to Water Supply Systems	Similar	Similar	Similar

Table ES-3 (cont.)

Comparison of Development Options to the No Project Alternative in 2025

	Adjacent Property Full-Size Terminal Option	Southwest Quadrant Full-Size Terminal Option	Southwest Quadrant Same-Size Terminal Option
Environmental Impact Categories			
Utilities and Service Systems cont.			
Impacts to Wastewater Systems	Similar	Similar	Similar
Impacts to Landfill Capacity	Same	Same	Same
Compliance with Statutes and Regulations Related to Solid Waste	Same	Same	Same
Cumulative Impacts Related to Utilities and Service Systems	Same	Same	Same

Source: RS&H, 2016

ES.7 HISTORICAL CONTEXT OF ENVIRONMENTAL CONDITIONS

Many of the impacts disclosed for each of the development options are based on an increase in aircraft operations and annual passengers in comparison to the Base Year (2015). For example, the total number of aircraft operations is forecast to increase from 126,347 in 2015 to 145,500 in 2025. This is an increase of 15% over the 10-year period, or about 1.5% per year. However, in 2007, the total number of aircraft operations was 224,591, which is 77% greater than the Base Year (2015) and also is 54% greater than the forecast number of aircraft operations for 2025. Similarly, the number of annual passengers is forecast to increase from about 3.9 million passengers in 2015 to 4.9 million passengers in 2025. This is an increase of 25% over the 10-year period, or about 2.5% per year. However, in 2007, the total number of annual passenger was 5.8 million, which is 49% greater than the Base Year (2015) and also is 18% greater than the forecast number of annual passengers for 2025.

Likewise, the amount of air pollutant emissions that occurred in 2007 was much greater than what occurred in the Base Year (2015) or what would occur in 2025 for each of the development options. This is due to two factors: (1) the number of aircraft operations and the number of motor vehicle trips were greater in 2007 than in either the Base Year (2015) or what is forecast to occur in 2025; and (2) the technology associated with engines (both aircraft and motor vehicles) has reduced the amount of air pollutant emissions over time.

The noise related to aircraft operations was also greater in 2007 than what was experienced in the Base Year (2015) or what would be forecast to occur in 2025 under each of the development options. This is due to two factors: (1) the number of aircraft operations was greater in 2007 than in either the Base Year (2015) or what is forecast to occur in 2025; and (2) the technology associated with aircraft engines has reduced the amount of noise produced for both arriving and departing aircraft. This has resulted in an overall reduction in the number of people significantly affected by noise when compared to conditions in 2007.

The water demand and wastewater generated at the Airport was also greater in 2007 than what was experienced in the Base Year (2015) or what would be forecast to occur in 2025 under each of the development options. This is due to the fact that the water demand and wastewater generated is largely a function of the number of passengers using the Airport, which was greater in 2007 than in either the Base Year (2015) or what is forecast to occur in 2025.

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CHAPTER 1
INTRODUCTION

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The subject of this environmental impact report (EIR) is the construction and operation of a replacement airline passenger terminal and ancillary improvements (proposed project) at the Burbank Bob Hope Airport (Airport).

1.1 BACKGROUND

This proposed project is a key component of a compromise to a dispute that has continued for decades. Simply put, the Airport's existing terminal is too close to the runways to meet current Federal Aviation Administration (FAA) safety guidelines. Nearby residents, in turn, wish to have protections from the potential adverse impacts of future growth at the Airport. After decades of conflict, the Burbank-Glendale-Pasadena Airport Authority (Authority) and the City of Burbank have endorsed a Conceptual Term Sheet for a Replacement Terminal which, if approved by the voters of Burbank in a Measure B election, would enable: (1) the Authority to receive a vested right to build a replacement terminal on an airport-zoned property; and (2) the City of Burbank to receive certain governance protections to be created and documented by an amendment to the Joint Powers Agreement governing the Authority.

In particular, the Conceptual Deal provides that necessary California Environmental Quality Act (CEQA) analysis will be completed and publicly available prior to a Measure B vote on:

- A replacement passenger terminal with a total number of aircraft parking gates not to exceed 14 (the number in the existing passenger terminal).
- The size of the replacement passenger terminal shall be no greater than 355,000 square feet.
- The total public airline passenger parking space count (excluding employee parking spaces) shall not exceed 6,637 (the current quantity).
- Upon opening of the replacement passenger terminal, the existing passenger terminal will be closed and demolished.

If a Measure B vote actually approves the proposed project, amendments to the Authority's governing JPA will become effective and require a supermajority vote of the Authority's governing commission (i.e., 2 of 3 of each City's appointed commissioners will have to vote yes) for the following to occur:

- Any increase in the number of commercial airline passenger terminal gates above 14 or creation, construction, or approval of any remote parking positions for scheduled air carrier aircraft.
- Any expansion of the existing terminal, or construction of any new terminal (except the replacement passenger terminal).
- Any amendment in the manner in which the Authority's noise rules have been enforced since the adoption and implementation of the Airport Noise and Capacity Act (ANCA) except to implement the mandatory curfew sought in the Authority's Part 161 application.
- Any amendment to the Authority's voluntary curfew or the manner in which it has been applied since the adoption and implementation of ANCA except to implement the mandatory curfew sought in the Authority's Part 161 application.
- Abandonment of the Authority's support for congressional authorization for the imposition of the mandatory curfew sought in the Authority's Part 161 application.

- Any acquisition of real property other than avigation easements.
- Any approval of a new airport management contract or lease with a maximum term in excess of 35 years.

If the voters do not approve the proposed project through a Measure B vote, the Authority's JPA will not be amended to add the above protections and the Authority may decide to proceed with a replacement passenger terminal of no more than 14 gates, 6,637 public spaces, and 232,000 square feet (the current terminal size).

This EIR studies the environmental impacts of the three replacement passenger terminal options compared to the environmental impact of a no project alternative.

1.2 PURPOSE OF THE EIR

Because the proposed project would require discretionary approvals by the Burbank-Glendale-Pasadena Airport Authority (Authority) and, depending on the chosen development option, by other governmental agencies, the proposed project is subject to the California Environmental Quality Act (CEQA). Based on the preparation of the Notice of Preparation (NOP) in December 2015, it was determined that the proposed project may have a significant effect on the environment and that an EIR should be prepared pursuant to the CEQA Guidelines.

The Authority has commissioned this EIR for the following purposes:

- to evaluate the environmental effects associated with the implementation of the proposed project, as required by CEQA;
- to inform the general public, the local community, and responsible, trustee, state, and federal agencies of the nature of the proposed project, its potentially significant environmental effects, feasible mitigation measures to mitigate those effects, and its reasonable and feasible alternatives;
- to enable the Authority and other government decision-makers to consider the environmental consequences of the proposed project; and
- to facilitate responsible agencies in issuing permits and approvals for the proposed project.

As described in CEQA and the CEQA Guidelines, public agencies are charged with the duty to avoid or substantially lessen significant environmental impacts where feasible. Where impacts cannot be mitigated to less-than-significant levels, public agencies have an obligation to balance a project's significant impacts on the environment against other factors, including economic, social, technological, legal, and other benefits.

This EIR is an informational document and it identifies potentially significant impacts of the proposed project on the environment, the manner in which those significant impacts can be avoided or significantly lessened, any significant and unavoidable adverse impacts that cannot be mitigated, and a range of reasonable alternatives to the proposed project that would feasibly attain most of the basic objectives of the project but which would avoid or substantially lessen any of the significant environmental effects of the project.

CEQA requires the lead agency to consider the information in an EIR, along with any other relevant information, in making its decision on a project. Although this EIR does not determine the ultimate decision regarding implementation of the proposed project, the Authority is required to consider the information in this EIR and to make findings regarding each significant effect that is identified in this EIR.

The Authority must certify the EIR before approving the proposed project. Once certified, the EIR is expected to serve as the base environmental document for the Authority and will be used as a basis for decision on implementation of the proposed project. Other agencies, such as the Cities of Burbank, Glendale and Pasadena also may use this EIR in their review and approval processes.

This EIR was prepared in accordance with Section 15151 of the CEQA Guidelines, which defines the standards for EIR adequacy as follows:

> An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and good faith effort at full disclosure.

1.3 EIR REVIEW PROCESS

1.3.1 Notice of Preparation

Comments on the scope of this EIR were solicited from identified responsible and trustee agencies, as well as interested parties, through the publication of the Notice of Preparation (NOP). The NOP was posted on 23 December 2015 and circulated for a 40-day review period that started on 23 December 2015 and ended on 31 January 2016. Two scoping meetings, one for agencies and one for the general public, were held on 10 December 2015 at the Buena Vista Library in Burbank. A copy of the NOP is included as **Appendix A**. A scoping report that includes the comments received on the NOP, comments received during the agency scoping meeting, comments received at the public scoping meeting, and responses to these comments are provided in **Appendix B**.

1.3.2 Draft Environmental Impact Report (DEIR) and Public Review

The comments received during the NOP process were considered during the development of the Draft EIR. The Draft EIR was circulated for review and comment by the public and other interested parties, agencies, and organizations for 45 days starting on 29 April 2016 and ending on 13 June 2016. During the public review period, the Authority held two public workshops, 19 May 2016 and 1 June 2016, to allow interested parties and agencies to voice their opinions regarding the adequacy of the Draft EIR.

All written comments or questions about the Draft EIR were addressed to:

Mark Hardyment
Director, Government and Environmental Affairs
Burbank-Glendale-Pasadena Airport Authority
2627 North Hollywood Way
Burbank, California 91505

Comments were also provided at: http://replaceburterminal.com/

1.3.3 Responses to Comments; Final Environmental Impact Report (FEIR); FEIR Certification

Following the close of the public comment period on the DEIR, the Authority responded, in this Final EIR, to all written comments received regarding the proposed project's environmental impacts (see **Appendix N**). This Final EIR consists of the Draft EIR and the Responses to Comments appendix. This Final EIR will be considered by the Authority at a public meeting and be certified if found to comply with CEQA's requirements.

1.3.4 CEQA Findings, Mitigation Monitoring, and Consideration of the Project

CEQA requires that when a public agency approves a project and finds that changes or alterations have been incorporated into the project in order to mitigate or avoid significant environmental effects identified in the EIR, the agency must also adopt a reporting or monitoring program for those measures that it has adopted or made a condition of project approval. Findings explain the connection between the analysis in the environmental document and the decisions by the decision-makers. The reporting or monitoring program must be designed to ensure compliance during project implementation. The mitigation monitoring program for this EIR will be prepared at the time the Final EIR is prepared and must be adopted concurrently with the certification of the Final EIR. Upon certification of the Final EIR, the Authority will consider the merits of the Proposed Project for approval.

1.4 PROPOSED PROJECT OVERVIEW

The proposed project is the development of a new 14-gate replacement passenger terminal and ancillary improvements at the Airport. This passenger terminal would replace the existing 14-gate 232,000-square-foot passenger terminal, which has portions that are over 85 years old and which does not meet current seismic design or FAA airport design standards. The replacement passenger terminal will be developed in accordance with modern terminal design standards including security screening facilities that meet the latest TSA requirements, facilities (including holdrooms, baggage claim areas and public areas) that are designed for and sized for the kinds of aircraft that the airlines routinely operate, and will include enhanced passenger amenities. A detailed description of the proposed project is presented in **Chapter 2**.

1.5 INTENDED USES OF THIS EIR

The primary uses of this EIR are (1) to inform decision-makers and the public about the significant environmental effects of the proposed project and the ways to avoid or reduce the significant environmental effects; (2) to demonstrate to the public that the environment is being protected; and (3) to ensure that the planning and political processes reflect an understanding of the environmental cost of the proposed project. The intent of the EIR also is to provide the information and environmental analysis necessary to assist decision-makers in considering all of the approvals and permits necessary to implement the proposed project.

1.6 AGENCIES THAT MAY USE THIS EIR

The EIR is a public information document used in the planning and decision-making process. CEQA requires that all state and local agencies consider the environmental consequences of projects over which they have discretionary authority. The following agencies are expected to use this EIR to base their decision on issuing discretionary approvals for this proposed project. The approvals for which these agencies are responsible are listed in **Section 2.6**.

- Burbank-Glendale-Pasadena Airport Authority
- City of Burbank
- City of Glendale
- City of Pasadena
- Los Angeles County Airport Land Use Commission

1.7 RELATIONSHIP OF THIS EIR TO THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

Because the proposed project will result in a change to the Airport Layout Plan (ALP), Federal Aviation Administration approval will be required. As such, the proposed project also requires compliance with federal environmental laws and regulations. A separate environmental review document will be prepared in accordance with the National Environmental Policy Act of 1969 (NEPA) (42 U.S. Code [USC] §4321 et seq.); Federal Aviation Administration (FAA) Order 1050.1F, *Environmental Impacts: Policies and Procedures*; FAA Order 5050.4B, *National Environmental Policy Act of 1969 (NEPA) Implementing Instructions for Airport Actions*; and the Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] 1500-1509).

1.8 ORGANIZATION OF THIS EIR

This EIR is organized into the following chapters:

Executive Summary. This section provides an overview of the contents of the Draft EIR.

Chapter 1: Introduction. This chapter provides an overview of the purpose of this EIR, a description of the intended uses of this EIR, the review and certification process, and a description of the organization of this EIR.

Chapter 2: Project Description. This chapter presents the objectives of the proposed project, a detailed description of the proposed project, and a listing of the permits and approvals required prior to the start of construction.

Chapter 3: Existing Conditions and Environmental Impacts. This chapter provides a description of the physical environmental conditions in the vicinity of the project and the environmental effects associated with the implementation of the proposed project. This chapter also presents an overview of the background and analytical methodology used in the analysis, provides the regulatory context for the condition or resource, and identifies the thresholds of significance used to determine the level of potential impacts, if any. In addition, if the analysis indicates that a significant impact would occur, mitigation measures are identified to reduce the impact to a non-significant level, if possible. Graphics and tables are included to clarify the analysis presented in this chapter.

Chapter 4: Alternatives Analysis. This chapter presents a description of the project alternatives that were considered. Each of the potential development options, as described in Chapter 2, were considered as potential alternatives, along with other alternatives identified through the EIR process. A brief overview of the impacts associated with alternatives are included in this chapter.

Chapter 5: Impact Overview. This chapter identifies the significant and unavoidable adverse impacts, the significant irreversible environmental changes, and any growth-inducing impacts that might occur as a result of the implementation of the proposed project.

Chapter 6: Public Outreach and Coordination. This chapter identifies the public outreach efforts that were conducted for this EIR.

Chapter 7: Glossary and Abbreviations. This chapter provides a list of terms and abbreviations that are used in this EIR.

Chapter 8: References. This chapter identifies the reference materials that have been used to prepare this EIR and the agencies and persons that were consulted as part of the preparation of this EIR.

Chapter 9: List of Preparers. This chapter presents the names and qualifications of persons who assisted in the preparation of this EIR.

Appendices. These sections present relevant material and technical reports that were developed as part of the preparation of this EIR.

CHAPTER 2
PROJECT DESCRIPTION

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2.1 INTRODUCTION

This chapter of the environmental impact report (EIR) presents a general description of the proposed project's technical, economic, and environmental characteristics. It also describes the existing Burbank Bob Hope Airport (Airport), outlines the objectives of the proposed project, presents a detailed description of each proposed development option, and lists the discretionary approvals required to implement the selected alternative. The Burbank-Glendale-Pasadena Airport Authority (Authority) is considering three development options for the proposed project, each of which is analyzed at an equal level of detail in this EIR. The three development options are:

- <u>Adjacent Property Full-Size Terminal Option</u> – A 355,000-square-foot replacement passenger terminal to be constructed on the B-6 Adjacent Property. This is the Authority's preferred development option.
- <u>Southwest Quadrant Full-Size Terminal Option</u> – A 355,000-square-foot replacement passenger terminal to be constructed in the southwest quadrant.
- <u>Southwest Quadrant Same-Size Terminal Option</u> – A 232,000-square-foot replacement passenger terminal to be constructed in the southwest quadrant.

Section 2.4.1 discusses these three development options in greater detail.

For definitions of airport and aircraft terms used in this chapter, see **Chapter 7**.

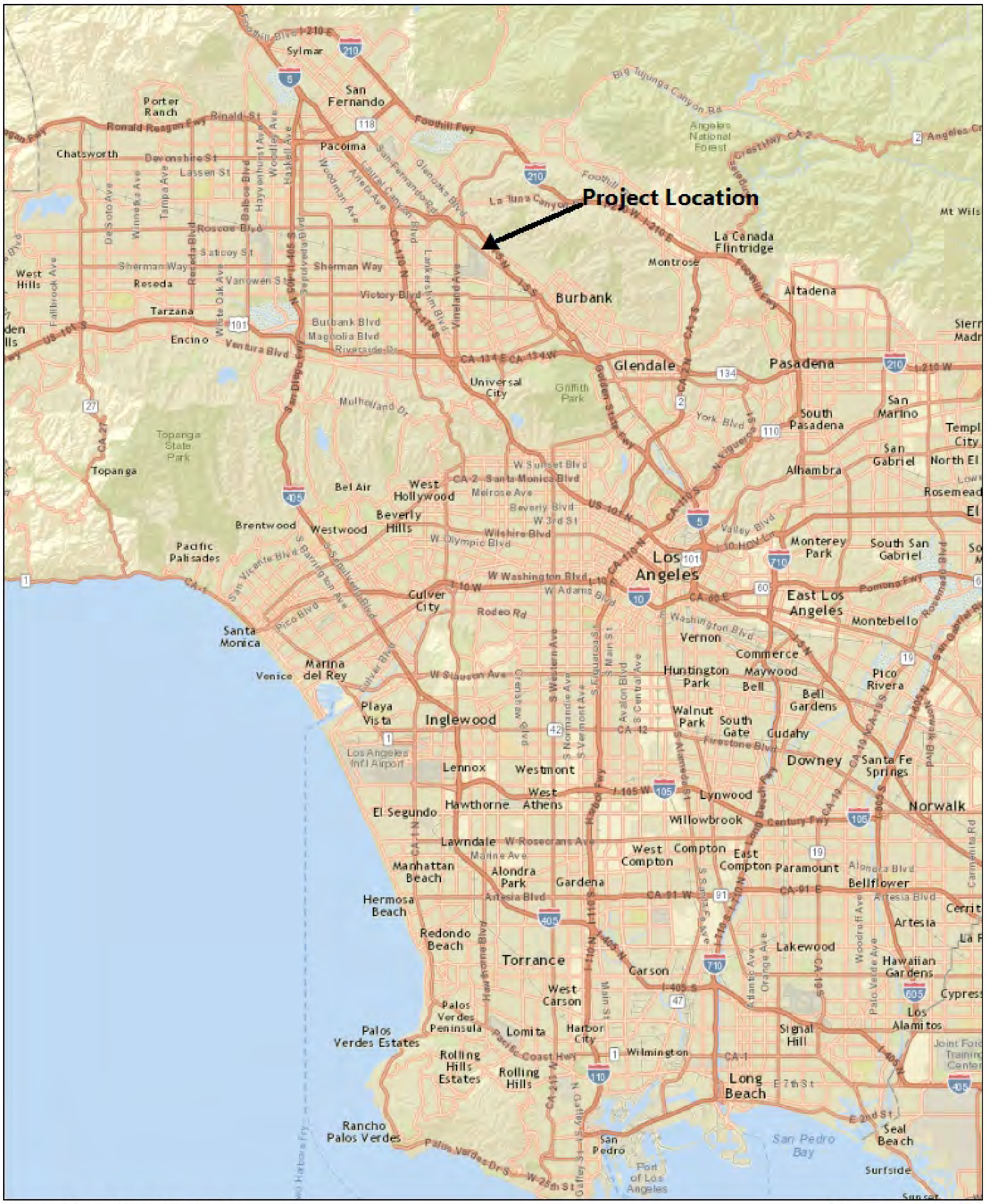
2.2 PROJECT LOCATION

The proposed project is located in the city of Burbank, Los Angeles County. **Figure 2-1** shows the regional location of the Airport, and **Figure 2-2** illustrates the Airport's location within Burbank. As shown in **Figure 2-2**, the Airport is south of the Golden State Freeway (Interstate 5), and primarily west of North Hollywood Way and north of Empire Avenue. The majority of the approximately 555-acre Airport property is located in Burbank; approximately 100 acres are in the city of Los Angeles. The existing terminal is an approximate 232,000-square-foot building situated east of the Airport's primary departure runway (Runway 15-33) and south of the Airport's primary arrival runway (Runway 8-26) (see **Figure 2-3**).

The preferred replacement passenger terminal site (the Adjacent Property Full-Size Terminal Option) is a 49.2-acre portion of the former Lockheed B-6 Plant; it is in the northeast quadrant of the Airport and is commonly referred to as the "Adjacent Property" (see **Figure 2-3**). This undeveloped property is currently used for airport passenger and employee automobile parking, movie equipment staging, and truck/recreational vehicle parking. The Southwest Quadrant Full-Size Terminal Option would be constructed on an alternative site on the Airport; this approximately 43.2-acre site in the southwest quadrant of the Airport is commonly referred to as the "Southwest Quadrant" (see **Figure 2-3**). This property is currently used for general aviation hangars and aircraft ramps, Federal Aviation Administration (FAA) maintenance and communication facilities, rental car storage, air freighter facilities (FedEx and UPS), and an air cargo building for commercial air carriers.

Figure 2-1

Project Location

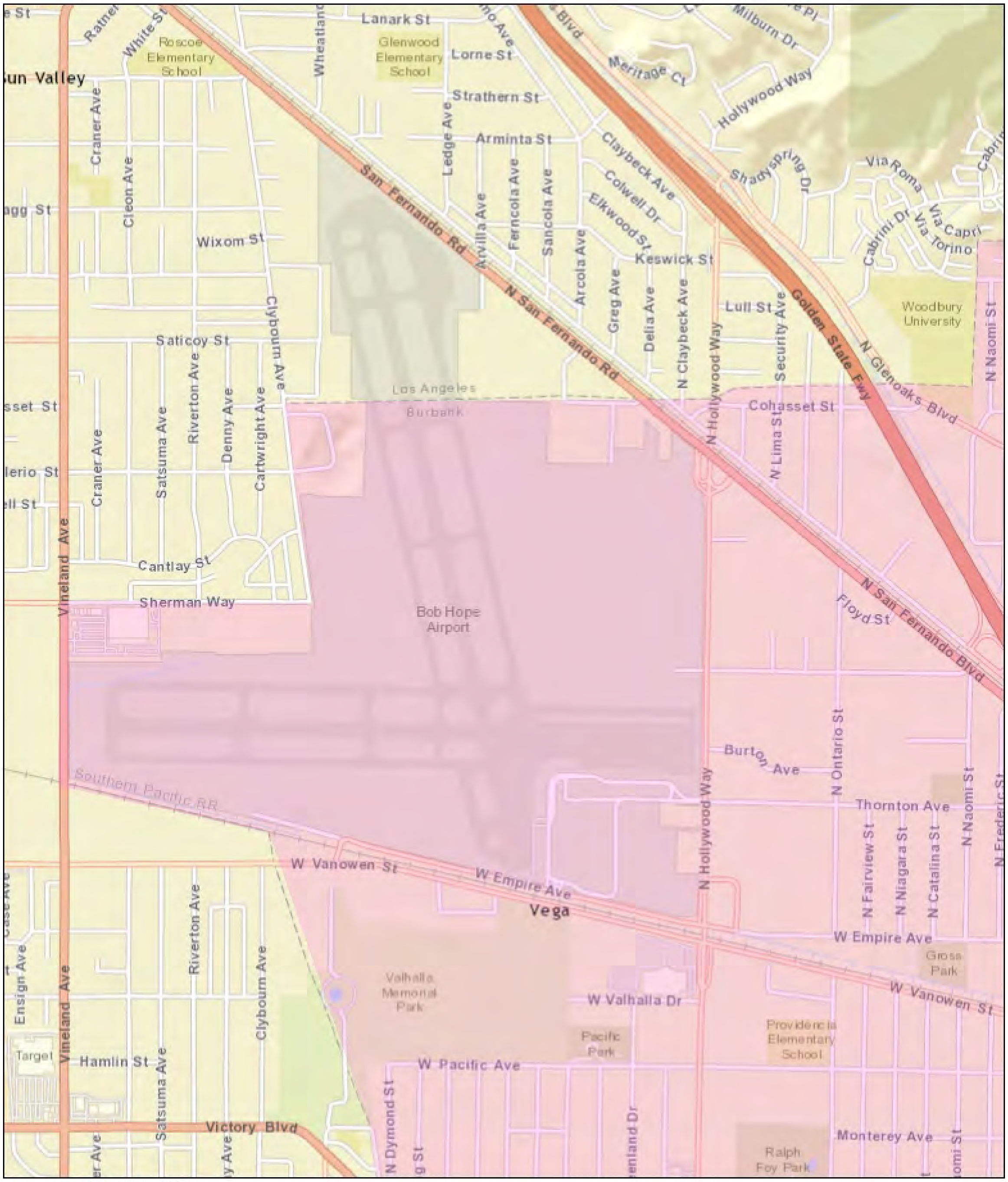


Sources: Esri, 2016; RS&H, 2016

1 in = 5 miles

N

Figure 2-2
Burbank Airport Location



Sources: Esri, 2016; RS&H, 2016

Legend

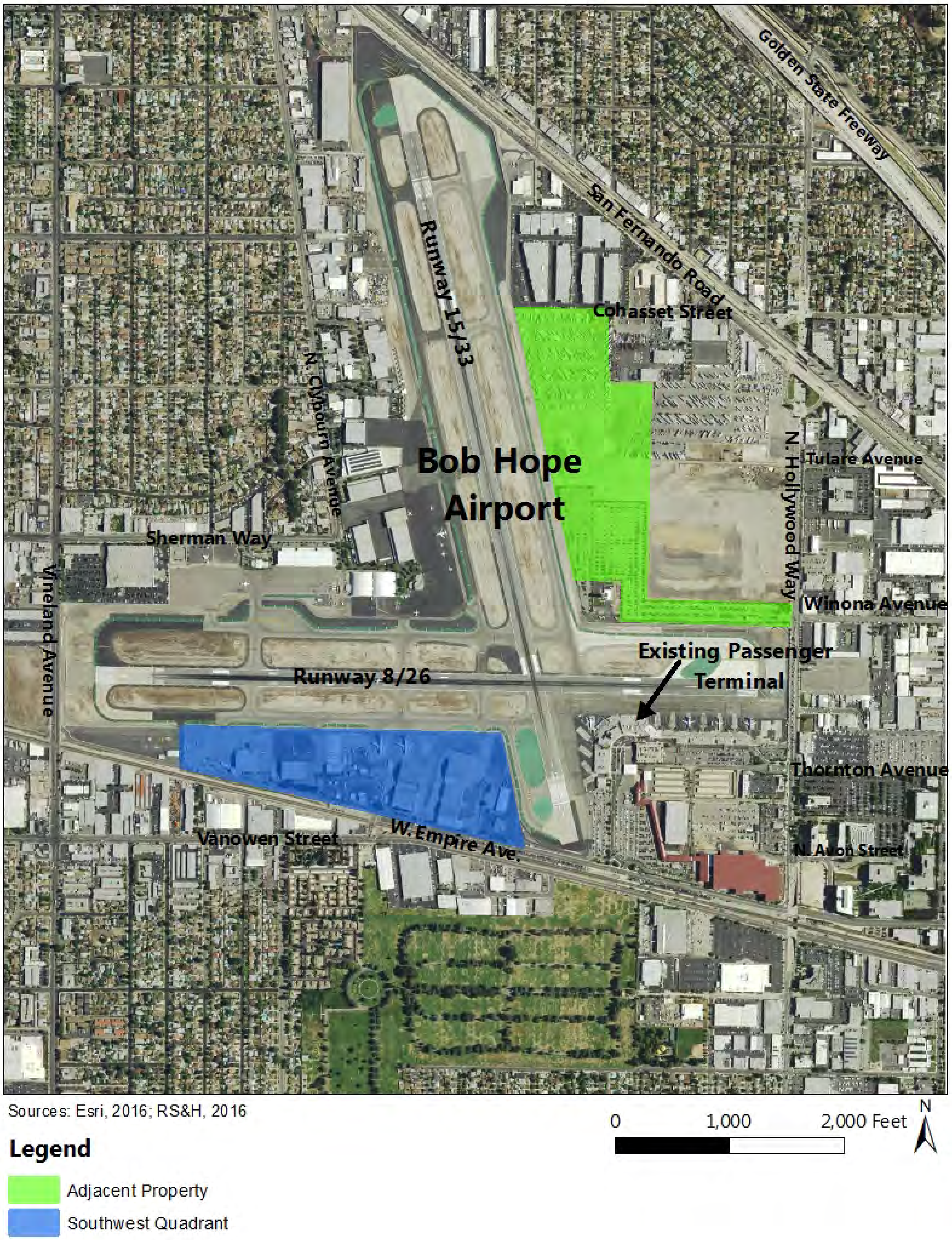
Burbank City Limits

0 0.25 0.5 Miles

N

Figure 2-3

Existing Airport Layout



2.3 PROJECT OBJECTIVES

In compliance with Section 15124(b) of the California Environmental Quality Act (CEQA) Guidelines, the Authority is required to identify its objectives associated with the proposed project. As the project proponent, the Authority has identified eleven objectives to be achieved through the implementation of the proposed project. The primary objectives are to enhance airport safety by meeting state and federal airport design standards. The other objectives are related to the replacement passenger terminal, such as its efficiency, cost-effectiveness, and convenience, among others. The eleven objectives are to:

- Enhance airport safety by building a replacement passenger terminal that meets FAA airport design standards
- Build a replacement passenger terminal that meets California seismic safety design standards
- Consolidate passenger and baggage screening functions to more efficiently meet Transportation Security Administration (TSA) security requirements
- Build a replacement passenger terminal that meets Americans with Disabilities Act (ADA) standards
- Build a replacement passenger terminal that consolidates air passenger facilities (including passenger, tenant and Authority facilities) into a single terminal building
- Provide a new, modern, energy-efficient passenger terminal with no change in the number of gates[1] or in the total number of public parking spaces for commercial airline passengers
- Provide an economical and cost-effective facility for the Airport tenants that use the passenger terminal
- Provide a passenger terminal with a level of convenience that is equivalent to or exceeds that of the existing passenger terminal
- Provide a distinctive passenger terminal that enhances the community image and sense of place
- Provide intermodal connectivity between the replacement terminal and the various fixed-rail and bus options located near the Airport
- Improve the airfield to maximize the safety and efficiency of aircraft movements on the ground

The section below provides a detailed description of how the Authority intends to meet the project objectives.

2.3.1 Meeting the Airport Safety Enhancement Objective

Since prior to the ownership of the Airport by the Authority, the FAA has expressed significant concern about the aircraft operations at, and the location of, the existing passenger terminal. This concern is based on the fact that the existing passenger terminal does not comply with FAA airport design standards, including Advisory Circular (AC) 150/5300-13A, Change 1, *Airport Design* (FAA, 2014).

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1 A gate is defined as the waiting area for passengers before boarding a flight and consists of one exit doorway that leads to one aircraft.

The FAA has two primary safety concerns:

- Adjacent to the terminal on the taxilanes for Runways 8-26 and 15-33, aircraft taxi operations routinely occur simultaneously with aircraft arrivals and departures within the standard Runway Safety Area (RSA) for these runways.
- Portions of the existing terminal as well as aircraft parked at the terminal penetrate: (a) the defined runway Object Free Area (OFA)[2] identified in AC 150/5300-13A; (b) the primary and transitional surfaces that protect imaginary surfaces around runways for the safe operation of aircraft, as designated in Title 14 of the Code of Federal Regulations (CFR), Part 77; (c) the Aircraft Parking Limit Line (APLL); and (d) the Building Restriction Line (BRL) identified on the FAA-approved Airport Layout Plan (ALP).

As shown in **Figure 2-4**, the existing RSA, OFA, Part 77 primary surfaces, APLL, and BRL do not meet design standards on the south side of Runway 8-26 and on the east side of Runway 15-33 adjacent to the existing passenger terminal area. **Appendix C** provides a detailed discussion of the various FAA design standards.

In addition, the central portion of the existing passenger terminal was constructed over 85 years ago and does not meet current California seismic safety (earthquake) design standards. That original portion was constructed using non-ductile concrete and unreinforced masonry, and these materials are still present within the building. This part of the terminal was retrofitted in 1995 to satisfy the City of Burbank Unreinforced Masonry Ordinance. However, the existing passenger terminal does not meet the State of California's seismic safety design standards for a new building.

The proposed project would meet the airport safety enhancement objective by constructing a replacement passenger terminal that meets current FAA airport design standards and California seismic safety design standards.

2.3.2 Meeting the Other Objectives

The proposed project would meet the other objectives (see **Section 2.2**) by constructing a replacement passenger terminal that is efficient, cost-effective, convenient, and distinctive.

2.3.2.1 Accessibility Improvements for Disabled Persons

Because it was constructed prior to passage of the 1990 Americans with Disabilities Act (ADA), the existing passenger terminal has features that present accessibility challenges for disabled persons. These non-ADA-compliant features include:

- Building 9, which houses airline offices, does not have an elevator to the second floor

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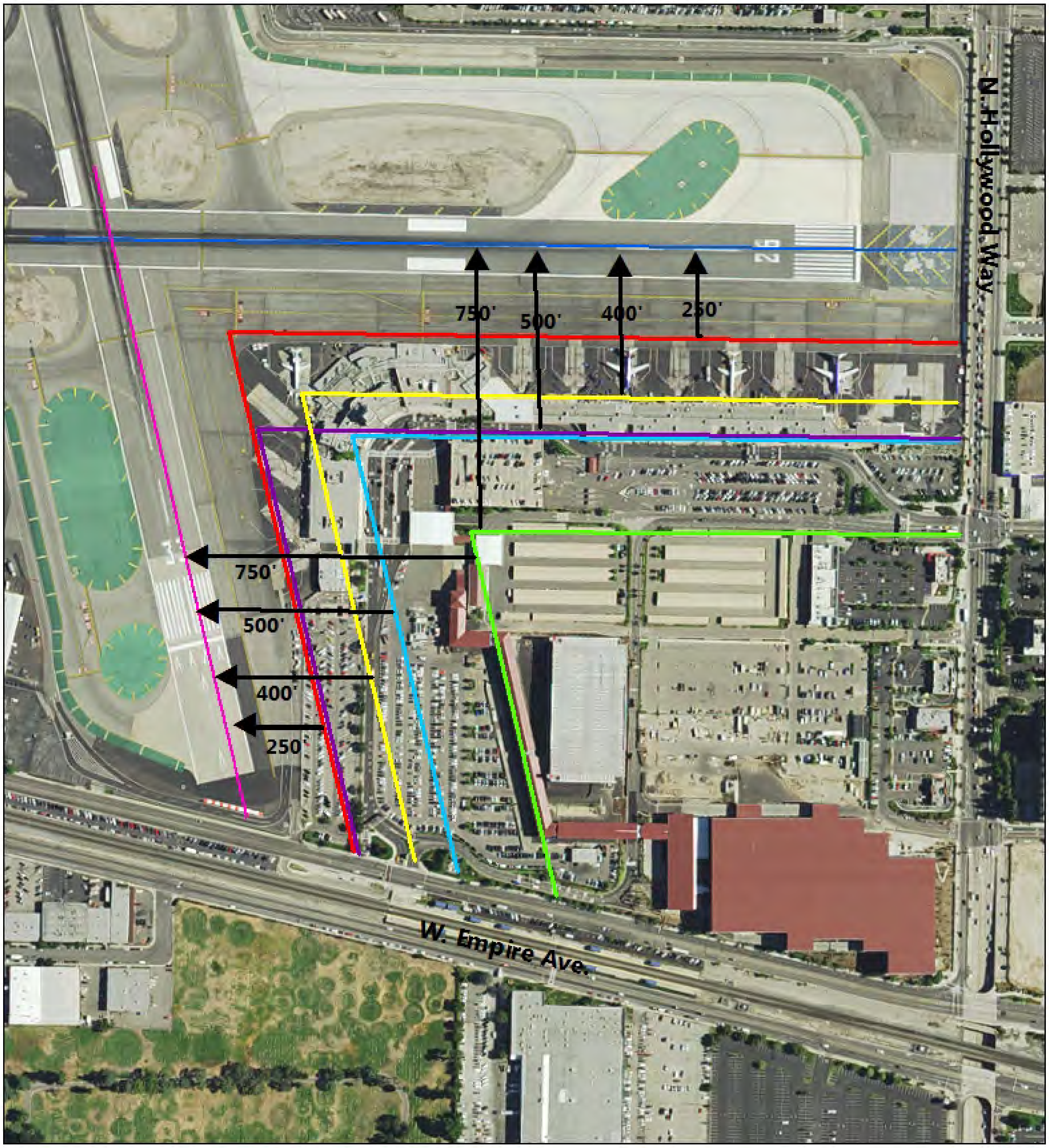
2 The OFA is "an area centered on the ground on a runway centerline provided to enhance the safety of aircraft operations by remaining clear of fixed objects, except for objects that need to be located in the OFA for air navigation or aircraft ground maneuvering purposes". Defined in Federal Aviation Administration, Advisory Circular – Change 10 to Airport Design, AC NO: 150-5300-13 Chapter 1. September 29, 2006.

Figure 2-4
Substandard Runway Separation



Sources: Esri, 2015; Authority, 2015; RS&H, 2016

0 250 500 Feet
N

Legend

- Runway 15-33 Centerline
- Runway 8-26 Centerline
- Runway Safety Area (RSA)
- Object Free Area (OFA)
- Part 77 Primary Surface
- Aircraft Parking Limit Line (APLL)
- Building Restriction Line (BRL)

- Building 10, which is the main passenger terminal, has an elevator that does not meet ADA standards for accessibility (i.e., it is too small) and must be accessed through the kitchen
- Some slopes in hallways within the existing passenger terminal exceed 2 percent and do not have required landings and handrails
- The ramps to aircraft doors do not meet ADA standards for accessibility (i.e., they are too narrow and do not provide a sufficient turning radius for wheelchairs)

The proposed project would improve the level of convenience for disabled persons by providing a facility that meets ADA requirements.

2.3.2.2 Consolidation of Passenger Terminal Functions

The existing passenger terminal has several locations where screening of passengers and baggage occurs. Under all three development options, the replacement passenger terminal would consolidate and more efficiently utilize space to meet TSA security requirements for passenger and baggage screening.

Table 2-1 shows the square footage of the functional areas for the existing passenger terminal and under each of the three development options. Under each of the development options, the replacement passenger terminal would have the same number of aircraft gates as the existing passenger terminal. In addition, the airline ticketing areas would be expanded and more conventional indoor baggage claim/pick-up areas would be provided for all aircraft gates.

Under all three development options, the sizing and dimensions of the replacement passenger terminal would be similar with respect to the first floor and basement but different with respect to the second floor. The replacement passenger terminal would have the following aboveground sections:

- First-Floor Processor Section – The first-floor processor section includes ticketing areas, airline ticket offices, baggage claim, airline baggage service offices, passenger security screening, concessions, restrooms, and the ticket lobby. The length and width requirements for these areas on the first floor are approximately 720 feet long and 105 feet wide for all three development options.
- First-Floor Airside Concourse Section – The first-floor airside concourse includes the public gate access corridor, holdrooms, ramp operations, utilities, vertical circulation, and some concessions. This section of the building is approximately 1,880 feet long for each development option, is 75 feet wide for the Adjacent Property Full-Size Terminal Option and the Southwest Quadrant Full-Size Terminal Option, and is 70 feet wide for the Southwest Quadrant Same-Size Terminal Option.
- Second-Floor Offices and Concession Section – For the Adjacent Property Full-Size Terminal Option and the Southwest Quadrant Full-Size Terminal Option, the second-floor office and concession section straddles both the first-floor processor section and the first-floor airside concourse. This floor is approximately 105 feet wide and 720 feet long and contains exclusive office space for the Authority and Airport tenants as well as concession space and the central utility plant function. For the Southwest Quadrant Same-Size Terminal Option, the second floor contains the central utility plant function only.

Table 2-1
Replacement Passenger Terminal Space Program

Space Category	Existing Passenger Terminal	Adjacent Property Full-Size Terminal Option	Southwest Quadrant Full-Size Terminal Option	Southwest Quadrant Same-Size Terminal Option
Tenant Space /a/	18,916	34,215	36,139	17,342
Tenant Common Areas /c/	57,986	81,861	84,204	80,456
Mechanical	2,473	16,987	14,529	7,033
Authority Space /c/	52,526	57,221	60,253	4,282
Concession Space	17,102	36,055	37,561	25,363
Security Space /d/	32,307	37,685	36,670	31,744
Public Space /e/	50,690	90,976	85,644	65,780
TOTAL ALL LEVELS	232,000	355,000	355,000	232,000

/a/ Tenant Space includes airline offices and airline employee areas.
/b/ Tenant Common Areas include airline ticket counters, holdrooms, baggage claim, baggage sort areas, and waiting areas.
/c/ Authority Space includes offices, valet parking offices, maintenance, and janitor closets.
/d/ Security includes passenger and baggage screening areas, checkpoint circulation areas, TSA offices, and loading docks.
/e/ Public Space includes ticket lobby and circulation, hallways, restrooms, and vertical circulation.

Source: Burbank-Glendale-Pasadena Airport Authority, 2015

The aircraft parking dimensions for each gate were derived based on the design aircraft wingspan (FAA ADG III) of 118 feet plus a 25-foot wingtip clearance between an adjacent aircraft and 15 feet to any feature for the aircraft on the ends of the parking line. The required gate frontage (as measured from the wing tips) for the Adjacent Property Full-Size Terminal Option where all aircraft would be parked at 90 degrees to the passenger terminal face is approximately 2,007 linear feet.

The gate frontage for both the Southwest Quadrant full-Size Terminal Option and the Southwest Quadrant Same-Size Terminal Option would be approximately 2,085 linear feet to accommodate a baggage cart roadway and rotation of one aircraft to an angled parking position relative to the replacement passenger terminal.

The Adjacent Property Full-Size Terminal Option and the Southwest Quadrant Full-Size Terminal Option fully meets the objectives associated with providing a replacement passenger terminal that consolidates all functions into one building. The Southwest Quadrant Same-Size Terminal Option does not meet this objective to the same level as the other development options because Authority facilities would not be included in a replacement passenger terminal.

2.3.2.3 Providing a Distinctive Passenger Terminal

The existing passenger terminal does not have a consistent architectural style and does not provide passengers with a positive sense of place. Each of the three development options would be designed to be reflective of the Burbank community and to enhance the image of the Airport and provide a sense of place when arriving or departing the Airport.

2.3.2.4 Providing Intermodal Connectivity

The existing passenger terminal provides connectivity with fixed-rail and bus options through the Regional Intermodal Transportation Center (RITC). Each of the three development options would continue to provide connections with the RITC to provide intermodal connectivity. In addition, the Adjacent Property Full-Size Terminal Option would be located in proximity to the Metrolink station on the Antelope Valley Line at the intersection of Hollywood Way and San Fernando Road that is currently in construction bidding. In addition, the California High Speed Rail project has indicated that it may pursue a station near the Adjacent Property. Thus, the Adjacent Property Full-Size Terminal Option would provide greater connectivity to all transit options compared to the two development option in the southwest quadrant.

2.3.2.5 Improving the Airfield

The existing airfield does not provide full parallel taxiways for either runway. Under each of the three development options, both Taxiway A (which is a parallel taxiway to Runway 15-33) and Taxiway C (which is a parallel taxiway to Runway 8-26) would be extended. In addition, each of the three development options would result in the realignment of Taxiway G and the construction of Taxiway A4/B4. These taxiway improvements would maximize the safety and efficiency of aircraft movements on the ground.

2.4 PROPOSED PROJECT

The proposed project would replace the existing 14-gate, 232,000-square-foot passenger terminal with a 14-gate terminal that meets current California seismic design and FAA airport design standards. The replacement passenger terminal would be developed in accordance with modern design standards to provide enhanced passenger amenities; security screening facilities that meet the latest TSA requirements; and other airport facilities (including holdrooms, baggage claim areas, and public areas) that are designed and sized for the kinds of aircraft the airlines routinely operate.

2.4.1 Project Development Options

As described in **Section 2.1**, the Authority is considering three development options for the proposed project, each of which is analyzed at a project level of detail in the EIR. The three development options are the Adjacent Property Full-Size Terminal Option, the Southwest Quadrant Full-Size Terminal Option, and the Southwest Quadrant Same-Size Terminal Option.

The Adjacent Property Full-Size Terminal Option proposes to construct a 355,000-square-foot replacement passenger terminal on the Adjacent Property; this is the Authority's preferred development option. The Southwest Quadrant Full-Size Terminal Option proposes to construct a 355,000-square-foot replacement passenger terminal in the Southwest Quadrant. The Southwest Quadrant Same-Size Terminal Option proposes to construct a 232,000-square-foot replacement passenger terminal in the Southwest Quadrant.

The Authority would select a development option for the proposed project based on the following factors:

- The findings of the EIR, including the feasibility of mitigation measures
- The City of Burbank's final action on a development agreement and entitlements for the proposed project
- The outcome of an election held under Burbank Municipal Code Section 2-3-112 ("Measure B Election")[3] (if the City of Burbank approves a development agreement and entitlements for the proposed project)
- The funding available to the Authority

Tables 2-2, 2-3, and 2-4 provide an overview of the three development options.

2.4.2 Components Common to All Development Options

Certain components of the proposed project are common to all three development options, and other components are unique to a specific development option. **Figures 2-5**, **2-6**, **2-7, 2-8**, **2-9**, and **2-10** provide the plans for the three development options. The following components are common to all development options:

- Replacement Passenger Terminal – For all of the development options, a new passenger terminal with 14 aircraft gates would be constructed. Depending on the development option selected, the replacement terminal would encompass either 232,000 square feet or 355,000 square feet. All three development options propose to locate the majority of the terminal development on the first floor. For the Adjacent Property Full-Size Terminal Option and the Southwest Quadrant Full-Size Terminal Option, the second floor would provide space for Airport tenants, the TSA, a central utility plant and mechanical systems, airport management staff, concessions, and public circulation. For the Southwest Quadrant Same-Size Terminal Option, the only function on the second floor would be the central utility plant.
- Aircraft Ramp – For all of the development options, an aircraft ramp, including a service road, as well as a continuous tie-in from the taxiway to the aircraft parking ramp, would be constructed adjacent to the replacement passenger terminal. The aircraft ramp for the Adjacent Property Full-Size Terminal Option would be about 413,000 square feet and would accommodate 14 aircraft. In addition, for the Adjacent Property Full-Size

3 Burbank Municipal Code Section 2-3-112, titled "Airport Agreements" states that: "No approval by the City of Burbank of any agreement between the City and the Burbank-Glendale-Pasadena Airport Authority for a relocated or expanded airport terminal project, or any other discretionary act by the City relating to the approval of a relocated or expanded airport terminal project shall be valid and effective unless previously approved by the voters voting at a City election."

Table 2-2

Comparison of Development Options – Replacement Passenger Terminal

Floor	Space Category	Existing Passenger Terminal	Adjacent Property Full-Size Terminal Option	Southwest Quadrant Full-Size Terminal Option	Southwest Quadrant Same-Size Terminal Option
Passenger Terminal Space					
Floor	**Space Category**	**Areas (All Values Square Feet)**			
First Floor	Tenant Space	15,594	17,037	17,563	17,342
	Tenant Common Areas	34,382	81,861	61,481	61,571
	Mechanical	1,972	7,917	7,034	7,033
	Authority Space	27,503	6,877	5,664	4,282
	Concession Space	17,102	24,173	23,380	25,363
	Security Space	27,913	17,538	17,518	17,223
	Public Space	49,283	73,935	73,563	65,780
	Unenclosed	25,512	0	0	0
Subtotal First Floor (Square Feet)		***199,261***	***229,338***	***206,203***	***198,594***
Second Floor	Tenant Space	3,322	17,178	18,576	0
	Tenant Common Areas	0	0	0	0
	Mechanical	0	9,070	7,495	0
	Authority Space	21,370	50,344	54,589	0
	Concession Space	0	11,882	14,181	0
	Security Space	0	2,851	3,850	0
	Public Space	0	17,041	12,081	0
Subtotal Second Floor (Square Feet)		***24,692***	***108,366***	***110,772***	***0***
Other Levels	Authority Space	3,653	0	0	0
Subtotal Other Levels (Square Feet)		***3,653***	***0***	***0***	***0***
Basement	Tenant Common Areas	0	0	22,723	18,885
	Security Space	0	17,296	15,302	14,521
Subtotal Basement (Square Feet)		***4,394***	***17,296***	***38,025***	***33,406***
TOTAL All Spaces / All Floors (Square Feet)		**232,000**	**355,000**	**355,000**	**232,000**
Other Terminal-Related Improvements					
New Central Utility Plant		No	In Terminal	In Terminal	In Terminal
New Air Cargo Building		No	Yes	Yes	Yes
New Maintenance Building		No	Yes	No	No
Maintain Authority Offices on Airport		Yes	Yes	Yes	No

Table 2-3
Comparison of Development Options – Replacement Passenger Terminal

	Existing Passenger Terminal	Adjacent Property Full-Size Terminal Option	Southwest Quadrant Full-Size Terminal Option	Southwest Quadrant Same-Size Terminal Option
Public Auto Parking (Number of Spaces)				
Existing Parking Structure	438	Demolished	Demolished	Demolished
New Parking Structure	0	3,180	3,180	3,180
Lot A	1,592	Closed	Closed	Closed
Lot B	638	Closed	Closed	Closed
Lot C	517	517	517	517
Lot D	612	612	612	612
Lot E	201	Closed	Closed	Closed
Lot G	253	253	253	253
Replacement Parking Structure	1,043	1,043	1,043	1,043
Valet Surface	1,343	1,032	1,032	1,032
Total Public Auto Parking Spaces	***6,637***	***6,637***	***6,637***	***6,637***
Valet Pickup/Dropoff (Available Area in Square Feet)	21,800	25,000	25,000	25,000
Employee Parking (Number of Spaces)				
East Authority Staff Lot	65	Closed	Closed	Closed
Northeast Quadrant Parking Lot	547	Closed	Closed	Closed
New Employee Parking Structure	0	600	600	600
Total Employee Parking Spaces	***612***	***600***	***600***	***600***

Terminal Option, an aircraft pushback area also would be constructed adjacent to the aircraft ramp. For the Southwest Quadrant Full-Size Terminal Option and the Southwest Quadrant Same-Size Terminal Option the aircraft ramp would be about 390,000 square feet and would accommodate 14 aircraft.

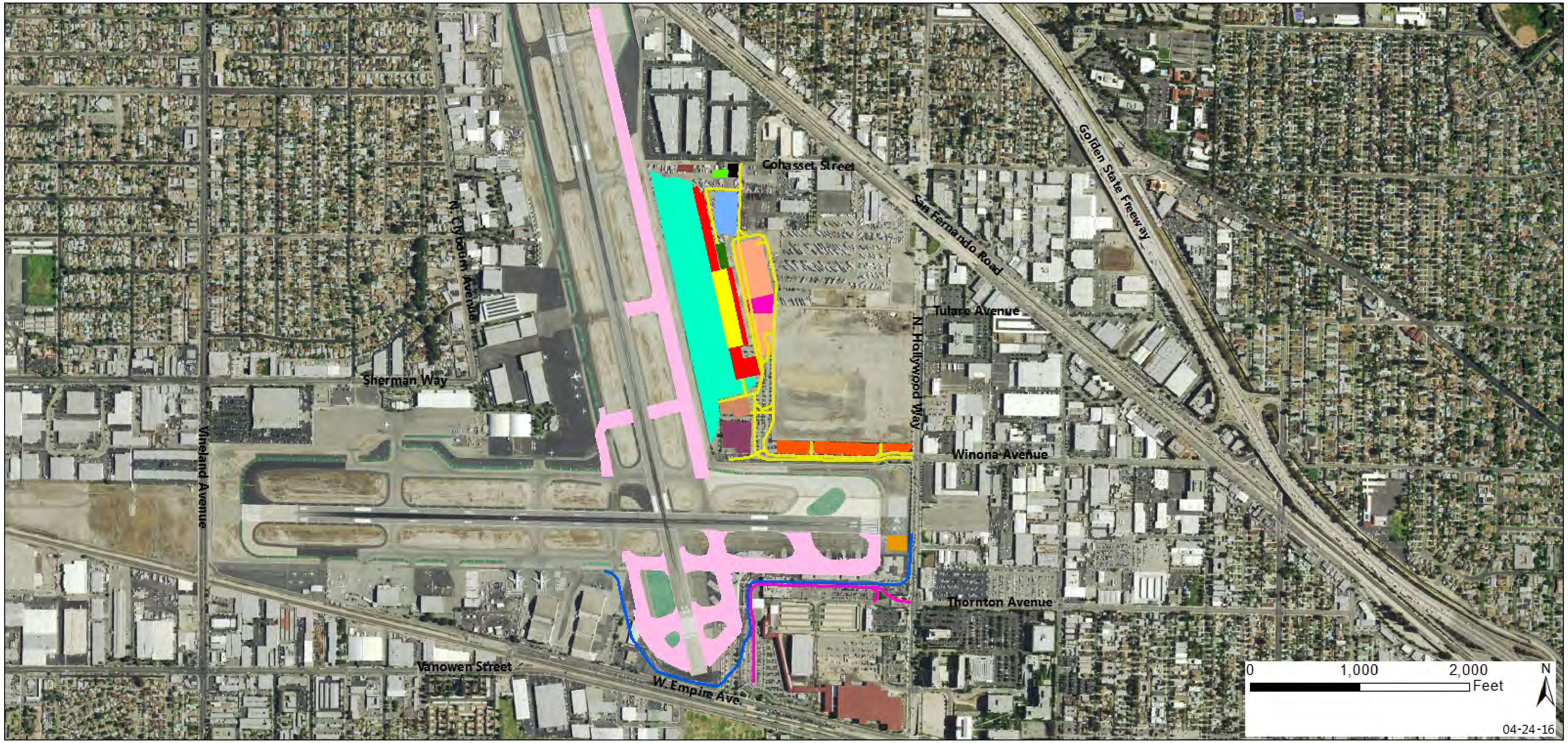
- Public Parking Facilities – For all of the development options, public parking structures are proposed adjacent to the replacement passenger terminal. The parking structures would be at least five levels but not more than seven levels at the ends of the structures, depending on the site. The public parking structures would include a valet parking drop-off and pick-up center. The existing valet parking in the southeast quadrant (in the replacement parking structure and the valet surface parking lot) and Parking Lots C, D, and G would be retained in part or in whole and used as remote parking for the replacement passenger terminal. Parking Lot B and would be closed and all structures within Parking Lot B would be removed. Parking Lot A would be closed and all structures would be removed for the Adjacent Property Full-Size Terminal Option and the Southwest Quadrant Full-Size Terminal Option. For the Southwest Quadrant Same-Size Terminal Option, Parking Lot A would be closed for passenger parking, but the structures in Parking Lot A would not be removed. During and following construction of the replacement passenger terminal and associated facilities, the total number of public parking spaces available for terminal-related purposes would be limited to 6,637 spaces for all new and existing lots owned and operated by the Authority.

Table 2-4

Comparison of Development Options – General Aviation and Air Freighter Facilities

Quadrant	Function / Use	Existing Passenger Terminal	Adjacent Property Full-Size Terminal Option	Southwest Quadrant Full-Size Terminal Option	Southwest Quadrant Same-Size Terminal Option
		Areas (All Values Square Feet)			
Northwest	GA Ramp	1,579,646	1,579,646	1,579,646	1,579,646
	Shared Ramp/Taxilane	25,445	25,445	25,445	25,445
	Taxiway A4/B4	0	(27,487)	(27,487)	(27,487)
	Public Access/Road	341,101	341,101	341,101	341,101
	GA Hangar/Office	449,305	449,305	449,305	449,305
	Air Freighter Hangar/Office	0	0	61,700	61,700
	Air Freighter Public Access	0	0	64,651	64,651
	Convert Ramp to Air Freighter	0	0	(126,351)	(126,351)
Subtotal		***2,395,497***	***2,368,010***	***2,368,010***	***2,368,010***
Southwest	GA Ramp	1,063,329	1,063,329	0	0
	Shared Ramp/Taxilane	81,866	81,866	0	0
	Public Access/Road	208,950	208,950	0	0
	GA Hangar/Office	215,771	215,771	0	0
	Air Freighter Hangar/Office	61,700	61,700	0	0
	Air Cargo Converted to GA	0	27,487	0	0
	Eliminate GA Ramp to Realign Taxiway G	0	(59,875)	(59,875)	(59,875)
	Rental Car Storage Converted to GA Ramp	0	59,875	0	0
Subtotal		***1,631,616***	***1,659,103***	***(59,875)***	***(59,875)***
Northeast	Shared Ramp/Taxilane	0	0	1,294,257	0
	Public Access/Road	0	0	208,950	0
	GA Hangar/Office	0	0	215,771	0
Subtotal		***0***	***0***	***1,718,978***	***0***
TOTAL General Aviation and Air Freighter Facilities (Square Feet)		**4,027,113**	**4,027,113**	**4,027,113**	**2,368,010**

Figure 2-5
Adjacent Property Full-Size Terminal Option – Site Plan



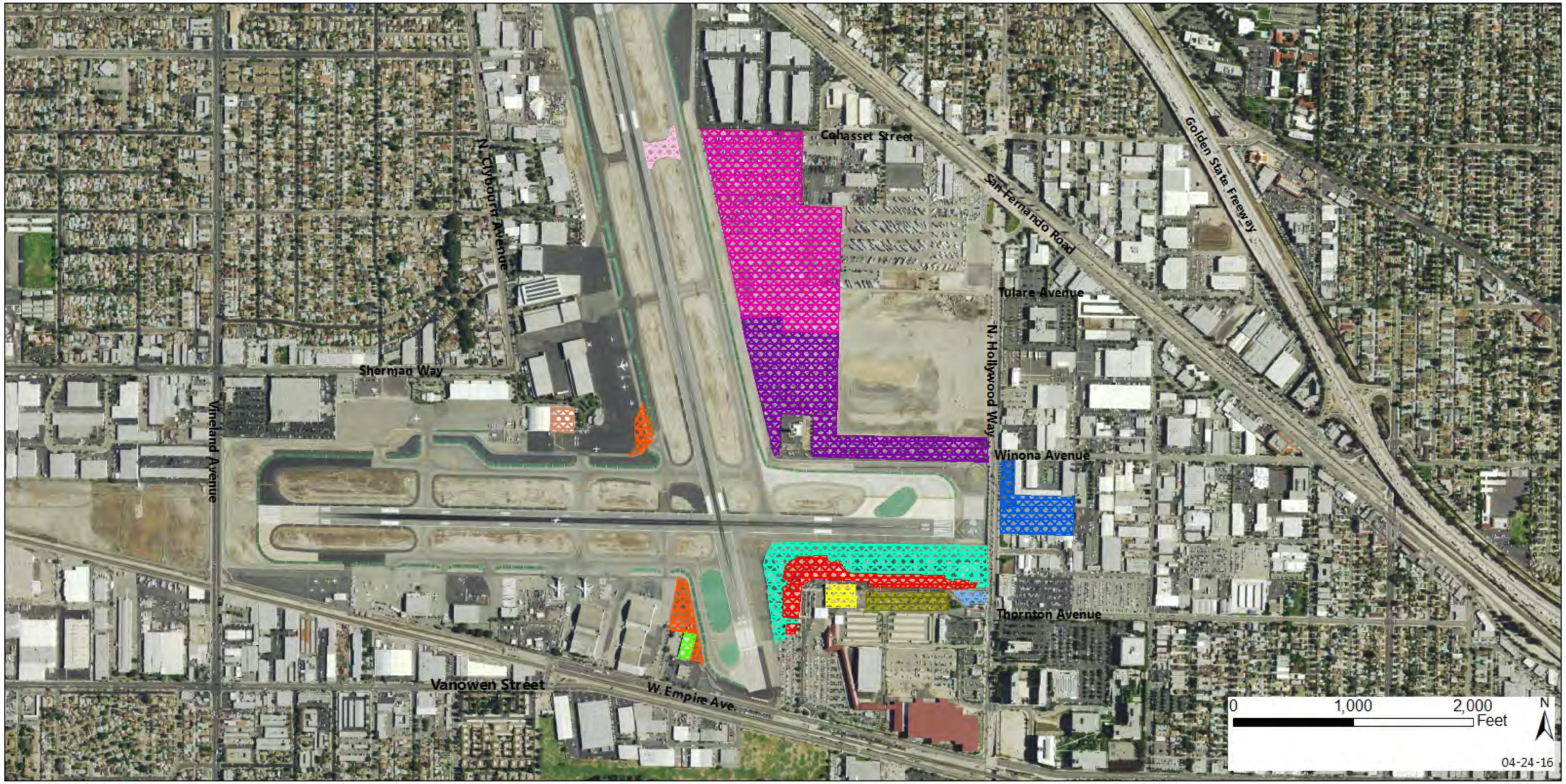
Sources: Esri, 2016; Authority, 2016; RS&H, 2016

Legend

- Replacement Passenger Terminal Building - 1st Floor
- Replacement Passenger Terminal Building - 2nd Floor (includes Central Utility Plant)
- Terminal Access Road
- Terminal Loop Road Realignment
- Airport Service Road Realignment
- Replacement Structured Employee Parking
- Replacement Structured Public Parking
- Valet Drop-off and Pick-up
- Delivery Truck Staging
- Replacement Air Cargo Facility
- Electric Substation
- Replacement ARFF
- GSE Maintenance Building
- Aircraft Ramp
- Air Traffic Control Tower (ATCT)
- Ground Access Vehicle Storage
- Taxiway Improvements (see Figure 2-8 for Details)
- Engineered Materials Arresting System (EMAS)

Figure 2.6

Adjacent Property Full-Size Terminal Option – Demolition Plan



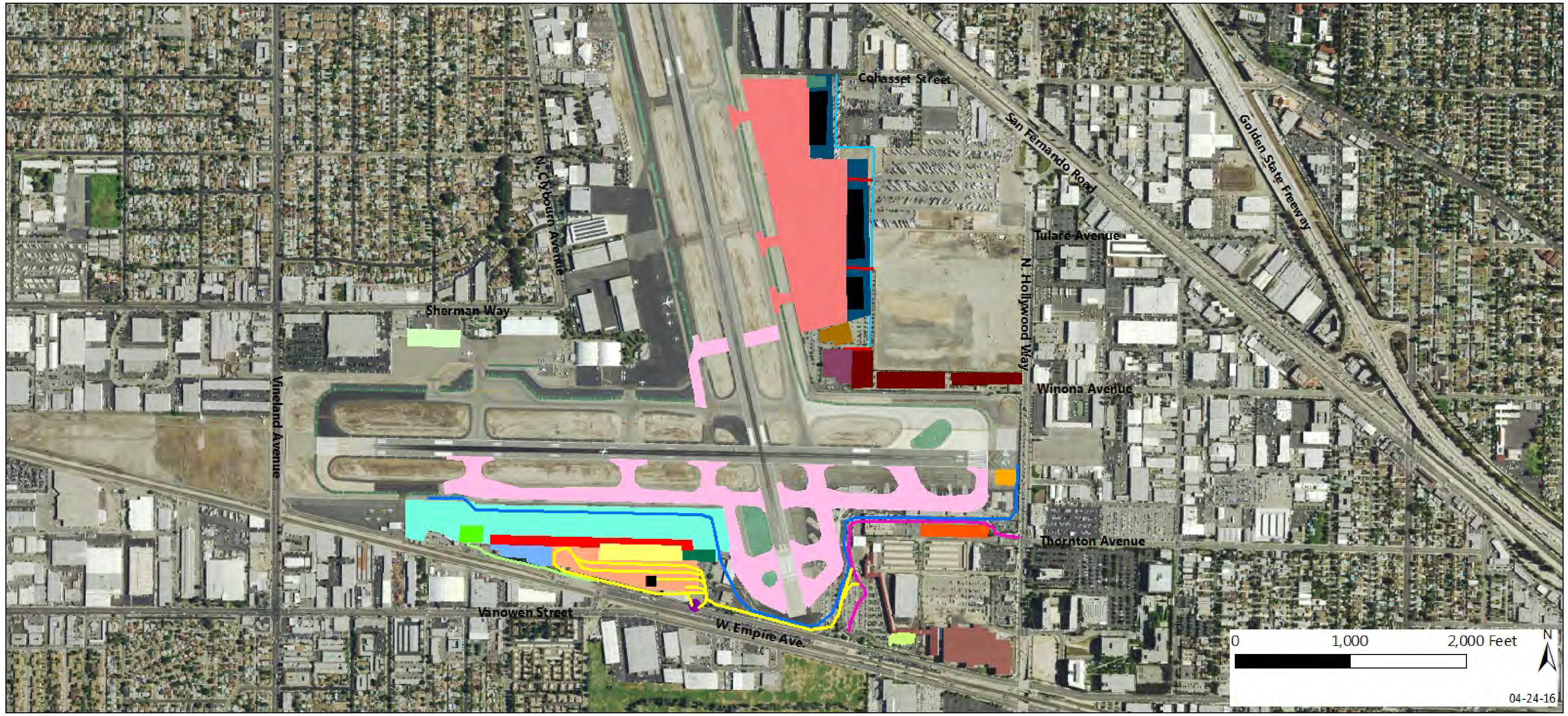
Sources: Esri, 2016; Authority, 2016; RS&H, 2016

Legend

- Existing Passenger Terminal Building to be Demolished
- Existing Air Cargo Facility to be Demolished
- Existing ARFF to be Removed
- Existing Commercial Aircraft Ramp to be Removed
- Existing General Aviation Aircraft Ramp to be Removed
- Existing Taxiway A2 to be Removed
- Desmond Property
- Existing Public Parking Structure to be Removed
- Existing Employee Parking to be Removed
- Existing Parking Lot A to be Removed
- Existing Parking Lot B to be Removed
- Existing Parking Lot E to be Removed

Figure 2-7

Southwest Quadrant Full-Size Terminal Option – Site Plan



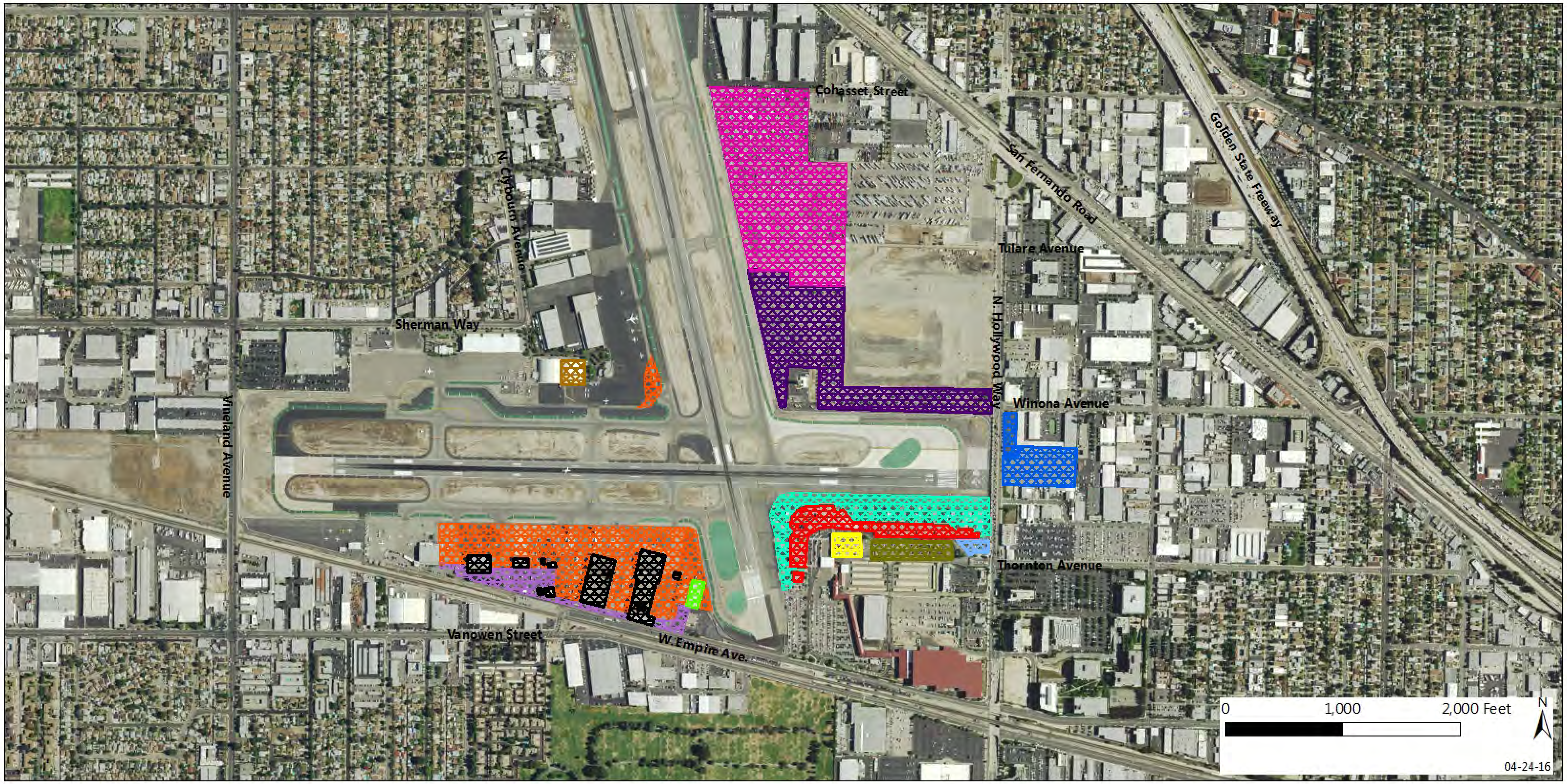
Sources: Esri, 2016; Authority, 2016; RS&H, 2016

Legend

- Replacement Passenger Terminal Building - 1st Floor
- Replacement Passenger Terminal Building - 2nd Floor (includes Central Utility Plant)
- Terminal Access Road
- Terminal Loop Road Realignment
- Airport Service Road Realignment
- Structured Employee Parking
- Structured Public Parking
- Delivery Truck Staging
- Aircraft Ramp
- Signalized Intersection
- Replacement Air Cargo/GSE Maintenance Facility
- Air Cargo Facility Access Road
- Shuttle Bus Drop-off and Pick-up Area
- Ground Access Vehicle Storage Area
- Air Freighter Facility
- Taxiway Improvements (see Figure 2-8 for Details)
- Engineered Materials Arresting System (EMAS)
- Replacement ARFF
- Air Traffic Control Tower (ATCT)
- Electric Substation
- General Aviation Ramp
- Airport Service Road
- General Aviation Hangar
- General Aviation Leasable Landside
- General Aviation Parcel Roadway
- Rental Car Storage Area
- Valet Drop-off and Pick-up

Figure 2-8

Southwest Quadrant Full-Size Terminal Option – Demolition Plan

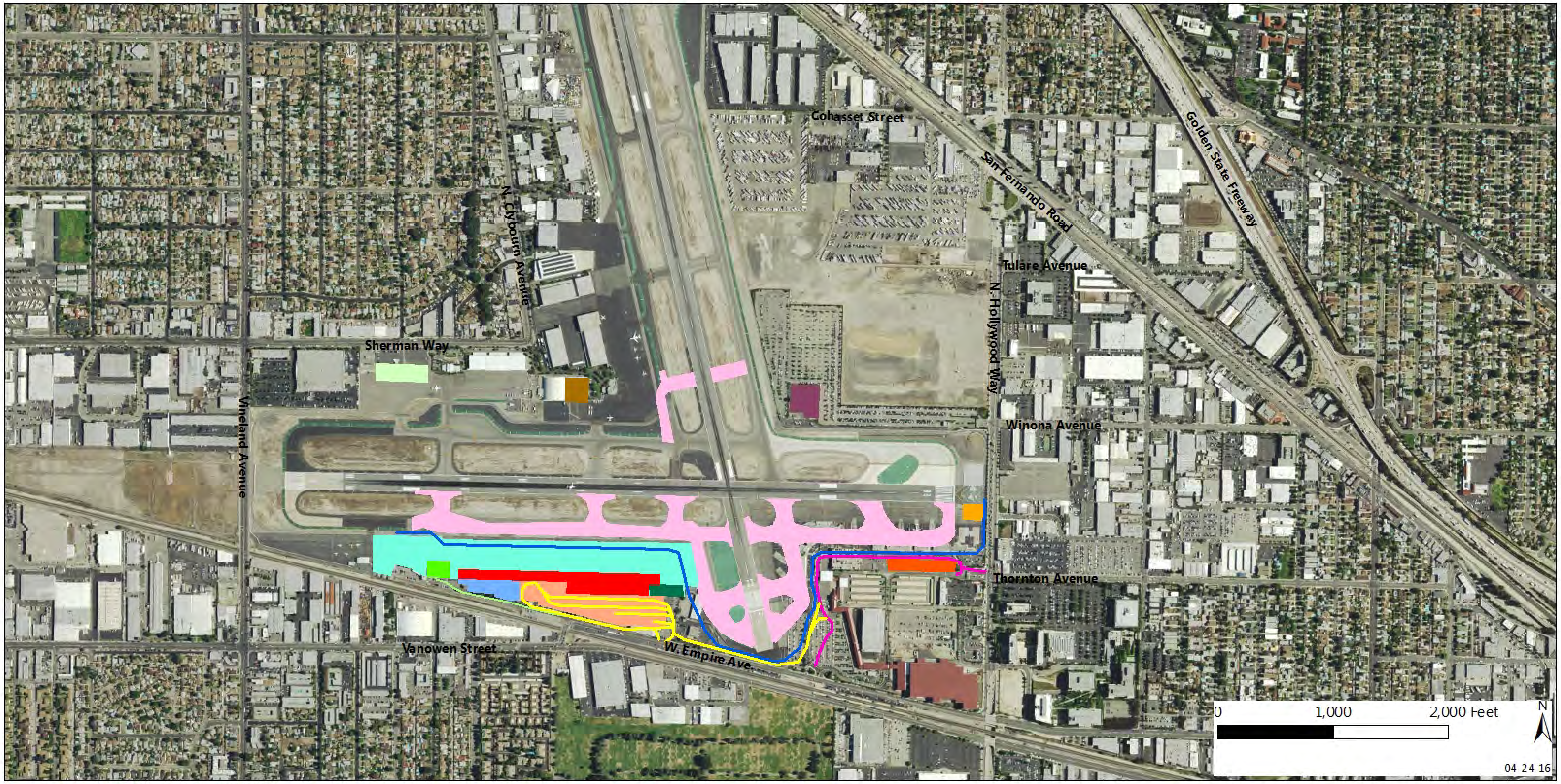


Sources: Esri, 2016; Authority, 2016; RS&H, 2016

Legend

- Existing Passenger Terminal Building to be Demolished
- Existing Air Cargo Facility to be Demolished
- General Aviation Facilities to be Demolished
- Existing ARFF to be Removed
- Existing Commercial Aircraft Ramp to be Removed
- Existing General Aviation Aircraft Ramp to be Removed
- Existing General Aviation Landside Pavement to be Removed
- Desmond Property
- Existing Public Parking Structure to be Removed
- Existing Employee Parking to be Removed
- Existing Parking Lot A to be Removed
- Existing Parking Lot B to be Removed
- Existing Parking Lot E to be Removed

Figure 2-9
Southwest Quadrant Same-Size Terminal Option – Site Plan



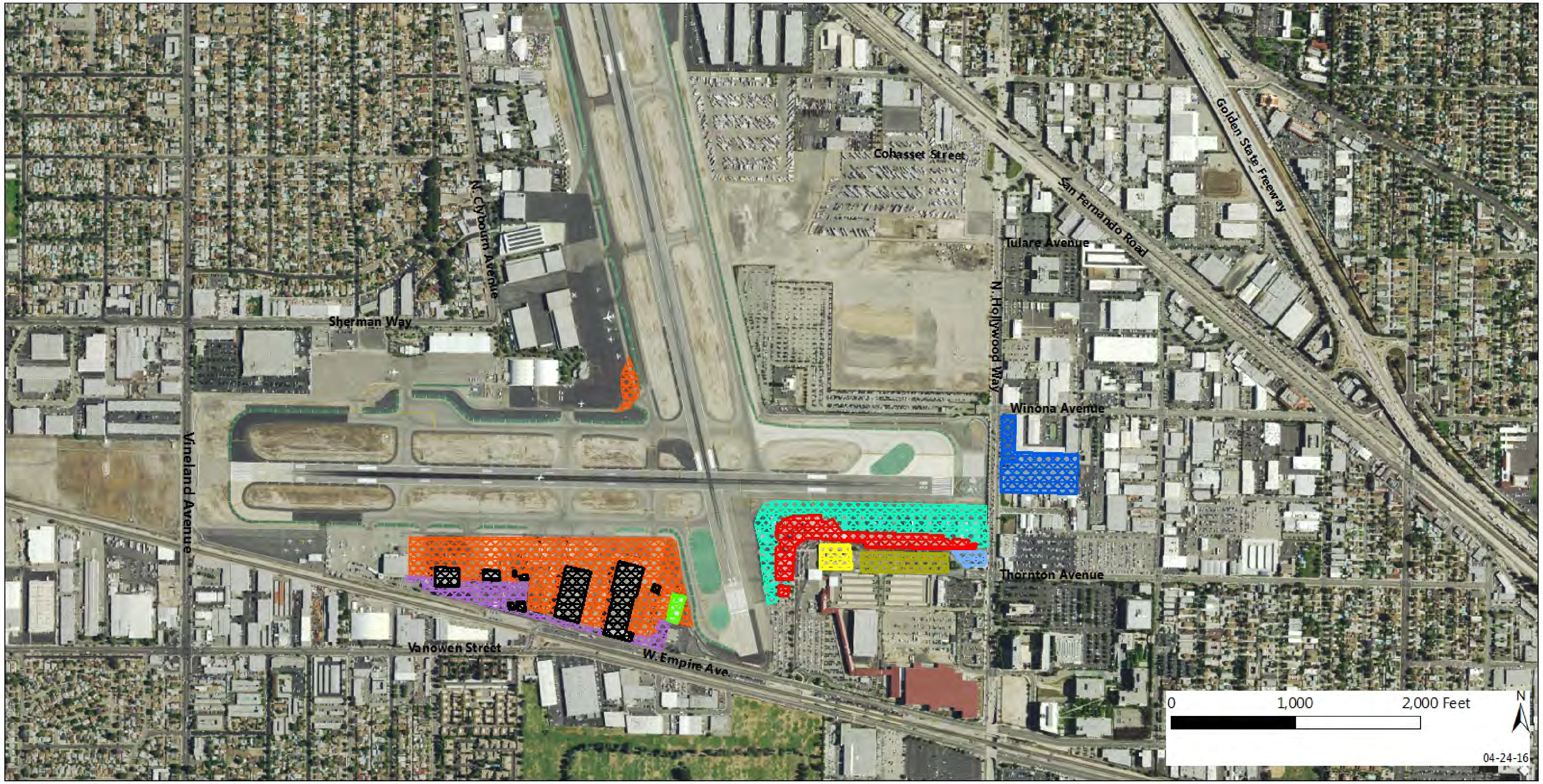
Sources: Esri, 2016; Authority, 2016; RS&H, 2016

Legend

- Replacement Passenger Terminal Building (includes Central Utility Plant)
- Terminal Access Road
- Terminal Loop Road Realignment
- Airport Service Road Realignment
- Structured Employee Parking
- Structured Public Parking
- Delivery Truck Staging
- Aircraft Ramp
- Replacement Air Cargo/GSE Maintenance Facility
- Air Cargo/GSE Maintenance Facility Access Road
- Air Freighter Facility
- Taxiway Improvements (see Figure 2-8 for Details)
- Engineered Materials Arresting System (EMAS)
- ARFF Building to Remain
- Air Traffic Control Tower (ATCT)
- Ground Access Vehicle Staging Area

Figure 2-10

Southwest Quadrant Same-Size Terminal Option – Demolition Plan



Sources: Esri, 2016; Authority, 2016; RS&H, 2016

Legend

- Existing Passenger Terminal Building to be Demolished
- Existing Air Cargo Facility to be Demolished
- General Aviation Facilities to be Demolished
- Existing Commercial Aircraft Ramp to be Removed
- Existing General Aviation Aircraft Ramp to be Removed
- Existing General Aviation Landside Pavement to be Removed
- Existing Public Parking Structure to be Removed
- Existing Employee Parking to be Removed
- Existing Parking Lot B to be Removed
- Existing Parking Lot E to be Removed

- Employee Parking Facilities – For all of the development options, employee parking structures are proposed adjacent to the replacement passenger terminal and would include 600 spaces. For the Adjacent Property Full-Size Terminal Option, the parking structure would be up to three levels. For the Southwest Quadrant Full-Size Terminal Option and the Southwest Quadrant Same-Sized Terminal Option, the employee parking may be a separate three-level structure or integrated into the public parking structure. The existing employee surface parking in Parking Lot A and the Employee Parking Lot in the southeast quadrant would be removed.

- Central Utility Plant – For the Adjacent Property Full-Size Terminal Option and the Southwest Quadrant Full-Size Terminal Option, a new central utility plant would be integrated into the second floor of the replacement passenger terminal. For the Southwest Quadrant Same-Size Terminal Option, a new central utility plant would be placed on top of the replacement passenger terminal.

- Replacement Air Cargo Building – An 8,000-square-foot replacement air cargo building would be constructed adjacent to the new terminal to replace the existing 16,000-square-foot air cargo building at the Airport. For the Adjacent Property Full-Size Terminal Option, the replacement air cargo building would be north of the replacement passenger terminal, and vehicle access to this facility would be provided from a proposed common use driveway off Cohasset Street. For the Southwest Quadrant Full-Size Terminal Option and the Southwest Quadrant Same-Size Terminal Option, the replacement air cargo building would be west of the replacement passenger terminal. For the two development options in the southwest quadrant, Hangar 1 could be converted to serve as the replacement air cargo building or a new replacement air cargo building could be built in the same location as Hangar 1. Vehicle access to the replacement air cargo building would be provided via an existing access road and would be independent of the Terminal Access Road. Under all three development options, the existing 16,000-square-foot air cargo building in the southwest quadrant would be demolished to accommodate the Taxiway G realignment.

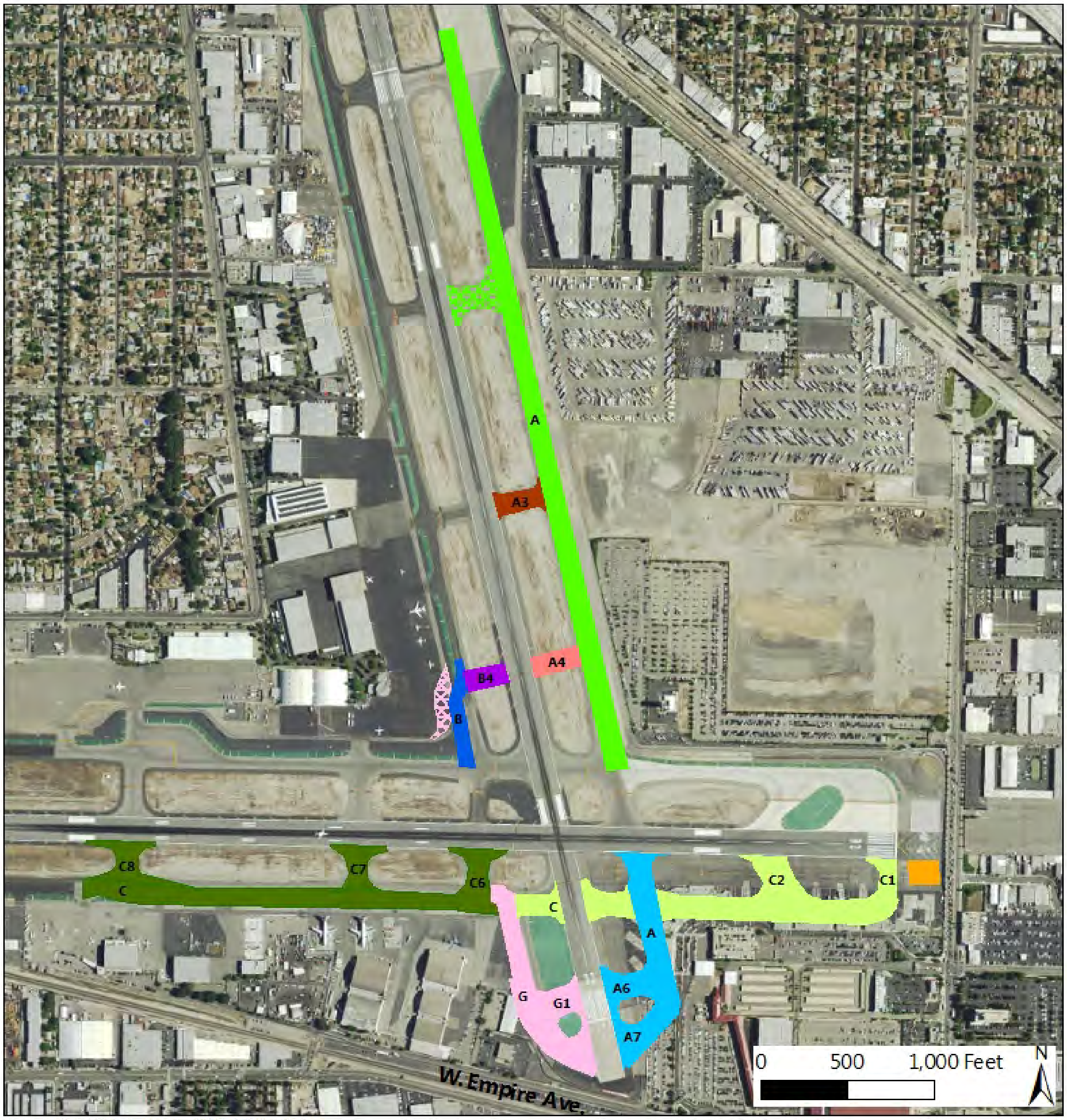
- Ground Service Equipment Maintenance Building – The existing air cargo building is also used for maintaining the ground service equipment (GSE) that operate at the Airport (approximately 8,000 square feet of this building serves as GSE maintenance functions). With demolition of the air cargo building, a new 8,000-square-foot building would be constructed for housing GSE maintenance functions, 2,000 square feet of which would be used for equipment and tool storage and office space for maintenance personnel. For the Adjacent Property Full-Size Terminal Option, the GSE maintenance building would be north of the replacement passenger terminal. For the Southwest Quadrant Full-Size Terminal Option and the Southwest Quadrant Same-Size Terminal Option, the GSE maintenance building would be integrated with the replacement air cargo building.

- Airport Traffic Control Tower (ATCT) – The existing ATCT and the existing access along the ATCT Service Road would be retained. For the Adjacent Property Full-Size Terminal Option, vehicle access to the ATCT Service Road would be provided via the new Terminal Access Road. For the Southwest Quadrant Full-Size Terminal Option, vehicle access to the ATCT Service Road would be provided via a reconstructed roadway in the northeast quadrant of the Airport. For the Southwest Quadrant Same-Size Terminal Option, no changes to the ATCT Service Road would occur.

- Existing Terminal and Parking Structure – The project proposes demolition of the existing 232,000-square-foot passenger terminal building and adjacent four-level public parking structure, as well as removal of portion of existing Parking Lot E and a portion of the valet surface parking lot in the southeast quadrant of the Airport.

- Realigned Terminal Loop Road – For all three development options, the existing Terminal Loop Road in the southeast quadrant of the Airport would be realigned following demolition of the existing passenger terminal and public parking structure. The east-west alignment of the realigned Terminal Loop Road would be shifted to the south to permit the extension of Taxiway C and the north-south alignment of the realigned Terminal Loop road would be shifted to the east to permit the extension of Taxiway A. The realigned Terminal Loop Road would continue to provide access to the Regional Intermodal Transportation Center (RITC) and long-term parking in the southeast quadrant of the Airport.
- Taxiways Improvements – For all three development options, the proposed project would extend Taxiways A and C, add new connecting taxiways, realign Taxiway G, and construct a new crossover Taxiway A4/B4 (see **Figure 2-11**). Taxiway A would be extended from Runway 8-26 south to the Runway 33 threshold. Taxiway C would be extended between Taxiway G and the Runway 26 threshold. Connecting Taxiways A6, A7, C1, C2, and G1 would be constructed to connect the extended Taxiways A and C with the existing runways. For the Southwest Quadrant Full-Size Terminal Option and the Southwest Quadrant Same-Size Terminal Option only, Taxiway C would be extended west of Taxiway G to Taxiway C8. Taxiway G would be realigned to be designed for ADG IV aircraft and provide a lateral separation of 400 feet from the centerline of Runway 15-33 to the centerline of Taxiway G. Taxiway A4/B4 would be constructed to connect Taxiways A and B north of Taxiway D. This crossover taxiway would result in the need to realign a portion of Taxiway B between Taxiway D and the new Taxiway A4/B4 and to remove about 27,500 square feet of general aviation ramp in the northwest quadrant.
- Engineered Material Arresting System (EMAS) Improvements – For all three development options, the existing EMAS at the end of Runway 26 would be expanded to the south (see **Figure 2-11**).
- Airside Service Road and Perimeter Security Fencing – For all three development options, the proposed project would relocate the airside service road and perimeter security fencing in the southeast quadrant of the Airport. This relocation would enable Taxiways A and C to be extended.
- Regional Intermodal Transportation Center (RITC) – The RITC in the southeast quadrant of the Airport would remain as the location for the rental car companies serving the Airport as well as the connection point for passengers from Metrolink, Amtrak, Amtrak bus, Burbank Bus, and Metro buses to the replacement passenger terminal. A common busing operation would serve the RITC and be the connection for rental car customers, transit passengers, and customers who park in the Parking Lot G access to the replacement passenger terminal.

Figure 2-11
Airfield Improvements



Sources: Esri, 2016; Authority, 2016; RS&H, 2016

Legend

- Taxiway A Reconstruction /a/
- Taxiway A2 to be Removed /a/
- Taxiway A3 Improvements /a/
- Taxiway A4
- Taxiway B4
- Taxiway A Extension and Connectors
- Taxiway C Extension and Connectors
- Taxiway G Realignment
- Taxiway B Realignment
- Taxiway C Extension and Connectors /b/
- Existing General Aviation Aircraft Ramp to be Removed
- Engineered Material Arresting System (EMAS)

NOTE: /a/ - Associated with the Adjacent Property Full-Size Terminal Option Only.

NOTE: /b/ - Associated with the Southwest Qudrant Terminal Options Only.

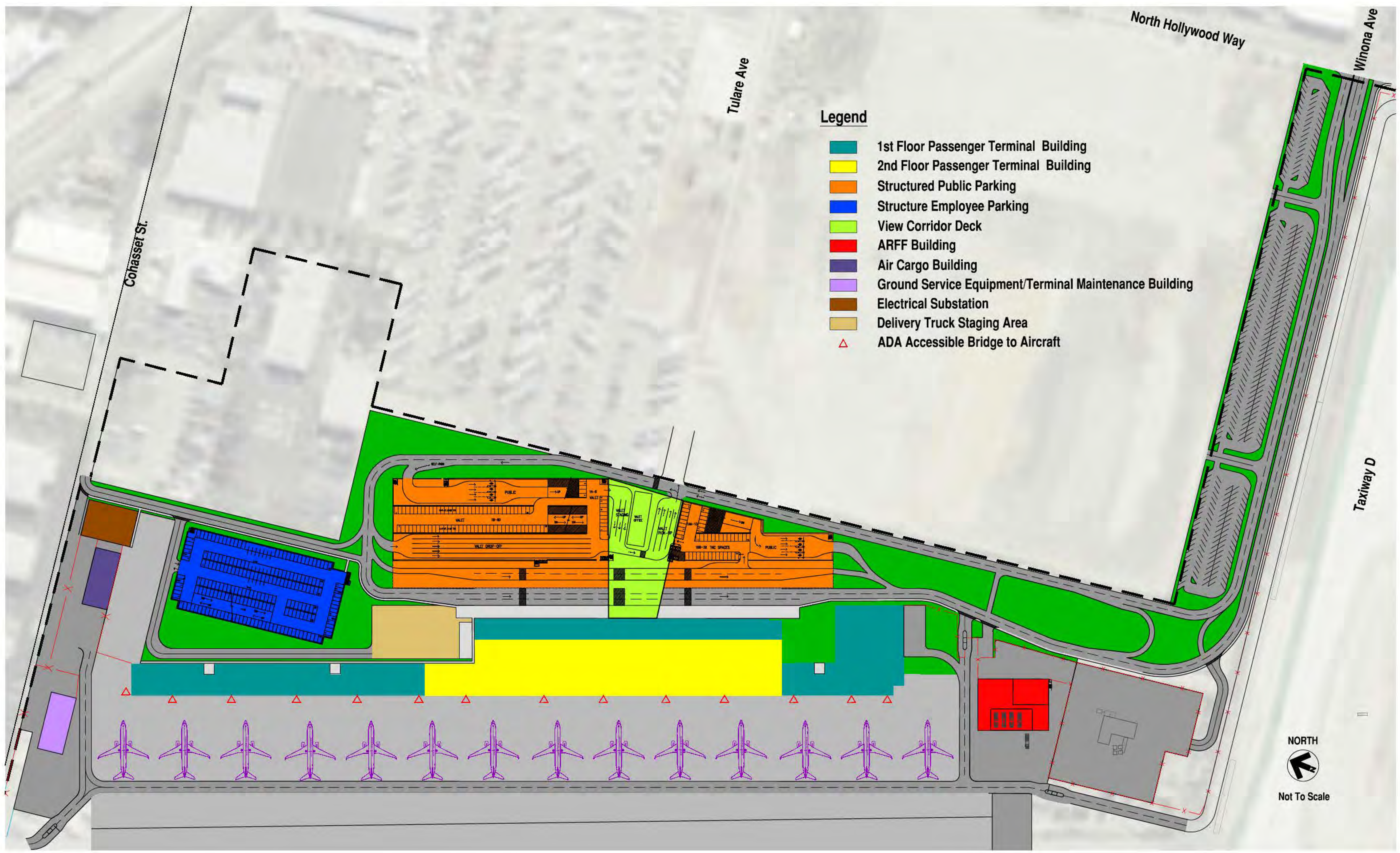
2.4.3 Components Unique to the Adjacent Property Full-Size Terminal Option

As shown in **Figures 2-5 and 2-6**, the components that would be unique to the Adjacent Property Full-Size Terminal Option are:

- New Terminal Access Road – The Adjacent Property Full-Size Terminal Option proposes a new multi-lane road that would extend from the intersection of North Hollywood Way and Winona Avenue; this road would loop around the proposed parking structures to provide vehicle access to the replacement passenger terminal and parking structures, thus allowing curb-front access to the terminal and recirculation around the Airport (see **Figure 2-11a**). A secondary point of access for this development option would connect the Terminal Access Road with Cohasset Street and Lockheed Drive, providing access to San Fernando Road from both Cohasset Street and Lockheed Drive. In addition, a ground access vehicle staging area for taxis, shared vans, and transportation network companies (TNCs) would be constructed on the north side of the Terminal Access Road west of the North Hollywood Way / Winona Avenue entrance.
- Taxiway A and Taxiways A2 and A3 – Taxiway A would be regraded to ensure that connections between Taxiway A and the aircraft ramp would meet all FAA design standards. This would result in lowering Taxiway A. As a result, Taxiway A2 would no longer meet FAA design standards for a connecting taxiway and would be removed and Taxiway A3 would be regraded to continue to provide a connection with Taxiway A.
- Potential Tulare Access Roadway – While the potential Tulare Access Roadway is not a component of the Adjacent Property Full-Size Terminal Option, it is likely that the developer of the Trust Property to the east of the replacement passenger terminal would desire to build a roadway that extends Tulare Street through the Trust Property to form a second direct connection between North Hollywood Way and the Terminal Access Road.
- Aircraft Rescue and Fire Fighting (ARFF) Station – The existing ARFF station is in a hangar in the northwest quadrant of the Airport. Under this development option, a new ARFF station is proposed south of the replacement passenger terminal. Vehicle access to the ARFF station would be provided via the new Terminal Access Road. Under this option, the existing ARFF operations would be relocated and this hangar in the northwest quadrant of the Airport would become available for general aviation (GA) uses.
- General Aviation Facilities – The existing GA facilities in the southwest quadrant of the Airport would not change under this development option.
- Electric Substation – A 10,000-square-foot electric substation would be constructed north of the replacement passenger terminal and east of the relocated air cargo building. Vehicular access to the electric substation would be via a proposed common use driveway off Cohasset Street.
- Air Freighter Facilities – The existing air freighter facilities operated by FedEx and UPS in the southwest quadrant of the Airport would not change under this development option.
- Desmond Property – The existing pavement for the Desmond property would be removed to allow for the development of the replacement passenger terminal.

Figure 2-11a

Adjacent Property Full-Size Terminal Option New Access Road



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2.4.4 Components Unique to the Southwest Quadrant Full-Size Terminal Option

As shown in **Figures 2-7 and 2-8**, the components that would be unique to the Southwest Quadrant Full-Size Terminal Option are:

- Terminal Access Road – The Southwest Quadrant Full-Size Terminal Option proposes to extend the existing on-airport Terminal Loop Road to provide access to the replacement passenger terminal and parking structures (see **Figure 2-11b**). The extended Terminal Loop Road would route traffic to a two-way roadway segment that crosses just south of the end of Runway 33 and passes south of the blast fence. This curved blast fence would be removed and replaced with a combined vertical security/blast fence. The Terminal Access Roadway located west of the end of Runway 33 would become a one-way loop around and under the parking structure to provide access to the replacement terminal building and curb front areas. The access points for this development option would be via the existing entrances at North Hollywood Way / Thornton Avenue and at Empire Avenue / Terminal Loop Road. A new signalized intersection would be constructed west of Runway 15-33, near the driveway entrance to the FAA facilities in the southwest quadrant of the Airport, to reduce the distance for vehicles to reach the front of the replacement passenger terminal via Empire Avenue. In addition, a ground access vehicle staging area for taxis, shared vans, and TNCs would be constructed on the north side of the extended Terminal Loop road west of the North Hollywood Way / Thornton Avenue entrance.

- Shuttle Bus Drop-Off/Pick-Up Area – A shuttle bus drop-off/pick-up area would be constructed west of the RITC and across the extended Terminal Access Road. In addition, a connection to the existing elevated walkway that provides access to the RITC would be constructed.

- Air Cargo Access Road – The road that now provides access to the existing GA facilities in the southwest quadrant of the Airport would be used under this development option to provide independent access to the air cargo building to the west of the replacement passenger terminal.

- Aircraft Rescue and Fire Fighting (ARFF) Station – The existing ARFF station is in a hangar in the northwest quadrant of the Airport. Under this development option, a new ARFF station is proposed for the northeast quadrant of the Airport. Vehicle access to this facility would be provided from the existing roadway in the northeast quadrant of the Airport. With the development of the ARFF station, the existing ARFF operations would be moved and this hangar in the northwest quadrant of the Airport would become available for GA space.

- General Aviation Facilities – The existing GA facilities in the southwest quadrant (hangars, aircraft ramp, landside vehicle parking, and underground storage tanks) would be removed to construct this development option, and GA facilities would be relocated to the northeast quadrant of the Airport. The underground storage tanks are owned and operated by rental car companies and the removal of these tanks would the responsibility of these companies.

- Electric Substation – A 10,000-square-foot electric substation would be constructed in the northeast corner of the general aviation development area. Vehicular access to the electric substation would be via a proposed common use driveway off Cohasset Street.

- Relocated Rental Car Storage – Under this development option, the existing 4.5 acres of rental car storage in the southwest quadrant of the Airport would be relocated to a vehicle storage area in the northeast quadrant.
- Air Freighter Facilities – Under this development option, the existing FedEx and UPS air freighter operation on a 1.7-acre parcel in the southwest quadrant would be relocated to the northwest quadrant of the Airport. A total of four A300-type aircraft parking positions would be relocated. New air freighter buildings totaling about 61,700 square feet would be constructed. The building associated with the fixed based operator (FBO)[4] at Atlantic Aviation would remain at its current location and would not be altered by the relocation of the air freighter facilities.
- Desmond Property – The existing pavement for the Desmond property would be removed to allow for the development of the replacement passenger terminal.

2.4.5 Components Unique to the Southwest Quadrant Same-Size Development Option

As shown in **Figures 2-9 and 2-10**, the components that would be unique to the Southwest Quadrant Same-Size Development Option are:

- Terminal Access Road – The Southwest Quadrant Same-Sized Terminal Option proposes to extend the existing on-airport Terminal Loop Road to provide access to the replacement passenger terminal and parking structures (see **Figure 2-11b**). The extended Terminal Loop Road would route traffic to a two-way roadway segment crossing just south of the end of Runway 33, passing south of the blast fence. This curved blast fence would be removed and replaced with a combined vertical security/blast fence. The Terminal Access Roadway located west of the end of Runway 33 would become a one-way loop around and under the parking structure to provide access to the replacement terminal building and curb front areas. The access points for this development option would be via the existing entrances at North Hollywood Way / Thornton Avenue and at Empire Avenue / Terminal Loop Road. Unlike the Southwest Quadrant Full-Size Terminal Option, no new signalized intersection would be constructed west of Runway 15-33, near the driveway entrance to the FAA facilities in the southwest quadrant of the Airport. In addition, a ground access vehicle staging area for taxis, shared vans, and TNCs would be constructed on the north side of the extended Terminal Loop road west of the North Hollywood Way / Thornton Avenue entrance.
- Aircraft Rescue and Fire Fighting (ARFF) Station – Under this development option, there would be no changes in the existing ARFF station in the northwest quadrant of the Airport.
- General Aviation Facilities – The existing GA facilities in the southwest quadrant (hangars, aircraft ramp, landside vehicle parking, and underground storage tanks) would be removed to construct this development option. The underground storage tanks are owned and operated by rental car companies and the removal of these tanks would the responsibility of these companies. GA activities under this development option would be absorbed to the extent practical within the existing GA facilities in the northwest quadrant. In the northwest quadrant of the Airport, there are

4 A fixed-base operator (FBO) is a commercial business that operates on an airport and provides aeronautical services such as fueling, hangars, tie-down and parking, aircraft rental, and aircraft maintenance.

currently five vacant hangars and available land to accommodate all of the GA activities that would currently desire to remain at the Airport. It is unknown what the demand for GA hangars would be in the 2025 study year.

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Figure 2-11b

Southwest Quadrant New Terminal Access Road

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- Rental Car Storage – The existing 4.5 acres of rental car storage in the southwest quadrant would no longer be available and each rental car company would be responsible for finding alternative storage should the rental car company determine that storage is needed.
- Air Freighter Facilities – Under this development option, the existing FedEx and UPS air freighter operation on a 1.7-acre parcel in the southwest quadrant would be relocated to the northwest quadrant of the Airport. A total of four A300-type aircraft parking positions would be relocated. New air freighter buildings totaling about 61,700 square feet would be constructed. The building associated with the fixed based operator (FBO) at Atlantic Aviation would remain at its current location and would not be altered by the relocation of the air freighter facilities.
- Authority Office Space – Under this development option, the replacement passenger terminal would not include space for offices for the Authority administration. Therefore, these offices would be relocated to office space at an off-Airport location. Because it is not known what office space would be available in 2023 when this relocation would occur, it is assumed that the Authority would lease space in an existing building in Glendale.

2.4.6 Change in Governance Under the Joint Powers Agreement

One project component—an amendment of the Authority's establishing joint powers agreement (JPA)—is part of the Adjacent Property Full-Size Terminal Option and the Southwest Quadrant Full-Size Terminal Option; however, this change in the JPA is not part of the Southwest Quadrant Same-Size Terminal Option. This project component consists of an action by the Cities of Burbank, Glendale, and Pasadena to amend the JPA to institute governance changes to provide additional protections to Burbank residents. The governance changes would require a supermajority vote of the Authority Commission (at least two of the three votes from each City's three commissioners) for certain significant actions including the following: future expansion in the number of gates at the Airport or creation of remote parking spaces for aircraft ; future additions to the approved replacement terminal project or expansion of the existing terminal; any changes in the Authority's existing noise rules or how they have been enforced since the adoption of the Airport Noise and Capacity Act of 1990 (ANCA); any changes in the Authority's voluntary curfew or the manner in which it has been enforced since the adoption of ANCA; any changes in the Authority's support for obtaining a legislative curfew at the Airport; future land acquisition by the Authority (whether or not within Burbank); and approval of an airport management contract or lease with a maximum term over 35 years.

The JPA amendment would only be effective if both of the following occur: (i) the Burbank City Council approves a development agreement and entitlements that allow the Authority to construct, in the Authority's discretion, the Adjacent Property Full-Size Terminal Option or the Southwest Quadrant Full-Size Terminal Option; and (ii) Burbank voters ratify such approval at a Measure B election. Absent Burbank City Council approval and voter ratification, the future expansion of the existing terminal, addition of aircraft parking gates, or the future addition of public parking spaces will not be constrained by the JPA. Additionally, if there is no Council approval and voter ratification, then the Authority would only be able to select the Southwest Quadrant Same-Size Terminal Option, for which the Authority would not seek discretionary approval from Burbank.

The Authority has stated that it would select the Southwest Quadrant Same-Size Terminal Option only if the Burbank City Council does not approve, or if Burbank voters do not ratify, a development agreement and entitlements that give the Authority the ability to construct either the Adjacent Property Full-Size Terminal Option or the Southwest Quadrant Full-Size Terminal Option. If the Burbank City Council does grant such approvals, and if Burbank voters ratify such approvals, then the JPA amendment governance protections would remain in effect in perpetuity, regardless of which development option the Authority chooses, or whether the Authority chooses not to build a replacement passenger terminal at all.

2.5 PHASING SCHEDULE FOR THE PROPOSED PROJECT

The replacement terminal and all associated facilities are scheduled for completion in 2025. A phasing schedule for each development option is presented below.

2.5.1 Adjacent Property Full-Size Terminal Option

Table 2-5 presents the phasing for the Adjacent Property Full-Size Terminal Option.

Table 2-5
Phasing for the Adjacent Property Full-Size Terminal Option

Project Component	Schedule
Close Parking Lot A	2020
Construct Replacement Terminal and Parking Structures	2020 – 2023
Construct Aircraft Rescue and Fire Fighting Station	2023 – 2025
Construct Ground Service Equipment Maintenance Building and Air Cargo Building	2023 – 2025
Demolish Existing Terminal and Parking Structure	2023
Close Parking Lots B and E	2023
Relocate Perimeter Service Road and Security Fence	2023
Extend Taxiways A and C	2024 – 2025

Source: Burbank-Glendale-Pasadena Airport Authority

2.5.2 Southwest Quadrant Full-Size Terminal Option

Table 2-6 presents the phasing for the Southwest Quadrant Full-Size Terminal Option.

Table 2-6
Phasing for the Southwest Quadrant Full-Size Terminal Option

Project Component	Schedule
Relocate General Aviation	2018 – 2020
Relocate Air Freighter	2018 – 2020
Remove Existing General Aviation and Air Freighter	2020
Construct Replacement Terminal and Parking Structures	2020 – 2023
Construct Aircraft Rescue and Fire Fighting Station	2023 – 2025
Construct Ground Service Equipment Maintenance Building and Air Cargo Building	2023 – 2025
Demolish Existing Terminal and Parking Structure	2023
Close Parking Lots A, B, and E	2023
Relocate Perimeter Service Road and Security Fence	2023
Extend Taxiways A and C	2024 – 2025

Source: Burbank-Glendale-Pasadena Airport Authority

2.5.3 Southwest Quadrant Same-Sized Terminal Option

Table 2-7 presents the phasing for the Southwest Quadrant Same-Sized Terminal Option.

Table 2-7
Phasing for the Southwest Quadrant Same-Sized Terminal Option

Project Component	Schedule
Relocate Air Freighter	2018 – 2020
Remove Existing General Aviation and Air Freighter	2020
Construct Replacement Terminal and Parking Structures	2020 – 2023
Construct Ground Service Equipment Maintenance Building and Air Cargo Building	2023 – 2025
Demolish Existing Terminal and Parking Structure	2023
Close Parking Lots A, B, and E	2023
Relocate Perimeter Service Road and Security Fence	2023
Extend Taxiways A and C	2024 – 2025

Source: Burbank-Glendale-Pasadena Airport Authority

2.6 INTENDED USES OF THE EIR AND AGENCY APPROVALS

This section identifies, to the extent known by the lead agency, the various agencies expected to use the EIR in their decision-making processes, the various approvals necessary to implement the respective development options, and related environmental review and consultation requirements. This EIR is intended to apply to all approvals noted below as well as any other approvals that may be necessary to implement the development option ultimately selected by the Authority.

2.6.1 Adjacent Property Full-Size Terminal Option

The following approvals would be required to implement the Adjacent Property Full-Size Terminal Option:

Approval	Agency(ies)	Comment
Measure B Election Ordinance	City of Burbank	Submits Burbank's discretionary actions to Measure B vote
Joint Powers Agreement Amendment	City of Burbank, City of Glendale, and City of Pasadena	Implements governance change
Development Agreement	Authority and City of Burbank	Provides Authority with vested right to project entitlements

		Establishes alternative development review and construction plan review methods Clarifies airport-zone permitted uses Requires closure and demolition of existing passenger terminal upon opening of replacement passenger terminal
Adjacent Property Easement Modification	City of Burbank	Modification allows project development; termination eliminates easement once construction begins
Adjacent Property Public Utilities Code Section 21661.6(e) Approval	City of Burbank	Allows project development on the Adjacent Property
PD Zone # 2004-170 Amendment	City of Burbank	Allows entrance/exit road to replacement passenger terminal and for ground access vehicle staging area
Debt Issuance Approval	Authority	Allows bond financing
Comprehensive Land Use Plan Consistency Determination (if necessary)	Los Angeles County Airport Land Use Commission	Reviews PD Zone #2004-170 amendment and development agreement

2.6.2 Southwest Quadrant Full-Size Terminal Option

The following approvals would be required to implement the Southwest Quadrant Full-Size Terminal Option:

Permit or Approval	Agency(ies)	Comment
Measure B Election Ordinance	City of Burbank	Submits Burbank's discretionary actions to Measure B vote
Joint Powers Agreement Amendment	City of Burbank, City of Glendale, and City of Pasadena	Implements governance change
Development Agreement	Authority and City of Burbank	Provides Authority with vested right to project entitlements

		Establishes alternative development review and construction plan review methods Clarifies airport-zone permitted uses Requires closure and demolition of existing passenger terminal upon opening of replacement terminal
Adjacent Property Easement Modification	City of Burbank	Allows General Aviation relocation
Adjacent Property Public Utilities Code Section 21661.6(e) Approval	City of Burbank	Allows General Aviation relocation
PD Zone # 2004-169 Amendment	City of Burbank	Allows shuttle bus drop-off/pick-up area and recirculation loop on the extended Terminal Access Road
PD Zone # 2004-170 Amendment	City of Burbank	Allows entrance/exit road to general aviation development and rental car storage
Debt Issuance Approval	Authority	Allows bond financing
Comprehensive Land Use Plan Consistency Determination (if necessary)	Los Angeles County Airport Land Use Commission	Reviews development agreement

2.6.3 Southwest Quadrant Same-Size Terminal Option

The following approvals would be required to implement the Southwest Quadrant Same-Size Terminal Option:

Permit or Approval	Agency(ies)	Comment
Debt Issuance Approval	Authority	Allows bond financing

2.6.4 Related National Environmental Policy Act Review

The FAA will conduct a National Environmental Policy Act (NEPA) review of the project if both (i) the City of Burbank approves a development agreement and entitlements for the project; and (ii) the Burbank electorate ratifies such approvals at a Measure B election. NEPA review is a prerequisite for FAA funding of the project.

CHAPTER 3
EXISTING CONDITIONS, ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

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3.1 INTRODUCTION

This section provides an overview of the general format of the environmental analyses, the approach for analyzing cumulative impacts, and the forecasts that will be used in the environmental analyses.

3.1.1 General Format of Environmental Analysis Sections

This chapter presents the existing conditions, environmental impacts, and mitigation measures for each of the following environmental resource categories:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems

Each section provides the background and methodology (including the regulatory context, significance thresholds, and methodology for the environmental resource), a description of the existing conditions for that environmental resource at the Airport or in the Airport vicinity, a discussion of the environmental impacts that could occur as a result of the implementation of each of the three development options (including cumulative impacts), a determination of whether the impact is considered to be significant, and any mitigation measures that would reduce the magnitude of an identified significant impact. Each impact and subsequent mitigation measure, if applicable, is identified separately. In addition, even though some impacts would be the same for more than one of the development options, these impacts are repeated so that each development option includes a complete analysis of the impacts associated with implementation of that development option.

While most of the project-level impact determinations are based on a comparison of existing conditions to existing conditions plus the respective replacement terminal development options, consideration was also given to the comparison of the future conditions without project to future conditions plus the respective replacement terminal development options. For certain environmental topics, however, a comparison of existing conditions (2015) to existing conditions plus project were found to be misleading or lacking in any significant informational value. For those topic areas, impact significance was determined by a comparison between the 2025 future conditions without project scenario and the 2025 future conditions with project scenario.

3.1.2 Cumulative Impacts

Cumulative impacts result when two or more individual effects compound or increase other environmental impacts (CEQA Guidelines, Section 15355). The cumulative impacts from several projects are defined as the change in the environment that would result from the incremental impact of the project when added to other closely related past, present, or reasonably foreseeable future projects. The cumulative analysis in this EIR identifies project impacts that would be individually limited, but when viewed in connection with the effects of other past, present, and probable future projects, could be "cumulatively considerable" (i.e., significant) with regard to the project's contribution to a cumulative impact.

Table 3.1-1 provides a list of existing and reasonably foreseeable projects within the Airport vicinity.

Table 3.1-1

Cumulative Projects in Airport Vicinity

City of Burbank			
Project Name	**Project Address**	**Project Size**	**Project Status**
Mixed Use Development	3901 Riverside Drive	3,000-square-foot retail, 4,600-square-foot restaurant, and 4 apartments	Entitled
Mixed Use Development	3805 Olive Avenue	14,600-square-foot restaurant, and 1,800-square-foot coffee shop	Entitled
Media Studios North Remaining Entitlement	3333 Empire Avenue	95,000-square-foot office	Entitled
Media Studios North Expanded Entitlement	3333 Empire Avenue	73,000-square-foot office	Entitled
Former Weber Aircraft Site-Phase II	2820 Ontario Street	87,089-square-foot light industrial park	Approved

Table 3.1-1

Cumulative Projects in Airport Vicinity (cont.)

City of Burbank (cont.)			
Project Name	**Project Address**	**Project Size**	**Project Status**
NBC Universal Studios	100 Universal City Plaza	307,949-square-foot studio 647,320-square-foot studio office 495,406-square-foot office 337,895-square-foot entertainment 39,216-square-foot entertainment retail 50,600-square-foot amphitheater (removed) 900,000-square-foot hotel (up to 1,000 guest rooms)	Under Construction
Mixed-Use Development	1112 West Burbank Boulevard	2,500-square-foot medical-dental office, 11,300-square-foot general office, and 4,200-square-foot retail	Under Construction
Nickelodeon	203 West Olive Avenue	113,760-square-foot general office	Under Construction
IKEA	805 South San Fernando Boulevard	470,000-square-foot furniture/home retailer	Under Construction
Talaria (Mixed Use)	3401 West Olive Avenue	43,000-square-foot super market and 241 mid-rise apartments	Under Construction
Metrolink Station – Bob Hope Airport	Hollywood Way and Cohasset	N/A	Approved
First Street Village Mixed Use Development	Area bounded by First, Magnolia, I-5, and alley south of Palm	220 apartments, 9,265-square-foot restaurant, and 12,000-square-foot shopping center	Development Application Received
Premiere at First Street – Phase I, Phase IIA, and Phase IIB	Area bounded by First, Tujunga, San Fernando, and Verdugo	154 apartments, 11,078-square-foot retail, 230 hotel rooms, and 159,000-square-foot general office	Development Application Received

Table 3.1-1
Cumulative Projects in Airport Vicinity (cont.)

City of Burbank (cont.)			
Project Name	**Project Address**	**Project Size**	**Project Status**
Opportunity Site 6B (Overton Moore Proposal)	West side of Hollywood Way at Tulare Avenue	937,980-square-foot industrial/flex, 130,000-square-foot creative office, 12,000-square-foot restaurant, and 175 hotel rooms	Proposed
The Burbank Studios: Phase II and Main Studio Lot Remaining Entitlement	3000 W Alameda Ave	329,098-square-foot general office and 730,523-square-foot general office	Entitled
Warner Brothers: Main Campus and Ranch	4000 Warner Boulevard	1,974,948-square-foot general office and 782,648-square-foot general office	Entitled Entitled
Disney: Remaining Entitlement	500 South Buena Vista Street	635,894-square-foot general office	Entitled
Empire Center – Walmart	1301 North Victory Place	144,000-square-foot discount superstore	Entitled
Bob Hope Center	Bounded by Olive Avenue, Alameda Avenue, and Lima Street	109,470-square-foot general office	Entitled
City of Los Angeles			
Project Name	**Project Address**	**Project Size**	**Project Status**
LAUSD VRE School #7	11967 Saticoy Street	800 unit school	
Valley Plaza and Laurel Plaza	6301 Laurel Canyon Boulevard	572 condominiums, 170 apartments, 69,962-square-foot theatre, 707,180-square-foot other, and 779,933-square-foot mixed use	
Mixed-Use Development	12425 W Victory Boulevard	54 condominiums, 3,850-square-foot retail, and 4,500-square-foot supermarket	
Sun Valley Care Ministries	9000 Sunland Boulevard	140 unit summer camp, 50 unit college, 15,040-square-foot retail, 17,040-square-foot office, and 2 single family homes	

Table 3.1-1

Cumulative Projects in Airport Vicinity (cont.)

City of Los Angeles (cont.)			
Project Name	**Project Address**	**Project Size**	**Project Status**
Mixed-Use Development	6605 Lankershim Boulevard	71 apartments and 20 retail units	
No Ho Lankershim	5401 Lankershim Boulevard	25 offices, 7 restaurants, and 29 retail units	
LAUSD VR Bellingham Elementary Expansion	6728 Bellingham Avenue	550 unit school	
NoHo San Marino	11405 Chandler Boulevard	73 apartments	
New NoHo Artwalk Project	11126 Chandler Boulevard	240 condominiums, 9,400-square-foot retail	
Shopping Center	7934 Lankershim Boulevard	60,000-square-foot shopping center	
Mixed-Use Development	7634 Vineland Avenue	10,750-square-foot retail and 11,950-square-foot office	
Carl's Jr.	6601 Lankershim Boulevard	4,180-square-foot retail and 2,723-square-foot other	
7-Eleven	7955 Laurel Canyon Boulevard	2,500-square-foot retail and 2,000-square-foot retail	
Starbucks with drive thru	12106 Burbank Boulevard	2,500-square-foot retail	
Wesley School, North Hollywood	4832 Tujunga Avenue	School, increasing the student cap from 199 to 290	
Apartment Building	11120 West Chandler Boulevard	324 mixed use units	
Apartment Building	5500 North Klump Avenue	84 apartments	
NoHo San Marino	11405 West Chandler Boulevard	82 apartments and 1,000-square-foot retail	
NoHo West Project	6150 North Laurel Canyon Boulevard	Mixed Use – apartments, retail, movie theater, office and retail	
Apartments	11011 Otsego Street	144 apartments	
Apartment Building	5513 Case Avenue	90 apartments	
Apartment/Condo	5508 North Fulcher Avenue	46 units	

Table 3.1-1

Cumulative Projects in Airport Vicinity (cont.)

City of Los Angeles (cont.)			
Project Name	**Project Address**	**Project Size**	**Project Status**
Expansion of School Enrollment	11600 West Magnolia Boulevard	50 unit school; school enrollment increase from 452 to 530 students	
Special Need Persons School	13042 Burbank Boulevard	130 unit school	
Other Projects /a/			
Burbank Boulevard Interchange Project	Interstate 5 at Burbank Boulevard	Rebuild interchange	
Buena Vista Rail Separation	Buena Vista Street and San Fernando Road	Grade separation	
Empire Avenue Interchange Project	Empire Avenue	New Ramp Intersection Volumes Available, Study to account for Traffic Shifts	
Metrolink Station – Bob Hope Airport	Hollywood & Cohasset	Metrolink Station	
I-5 Widening and High Occupancy Vehicle Lane Project	Buena Vista Street and Magnolia Boulevard	Widen I-5 and install High Occupancy Vehicle lanes between Buena Vista Street and Magnolia Boulevard	
Clybourn Avenue Grade Separation	Empire Avenue and Vanowen Street	Elevate the Metrolink railroad over Clybourn Avenue	
Metrolink Pedestrian Bridge	Empire Avenue, between the Metrolink Bob Hope Airport Station and the transit center in the RITC	Construct a pedestrian bridge over Empire Avenue between the Metrolink Bob Hope Airport Station and the transit center in the RITC	

/a/ The details surrounding high speed rail (HSR) stations are considered to be speculative given that the HSR Authority has decided to concentrate on the development of the Bakersfield to San Francisco section first. The lack of any definitive details regarding a potential Burbank HSR station preclude any meaningful environmental analysis. Any analysis that could be undertaken would rely on a high degree of speculation, which would undermine the accuracy and reliability of any information that could be provided. For these reasons, HSR is not considered a probable future project appropriate for inclusion in the list of cumulative projects.

3.1.3 Forecasts

The forecasts of aviation activity used in this EIR are intended to provide a "conservative" basis for the assessment of environmental impacts. For that reason, the forecast methodology should avoid assumptions that could understate future levels of activity. It is nevertheless important to note that the 2008 Recession triggered a substantial reduction in the number of air carrier operations and airline passengers—approximately a one-third reduction from nearly 6 million annual passengers (MAP) using the airport in

2008, to the current level of approximately 4 MAP. The forecast for passenger and operation activity within the ten year study horizon for this EIR does not exceed the maximum passenger and airline operations levels experienced in 2008.

Three recent forecasts were examined in developing the passenger and aircraft operations scenarios for use in this EIR. Although, as noted below, the assumptions on which these forecasts were based have not always been realized, these forecasts provide useful information in developing a conservative forecast for this EIR.

- The Southern California Association of Governments (SCAG) forecast published in 2011 addressed passenger traffic only.
- The Burbank Bob Hope Airport Part 150 forecast, completed in 2012, addressed both passenger traffic as well as aircraft activity.
- The FAA Terminal Area Forecast (TAF) based on historical data through 2013 also addressed both passenger and aircraft activity.

Annual Passenger Forecasts

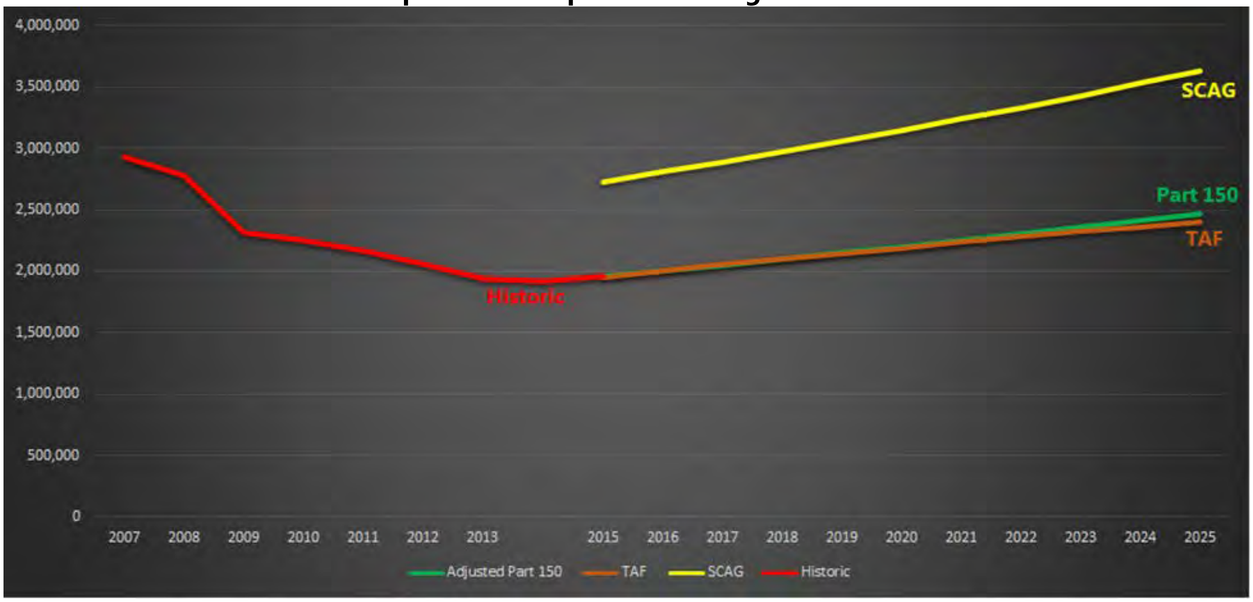
The SCAG forecast projects the highest passenger growth rate of the three forecasts, while the TAF projects the lowest rate of growth. The SCAG forecast is a demand projection based largely on regional socioeconomic data. The Part 150 Study forecast is also a demand projection based largely on the SCAG forecast. In contrast, the TAF relies heavily on national trends and uses historical passenger and operational data at a given airport as a reflection of the local and regional demand for air transportation. The Part 150 passenger forecast falls between the SCAG forecast and the TAF forecasts. Both the Part 150 forecast and the TAF reflect the downturn in passenger activity following the publication of the SCAG forecast, although the TAF reflects a further decrease in passenger levels after 2012. The Part 150 forecast enplanement growth rate is somewhat lower than the SCAG forecast rate and is higher than the growth rate reflected in the TAF. The passenger forecast developed for this EIR applies the Part 150 forecast growth rate to the passenger levels experienced in the Base Year; about 4 MAP or just under 2 million enplaned passengers The Adjusted Part 150 forecast is appropriate to use as the basis for the forecast of passenger activity for the following reasons:

- It employed a range of industry-accepted analytical techniques including time-series extrapolation, regression analyses, and regional market share analyses.
- It integrates economic data from SCAG reports to develop forecast results.
- It is based on both regional and nationwide economic forecasts and variables such as population, employment, and inflation-adjusted income.
- It reflects recent trends in the aviation activity at BUR.
- It represents a higher forecast than the TAF, which provides a conservative scenario for analyzing potential environmental impacts.

Figure 3.1-1 compares the passenger volumes of the three forecasts considered. **Table 3.1-2** summarizes the forecasts of enplaned passengers through analysis years. Table 3-1 lists the resulting passenger volumes for each EIR analysis year and also shows the level of passenger activity in 2007 to show how the forecast levels relate to previous passenger volumes.

Figure 3.1-1

Comparison of Enplaned Passenger Forecasts



SCAG – Southern California Association of Governments, 2011
Adjusted Part 150 – Bob Hope Airport 14 CFR Part 150 Noise Compatibility Study Noise Exposure Maps Update, April 2013 adjusted to Base Year passenger enplanements.
TAF – FAA Terminal Area Forecast, January 2016.
Sources: SCAG, FAR Part 150 Noise Exposure Map Update, FAA TAF forecasts.

Table 3.1-2

Passenger Forecasts

EIR Analysis Years		MAP /a/
2007	Historic	5.8
2015	Base Year /b/	3.9
2023	Replacement Passenger Terminal Opens	4.7
2025	Demolition Completed	4.9

/a/ MAP includes both arriving and departing passengers
/b/ Includes the last quarter of calendar year 2014 and the first three quarters of calendar year 2015
Source: RS&H analysis of Burbank Bob Hope Airport Part 150 forecast and base year activity data.

Annual Aircraft Operations Forecasts

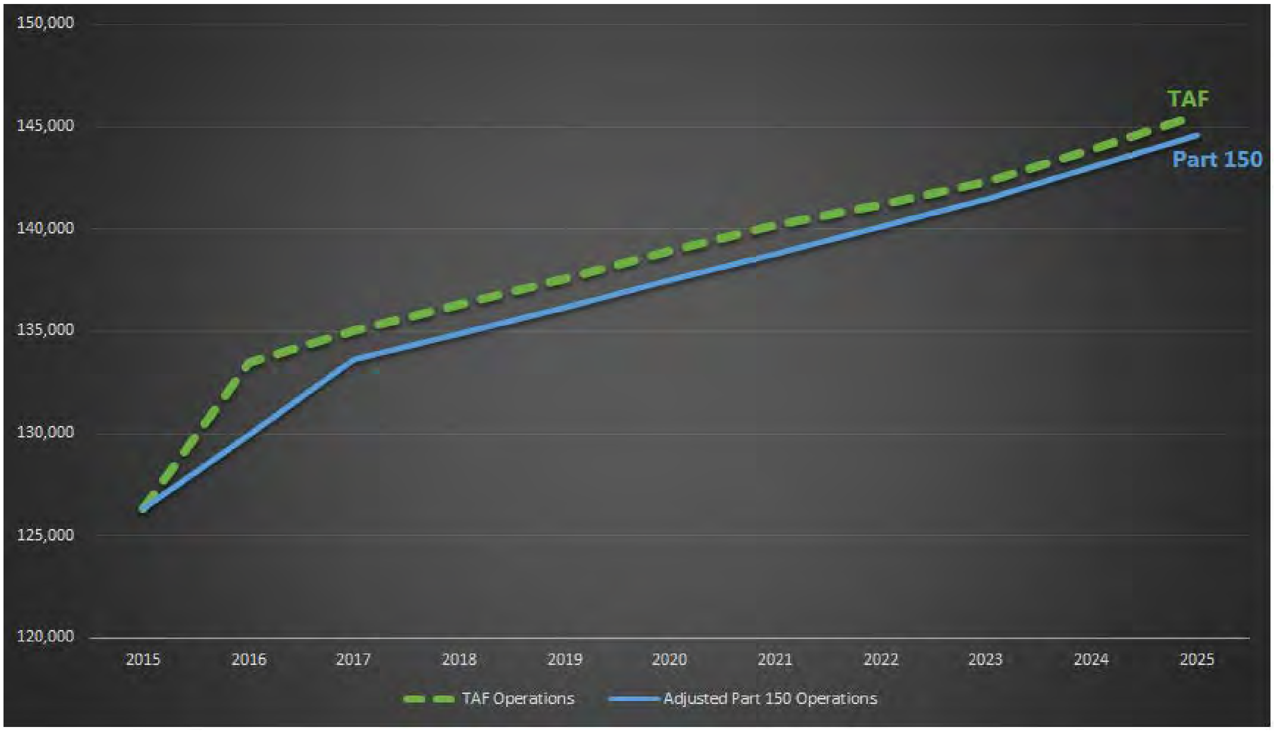
As noted above, the SCAG forecast does not address aircraft activity and, therefore, the aircraft activity forecast for this EIR draws on only two of the three forecasts considered in the enplanements forecast: the Part 150 and the TAF. As the more recent forecast, the TAF reflects the recent downturn in aircraft activity and starts at a lower base than the Part 150. On the other hand, the TAF has a higher rate of growth, resulting in a higher level of aircraft operations through the forecast period. **Figure 3.1-2** compares the TAF with the Part 150 Forecast adjusted to start at Base Year aircraft operations levels. From an environmental perspective, the TAF is a more conservative forecast than the Adjusted Part 150 forecast because it predicts a higher level of aircraft activity through the forecast period and would be a prudent choice for environmental analyses. Thus, the aircraft operations forecasts used in this EIR are based on the TAF.

Table 3.1-3 summarizes the aircraft operations forecasts used in this EIR. Airline operations are derived from airline schedules based on the Part 150 Forecast that were developed to provide more detailed profiles of activity and were subsequently revised to reflect the decrease in airline operations described above. Non-airline, or "other," operations are based on the TAF, which resulted in a somewhat higher level of operations compared to the Adjusted Part 150 Forecast. **Appendix E** describes the development of these forecasts in greater detail.

Annual Average Day, Average Day of the Peak Month and Peak Hour Forecasts

Noise analyses typically assess impacts on the basis of an annual average day, which is simply the level activity experienced or forecast over the course of a year divided by 365. Hence, the annual average day for aircraft operations in 2015, the Base Year, would be about 346 operations. For some air quality analyses, it is important to consider peak, rather than average, conditions. For such cases, the EIR forecast includes estimated activity passenger and aircraft activity levels for the average weekday of the peak month (AWDPM) and the peak hours of the AWDPM. **Table 3.1-4** summarizes these values derived from Airport records. **Appendix E** provides more detailed information on the AWDPM and peak hour forecasts.

Figure 3.1-2
Aircraft Operations Forecasts



Adjusted Part 150 – Bob Hope Airport 14 CFR Part 150 Noise Compatibility Study Noise Exposure Maps Update, April 2013 adjusted to Base Year aircraft operations.
TAF – FAA Terminal Area Forecast, January 2016.
Source: FAR Part 150 Noise Exposure Map Update, FAA TAF forecasts.

Peak hour forecasts are based on the AWDPM forecasts drawing on profiles of daily activity derived from one of two sources. For all aircraft activity in the Base Year, data from FlightAware[1] were used to determine the percentage of daily activity occurred in each hour. These percentages are applied to the AWDPM values described above to identify peak hours for aircraft activity and associated passenger volumes. These percentages are also applied to future non-airline operations to determine peak hour activity levels for 2023 and 2025.

1 FlightAware Aviation Data Service compiles flight plan information for aircraft that have filed instrument flight rules (IFR) flight plans. FlightAware does not reflect aircraft on Visual Flight Rules (VFR) flight plans or operating without filing a flight plan.

Table 3.1-3
Operations Forecasts

EIR Analysis Years		Total Aircraft Operations /a/		
		Airline	**Other**	**Total**
2007	Historic	68,796	155,795	224,591
2015	Base Year /b/	45,986	80,361	126,347
2023	Replacement Passenger Terminal Opens	52,100	90,300	142,400
2025	Demolition Completed	54,000	91,500	145,500

/a/ Operations include both landings and takeoffs.
/b/ Includes the last quarter of calendar year 2014 and the first three quarters of calendar year 2015.
Source: RS&H analysis of Burbank Bob Hope Airport Part 150 forecast and base year activity data.

Table 3.1-4
Activity Levels for the Average Weekday of the Peak Month

EIR Analysis Years		Enplanements	Airline Operations	Non-Airline Operations
2015	Base Year /b/	11,756	134	260
2023	Replacement Passenger Terminal Opens	12,100	152	290
2025	Demolition Completed	14,800	158	300

/a/ Operations include both landings and takeoffs.
/b/ Includes the last quarter of calendar year 2014 and the first three quarters of calendar year 2015.
Source: RS&H analysis of Burbank Bob Hope Airport Part 150 forecast and base year activity data.

Recognizing that passenger airline schedules may change in response to increasing passenger volumes over time, the hourly profiles of future (2023 and 2025) passenger airline activity are based on "hypothetical" schedules that account for the possibility that new markets will become economically feasible as the number of potential passengers increase and that larger aircraft may be introduced to serve higher levels of passenger demand more efficiently. Peak hours for non-airline activity.

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3.2 AESTHETICS RESOURCES

3.2.1 Background and Methodology

The purpose of this section is to determine whether implementation of the proposed project would result in significant environmental impacts on visual resources.

3.2.1.1 Regulatory Context

STATE

California Department of Transportation Scenic Highway Program

The California Department of Transportation (Caltrans) Scenic Highway Program protects and enhances the natural scenic beauty of California's highways and corridors through special conservation treatment. Caltrans defines a scenic highway as any freeway, highway, road, or other public right-of-way that traverses an area of exceptional scenic quality. Caltrans designates a scenic highway by evaluating how much of the natural landscape a traveler sees and the extent to which visual intrusions degrade the scenic corridor. No officially designated scenic highways are located in the Airport vicinity.

LOCAL

Burbank2035 General Plan

Burbank2035 includes numerous goals, policies, and programs related to impacts on aesthetic resources generated by land uses within the City. The Land Use Element and the Open Space and Conservation Element contain the following policies related to visual and aesthetic resources.

City of Burbank Municipal Code and Zoning Ordinance

City of Burbank Municipal Code and Zoning Ordinance

The City of Burbank Zoning Ordinance addresses the aesthetic considerations of development. It is also intended to protect the character and vitality, both social and economic, of all districts within the City, and to ensure the orderly and beneficial development of such areas. The Zoning Ordinance sets development standards for parking, building heights, setbacks, density, lot coverage, open space requirements, and signs. However, the current Zoning Ordinance does not provide any such development standards for the Airport Zone. The Ordinance also seeks to protect the airport from uses that might restrict or inhibit its main function as an air terminal facility.

Article 9

Article 9 states the purpose of the Airport Zone as intended for the "protection of airport uses that might restrict or inhibit its principal function as an air terminal facility".[1] In the Airport Zone, all land uses must be consistent with the maximum floor area ratio as prescribed in the Burbank2035 General Plan. The maximum floor area is determined by zoning on an individual basis. However, the Airport Zone does not specifically identify any maximum floor area.

1 *City of Burbank Municipal Code,* Article 9, Division 1, sec 901.

Article 10

Article 10 regulates signs and applies to all signs except advertising signs. It defines ground signs as those supported by a structure or structures, including poles, or part of a structure other than the wall of a building, placed in or upon the ground used for the purpose of advertising or identifying the business or name of an occupant of the premises on which such a sign is erected. All ground signs shall comply with the standards in the BMC and are determined by the zone in which the sign is located. For industrial and commercial zones, the maximum number of ground signs per parcel is one and is limited to 25 feet in height as measured from ground surface. Ground signs may have two faces and a maximum 50-square-foot area per face. The area of all ground signs is included in the maximum sign area allowed per the BMC. However, Article 10 does not establish any standards for official information signs on government facilities, including the Airport.

Article 11

Article 11 of the Zoning Ordinance includes the Art in Public Places Ordinance. The Zoning Ordinance requires property developers to incorporate public art into their projects or pay an in-lieu fee of up to 1 percent of total project costs to the Art in Public Places Fund. Developers may request, when paying the in-lieu fee, to direct up to 50 percent of their 1 percent obligation to arts-related programs organized through Burbank Arts for All.

Article 13

Article 13 governs general height standards. Division 2 of Article 13 specifically regulates building heights surrounding Bob Hope Airport, based on FAA standards and guidelines. According to Article 13, all new structures and all additions to existing structures within the Airport Zone 1 (the area immediately surrounding the Airport) are required to file a Notice of Proposed Construction or Alteration with the FAA, pursuant to FAR Part 77. The FAA makes the final determination as to whether the height of the proposed structure would be a hazard to air navigation.

Article 17

Article 17 governs the Protection Against Nuisances, including glare and illumination. Developments are prohibited from emitting glare in such quantities so as to be readily detectable on any boundary line of the lot on which the use is located. Uses should not create more illumination, glare, unsightliness, or any other objectionable influence than the amount, if any, normally created by any of the permitted or surrounding uses. Building elevations facing a residential zone with 50 percent or more of the building surface in glass are limited to a maximum of 15 percent reflectivity for those materials. Building elevations facing a residential zone with less than 50 percent of surface in glass are limited to a maximum of 20 percent reflectivity for those materials. All project lighting should be designed to eliminate glare onto adjacent properties. The design of light standards should be compatible with the building architecture and adjacent light standards in the public right-of-way and adjacent projects.

Article 19

Article 19 covers the Planned Development (PD) zone, which is intended to accommodate unique developments for residential, commercial, professional, or other similar activities, including combinations of uses and modified development standards, which would create a desirable, functional and community environment under controlled conditions of a development plan. Any use may be permitted in any PD zone, provided such use is specifically listed as a permitted use in the Development Agreement for the Planned Development project. There are no specific height restrictions; however, Planned Development should be compatible with existing and planned land use on adjoining properties. Building structures and facilities within the Planned Development should be well integrated with each other and to the surrounding topographic and natural features of the area. Architectural harmony with surrounding neighborhoods should be achieved so far as practicable.

3.2.1.2 Significance Thresholds

For purposes of this analysis, implementation of the proposed project would cause a significant impact related to visual resources if it resulted in:

- AESTH-1: A substantial adverse effect on a scenic vista;
- AESTH-2: Substantial damage to scenic resources, including, but not limited to trees, rock outcroppings, or historic buildings within a scenic highway;
- AESTH-3: Significant degradation of the existing visual character or quality of the Airport and its surroundings;
- AESTH-4: Creation of a new source of substantial light or glare that would adversely affect day or nighttime views in the Airport vicinity; or
- AESTH-5: A substantial contribution to cumulative impacts on aesthetics.

3.2.1.3 Methodologies

Impacts related to visual resources were evaluated by identifying any unique visual resources in the Airport vicinity and preparing massing diagrams of the proposed project to determine if there would an effect on existing visual resources.

3.2.2 Existing Conditions / Environmental Setting

The Airport totals approximately 550 acres and the visual character of the Airport includes runways and taxiways, the existing passenger terminal, parking structures and surface parking lots, an air traffic control tower, hangars, maintenance facilities, and aircraft parking positions. The northeast quadrant specifically contains the air traffic control tower, surface parking lots, and undeveloped property (see **Figures 3.2-1 and 3.2-2**). The southwest quadrant specifically contains hangars, surface parking areas, and general aviation and air cargo aircraft parking positions (see **Figures 3.2-3 and 3.2-4)**. The southeast quadrant specifically contains the existing passenger terminal, parking structures, surface parking lots, and commercial aircraft parking positions, the Regional Intermodal Transportation Center, and a covered elevated moving sidewalk.

The Airport is surrounded on all sides by urban development and includes railroad tracks, roadways, commercial uses, industrial uses, and residential uses. Most of the buildings in the Airport vicinity are multi-story with the Marriott Hotel and the Bank of America building at the southeast corner of North Hollywood Way and Thornton Avenue being the tallest structures in the Airport vicinity. The immediate Airport vicinity is generally flat and has long-range views of the Verdugo Mountains (see **Figure 3.2-5**).

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Figure 3.2-1

View of Adjacent Property from Ground Level

Sources: Google Earth, 2016; Miller Lee, 2016; RS&H, 2016.

Figure 3.2-2

Aerial View of Adjacent Property

Sources: Google Earth, 2016; Miller Lee, 2016; RS&H, 2016.

Figure 3.2-3

View of Southwest Quadrant from Ground Level

Sources: Google Earth, 2016; Miller Lee, 2016; RS&H, 2016.

Figure 3.2-4
Aerial View of Southwest Quadrant

Sources: Google Earth, 2016; Miller Lee, 2016; RS&H, 2016.

Figure 3.2-5

View of the Airfield and Verdugo Mountains from Ground Level

Sources: Google Earth, 2016; RS&H, 2016.

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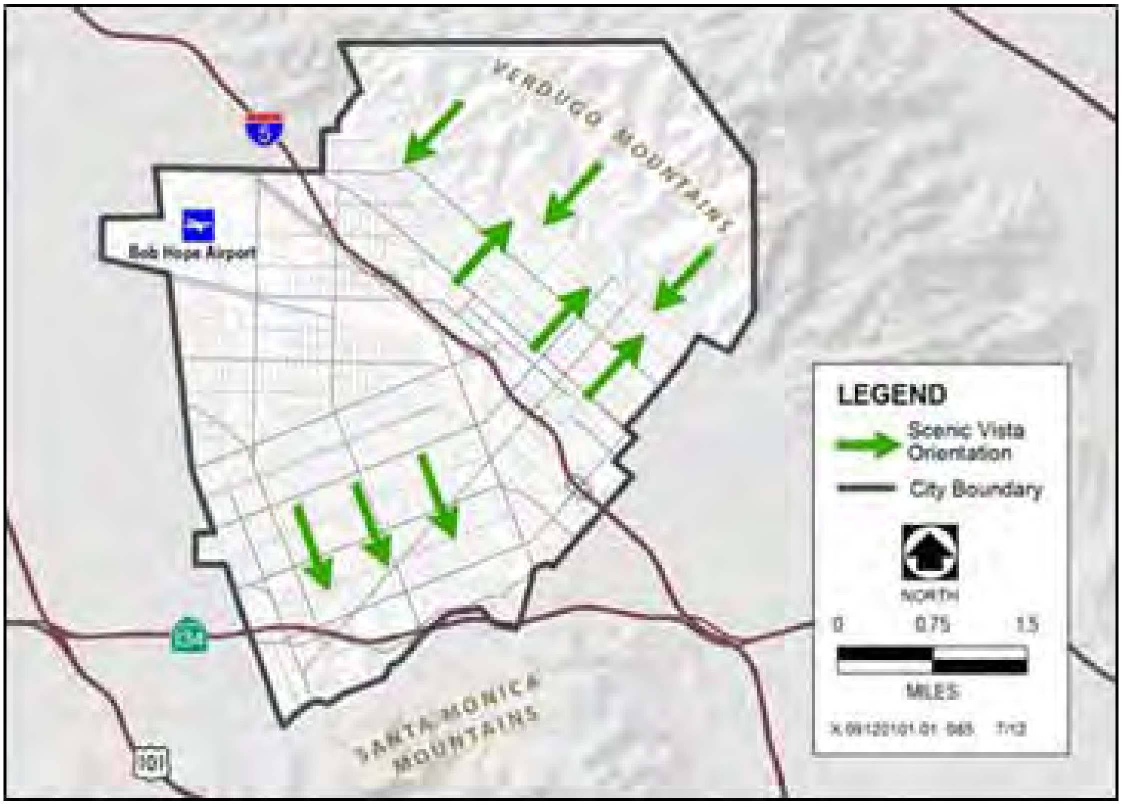
3.2.2.1 Scenic Vistas

Scenic vistas within the City of Burbank include views of the Verdugo Mountains to the northeast and views of the eastern Santa Monica Mountains to the south. The Airport is located in an area noted in the Burbank2035 General Plan as a scenic vista for views toward the Verdugo Mountains from the Golden State Freeway (I-5) and South San Fernando Boulevard to the northeast (see **Figure 3.2-6**).

Figure 3.2-6
Scenic Vista of Verdugo Mountains



Sources: Burbank2035 General Plan, 2013; RS&H, 2016.

3.2.2.2 Scenic Resources

Scenic resources are natural or manmade features that are visually pleasing and contribute to the definition of a community or region. Scenic resources can include trees and landscaping, rock outcroppings, historic buildings, and public art. Scenic resources within the City include public parks and open space.

Hangar 1 and Hangar 2 in the southwest quadrant of the Airport are considered to be historic resources (see **Section 3.6**) and, as a result, are considered to be scenic resources. These are the only structures on the Airport that are considered to be scenic resources.

The Portal of the Folded Wings shrine to Aviation and Museum, located over a half-mile south of the Airport, is the closest off-Airport historic resource and as a result, is considered to be a scenic resource. There are several land uses that exist between the Airport and this scenic resource (e.g., commercial development, residential areas, Pierce Brothers Valhalla Memorial Park).

3.2.2.3 Scenic Routes

There are no designated scenic highways, corridors, or streets identified within the Open Space and Conservation Element of the Burbank2035 General Plan.[2]

3.2.2.4 Visual Character

The predominant character of development within the immediately vicinity of the Airport is modern urban industrial and commercial, with multi-story buildings that have relatively large scales in terms of their footprints and associated visual massing. The Golden State Freeway, several roadway arterials, and railroads surround the Airport. Although there are sidewalks on the majority of the streets surrounding the Airport, the area is generally not pedestrian friendly due to the abundance of industrial-related uses and the lack of pedestrian-oriented buildings abutting the sidewalk. On-street parking is available on North Clybourn Avenue, but is more limited on San Fernando Road and North Hollywood Way, directly adjacent to the Airport. In general, the streets do not have decorative street lighting, relying instead on traditional cobra-head lights. Some areas have street trees while other areas have little to no vegetation, as is characteristic of industrial areas.

3.2.2.5 Light and Glare

The area surrounding the Airport contains several existing sources of light and glare, such as streetlights along roadways and in parking lots, illuminated signs, lighted recreation facilities, landscape lighting, , and light emitted from the interiors of residential and nonresidential buildings. Buildings and structures with glass, metal, and polished exterior or roofing materials contribute to localized sources of glare. The hillside areas largely remain in their natural state and produce limited, if any, light and glare.

Current facilities at the Airport produce light and glare typical of urban areas. Interior and exterior lighting is currently associated with the existing terminal facilities, as well as the Regional Intermodal Transportation Center, buildings located in the Southwest Quadrant, the Aircraft Rescue and Firefighting facility, and the Airport control tower. Airfield lighting associated with taxiways and runways are also sources of light and glare. In addition, the parking lots and parking structures contain security lighting. North San Fernando Boulevard also contributes to light sources with streetlights and headlights from the vehicles traversing the roadway. However, it should be noted that FAA has rules and regulations pertaining to minimizing glare and shielding light from pilots.

3.2.2.6 Project Design Features

The Authority would implement the following PDFs to enhance the visual character of the Airport vicinity.

> **PDF-AESTH-1:** All outdoor lighting for individual buildings, other than signs, would be limited to lighting required for safety, security, low-level architectural illumination, and landscaping.

2 City of Burbank, *Burbank2035 General Plan*, Open Space and Conservation Element, 2013.

The Authority would comply with all applicable rules/regulations of the FAA, the California Division of Aeronautics, and the Los Angeles County Airport Comprehensive Land Use Plan pertaining to lighting and glare control. Specific features would include the following:

- Use high-cutoff and/or shielded light fixtures that shall direct light downward (i.e., not allow illumination above the horizontal).
- LED or bulb colors would be installed that cannot be confused with airfield lighting, navigational aids, or other airfield operational lighting.
- Except for FAA-required lighting, no other flashing or strobing lighting directed upward into the sky would be included.
- Glare within the property of the Airport would be minimized to the maximum extent feasible primarily for the safety of arrival and departure of aircraft.

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3.2.3 Environmental Impacts and Mitigation Measures

3.2.3.1 ADJACENT PROPERTY FULL-SIZE TERMINAL OPTION

Project Impacts

IMPACT ADJ PROP FULL-AESTH-1: Impacts on Scenic Vistas

The Adjacent Property Full-Size Terminal Option would result in the development of a two-story replacement passenger terminal, multi-story parking structures, a new aircraft rescue and firefighting facility, and other ancillary facilities. Surrounding multi-story commercial buildings on North Hollywood Way, such as the three-story Starz Media and three-story Hub Television Network, already impede the existing view towards the Verdugo Mountains. Additionally, multi-story industrial buildings along San Fernando Road and commercial uses further along North Hollywood Road such as the eight-story Marriott Hotel and office buildings block scenic views from vantage points around the Airport. Given the location of the proposed development structures on the northeast quadrant of the Airport in relation to the viewing area (i.e., behind the viewing area of Golden State Freeway (I-5) and North San Fernando Boulevard for the Verdugo Mountains and to the west of the viewing area of North Hollywood Way and North San Fernando Boulevard for the Santa Monica Mountains) and that the majority of the Replacement Terminal would be on the first floor of the two-story structure, combined with the previously-disturbed views from surrounding multi-story commercial buildings, existing scenic vistas in the Airport vicinity would not be blocked. Therefore, construction of the Adjacent Property Full-Size Terminal Option would have no effect on existing scenic vistas.

Construction-related activities would partially be visible by the public from public roadways in the Airport vicinity (e.g., North Hollywood Way, San Fernando Road, Cohasset Street, Thornton Avenue). Graded surfaces, construction materials, equipment, truck traffic, and lighting (for nighttime airfield construction) would be visible. Soil would be stockpiled and equipment for grading activities would be staged at various locations. However, visible construction-related activities would be temporary (i.e., only last for the duration of construction). Additionally, there are several existing multi-story commercial buildings in the vicinity of the Airport that currently block scenic views. Therefore, impacts to scenic vistas are considered minimal.

Mitigation Measure ADJ PROP FULL-AESTH-1

No mitigation is warranted.

IMPACT ADJ PROP FULL-AESTH-2: Impacts on Scenic Resources

The northeast quadrant of the Airport does not contain any scenic resources. Hangar 1 and Hangar 2 on the southwest quadrant of the Airport would not be affected by the Adjacent Property Full-Size Terminal Option. In addition, the Airport is not within the vicinity of a scenic route. Therefore, impacts on scenic resources for the Adjacent Property Full-Size Terminal Option would be less than significant.

Construction-related activities would not impact scenic resources.

Mitigation Measure ADJ PROP FULL-AESTH-2

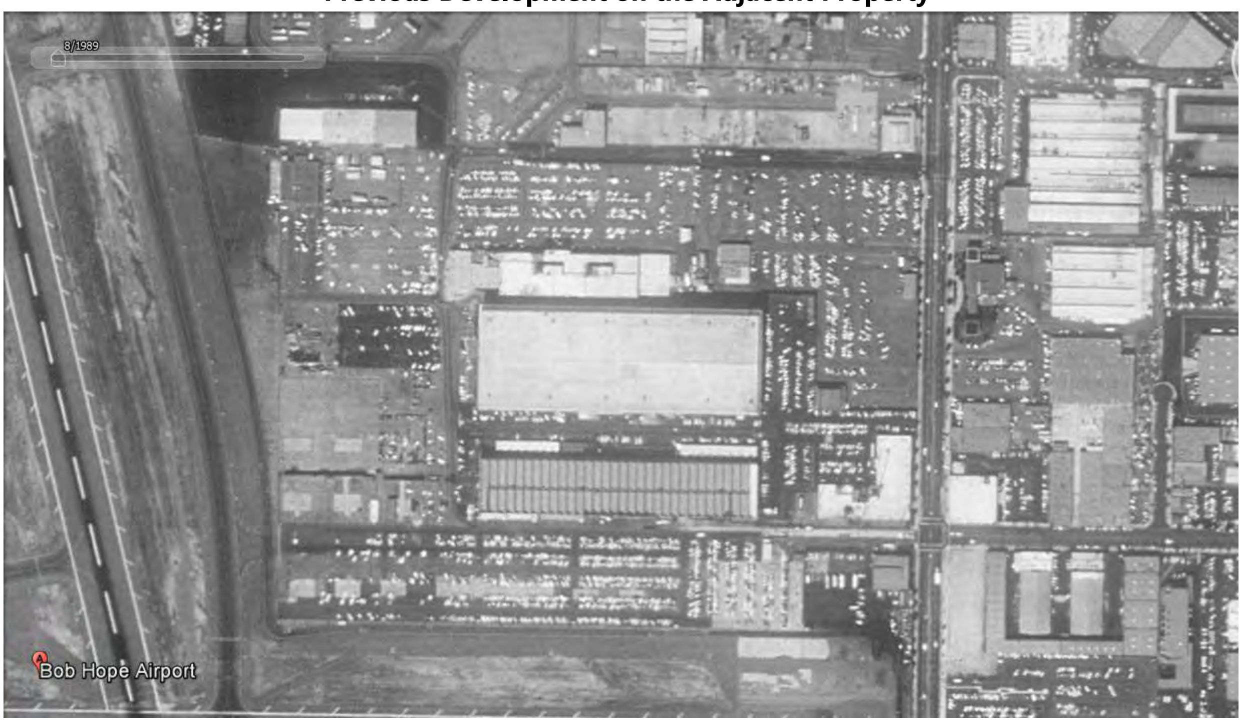
No mitigation is warranted.

IMPACT ADJ PROP FULL-AESTH-3: Impacts on Visual Character of Airport Vicinity

The northeast quadrant currently includes the air traffic control tower, surface parking lots, and undeveloped property. Although the existing visual character of the northeast quadrant would be altered with the construction of the Adjacent Property Full-Size Terminal Option, the northeast quadrant is not natural open space and has been previously developed with a variety of industrial and office uses. Proposed structures under the Adjacent Property Full-Size Terminal Option would include a replacement passenger terminal, multi-story parking structures, a new aircraft rescue and firefighting facility, and other ancillary facilities. While views across the northeast quadrant would be modified from their existing condition, the Adjacent Property Full-Size Terminal Option would be consistent with previous development at the Airport (see **Figure 3.2-7**) and would not be considered a degradation of the visual character of the site or urban industrial/commercial nature of the Airport vicinity. As shown in **Figures 3.2-8 and 3.2-9**, the character of the Adjacent Property Full-Size Terminal Option would be consistent with the overall character of the Airport.

Figure 3.2-7

Previous Development on the Adjacent Property



Sources: Google Earth, 2016; RS&H, 2016.

The Adjacent Property Full-Size Terminal Option also would result in the removal of the existing passenger terminal, and the existing parking structure in the southeast quadrant of the Airport. These structures would be replaced by the extensions of Taxiways A and C. This change in visual character would be consistent with the existing visual character of the Airport and the development in the Airport vicinity. Therefore, implementation of the Adjacent Property Full-Size Terminal Option would not result in any significant impacts related to visual character.

Construction-related activities would partially be visible by the public from public roadways in the Airport vicinity (e.g., North Hollywood Way, San Fernando Road, Cohasset Street, Thornton Avenue). Graded surfaces, construction materials, equipment, and truck traffic would be visible. Soil would be stockpiled and equipment for grading activities would be staged at various locations. However, visible construction-related activities would be temporary (i.e., only last for the duration of construction) and consistent with development in the Airport vicinity. Therefore, impacts to visual character are considered minimal.

Mitigation Measure ADJ PROP FULL-AESTH-3
No mitigation is warranted.

IMPACT ADJ PROP FULL-AESTH-4: Impacts on Light and Glare

The Adjacent Property Full-Size Terminal Option would include a replacement passenger terminal and parking structures on the northeast quadrant of the Airport. The Proposed Project would increase the size of the terminal by approximately 35%, which would result in a greater amount of light emanating from the interior. Additionally, there would be lighting associated with improvements, such as parking facilities and taxiways. New light sources could be upgraded to light-emitting diode (LED) lighting, which by definition is directional and low energy consumptive. Further, the area has similar lighting with the surrounding industrial and commercial buildings and there are no residential uses in close proximity to the site. Additionally, the Authority would be required to comply with applicable regulations as set forth in the City of Burbank Zoning Ordinance and the FAA to ensure that light and glare would not result in safety hazards. As a result, any change in lighting with the Adjacent Property Full-Size Terminal Option would be less than significant.

There are no light and glare impacts associated with construction activities because no nighttime construction activities will occur.

Mitigation Measure ADJ PROP FULL-AESTH-4
No mitigation is warranted.

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Figure 3.2-8

Massing Diagram for the Adjacent Property Full-Size Terminal Option from Ground Level

Sources: Google Earth, 2016; Millard Lee, 2016; RS&H, 2016.

Figure 3.2-9

Aerial View of Massing Diagram for the Adjacent Property Full-Size Terminal Option

Sources: Google Earth, 2016; Miller Lee, 2016; RS&H, 2016

Cumulative Impacts

IMPACT ADJ PROP FULL-AESTH-5: Cumulative Impacts on Aesthetics

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Any potential future development in the area, in combination with the Adjacent Property Full-Size Terminal Option, would change the setting from older urban uses to newer urban uses, at roughly similar intensities. This change is not considered significant in light of the in-fill nature of these developments.

The Proposed Project is consistent with the *Burbank2035 General Plan* Open Space and Conservation Element, which identifies prominent ridgelines and slopes such as the Verdugo Mountains, and protects them as visual resources. Given the location of the Replacement Terminal when combined with other potential future development in the area, would not block viewing areas of any visual resources. In addition, *Burbank2035* specifies that new development must be consistent with the existing neighborhood character. The Replacement Terminal would be consistent with surrounding Airport uses and visual character, and the Adjacent Property would be consistent with the industrial and commercial character of the adjacent streets.

Light sources from potential future development in the area, in combination with the Adjacent Property Full-Size Terminal Option would increase light and glare in the area. However, given the industrial and commercial development in the Airport area, the increase is considered compatible.

In addition, similar to the Adjacent Property Full-Size Terminal Option, any future projects in the Airport vicinity would be reviewed for consistency with adopted land use plans and policies by the cities of Burbank and Los Angeles, as appropriate. In addition, future projects are anticipated to be consistent with applicable General Plan, Zoning Ordinances, and development standards or be subject to an allowable exception, and further, would be subject to CEQA, mitigation requirements, and design review. As a result, this development option will not have a cumulatively considerable contribution to any cumulative impact.

Mitigation Measure ADJ PROP FULL-AESTH-5
No mitigation is warranted.

3.2.3.2 SOUTHWEST QUADRANT FULL-SIZE TERMINAL OPTION

Project Impacts

IMPACT SW QUAD FULL-AESTH-1: Impacts on Scenic Vistas

The Southwest Quadrant Full-Size Terminal Option would result in the development of a two-story replacement passenger terminal, multi-story parking structures, and other ancillary facilities in the southwest quadrant of the Airport. In addition, the Southwest Quadrant Full-Size Terminal Option would include the construction of general aviation hangars an aircraft rescue and firefighting facility in the northeast quadrant of the Airport and the construction of an air freighter facility in the northwest quadrant of the Airport. The southwest quadrant of the Airport currently contains Airport structures and facilities of similar height to the proposed development structures. Additionally, the majority of the Replacement Terminal would be on the first floor of the two-story structure. The location and the design of the Replacement Terminal combined with the previously-disturbed views from surrounding multi-story commercial and industrial buildings, existing scenic vistas in the Airport vicinity would not be blocked. Therefore, construction of the Southwest Quadrant Full-Size Terminal Option would have no effect on existing scenic vistas.

Construction-related activities would partially be visible by the public from public roadways in the Airport vicinity (e.g., Vanowen Street, Sherman Way and Empire Avenue). Graded surfaces, construction materials, equipment, truck traffic, and lighting (for nighttime airfield construction) would be visible. Soil would be stockpiled and equipment for grading activities would be staged at various locations. However, visible construction-related activities would be temporary (i.e., only last for the duration of construction). Additionally, there are several existing multi-story commercial and industrial buildings and residences in the vicinity of the Airport that currently block scenic views. Therefore, impacts to scenic vistas are considered minimal.

Mitigation Measure SW QUAD FULL-AESTH-1
No mitigation is warranted.

IMPACT SW QUAD FULL-AESTH-2: Impacts on Scenic Resources

The southwest quadrant of the Airport includes Hangars 1 and 2, which are considered to be scenic resources because they are historic (see **Section 3.6**). Hangar 1 is intended to be reused as the air cargo building. However, Hangar 2 would not be retained or reused. The demolition or removal of Hangar 2 would result in the loss of an existing scenic resource. This would be a significant impact of the Southwest Quadrant Full-Size Terminal Option.

The Portal of the Folded Wings shrine to Aviation and Museum is the closest scenic resource to the Airport. As mentioned in **Section 3.2.2.2**, there are several land uses that exist between the southwest quadrant and this scenic resource (e.g., commercial development, residential areas, Pierce Brothers Valhalla Memorial Park). Therefore impacts on this scenic resource is less than significant.

The Airport is not within the vicinity of a scenic route. Therefore, impacts on scenic routes for the Southwest Quadrant Full-Size Terminal Option would be less than significant.

Mitigation Measure SW QUAD FULL-AESTH-2 (same as SW QUAD FULL-CULT-4C)
Hangar 2 would be moved to another location on Airport property. A Relocation and Rehabilitation Plan shall be commissioned by the Authority and developed by a qualified historic preservation consultant. The Plan shall include relocation methodology recommended by the National Park Service (NPS). The Plan shall include an assessment of the condition of Hangar 2 by a qualified engineer, and a shoring plan for relocation and storage, and relocation to the final site. If temporary storage is required, the storage conditions should closely follow the recommendations of *NPS Preservation Brief 31: Mothballing Historic Buildings* with regard to recommendations for structural stabilization, pest control, protection against vandalism, fire, and moisture, adequate ventilation which should be applied to the hangars at the temporary storage location to ensure the safety of the building during storage. A periodic maintenance and monitoring plan shall also be included in the Plan and implemented during the storage period in accordance with the guidance outlined in *NPS Preservation Brief 31*. The Relocation and Rehabilitation Plan shall be reviewed and approved by the project building officer prior to its implementation.

Upon relocation of Hangar 2 to the new site, any maintenance, repair, stabilization, rehabilitation, preservation, conservation, or reconstruction work performed in conjunction with the relocation of the hangars shall be undertaken in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Properties. In addition, a plaque describing the date of the move and the original location shall be placed in a visible location on Hangar 2. The removal, storage, relocation and rehabilitation process shall be monitored by a qualified historic preservation consultant at key intervals to ensure conformance with the Standards and NPS guidelines. The preservation consultant shall also be available to provide technical expertise to reduce potential impacts to historical resources from unforeseen circumstances.

Significance after Mitigation: Implementation of Mitigation Measure SW QUAD FULL-AESTH-3 would reduce the impact related to scenic resources to a less-than-significant level.

IMPACT SW QUAD FULL-AESTH-3: Impacts on Visual Character of Airport Vicinity

The southwest quadrant of the Airport currently includes general aviation and air freighter facilities. Proposed structures under the Southwest Quadrant Full-Size Terminal Option would include a replacement passenger terminal, multi-story parking structures, and other ancillary facilities. While views across the southwest quadrant would be modified from their existing condition, the Southwest Quadrant Full-Size Terminal Option would be consistent with historical and existing development at the Airport and would not be considered a degradation of the visual character of the site or urban industrial/commercial nature of the Airport vicinity. As shown in **Figures 3.2-10 and 3.2-11**, the character of the Southwest Quadrant Full-Size Terminal Option would be consistent with the overall character of the Airport.

The northeast quadrant currently includes the air traffic control tower, surface parking lots, and undeveloped property. Although the existing visual character of the northeast quadrant would be altered with the construction of the aircraft rescue and firefighting facility and general aviation hangars, the northeast quadrant is not natural open space and has been previously developed with a variety of industrial and office uses. While views across the northeast quadrant would be modified from their existing condition, the Southwest Quadrant Full-Size Terminal Option would be consistent with historical development at the Airport and would not be considered a degradation of the visual character of the site or urban industrial/commercial nature of the Airport vicinity.

The Southwest Quadrant Full-Size Terminal Option also would result in the removal of the existing passenger terminal, and the existing parking structure in the southeast quadrant of the Airport. These structures would be replaced by the extensions of Taxiways A and C. This change in visual character would be consistent with the existing visual character of the Airport and the development in the Airport vicinity. Therefore, implementation of the Southwest Quadrant Full-Size Terminal Option would not result in any significant impacts related to visual character.

Construction-related activities would partially be visible by the public from public roadways in the Airport vicinity (e.g., Vanowen Street, Sherman Way and Empire Avenue). Graded surfaces, construction materials, equipment, and truck traffic would be visible. Soil would be stockpiled and equipment for grading activities would be staged at various locations. However, visible construction-related activities would be temporary (i.e., only last for the duration of construction) and consistent with development in the Airport vicinity. Therefore, impacts to visual character are considered minimal.

Mitigation Measure SW QUAD FULL-AESTH-3
No mitigation is warranted.

IMPACT SW QUAD FULL-AESTH-4: Impacts on Light and Glare

The Southwest Quadrant Full-Size Terminal Option would include a replacement passenger terminal and parking structures on the southwest quadrant of the Airport, general aviation facilities in the northeast quadrant of the Airport, and air freighter facilities in the northwest quadrant of the Airport. The Proposed Project would increase the size of the terminal by approximately 35%, which would result in a greater amount of light emanating from the interior. Additionally, there would be lighting associated with improvements, such as parking facilities and taxiways. These facilities would include lighting for security and safety purposes. New light sources could be upgraded to light-emitting diode (LED) lighting, which by definition is directional and low energy consumptive. Further, the area has similar lighting with the surrounding industrial and commercial buildings in close proximity to the site. Additionally, the Authority would be required to comply with applicable regulations as set forth in the City of Burbank Zoning Ordinance and the FAA to ensure that light and glare would not result in safety hazards. As a result, any change in lighting with the Southwest Quadrant Full-Size Terminal Option would be less than significant.

There are no light and glare impacts associated with construction activities because no nighttime construction activities will occur.

Mitigation Measure SW QUAD FULL-AESTH-4
No mitigation is warranted.

Figure 3.2-10
Massing Diagram for the Southwest Quadrant Full-Size Terminal Option from Ground Level

Sources: Google Earth, 2016; Millard Lee, 2016; RS&H, 2016.

Figure 3.2-11

Aerial View of Massing Diagram for the Southwest Quadrant Full-Size Terminal Option

Sources: Google Earth, 2016; Miller Lee, 2106; RS&H, 2016

Cumulative Impacts

IMPACT SW QUAD FULL-AESTH-5: Cumulative Impacts on Aesthetics

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Any potential future development in the area, in combination with the Southwest Quadrant Full-Size Terminal Option, would change the setting from older urban uses to newer urban uses, at roughly similar intensities. This change is not considered significant in light of the in-fill nature of these developments.

The Proposed Project is consistent with the *Burbank2035 General Plan* Open Space and Conservation Element, which identifies prominent ridgelines and slopes such as the Verdugo Mountains, and protects them as visual resources. Given the location of the Replacement Terminal (i.e., in an area of the Airport where there are current Airport facilities in similar height) when combined with other potential future development in the area, would not block viewing areas of any visual resources. In addition, *Burbank2035* specifies that new development must be consistent with the existing neighborhood character. The Replacement Terminal would be consistent with surrounding Airport uses and visual character, and the Southwest Quadrant would be consistent with the industrial and commercial character of the adjacent streets.

Light sources from potential future development in the area, in combination with the Southwest Quadrant Full-Size Terminal Option would increase light and glare in the area. However, given the commercial, industrial, and residential development in the Airport area, the increase is considered compatible and less than significant.

In addition, similar to the Southwest Quadrant Full-Size Terminal Option, any future projects in the Airport vicinity would be reviewed for consistency with adopted land use plans and policies by the cities of Burbank and Los Angeles, as appropriate. In addition, future projects are anticipated to be consistent with applicable General Plan, Zoning Ordinances, and development standards or be subject to an allowable exception, and further, would be subject to CEQA, mitigation requirements, and development review. As a result, this development option will not have a cumulatively considerable contribution to any cumulative impact.

Mitigation Measure SW QUAD FULL-AESTH-5

No mitigation is warranted.

3.2.3.3 SOUTHWEST QUADRANT SAME-SIZE TERMINAL OPTION

Project Impacts

IMPACT SW QUAD SAME-AESTH-1: Impacts on Scenic Vistas

The Southwest Quadrant Same-Size Terminal Option would result in the development of a two-story replacement passenger terminal, multi-story parking structures, and other ancillary facilities in the southwest quadrant of the Airport. In addition, the Southwest Quadrant Same-Size Terminal Option would include the construction of an air freighter facility in the northwest quadrant of the Airport, which already contain structures similar in height. The southwest quadrant of the Airport currently contains Airport structures and facilities of similar height to the proposed development structures. Additionally, the Replacement Terminal would be a one story structure. The location and the design of the Replacement

Terminal combined with the previously-disturbed views from surrounding multi-story industrial, commercial, and residential buildings, existing scenic vistas in the Airport vicinity would not be blocked. Therefore, construction of the Southwest Quadrant Same-Size Terminal Option would have no effect on existing scenic vistas.

Construction-related activities would partially be visible by the public from public roadways in the Airport vicinity (e.g., Vanowen Street, Sherman Way and Empire Avenue). Graded surfaces, construction materials, equipment, truck traffic, and lighting (for nighttime airfield construction) would be visible. Soil would be stockpiled and equipment for grading activities would be staged at various locations. However, visible construction-related activities would be temporary (i.e., only last for the duration of construction). Additionally, there are several existing multi-story commercial buildings and residences in the vicinity of the Airport that currently block scenic views. Therefore, impacts to scenic vistas are considered minimal.

Mitigation Measure SW QUAD SAME-AESTH-1
No mitigation is warranted.

IMPACT SW QUAD SAME-AESTH-2: Impacts on Scenic Resources

The southwest quadrant of the Airport includes Hangars 1 and 2, which are considered to be scenic resources because they are historic (see **Section 3.6**). Hangar 1 is intended to be reused as the air cargo building. However, Hangar 2 would not be retained or reused. The demolition or removal of Hangar 2 would result in the loss of an existing scenic resource. This would be a significant impact of the Southwest Quadrant Same-Size Terminal Option.

The Portal of the Folded Wings shrine to Aviation and Museum is the closest scenic resource to the Airport. As mentioned in **Section 3.2.2.2**, there are several land uses that exist between the southwest quadrant and this scenic resource (e.g., commercial development, residential areas, Pierce Brothers Valhalla Memorial Park). Therefore impacts on this scenic resource is less than significant.

The Airport is not within the vicinity of a scenic route. Therefore, impacts on scenic routes for the Southwest Quadrant Same-Size Terminal Option would be less than significant.

Mitigation Measure SW QUAD SAME-AESTH-2
Hangar 2 would be moved to another location on Airport property. A Relocation and Rehabilitation Plan shall be commissioned by the Authority and developed by a qualified historic preservation consultant. The Plan shall include relocation methodology recommended by the National Park Service (NPS). The Plan shall include an assessment of the condition of Hangar 2 by a qualified engineer, and a shoring plan for relocation and storage, and relocation to the final site. If temporary storage is required, the storage conditions should closely follow the recommendations of *NPS Preservation Brief 31: Mothballing Historic Buildings* with regard to recommendations for structural stabilization, pest control, protection against vandalism, fire, and moisture, adequate ventilation which should be applied to the hangars at the temporary storage location to ensure the safety of the building during storage. A periodic maintenance and monitoring plan shall also be included in the Plan and implemented during the storage period in accordance with the guidance outlined in *NPS Preservation Brief 31*. The Relocation and Rehabilitation Plan shall be reviewed and approved by the City of Burbank prior to its implementation.

Upon relocation of Hangar 2 to the new site, any maintenance, repair, stabilization, rehabilitation, preservation, conservation, or reconstruction work performed in conjunction with the relocation of the hangars shall be undertaken in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Properties. In addition, a plaque describing the date of the move and the original location shall be placed in a visible location on Hangar 2. The removal, storage, relocation and rehabilitation process shall be monitored by a qualified historic preservation consultant at key intervals to ensure conformance with the Standards and NPS guidelines. The preservation consultant shall also be available to provide technical expertise to reduce potential impacts to historical resources from unforeseen circumstances.

Significance after Mitigation: Implementation of Mitigation Measure SW QUAD SAME-AESTH-3 would still cause impacts to scenic resources to be significant and unmitigable.

IMPACT SW QUAD SAME-AESTH-3: Impacts on Visual Character of Airport Vicinity

The southwest quadrant of the Airport currently includes general aviation and air freighter facilities. Proposed structures under the Southwest Quadrant Same-Size Terminal Option would include a replacement passenger terminal, multi-story parking structures, and other ancillary facilities. While views across the southwest quadrant would be modified from their existing condition, the Southwest Quadrant Same-Size Terminal Option would be consistent with historical and existing development at the Airport and would not be considered a degradation of the visual character of the site or urban industrial/commercial nature of the Airport vicinity. As shown in **Figure 3.2-12**, the character of the Southwest Quadrant Same-Size Terminal Option would be consistent with the overall character of the Airport.

The Southwest Quadrant Same-Size Terminal Option also would result in the removal of the existing passenger terminal, and the existing parking structure in the southeast quadrant of the Airport. These structures would be replaced by the extensions of Taxiways A and C. This change in visual character would be consistent with the existing visual character of the Airport and the development in the Airport vicinity. Therefore, implementation of the Southwest Quadrant Same-Size Terminal Option would not result in any significant impacts related to visual character.

Construction-related activities would partially be visible by the public from public roadways in the Airport vicinity (e.g., Vanowen Street, Sherman Way and Empire Avenue). Graded surfaces, construction materials, equipment, and truck traffic would be visible. Soil would be stockpiled and equipment for grading activities would be staged at various locations. However, visible construction-related activities would be temporary (i.e., only last for the duration of construction) and consistent with development in the Airport vicinity. Therefore, impacts to visual character are considered minimal.

Mitigation Measure SW QUAD SAME-AESTH-3

No mitigation is warranted.

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Figure 3.2-12

Massing Diagram for the Southwest Quadrant Same-Size Terminal Option

Sources: Google Earth, 2016; Millard Lee, 2016; RS&H, 2016.

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IMPACT SW QUAD SAME-AESTH-4: Impacts on Light and Glare

The Southwest Quadrant Same-Size Terminal Option would include a replacement passenger terminal and parking structures on the southwest quadrant of the Airport and air freighter facilities in the northwest quadrant of the Airport. The Proposed Project would not increase the size of the terminal, however there would be lighting associated with improvements, such as parking facilities and taxiways. These facilities would include lighting for security and safety purposes. New light sources could be upgraded to light-emitting diode (LED) lighting, which by definition is directional and low energy consumptive. Further, the area has similar lighting with the surrounding industrial and commercial buildings in close proximity to the site. Additionally, the Authority would be required to comply with applicable regulations as set forth in the City of Burbank Zoning Ordinance and the FAA to ensure that light and glare would not result in safety hazards. As a result, any change in lighting with the Southwest Quadrant Same-Size Terminal Option would be less than significant.

There are no light and glare impacts associated with construction activities because no nighttime construction activities will occur.

Mitigation Measure SW QUAD SAME-AESTH-4

No mitigation is warranted.

Cumulative Impacts

IMPACT SW QUAD SAME-AESTH-5: Cumulative Impacts on Aesthetics

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Any potential future development in the area, in combination with the Southwest Quadrant Same-Size Terminal Option, would change the setting from older urban uses to newer urban uses, at roughly similar intensities. This change is not considered significant in light of the in-fill nature of these developments.

The Proposed Project is consistent with the *Burbank2035 General Plan* Open Space and Conservation Element, which identifies prominent ridgelines and slopes such as the Verdugo Mountains, and protects them as visual resources. Given the location of the Replacement Terminal (i.e., in an area of the Airport where there are current Airport facilities of similar height) when combined with other potential future development in the area, would not block viewing areas of any visual resources. In addition, *Burbank2035* specifies that new development must be consistent with the existing neighborhood character. The Replacement Terminal would be consistent with surrounding Airport uses and visual character, and the Southwest Quadrant would be consistent with the industrial and commercial character of the adjacent streets.

Light sources from potential future development in the area, in combination with the Southwest Quadrant Same-Size Terminal Option would increase light and glare in the area. However, given the commercial development in the Airport area, the increase is considered compatible.

In addition, similar to the Southwest Quadrant Same-Size Terminal Option, any future projects in the Airport vicinity would be reviewed for consistency with adopted land use plans and policies by the cities of Burbank and Los Angeles, as appropriate. In addition, future projects are anticipated to be consistent with applicable

General Plan, Zoning Ordinances, and development standards or be subject to an allowable exception, and further, would be subject to CEQA, mitigation requirements, and development review. As a result, this development option will not have a cumulatively considerable contribution to any cumulative impact.

Mitigation Measure SW QUAD SAME-AESTH-5
No mitigation is warranted.

3.3 AGRICULTURE AND FORESTRY RESOURCES

3.3.1 Background and Methodology

The purpose of this section is to determine whether implementation of the proposed project would result in significant environmental impacts on agriculture and forestry resources.

3.3.1.1 Regulatory Context

The California Environmental Quality Act (CEQA) requires that the lead agency evaluate the project's potential to affect prime farmland, unique farmland, farmland of statewide importance, farmland of local importance, or farmland protected by the California Land Conservation Act (Williamson Act).[1] Farmlands of concern include all pasturelands, croplands, and forests (even if zoned for development) that are designated as prime, unique, or of statewide or local importance.

CALIFORNIA LAND CONSERVATION ACT (WILLIAMSON ACT)

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, provides financial incentives, through reduced property taxes, to deter the conversion of farmland and open space preserves to other land uses. The act enables local governments to enter into contracts with private landowners to ensure that specific parcels are kept in agricultural or open space use as "agricultural preserves."

CALIFORNIA FARMLAND CONSERVANCY PROGRAM

In 1996, the California Farmland Conservancy Program was established to encourage the permanent conservation of productive agricultural lands in collaboration with local entities. In creating this program, the Legislature recognized the important contribution that farmland makes to the state's food supply as well as the additional benefits that farmland provides (i.e., conserving wildlife habitat, protecting wetlands, and preserving scenic open space).

FOREST LAND AND TIMBERLAND

The California Timberland Productivity Act of 1982 defines "timberland" as "privately owned land, or land acquired for state forest purposes, which is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, and which is capable of growing an average annual volume of wood fiber of at least 15 cubic feet per acre".[2]

3.3.1.2 Significance Thresholds

Implementation of the proposed project would result in a significant impact related to agriculture and forestry resources if it resulted in:

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1 State of California Department of Conservation, Williamson Act Program, available at: http://www.conservation.ca.gov/dlrp/lca/Pages/Index.aspx. Accessed January 19, 2016.

2 California Timberland Productivity Act of 1982, available at: http://www.leginfo.ca.gov/cgi-bin/displaycode?section=gov&group=51001-52000&file=51100-51104. Accessed March 1, 2016.

- AG-1: The conversion of prime farmland, unique farmland, or farmland of statewide importance to non-agricultural use.
- AG-2: A conflict with existing zoning for agricultural use or with a Williamson Act contract.
- AG-3: A conflict with existing zoning for, or cause rezoning of, forest land.
- AG-4: The loss of forest land or conversion of forest land to non-forest use.
- AG-5: A substantial contribution to cumulative impacts on agriculture or forestry resources.

3.3.1.3 Methodologies

The evaluation of impacts related to agriculture and forestry resources involved identifying the locations of designated farmlands, which were obtained through the California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP), to determine if the Airport area contains any designated or protected resources.

3.3.2 Existing Conditions / Environmental Setting

3.3.2.1 Agricultural Uses

In accordance with the California Department of Conservation's FMMP, the Airport does not contain prime farmland, unique farmland, farmland of statewide importance, or farmland of local importance (see **Figure 3.3-1**). In addition, the Airport property is not subject to any Williamson Act contracts.

3.3.2.2 Forestry Resources

The Airport consists primarily of paved surfaces and buildings. As such, no forest resources exist at the Airport. In addition, Burbank does not contain forestry or timberland resources.[3] Therefore, there are no forestry resources are on or near Airport property.

3.3.3 Environmental Impacts and Mitigation Measures

3.3.3.1 ADJACENT PROPERTY FULL-SIZE TERMINAL OPTION

Project Impacts

IMPACT ADJ PROP FULL-AG-1: Impacts on Farmland

Implementation of the Adjacent Property Full-Size Terminal Option would have no effect on prime farmland, unique farmland, farmland of statewide importance, or farmland of local importance, as identified through the California Department of Conservation's FMMP.

Mitigation Measure ADJ PROP FULL-AG-1

No mitigation is warranted.

3 City of Burbank, *Burbank2035 General Plan,* Section 6.2, Agriculture and Forestry Resources (2013).

IMPACT ADJ PROP FULL-AG-2: Impacts on Zoning for Agricultural Use or with a Williamson Act Contract

No agricultural use zoning or Williamson Act contracts exist at the Airport. Therefore, implementation of the Adjacent Property Full-Size Terminal Option would have no effect on zoning for agricultural use or properties subject to the Williamson Act.

Figure 3.3-1

Designated Farmland in the Airport Vicinity

Source: California Department of Conservation, Farmland Mapping and Monitoring Program, 2016.
Prepared by: RS&H, 2016.

Mitigation Measure ADJ PROP FULL-AG-2

No mitigation is warranted.

IMPACT ADJ PROP FULL-AG-3: Impacts on Zoning for Forest Land

No zoning for forest land exists at the Airport. Therefore, implementation of the Adjacent Property Full-Size Terminal Option would have no effect on zoning for forest land.

Mitigation Measure ADJ PROP FULL-AG-3
No mitigation is warranted.

IMPACT ADJ PROP FULL-AG-4: Impacts on Forest Land
Because no forest land is present in the Airport vicinity, implementation of the Adjacent Property Full-Size Terminal Option would have no effect on forest land.

Mitigation Measure ADJ PROP FULL-AG-4
No mitigation is warranted.

Cumulative Impacts

IMPACT ADJ PROP FULL-AG-5: Cumulative Impacts on Agriculture and Forestry Resources
The other projects in the vicinity of the Airport are presented in **Section 3.1**. Because, as discussed above, the Adjacent Property Full-Size Terminal Option would have no significant effect on agriculture or forestry resources, any incremental effect in this regard would not be cumulatively considerable.

Mitigation Measure ADJ PROP FULL-AG-5
No mitigation is warranted.

3.3.3.2 SOUTHWEST QUADRANT FULL-SIZE TERMINAL OPTION

Project Impacts

IMPACT SW QUAD FULL-AG-1: Impacts on Farmland
Implementation of the Southwest Quadrant Full-Size Terminal Option would have no effect on prime farmland, unique farmland, farmland of statewide importance, or farmland of local importance, as identified through the California Department of Conservation's FMMP.

Mitigation Measure SW QUAD FULL-AG-1
No mitigation is warranted.

IMPACT SW QUAD FULL-AG-2: Impacts on Zoning for Agricultural Use or with a Williamson Act Contract
No agricultural use zoning or Williamson Act contracts exist at the Airport. Therefore, implementation of the Southwest Quadrant Full-Size Terminal Option would have no effect on zoning for agricultural use or properties subject to the Williamson Act.

Mitigation Measure SW QUAD FULL-AG-2
No mitigation is warranted.

IMPACT SW QUAD FULL-AG-3: Impacts on Zoning for Forest Land
No zoning for forest land exists at the Airport. Therefore, implementation of the Southwest Quadrant Full-Size Terminal Option would have no effect on zoning for forest land.

Mitigation Measure SW QUAD FULL-AG-3
No mitigation is warranted.

IMPACT SW QUAD FULL-AG-4: Impacts on Forest Land
Because no forest land is present in the Airport vicinity, implementation of the Southwest Quadrant Full-Size Terminal Option would have no effect on forest land.

Mitigation Measure SW QUAD FULL-AG-4
No mitigation is warranted.

Cumulative Impacts

IMPACT SW QUAD FULL-AG-5: Cumulative Impacts on Agriculture and Forestry Resources
The other projects in the vicinity of the Airport are presented in **Section 3.1**. Because, as discussed above, the Southwest Quadrant Full-Size Terminal Option would have no significant effect on agriculture or forestry resources, any incremental effect in this regard would not be cumulatively considerable.

Mitigation Measure SW QUAD FULL-AG-5
No mitigation is warranted.

3.3.3.3 SOUTHWEST QUADRANT SAME-SIZE TERMINAL OPTION

IMPACT SW QUAD SAME-AG-1: Impacts on Farmland
Implementation of the Southwest Quadrant Same-Size Terminal Option would have no effect on prime farmland, unique farmland, farmland of statewide importance, or farmland of local importance, as identified through the California Department of Conservation's FMMP.

Mitigation Measure SW QUAD SAME-AG-1
No mitigation is warranted.

IMPACT SW QUAD SAME-AG-2: Impacts on Zoning for Agricultural Use or with a Williamson Act Contract
No agricultural use zoning or Williamson Act contracts exist at the Airport. Therefore, implementation of the Southwest Quadrant Same-Size Terminal Option would have no effect on zoning for agricultural use or properties subject to the Williamson Act.

Mitigation Measure SW QUAD SAME-AG-2
No mitigation is warranted.

IMPACT SW QUAD SAME-AG-3: Impacts on Zoning for Forest Land
No zoning for forest land exists at the Airport. Therefore, implementation of the Southwest Quadrant Same-Size Terminal Option would have no effect on zoning for forest land.

Mitigation Measure SW QUAD SAME-AG-3
No mitigation is warranted.

IMPACT SW QUAD SAME-AG-4: Impacts on Forest Land

Because no forest land is present in the Airport vicinity, implementation of the Southwest Quadrant Same-Size Terminal Option would have no effect on forest land.

Mitigation Measure SW QUAD SAME-AG-4

No mitigation is warranted.

Cumulative Impacts

IMPACT SW QUAD SAME-AG-5: Cumulative Impacts on Agriculture and Forestry Resources

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Because, as discussed above, the Southwest Quadrant Same-Size Terminal Option would have no significant effect on agriculture or forestry resources, any incremental effect in this regard would not be cumulatively considerable.

Mitigation Measure SW QUAD SAME-AG-5

No mitigation is warranted.

3.4 AIR QUALITY

3.4.1 Background and Methodology

3.4.1.1 Regulatory Context

A number of statutes, regulations, plans, and policies have been adopted that address air quality issues. The Airport is subject to air quality regulations developed and implemented at the federal, state, and local levels. This section provides a summary of pertinent air quality regulations affecting the Airport at the federal, state, and local levels.

FEDERAL

The federal Clean Air Act of 1963 was the first federal legislation regarding air pollution control and has been amended numerous times in subsequent years, with the most recent amendments occurring in 1990. At the federal level, the U.S. EPA is responsible for implementation of certain portions of the Clean Air Act including mobile source requirements. Other portions of the Clean Air Act, such as stationary source requirements, are implemented by state and local agencies.

The Clean Air Act establishes federal air quality standards, known as National Ambient Air Quality Standards (NAAQS) and specifies future dates for achieving compliance. The Clean Air Act also mandates that the State submit and implement a State Implementation Plan for areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met. The 1990 amendments to the Clean Air Act identify specific emission reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones. The sections of the Clean Air Act which are most applicable to the Airport include attaining NAAQS for the following criteria pollutants: (1) O_3; (2) NO_2; (3) CO; (4) SO_2; (5) PM_{10}; and (6) lead. The NAAQS were amended in July 1997 to include an 8-hour standard for O_3 and to adopt a NAAQS for $PM_{2.5}$. **Table 3.4-1**, *Ambient Air Quality Standards*, shows the NAAQS currently in effect for each criteria pollutant.

As noted above, the Airport is located within the South Coast Air Basin, which is an area designated as nonattainment because it does not currently meet NAAQS for certain pollutants regulated under the Clean Air Act. The Clean Air Act sets certain deadlines for meeting the NAAQS within the Air Basin including the following: (1) 1-hour O_3 by the year 2010; (2) 8-hour O_3 by the year 2024;[1] (3) PM_{10} by the year 2006; and (4) $PM_{2.5}$ by the year 2015. Nonattainment designations are categorized into seven levels of severity: (1) basic, (2) marginal, (3) moderate, (4) serious, (5) severe-15, (6) severe-17, and (7) extreme.[2] On June 11,

1 The 8-hour ozone attainment deadline for the 1997 standard of 80 parts per billion is 2024. The 8-hour ozone attainment deadline for the 2008 standard of 75 parts per billion is 2032.

2 The "-15" and "-17" designations reflect the number of years within which attainment must be achieved.

2007, the U.S. EPA reclassified the Air Basin as a federal "attainment" area for CO and approved the CO maintenance plan for the Air Basin. (Federal Register, 2007) The Air Basin previously exceeded the NAAQS for PM_{10}, but has met the NAAQS at all monitoring stations and the U.S. EPA approved the request for re-designation to attainment effective July 26, 2013. (Federal Register, 2007) The Air Basin does not meet the NAAQS for O_3 and $PM_{2.5}$ and is classified as being in nonattainment for these pollutants. The Los Angeles County portion of the Air Basin is designated as nonattainment for lead; however, this is due to localized emissions from two lead-acid battery recycling facilities located in the city of Vernon and the city of Industry, which are the only two lead-acid battery recycling facilities in Los Angeles County. (SCAQMD Agenda 30, 2012). The attainment status of the Los Angeles County portion of the Air Basin with respect to the NAAQS is summarized in **Table 3.4-2**, *South Coast Air Basin Attainment Status (Los Angeles County)*.

Table 3.4-1
Ambient Air Quality Standards

Pollutant	**Average Time**	**California Standards [a]**		**National Standards [b]**		
		Concentration [c]	**Method [d]**	**Primary [c,e]**	**Secondary [c,f]**	**Method [g]**
O_3 [h]	1 Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m³)		0.070 ppm (137 µg/m³)		
NO_2 [i]	1 Hour	0.18 ppm (339 µg/m³)	Gas Phase Chemi-luminescence	100 ppb (188 µg/m³)	None	Gas Phase Chemi-luminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)		53 ppb (100 µg/m³)	Same as Primary Standard	
CO	1 Hour	20 ppm (23 mg/m³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m³)	None	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10mg/m³)		9 ppm (10 mg/m³)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)		—	—	
SO_2 [j]	1 Hour	0.25 ppm (655 µg/m³)	Ultraviolet Fluorescence	75 ppb (196 µg/m³)	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)[9]
	3 Hour	—		—	0.5 ppm (1300 µg/m³)	
	24 Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas)[j]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) [j]	—	
PM_{10} [k]	24 Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		—		
$PM_{2.5}$ [k]	24 Hour	No Separate State Standard		35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12.0 µg/m³ [k]	15 µg/m³	
Lead [l,m]	30 Day Average	1.5 µg/m³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m³ (for certain areas)[m]	Same as Primary Standard	

Pollutant	Average Time	California Standards [a]		National Standards [b]		
		Concentration [c]	Method [d]	Primary [c,e]	Secondary [c,f]	Method [g]
	Rolling 3-Month Average [m]	--		0.15 μg/m^3		
Visibility Reducing Particles [n]	8 Hour	Extinction coefficient of 0.23 per kilometer — visibility of ten miles or more (0.07 — 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		**No Federal Standards**		
Sulfates (SO_4)	24 Hour	25 μg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 μg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride [l]	24 Hour	0.01 ppm (26 μg/m^3)	Gas Chromatography			

[a] California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[b] National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 micrograms/per cubic meter (μg/m^3) is equal to or less than one. For $PM_{2.5}$, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

[c] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[d] Any equivalent procedure which can be shown to the satisfaction of the California Air Resources Board to give equivalent results at or near the level of the air quality standard may be used.

[e] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[f] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[g] Reference method as described by the USEPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the USEPA.

[h] On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[i] To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb.

[j] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated non-attainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Pollutant	Average Time	California Standards [a]		National Standards [b]		
		Concentration [c]	Method [d]	Primary [c,e]	Secondary [c,f]	Method [g]

[k] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3.

[l] The California Air Resources Board has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[m] The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m^3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated non-attainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

[n] In 1989, the California Air Resources Board converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Source: CARB Ambient Air Quality Standards, 2015.

Table 3.4-2

South Coast Air Basin Attainment Status (Los Angeles County)

Pollutant	National Standards	California Standards
O_3 (1-hour standard)	N/A [a]	Nonattainment – Extreme
O_3 (8-hour standard)	Nonattainment – Extreme	Nonattainment
CO	Attainment	Attainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
PM_{10}	Attainment	Nonattainment
$PM_{2.5}$	Nonattainment	Nonattainment
Lead	Nonattainment	Attainment
Visibility Reducing Particles	N/A	Unclassified
Sulfates	N/A	Attainment
Hydrogen Sulfide	N/A	Unclassified
Vinyl Chloride	N/A	N/A [b]

N/A = not applicable

[a] *The NAAQS for 1-hour ozone was revoked on June 15, 2005, for all areas except Early Action Compact areas.*

[b] *In 1990 the California Air Resources Board identified vinyl chloride as a toxic air contaminant and determined that it does not have an identifiable threshold. Therefore, the California Air Resources Board does not monitor or make status designations for this pollutant.*

Source: U.S. EPA Green Book, 2015; CARB Area Designations, 2015.

Title II of the federal Clean Air Act pertains to mobile sources, such as cars, trucks, buses, and planes. Reformulated gasoline, automobile pollution control devices, and vapor recovery nozzles on gas pumps are a few of the mechanisms the U.S. EPA uses to regulate mobile air emission sources. The provisions of Title II have resulted in tailpipe emission standards for vehicles, which have strengthened in recent years to improve air quality. For example, the standards for NO_X emissions have been lowered substantially, and the specification requirements for cleaner burning gasoline are more stringent.

STATE

California Clean Air Act

The California Clean Air Act, signed into law in 1988, requires all areas of the state to achieve and maintain the California Ambient Air Quality Standards (CAAQS) by the earliest practical date. The CAAQS apply to the same criteria pollutants as the federal Clean Air Act but also include State-identified criteria pollutants, which include sulfates, visibility-reducing particles, hydrogen sulfide, and vinyl chloride. California Air Resources Board (CARB) has primary responsibility for ensuring the implementation of the California Clean Air Act, (CARB Clean Air, 1988) responding to the federal Clean Air Act planning requirements applicable to the State, and regulating emissions from motor vehicles and consumer products within the state. Table 3.4-2 shows the CAAQS currently in effect for each of the criteria pollutants as well as the other pollutants recognized by the State. As shown in Table 3.4-2, the CAAQS include more stringent standards than the NAAQS for most of the criteria air pollutants.

Health and Safety Code Section 39607(e) requires CARB to establish and periodically review area designation criteria. Table 3.4-2 provides a summary of the attainment status of the Los Angeles County portion of the Air Basin with respect to the State standards. The Air Basin is designated as attainment for the California standards for sulfates and unclassified for hydrogen sulfide and visibility-reducing particles. Because vinyl chloride is a carcinogenic toxic air contaminant, the CARB does not classify attainment status for this pollutant.

California Air Resources Board Air Quality and Land Use Handbook

CARB published the *Air Quality and Land Use Handbook* in April 2005 to serve as a general guide for considering impacts on sensitive receptors from facilities that emit TAC emissions. (CARB Land Use, 2005) The recommendations provided therein are voluntary and do not constitute a requirement or mandate for either land use agencies or local air districts. The goal of the guidance document is to protect sensitive receptors—such as children, the elderly, acutely ill, and chronically ill persons—from exposure to TAC emissions. Some examples of CARB's siting recommendations include the following: (1) avoid siting sensitive receptors within 500 feet of a freeway, urban road with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day; (2) avoid siting sensitive receptors within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units per day, or where transport refrigeration unit operations exceed 300 hours per week); and (3) avoid siting sensitive receptors within 300 feet of any dry cleaning operation using perchloroethylene and within 500 feet of operations with two or more such machines.

California Air Resources Board On-Road and Off-Road Vehicle Rules

In 2004, CARB adopted an Airborne Toxic Control Measure (ATCM) to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel PM and other TACs. The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than five minutes at any given time.

In 2008 CARB approved the Truck and Bus regulation to reduce NO_X, PM_{10}, and $PM_{2.5}$ emissions from existing diesel vehicles operating in California. In 2010, CARB amended the Truck and Bus regulation to reduce NO_X, PM_{10}, and $PM_{2.5}$ emissions from existing diesel vehicles operating in California with a gross vehicle weight rating greater than 14,000 pounds. For the largest trucks in the fleet, those with a gross vehicle weight rating greater than 26,000 pounds, fleet owners can either retrofit or replace engines to achieve 2010 engine standards or better by 2023 or they can install diesel particulate filters achieving at least 85 percent removal efficiency fleetwide by January 1, 2016 and attain 2010 engine standards or better for NO_X by 2020.

In addition to limiting exhaust from idling trucks, CARB adopted regulation in 2007 that addresses emission standards for off-road diesel construction equipment of greater than 25 horsepower, such as bulldozers, loaders, backhoes, and forklifts, by installing diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission controlled models. Implementation is staggered based on fleet size (which is the total of all off-road horsepower under common ownership or control), with the largest fleets to begin compliance by January 1, 2014. Each fleet must demonstrate compliance through either calculating and maintaining fleet average emissions targets or meeting the Best Available Control Technology (BACT) requirements by turning over or installing Verified Diesel Emission Control Strategies (e.g., engine retrofits) on a certain percentage of its total fleet horsepower by 2023 for large and medium fleets or by 2028 for small fleets.

LOCAL

South Coast Air Quality Management District

The SCAQMD has jurisdiction over air quality planning for all of Orange County, Los Angeles County except for the Antelope Valley, the nondesert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County. The Air Basin is a subregion within SCAQMD jurisdiction. While air quality in the Air Basin has improved, the Air Basin requires continued diligence to meet the air quality standards.

<u>Air Quality Management Plan</u>

The SCAQMD has adopted a series of Air Quality Management Plans (AQMPs) to meet the CAAQS and NAAQS. In December 2012, the SCAQMD adopted the *2012 Air Quality Management Plan*, which incorporates the latest scientific and technological information and planning assumptions, including growth projections from the Southern California Association of Government's (SCAG) *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy*, and updated emission inventory methodologies for various source categories. (SCAQMD AQMP, 2015) The 2012 AQMP is the most recent plan to achieve air quality attainment within the region and builds upon other agencies' plans to achieve federal standards for air quality in the Air Basin. It incorporates a comprehensive strategy aimed at controlling pollution from all sources, including stationary sources, and on-road and off-road mobile sources. The 2012 AQMP builds upon improvements in previous plans, and includes new and changing federal requirements, implementation of new technology measures, and the continued development of economically sound, flexible compliance approaches. In addition, it highlights the significant amount of emission reductions needed and the urgent need to identify additional strategies, especially in the area of mobile sources, to meet all federal criteria pollutant standards within the timeframes allowed under the federal Clean Air Act.

The key undertaking of the 2012 AQMP is to bring the Air Basin into attainment with the NAAQS for the 24-hour $PM_{2.5}$ standard by 2014. It also intensifies the scope and pace of continued air quality improvement efforts toward meeting the 2024 8-hour O_3 standard deadline with new measures designed to reduce reliance on the federal Clean Air Act Section 182(e)(5) long-term measures for NO_X and VOC reductions. The SCAQMD expects exposure reductions to be achieved through implementation of new and advanced control technologies as well as improvement of existing technologies.

The control measures in the 2012 AQMP consist of four components: (1) Air Basinwide and Episodic Short-term $PM_{2.5}$ Measures; (2) Contingency Measures; (3) 8-hour O_3 Implementation Measures; and (4) Transportation and Control Measures provided by the SCAG. In general, the SCAQMD's control strategy for stationary and mobile sources is based on the following approaches: (1) available cleaner technologies; (2) best management practices; (3) incentive programs; (4) development and implementation of zero- near-zero technologies and vehicles and control methods; and (5) emission reductions from mobile sources.

<u>SCAQMD Air Quality Guidance Documents</u>

The *CEQA Air Quality Handbook* was published by the SCAQMD in November 1993 to provide local governments with guidance for analyzing and mitigating project-specific air quality impacts. The *CEQA Air Quality Handbook* provides standards, methodologies, and procedures for conducting air quality analyses in EIRs and was used extensively in the preparation of this analysis. However, the SCAQMD is currently in the process of replacing the *CEQA Air Quality Handbook* with the *Air Quality Analysis Guidance Handbook*. While this process is underway, the SCAQMD recommends that lead agencies avoid using the screening tables in Chapter 6 (Determining the Air Quality Significance of a Project) of the *CEQA Air Quality Handbook*, because the tables were derived using an obsolete version of CARB's mobile source emission factor inventory, and the trip generation characteristics of the land uses identified in these screening tables were based on the fifth edition of the Institute of Transportation Engineer's *Trip Generation Manual*, instead of the most current edition. Additionally, the lead agency should avoid using the on-road mobile source emission factors in Table A9-5-J1 through A9-5-L (EMFAC7EP Emission Factors for Passenger Vehicles and Trucks, Emission Factors for Estimating Material Hauling, and Emission Factors for Oxides of Sulfur and Lead). (SCAQMD CEQA, 1993)

The SCAQMD has published a guidance document called the *Localized Significance Threshold Methodology* for CEQA Evaluations that is intended to provide guidance in evaluating localized effects from mass emissions during construction. (SCAQMD LST, 2008) The SCAQMD adopted additional guidance regarding $PM_{2.5}$ in a document called *Final Methodology to Calculate Particulate Matter (PM)$_{2.5}$ and $PM_{2.5}$ Significance Thresholds*. (SCAQMD PM, 2006) This latter document has been incorporated by the SCAQMD into its CEQA significance thresholds and *Localized Significance Threshold Methodology*.

The SCAQMD has also adopted land use planning guidelines in the Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning, which considers impacts on sensitive receptors from facilities that emit TACs. (SCAQMD Guidance, 2005) The SCAQMD's distance recommendations are the same as those provided by CARB (e.g., a 500-foot siting distance for sensitive land uses proposed in proximity of freeways and high-traffic roads, and the same siting criteria for distribution centers and dry cleaning facilities). The guidance document introduces land use related policies that rely on design and distance parameters to minimize emissions and lower potential health risk. The SCAQMD's guidelines are voluntary initiatives recommended for consideration by local planning agencies.

SCAQMD Rules and Regulations

Several SCAQMD rules adopted to implement portions of the AQMP may apply to the proposed project. For example, SCAQMD Rule 403 requires implementation of best available fugitive dust control measures during active construction periods capable of generating fugitive dust emissions from onsite earth-moving activities, construction/demolition activities, and construction equipment travel on paved and unpaved roads. The Airport may be subject to the following SCAQMD rules and regulations:

Regulation IV – Prohibitions: This regulation sets forth the restrictions for visible emissions, odor nuisance, fugitive dust, various air emissions, fuel contaminants, start-up/shutdown exemptions, and breakdown events. The following is a list of rules which may apply to the Airport:

- **Rule 402 – Nuisance:** This rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
- **Rule 403 – Fugitive Dust:** This rule requires projects to prevent, reduce or mitigate fugitive dust emissions from a site. Rule 403 restricts visible fugitive dust to the project property line, restricts the net PM_{10} emissions to less than 50 micrograms per cubic meter ($\mu g/m^3$) and restricts the tracking out of bulk materials onto public roads. Additionally, projects must utilize 1 or more of the best available control measures (identified in the tables within the rule). Mitigation measures may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering, using chemical stabilizers and/or ceasing all activities. Finally, a contingency plan may be required if so determined by the U.S. EPA.

Regulation XI – Source Specific Standards: Regulation XI sets emissions standards for different specific sources. The following is a list of rules which may apply to the Airport:

- **Rule 1113 – Architectural Coatings:** This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.
- **Rule 1146.1 – Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters:** This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce NO_X emissions from natural gas-fired water heaters, boilers, and process heaters as defined in this rule (greater than 2 million British thermal units [Btu] per hour and less than 5 million Btu per hour).
- **Rule 1146.2 – Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters:** This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce NO_X emissions from natural gas-fired

water heaters, boilers, and process heaters as defined in this rule (less than or equal to 2 million Btu per hour).

- **Rule 1186 – PM_{10} Emissions from Paved and Unpaved Roads, and Livestock Operations:** This rule applies to owners and operators of paved and unpaved roads and livestock operations. The rule is intended to reduce PM_{10} emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads (see also Rule 403).

Regulation XIV – Toxics and Other Noncriteria Pollutants: Regulation XI sets emissions standards for TACs and other noncriteria pollutant emissions. The following is a list of rules which may apply to the Airport:

- **Rule 1402 – Control of Toxic Air Contaminants from Existing Sources:** This rule sets standards for health risk associated with emissions of TACs from existing sources by specifying limits for maximum individual cancer risk (MICR), cancer burden, and noncancer acute and chronic hazard index (HI) applicable to total facility emissions and by requiring facilities to implement risk reduction plans to achieve specified risk limits, as required by the AB 2588 Air Toxics Hot Spots Program and this rule. The rule also specifies public notification and inventory requirements.
- **Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities:** This rule requires owners and operators of any demolition or renovation activity and the associated disturbance of asbestos-containing materials, any asbestos storage facility, or any active waste disposal site to implement work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials. Additional regulatory details, environmental setting, and impacts associated with asbestos are discussed in **Section 3.9**.
- **Rule 1472 – Requirements for Facilities with Multiple Stationary Emergency Standby Diesel-Fueled Internal Combustion Engines:** This rule regulated diesel particulate matter emissions from facilities with three or more stationary emergency standby diesel-fueled internal combustion engines. Facilities which comply with all applicable requirements of Rule 1402, including emissions from diesel engines at the facility, may be exempt from this rule.

Southern California Association of Governments

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial counties and addresses regional issues relating to transportation, the economy, community development, and the environment. SCAG is the federally designated Metropolitan Planning Organization for the majority of the Southern California region. With regard to air quality planning, SCAG adopted the *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy* in April 2012, which addresses regional development and growth forecasts and forms the basis for the land use and transportation control portions of the AQMP. The growth forecasts are utilized in the preparation of the air quality forecasts and consistency analysis included in the AQMP. The Regional Transportation Plan/Sustainable Communities Strategy and AQMP are based on projections originating within local jurisdictions. On April 7, 2016, SCAG adopted the *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy*, which is an update to the 2012-2035 plan. Future updates to the AQMP would use growth projections from the updated plan.

SCAG's Sustainable Communities Strategy provides specific strategies for successful implementation. These strategies include supporting projects that encourage a diverse job opportunities for a variety of skills and education, recreation and culture, and a full-range of shopping, entertainment, and services all within a relatively short distance; encouraging employment development around current and planned transit stations and neighborhood commercial centers; encouraging the implementation of a "Complete Streets" policy that meets the needs of all users of the streets, roads and highways including bicyclists, children, persons with disabilities, motorists, electric vehicles, movers of commercial goods, pedestrians, users of public transportation, and seniors; and supporting alternative fueled vehicles. It is anticipated that SCAG will update the Sustainable Communities Strategy in 2016 and evaluate progress in implementing the strategies.

In 2008, SCAG released the Regional Comprehensive Plan, which addresses regional issues such as housing, traffic/transportation, water, and air quality. The Regional Comprehensive Plan serves as an advisory document to local agencies in the Southern California region for their information and voluntary use for preparing local plans and handling local issues of regional significance. The Regional Comprehensive Plan presents a vision of how Southern California can balance air quality with growth and development by including goals such as: reducing emissions of criteria pollutants to attain federal air quality standards by prescribed dates and stated ambient air quality standards as soon as practicable; reverse current trends in greenhouse gas emissions to support sustainability goals for energy, water supply, agriculture, and other resource areas; and to minimize land uses that increase the risk of adverse air pollution-related health impacts from exposure to TACs, particulates (PM_{10} and $PM_{2.5}$), and CO.

Burbank 2035 General Plan

The *Burbank 2035 General Plan* also contains a number of policies aimed at improving air quality within the city. The *General Plan* was updated in 2013 to set forth objectives, policies, standards, and programs for land use and new development, including clean air goals. Applicable measures of the *Burbank 2035 General Plan* Air Quality and Climate Change Element are specified below as being the most current standards. These measures will be implemented in connection with development of the Airport (Burbank 2035, 2013).

Goal 1: Reduction of Air Pollution

- **Policy 1.3** Continue to participate in the Cities for Climate Protection Program, South Coast Air Quality Management District's (SCAQMD's) Flag Program, SCAQMD's Transportation Programs (i.e., Rule 2202, Employee Rideshare Program), and applicable state and federal air quality and climate change programs.

- **Policy 1.5** Require projects that generate potentially significant levels of air pollutants, such as landfill operations or large construction projects, to incorporate best available air quality and greenhouse gas mitigation in project design.

- **Policy 1.6** Require measures to control air pollutant emissions at construction sites and during soil- disturbing or dust-generating activities (i.e., tilling, landscaping) for projects requiring such activities.

- **Policy 1.9** Encourage the use of zero-emission vehicles, low-emission vehicles, bicycles, and other non-motorized vehicles, and car-sharing programs. Consider requiring sufficient and convenient infrastructure and parking facilities in residential developments and employment centers to accommodate these vehicles.

Goal 2: Sensitive Receptors

- **Policy 2.1** Mitigate emissions from retail food grilling and barbequing (indoor and outdoor) through the use of industry-specific equipment.

- **Policy 2.2** Separate sensitive uses such as residences, schools, parks, and day care facilities from sources of air pollution and toxic chemicals. Provide proper site planning and design features to buffer and protect when physical separation of these uses is not feasible.

- **Policy 2.3** Require businesses that cause air pollution to provide pollution control measures.

3.4.1.2 Significance Thresholds

For purposes of this analysis, implementation of the proposed project would cause a significant air quality impact if it resulted in:

- AIR-1: A conflict with or obstruction of applicable air quality plans of the SCAQMD.
- AIR-2: Construction emissions that violate an air quality standard or have a substantial contribution to an existing or projected air quality violation.
- AIR-3: Operational emissions that violate an air quality standard or have a substantial contribution to an existing or projected air quality violation.
- AIR-4: A substantial contribution to a net increase in any non-attainment criteria pollutant.
- AIR-5: Generation of pollutant emissions that would cause an exceedance of the localized significance thresholds.
- AIR-6: A contribution to an exceedance of CO standards at a sensitive receptor.
- AIR-7: Generation of project-related toxic air contaminants that result in an exceedance in the maximum incremental cancer risk.
- AIR-8: Creation of objectionable odors affecting a substantial number of people.
- AIR-9: A substantial contribution to cumulative air quality impacts.

The SCAQMD has established numerical emission indicators of significance for construction and operation. The numerical emission indicators are based on the recognition that the Air Basin is a distinct geographic area with a critical air pollution problem for which ambient air quality standards have been promulgated to project public health (SCAQMD CEQA, 1993). Based on the indicators in the SCAQMD *CEQA Air Quality Handbook,* specific thresholds are provided for AIR-2, AIR-3, AIR-5, AIR-6, and AIR-7. Therefore, the project would potentially cause or contribute to an exceedance of an ambient air quality standard if any of the following would occur:

- AIR-2: Regional construction emissions from both direct and indirect sources would exceed any of the following SCAQMD prescribed daily emissions thresholds (SCAQMD Thresholds, 2015):

  75 pounds a day for VOC;

  100 pounds per day for NO_X;

  550 pounds per day for CO;

  150 pounds per day for SO_2;

  150 pounds per day for PM_{10}; or

  55 pounds per day for $PM_{2.5}$.

- AIR-3: Operational emissions exceed any of the following SCAQMD prescribed daily regional numeric indicators (SCAQMD Thresholds, 2015; SCAQMD CEQA, 1993):[3]

  55 pounds a day for VOC;

  55 pounds per day for NO_X;

  550 pounds per day for CO;

  150 pounds per day for SO_X;

  150 pounds per day for PM_{10}; or

  55 pounds per day for $PM_{2.5}$.

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[3] *The L.A. CEQA Thresholds Guide also includes a threshold of 10 tons per year of VOCs; however, this is equivalent to the SCAQMD daily threshold of 55 pounds per day.*

- AIR-5: Maximum daily localized emissions of NO_X and/or CO during construction or operations are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the project site greater than the most stringent ambient air quality standards for NO_2 and/or CO (SCAQMD LST, 2008). Maximum daily localized emissions of PM_{10} and/or $PM_{2.5}$ during construction or operations are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the project site to exceed 10.4 $\mu g/m^3$ over 24 hours (SCAQMD Rule 403 control requirement) during construction or 2.5 $\mu g/m^3$ over 24 hours during operations.

- AIR-6: The project would cause or contribute to an exceedance of the CAAQS one-hour or eight-hour CO standards of 20 or 9.0 parts per million (ppm), respectively, at an intersection or roadway within one-quarter mile of a sensitive receptor.

- AIR-7: The project emits carcinogenic materials or TACs that exceed the maximum incremental cancer risk of ten in 1 million or a cancer burden greater than 0.5 excess cancer cases (in areas greater than or equal to 1 in 1 million) or an acute or chronic hazard index of 1.0.

3.4.1.3 Methodologies

The evaluation of potential impacts on local and regional air quality that may result from the construction and long-term operations of the project is conducted as follows.

CONSTRUCTION IMPACTS

Construction of the proposed uses pursuant to the Bob Hope Airport Replacement Terminal Project has the potential to create air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated from construction workers traveling to and from the construction site. Mobile source emissions, primarily NO_X, would result from the use of construction equipment such as bulldozers, wheeled loaders, cranes, and haul trucks.

On-road emissions were evaluated using the latest CARB emission model (EMFAC2014) for vendor and haul trucks. Workers commuting to and from the Site would also generate mobile source emissions from passenger vehicles. Fugitive dust emissions would result from grading soil movement and excavation activities. Evaporative emissions of VOCs would be generated from the application of architectural coatings (i.e., paints) and asphalt paving. The assessment of construction air quality impacts considers each of these potential sources.

Construction is proposed to have two major phases corresponding to the construction of the new terminal in either the northeast or southwest quadrant and the demolition of the existing terminal concurrent with the paving of the taxiway and construction of the Air Cargo Building in either the northeast or southwest quadrant. The construction calculations evaluate the worst-case scenario by overlapping individual phases, but the major phases would not overlap. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions.

Mass daily emissions during construction were calculated using the California Emissions Estimator Model (CalEEMod) (Version 2013.2.2) software, which is an emissions estimation/evaluation model developed in conjunction with SCAQMD and other California Air Districts. CalEEMod was used to assist in quantifying emissions from construction activities for buildout of the proposed project. The model input values used in this analysis were adjusted to be project-specific based on construction equipment types and the construction schedule. For fugitive dust, consistent with Rule 403, water would be applied to disturbed areas of the Site with a control efficiency of 61 percent. Detailed construction equipment lists, construction scheduling, and emissions calculations are provided in **Appendix F** of this Draft EIR. CalEEMod does not include an "airport" land use type. Surrogate land use types were used to represent the emissions from the various structures. For example, the "general office building" land use type was used to represent the terminal building. Hangar, cargo, GSE, and other buildings were modeled as unrefrigerated warehouses or general light industrial buildings.

The potential for localized effects from the onsite portion of daily emissions are evaluated at nearby sensitive receptor locations that could be impacted by the Airport based on the SCAQMD's Localized Significance Threshold (LST) methodology. LSTs are applicable to the following criteria pollutants: NO_X, CO, PM_{10}, and $PM_{2.5}$. The U.S. Environmental Protection Agency (USEPA) and SCAQMD-approved dispersion model, AERMOD version 15181,[4] was used to model the localized impacts of NO_X, CO, PM_{10}, and $PM_{2.5}$ emissions. AERMOD estimates air pollutant concentrations of single or multiple point, area, or volume sources using historical meteorological conditions. Point sources are used to represent emissions from

[4] Lakes Environmental, AERMOD VIEW Software.

stationary sources, such as stacks or vents and take into account buoyancy effects from plume temperature and flow rate and effects from building downwash. Area sources are two-dimensional sources that are used to represent emissions that occur over a wide area. Volume sources are similar to area sources, but are three-dimensional sources of emissions that are used to model emissions from a variety of equipment.

With respect to construction, emissions were modeled as line-volume sources to represent heavy-duty construction equipment operating throughout the site. For the purpose of the dispersion modeling, the maximum daily emissions that could occur due to construction activities from any construction phase were selected for the LST analysis. Construction emissions would occur during the daytime hours and not during the nighttime hours. All construction sources of emissions were located in the active construction and demolition area of the development option, which excludes the area in which the existing operational area of the Airport is located.

Sensitive receptors were represented as Cartesian grid receptors and were placed at 20-meter intervals outside the boundary of the Airport at residential land uses to cover nearby existing and potential future sensitive receptors. Meteorological data from the monitoring station located in Source Receptor Area 7 (East San Fernando Valley) was used in the analysis. The meteorological data were obtained from the SCAQMD website and have been preprocessed using AERMET.[5] AERMET is a meteorological preprocessor for organizing available meteorological data into a format suitable for use in AERMOD air quality dispersion model.[6] These files were also developed by the SCAQMD using site specific surface characteristics (i.e., surface albedo, surface roughness, and Bowen ratio) obtained using AERSURFACE. AERSURFACE is a tool that provides realistic and reproducible surface characteristic values, including albedo, Bowen ratio, and surface roughness length, for input into AERMET.[7] The SCAQMD provides five years of meteorological data files for use in AERMOD (from 2006, 2007, 2009, 2010, and 2011), which is representative of typical meteorological conditions in the Airport area.

The SCAQMD requires that AERMOD be run using U.S. EPA regulatory default options, unless non-default options are justified. AERMOD was run using U.S. EPA regulatory default options including: (1) urban dispersion (Los Angeles County population of 9,862,049, as per SCAQMD guidance); (2) pollutant averaging periods of 1-hour for CO and NO_2, 8-hour for CO, and 24-hour and annual for PM_{10} and $PM_{2.5}$; and (3) building downwash for point sources. The conversion of NO_X emissions to NO_2 concentrations is based on the Ambient Ratio Method (ARM) whereby the model predicted NO_X concentrations are multiplied by a NO_2/NO_X ratio consistent with the USEPA *Guideline on Air Quality Models*, Appendix W to 40 CFR Part 511 (Appendix W).[8] The NO_X to NO_2 conversion is applied only to the modeled concentrations (and not the background concentrations).

5 South Coast Air Quality Management District, Meteorological Sites, http://www.aqmd.gov/home/library/air-quality-data-studies/meteorological-data/aermod-table-1. Accessed October 2015.

6 U.S. Environmental Protection Agency, User's Guide for the AERMOD Meteorological Preprocessor (AERMET), (2004) iv.

7 U.S. Environmental Protection Agency, AERSURFACE User's Guide, (2008) 1.

8 U.S. Environmental Protection Agency, 40 CFR Part 51 – Revision to the Guidance on Air Quality Models: Adoption of a Preferred General Purpose (Flat and Complex Terrain) Dispersion Model and Other Revisions; Final Rule. November 9, 2005.

OPERATIONAL IMPACTS

Operation of the Airport has the potential to generate criteria pollutant emissions from aircraft and vehicle trips traveling to and from the Airport. In addition, emissions would result from area sources such as fossil fuel combustion from landscaping equipment and evaporative loss emissions associated with cleaning and maintenance activities (consumer product usage, solvents, adhesives, coatings, etc.).

The operational emissions were estimated for the earliest buildout year for the alternatives, which provides for a conservative estimate as emission factors tend to decrease over time. Aviation-related emissions, including aircraft landings and take offs (LTOs) were evaluated using the Aviation Environmental Design Tool (AEDT) developed by the Federal Aviation Administration (FAA) to assess the air quality impacts of airport projects. The area source emissions were estimated using CalEEMod. CalEEMod does not include an "airport" land use type. Surrogate land use types were used to represent the emissions from the various structures. For example, the "general office building" land use type was used to represent the terminal building. Hangar, cargo, GSE, and other buildings were modeled as unrefrigerated warehouses or general light industrial buildings. In calculating mobile source emissions (i.e. ground access vehicles [GAV]), emissions were estimated using CARB's on-road vehicle emissions factor (EMFAC) model. The most recent version is EMFAC2014, which "represents ARB's current understanding of motor vehicle travel activities and their associated emission levels."[9] Trip rates and trip length values were based on the data provided by Gibson Transportation and zip code data from the *Bob Hope Airport Ground Access Study Data Collection and Analysis* survey conducted by Unison Consulting, Inc. in 2012 (Unison, 2012) to estimate the total vehicle miles traveled (VMT) associated with GAV.

The localized effects from the onsite portion of daily emissions were evaluated at sensitive receptor locations potentially impacted using the AERMOD dispersion model and the SCAQMD LST methodology similar to the localized construction assessment. Sources of on-site emissions include aircraft LTOs, taxiing, ground support equipment (GSE), and on-site stationary sources of emissions associated with heating, cooling, lighting, and powering buildings.

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[9] *California Air Resources Board, Mobile Source Emissions Inventory, http://www.arb.ca.gov/msei/categories.htm#emfac2014. Accessed March 2016*

TOXIC AIR CONTAMINANTS (CONSTRUCTION AND OPERATIONS)

TAC emissions sources during construction consist of diesel particulate matter (DPM) from construction equipment and operations consist of chemicals from aircraft maintenance and fueling. Sensitive receptor locations are identified and site-specific dispersion modeling was conducted to determine proposed project impacts. Potential TAC impacts are evaluated by conducting a detailed analysis using AERMOD dispersion modeling.

The Office of Environmental Health Hazard Assessment (OEHHA) is responsible for developing and revising guidelines for performing health risk assessments (HRAs) under the State's the Air Toxics Hot Spots Program Risk Assessment (AB 2588) regulation. In March 2015, OEHHA adopted new guidelines that update the previous guidance by incorporating advances in risk assessment with consideration of infants and children using Age Sensitivity Factors (ASF). These changes also take into account the sensitivity of children to TAC emissions, different breathing rates, and time spent at home. Children have a higher breathing rate compared to adults and would likely spend more time at home resulting in longer exposure durations. On June 5, 2015, SCAQMD incorporated these guidelines in to relevant rules designed for permitting of stationary sources.[10] Although construction would be temporary, construction impacts associated with TACs are addressed quantitatively in a refined HRA.

The HRA was performed in accordance with the OEHHA *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments* (OEHHA Guidance).[11] The analysis incorporates the estimated construction emissions, as previously discussed, and dispersion modeling using the USEPA AERMOD model with meteorological data from the closest SCAQMD monitoring station. Sensitive receptors used for modeling were placed at the location of sensitive receptor (i.e., residential) buildings near to the subject property. Heavy-duty equipment and trucks were modeled as volume sources and were located on the subject property and on roadways that trucks would potentially travel on within a 0.25 mile distance of the subject property. Health risk calculations were performed using a spreadsheet tool consistent with the OEHHA Guidance and CARB Hotspots Analysis and Reporting Program (HARP) version 2 spreadsheet methodology. Detailed information about the HRA is provided in **Appendix F** of this Draft EIR.

ODOR IMPACTS

Potential odor impacts are evaluated by conducting a screening-level analysis followed by a more detailed analysis (i.e., dispersion modeling) as necessary. The screening-level analysis consists of reviewing the Airport's site plan and project description to identify new or modified odor sources. If it is determined that the proposed Airport would introduce a potentially significant new odor source, then downwind sensitive receptor locations are identified and site-specific dispersion modeling is conducted to determine proposed project impacts.

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[10] South Coast Air Quality Management District, Minutes of the June 5, 2015 Meeting, http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2015/2015-Jul10-001.pdf?sfvrsn=8, Accessed September 28, 2015

[11] Office of Environmental Health Hazard Assessment, Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments, (2015).

CONSISTENCY WITH AIR QUALITY MANAGEMENT PLAN (CONSTRUCTION AND OPERATIONS)

The SCAQMD is required, pursuant to the Clean Air Act, to reduce emissions of criteria pollutants for which the Air Basin is in nonattainment of the NAAQS (e.g., ozone and $PM_{2.5}$). The SCAQMD's 2012 AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving the NAAQS. These strategies are developed, in part, based on regional growth projections prepared by the SCAG. As part of its air quality planning, SCAG has prepared the Regional Comprehensive Plan and Guide and the *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy*, which provide the basis for the land use and transportation control portions of the AQMP and are used in the preparation of the air quality forecasts and the consistency analysis included in the AQMP. Both the Regional Comprehensive Plan and AQMP are based, in part, on projections originating with county and city general plans.

The 2012 AQMP was prepared to accommodate growth, reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, return clean air to the region, and minimize the impact on the economy. Projects that are considered to be consistent with the assumptions used in the AQMP do not interfere with attainment because the growth is included in the projections utilized in the formulation of the AQMP. Thus, projects, uses, and activities that are consistent with the applicable growth projections and control strategies used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP, even if they exceed the SCAQMD's construction- or operation-specific numeric indicators. The AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. These strategies are developed, in part, based on regional population, housing, and employment projections prepared by SCAG.

3.4.2 Existing Conditions / Environmental Setting

3.4.2.1 Regional Conditions

CRITERIA POLLUTANTS

The Airport is located within the South Coast Air Basin (Air Basin). The Air Basin is an approximately 6,745-square-mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Air Basin consists of Orange County, Los Angeles County (excluding the Antelope Valley portion), and the western nondesert portions of San Bernardino and Riverside counties, in addition to the San Gorgonio Pass area in Riverside County. The terrain and geographical location determine the distinctive climate of the Air Basin, as it is a coastal plain with connecting broad valleys and low hills.

The Air Basin lies in the semi-permanent high-pressure zone of the eastern Pacific Ocean. The usually mild climatological pattern is interrupted by periods of hot weather, winter storms, or Santa Ana winds. The extent and severity of pollutant concentrations in the Air Basin is a function of the area's natural physical characteristics (weather and topography) and man-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and dispersion of pollutants throughout the Air Basin, making it an area of high pollution potential. The Air Basin's meteorological conditions, in combination with regional topography, are conducive to the formation and retention of O_3, which is a secondary pollutant that forms through photochemical reactions in the atmosphere. Thus, the greatest air pollution impacts throughout the Air Basin typically occur from June through September. This condition is generally attributed to the emissions occurring in the Air Basin, light winds, and shallow vertical atmospheric mixing. These factors reduce the potential for pollutant dispersion causing elevated air pollutant levels. Pollutant concentrations in the Air Basin vary with location, season, and time of day. Concentrations of O_3, for example, tend to be lower along the coast, higher in the near inland valleys, and lower in the far inland areas of the Air Basin and adjacent desert.

AIR TOXICS

In addition to criteria pollutants, the South Coast Air Quality Management District (SCAQMD) periodically assesses levels of toxic air contaminants (TACs) in the Air Basin. A TAC is defined by California Health and Safety Code Section 39655:

> *"Toxic air contaminant" means an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health. A substance that is listed as a hazardous air pollutant pursuant to subsection (b) of Section 112 of the federal act (42 U.S.C. Sec. 7412(b)) is a toxic air contaminant.*

July 2012 and June 2013, the SCAQMD conducted the Multiple Air Toxics Exposure Study (MATES IV), which is a follow-up to previous air toxics studies conducted in the Air Basin. The MATES IV Final Report was issued in October 2014. The study, based on actual monitored data throughout the Air Basin, consisted of several elements. The California Environmental Protection Agency Office of Environmental Health Hazard Assessment (OEHHA) has recently updated the methods for estimating cancer risks. (OEHHA, 2015) The new method utilizes higher estimates of cancer potency during early life exposures and uses different assumptions for breathing rates and length of residential exposures. When combined together, SCAQMD staff estimates that risks for the same inhalation exposure level will be about 2.7 times higher using the proposed updated methods. (SCAQMD Agenda 8b, 2015) The study concluded that the average of the modeled air toxics concentrations measured at each of the monitoring stations in the Air Basin equates to a background cancer risk of approximately 1,023 in 1,000,000 (based on the updated 2015 OEHHA risk calculation methodology), with approximately 68 percent of the risk attributed to diesel particulate emissions. (SCAQMD MATES, 2014) Generally, the risk from air toxics is lower near the coastline: it increases inland, with higher risks concentrated near large diesel sources (e.g., freeways, airports, and ports). The study also found lower ambient concentrations of most of the measured air toxics compared to the levels measured in the previous study conducted during 2004 and 2006. Specifically, benzene and 1,3-butadiene, pollutants generated mainly from vehicles, were down 35 percent and 11 percent, respectively. (SCAQMD MATES, 2014) The reductions were attributed to air quality control regulations and improved emission control technologies. In addition to air toxics, MATES IV included continuous measurements of black carbon and ultrafine particles (particles smaller than 0.1 microns in size), which are emitted by combustion of diesel fuels. Sampling sites located near heavily trafficked freeways or near industrial areas were characterized by increased levels of black carbon and ultrafine particles compared to more rural sites.

As part of the MATES IV, the SCAQMD prepared maps that show regional trends in estimated outdoor inhalation cancer risk from toxic emissions, as part of an ongoing effort to provide insight into relative risks. The maps represent the estimated number of potential cancers per million people associated with a lifetime of breathing air toxics (24 hours per day outdoors for 70 years). The Airport spans across portions of four

MATES IV grid spaces. The potential cancers per million people for the two grids are estimated at 997 to 1,205 per million (compared to the Basin average of 1,023 per million). (SCAQMD MATES IV, 2015)

3.4.2.2 Local Conditions

EXISTING POLLUTANT LEVELS AT NEARBY MONITORING STATIONS

The SCAQMD maintains a network of air quality monitoring stations located throughout the Air Basin to measure ambient pollutant concentrations. The monitoring station most representative of the Airport is the Burbank Monitoring Station. Criteria pollutants monitored at this station include O_3, NO_2, SO_2, CO, PM_{10}, and $PM_{2.5}$. The nearest representative station for lead is the Central Los Angeles County Monitoring Station. The most recent data available from the SCAQMD for these monitoring stations are from years 2010 to 2014. (SCAQMD Historical Data, 2015) The pollutant concentration data for these years are summarized in **Table 3.4-3**, *Ambient Air Quality Data*.

Table 3.4-3
Ambient Air Quality Data

Pollutant/Standard	2010	2011	2012	2013	2014
O_3 (1-hour)					
Maximum Concentration (ppm)	0.111	0.120	0.117	0.110	0.091
Days > CAAQS (0.09 ppm)	3	8	8	4	0
O_3 (8-hour)					
Maximum Concentration (ppm)	0.084	0.084	0.088	0.083	0.079
4th High 8-hour Concentration (ppm)	0.076	0.081	0.081	0.079	0.069
Days > CAAQS (0.070 ppm)	11	10	15	17	2
Days > NAAQS (0.075 ppm)	4	6	8	6	1
NO_2 (1-hour)					
Maximum Concentration (ppm)	0.08	0.07	0.08	0.07	0.07
98th Percentile Concentration (ppm)	0.06	0.06	0.06	0.06	0.07
Days > CAAQS (0.18 ppm)	0	0	0	0	0
NO_2 (Annual)					
Annual Arithmetic Mean (0.030 ppm)	0.0241	0.022	0.022	0.020	0.022
CO (1-hour)					
Maximum Concentration (ppm)	3.0	--	--	--	3.0
Days > CAAQS (20 ppm)	0	--	--	--	0
Days > NAAQS (35 ppm)	0	--	--	--	0
CO (8-hour)					
Maximum Concentration (ppm)	2.4	2.4	2.4	2.4	3.0
Days > CAAQS (9.0 ppm)	0	0	0	0	0
Days > NAAQS (9 ppm)	0	0	0	0	0
SO_2 (1-hour)					
Maximum Concentration (ppm)	0.015	0.009	0.006	0.011	0.005
99th Percentile Concentration (ppm)	--	0.005	0.003	0.004	0.004
Days > CAAQS (0.25 ppm)	0	0	0	0	0
Days > NAAQS (0.075 ppm)	0	0	0	0	0
SO_2 (24-hour)					
Maximum Concentration (ppm)	0.004	–	–	–	–
Days > CAAQS (0.04 ppm)	0	–	–	–	–
Days > NAAQS (0.14 ppm)	0	–	–	–	–

Table 3.4-3
Ambient Air Quality Data (cont.)

Pollutant/Standard	2010	2011	2012	2013	2014
PM_{10} (24-hour)					
Maximum Concentration (µg/m^3)	51	61	55	52	60
Samples > CAAQS (50 µg/m^3)	1(1.8%)	2(4%)	1	1(2%)	1
Samples > NAAQS (150 µg/m^3)	0	0	0	0	0
PM_{10} (Annual Average)					
Annual Arithmetic Mean (20 µg/m^3)	29.6	28.4	26.4	28.5	31.2
$PM_{2.5}$ (24-hour)					
Maximum Concentration (µg/m^3)	43.7	47.8	54.2	45.1	–
98th Percentile Concentration (µg/m^3)	31.8	33.5	28.2	30.4	–
Samples > NAAQS (35 µg/m^3)	4(1.2%)	5(1.6%)	2	4(1.2%)	–
$PM_{2.5}$ (Annual)					
Annual Arithmetic Mean (12 µg/m^3)	12.5	13.2	12.2	12.2	–
Lead					
Maximum 30-day average (µg/m^3)	0.020	0.012	0.014	0.013	0.013
Samples > CAAQS (1.5 µg/m^3)	0	0	0	0	0

Notes: ppm = parts per million; µg/m^3 = micrograms per cubic meter

Sources: SCAQMD Historical Data, 2015; CARB AQ Data, 2015; U.S. EPA AirData, 2015.

SENSITIVE RECEPTORS AND LOCATIONS

Certain population groups, such as children, elderly, and acutely and chronically ill persons (especially those with cardio-respiratory diseases), are considered more sensitive to the potential effects of air pollution than others.

For the Adjacent Property Full-Size Terminal Option, sensitive receptors for air quality include the following:

- Single-Family Residential Areas: Homes are located to the north of the northwest quadrant at a distance of approximately 410 feet from the closest edge of the Aircraft Rescue and Fire Fighting (ARFF) Station demolition site in the northwest quadrant. Homes are also located to the north and northeast of the northeast quadrant at a distance of approximately 740 feet from the closest edge of the potential replacement terminal construction site in the northeast quadrant.

- Schools: The closest school is Providencia Elementary School located approximately 0.25 mile southeast from the closest edge of the southeast quadrant demolition site. The second closest school is Celebrity Cardinal Charter School at a distance of approximately 0.49 mile northwest from the closest edge of the ARFF demolition site in the northwest quadrant. The third closest school is Glenwood Elementary School located approximately 0.6 mile to the northeast of the potential replacement terminal construction site in the northeast quadrant.

For the Southwest Quadrant Full-Size Terminal Option and the Southwest Quadrant Same-Size Terminal Options, sensitive receptors for air quality include the following:

- Single-Family Residential Areas: Homes are located to the north of the northwest quadrant at a distance of 410 feet from the closest edge of the potential air freighter building construction site. Homes are also located to the north and northeast of the northeast quadrant at a distance of over 740 feet from the closest edge of the Parking Lot A demolition and construction site.

- Multi-Family Residential Areas: Summer Breeze Apartments and other complexes are located south of the southwest quadrant at a distance of approximately 420 feet from the closest edge of the potential replacement terminal construction site.

- Schools: The closest school is Providencia Elementary School located approximately 0.25 mile southeast from the closest edge of the southeast quadrant demolition site. The second school is Celebrity Cardinal Charter School at a distance of approximately 0.49 mile northwest from the closest edge of the potential air freighter building construction site in the northwest quadrant. The next closest schools are Fair Avenue Elementary School, which is located approximately 0.6 mile to the southwest of the potential replacement terminal construction site in the southwest quadrant, and Glenwood Elementary School, which is located approximately 0.6 mile to the northeast of the Parking Lot A demolition and construction site in the northeast quadrant.

EXISTING SITE EMISSIONS

The Airport is currently a fully-operational regional airport with a terminal building that provides access to 14 air carrier gates. Existing emissions are dominated by mobile sources, including aircraft LTOs, taxiing on the Airport's taxiways, and GSE. In addition, on- and off-site stationary sources of emissions are associated with heating, cooling, lighting, and powering buildings, such as the existing terminal building, maintenance and cargo buildings, and hangars and buildings associated with general aviation. Automobile and bus emissions from passenger and employee traffic result from travel to and from the Airport. Under CEQA, the baseline environmental setting is established at the time that environmental assessment commences. Therefore, the existing emissions from the existing passenger terminal and associated mobile and stationary sources are quantified in order to evaluate the net change in air pollutant emissions after implementation of the project.

PROJECT CHARACTERISTICS

The California Air Pollution Control Officers Association (CAPCOA) has provided guidance on mitigating or reducing emissions from land use developments. In September 2010, CAPCOA released a guidance document titled *Quantifying Greenhouse Gas Mitigation Measures* which provides emission reduction values for recommended strategies. The reduction of criteria pollutant emissions is a co-benefit of reducing GHGs. The CAPCOA guidance document was utilized in this analysis for quantifying reductions from physical and operational project characteristics and Project Design Features (PDFs) in CalEEMod. The project characteristics listed below are consistent with the CAPCOA guidance document, and would reduce vehicle trips and/or VMT to and from the Airport as well as associated emissions.

The Airport is located within a quarter-mile of multiple modes of public transportation. The Regional Intermodal Transportation Center (RITC) is located within a quarter-mile of the existing passenger terminal and will continue to provide public access to the Metro bus lines 94, 165, 169, 222, and 794, as well as the Metrolink and Amtrak regional trains. The Burbank City buses provide connections to the San Fernando Valley, downtown Burbank, downtown Los Angeles, and the Metro Red Line in North Hollywood (near Universal Studios). The Metrolink Ventura County Line station connects to Ventura County, the San Fernando Valley, and Union Station in Los Angeles, and the Amtrak station connects to downtown Burbank, Glendale, and Union Station in Los Angeles. The Airport's proximity to multiple modes of public transit could encourage the use of public transportation and could result in corresponding reductions in VMT and transportation-related emissions.

PROJECT DESIGN FEATURES

The Airport would implement PDFs consistent with objectives of the City of Burbank 2035 General Plan Greenhouse Gas Reduction Plan (GGRP). The Airport would meet energy efficiency standards that exceed regulatory requirements through the incorporation of green building techniques and other sustainability features. Key PDFs that would contribute to efficient resource use and reduced air pollutants and greenhouse gas emissions include the installation of efficient heating, ventilation, and air conditioning (HVAC) systems; installation of high-efficiency fixtures and appliances; and water conservation features. The following PDFs would reduce the Airport's air pollutant emissions as well as greenhouse gas emissions:

PDF-AIR-1: **Green Building Measures**: The Authority would design and operate the replacement passenger terminal to meet or exceed the applicable green building, energy, water, and waste requirements of the State of California Green Building Standards Code and the City of Burbank GGRP. Green building measures would include, but are not limited to the following:

- The Airport would implement a construction waste management plan to recycle and/or salvage a minimum of 75 percent of nonhazardous construction debris.
- The Airport would be constructed with materials, equivalent in performance to virgin materials with a total (combined) recycled content value (RCV) of 10 percent or more of the total material cost of the Airport.
- The Airport would design and operate the replacement passenger terminal to meet or exceed the Title 24, Part 11 (CALGreen) Tier 1 standards and would optimize energy performance and reduce building energy cost by at least 15 percent for new commercial construction compared to the Title 24, Part 6 standards.
- The Airport would optimize energy performance and reduce building energy cost by installing energy efficient commercial appliances that meet the USEPA ENERGY STAR rating standards or equivalent.
- The Airport would design the replacement passenger terminal to reduce its contribution to the urban heat island effect by using roofing materials with a minimum

aged solar reflectance and thermal emittance or a minimum aged Solar Reflective Index (SRI) that meets or exceeds the Title 24, Part 11 (CALGreen) Tier 1 standards.

- The Airport would design the replacement passenger terminal with solar-ready rooftops that are pre-wired for the installation of on-site solar photovoltaic (PV) or solar water heating (SWH) systems.
- The Airport would include double-paned windows to keep heat out during summer months and keep heat inside during winter months;
- The Airport would reduce indoor potable water use within the replacement passenger terminal by installing water fixtures that exceed applicable standards. The reduction in indoor potable water would be achieved through the installation of high-efficiency water faucets, high efficiency toilets, flushless urinals, and other similar means;
- The Airport would reduce outdoor potable water use associated with the replacement passenger terminal landscaping as per the Title 24, Part 11 (CALGreen) Tier 1 standards by installing water-efficient irrigation systems, planting native or drought-tolerant plant species, using recycled water, or other similar means.
- The Airport would provide recycling collection bins within appropriate publicly accessible locations of the replacement passenger terminal;
- The Airport would design and operate the replacement passenger terminal such that mechanically ventilated areas would utilize air filtration media for outside and return air prior to occupancy that provides at least a Minimum Efficiency Reporting Value (MERV) of 11.
- To encourage employee carpooling and the use of low-emitting or fuel-efficient vehicles by employees, the Authority would designate a minimum of 10 percent of the onsite employee parking for carpool and/or low-emitting or fuel-efficient vehicles. To encourage public transportation use by the Authority employees, the Authority shall provide incentives, such as discounted public transportation passes.
- The Authority will pre-wire, or install conduit and panel capacity for, electric vehicle charging stations for a minimum of five (5) percent of onsite relocated parking spaces, of which 50 spaces would be installed with electric vehicle charging stations upon opening of the replacement passenger terminal.
- The replacement terminal gates shall be designed with electric infrastructure to allow for aircraft and ground support equipment to utilize electric power. New hangars would be designed to include electric infrastructure to provide the ability for aircraft in the hangars to use electricity.
- The Authority would provide incentives to encourage the use of public transportation by Authority and TBI airport management employees.
- The Authority would require the use of electric lawn mowers and leaf blowers during landscaping activities.
- The Authority would require the use of electric or alternatively-fueled sweepers with HEPA filters for sweeping of publically-accessible roadways and parking structures.

PDF-AIR-2: **Construction Measures**: The Authority shall require construction contractor(s) to utilize off-road diesel-powered construction equipment that meets or exceeds the CARB and USEPA Tier 3 off-road emissions standard with Level 3 diesel particular filters for equipment rated at 100 hp or greater during Airport construction. To the extent possible, pole power will be made available for use with electric tools, equipment, lighting, etc. These requirements shall be included in applicable bid documents and successful contractor(s) must demonstrate the ability to supply such equipment. A copy of each unit's certified tier specification or model year specification and CARB or SCAQMD operating permit (if applicable) shall be available upon request at the time of mobilization of each applicable unit of equipment. The Authority shall encourage construction contractors to apply for SCAQMD "SOON" funds, which provides funds to accelerate the clean-up of off-road diesel vehicles, such as heavy duty construction equipment. More information on this program can be found at the following website: http://www.aqmd.gov/tao/Implementation/SOONProgram.htm.

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3.4.3 Environmental Impacts and Mitigation Measures

3.4.3.1 ADJACENT PROPERTY FULL-SIZE TERMINAL OPTION

Project Impacts

IMPACT ADJ PROP FULL-AIR-1: Consistency with Applicable Plans and Policies

CONSTRUCTION

Under this criterion, the SCAQMD recommends that lead agencies demonstrate that a project would not directly obstruct implementation of an applicable air quality plan and that a project be consistent with the assumptions (typically land use related, such as resultant employment or residential units) upon which the air quality plan are based. The Airport would result in an increase in short-term employment compared to existing conditions. Being relatively small in number and temporary in nature, construction jobs under the Bob Hope Airport Replacement Terminal Project would not conflict with the long-term employment projections upon which the AQMP is based. Control strategies in the AQMP with potential applicability to short-term emissions from construction activities include strategies denoted in the AQMP as ONRD-04 and OFFRD-01, which are intended to reduce emissions from on-road and off-road heavy-duty vehicles and equipment by accelerating replacement of older, emissions-prone engines with newer engines meeting more stringent emission standards. The Bob Hope Airport Replacement Terminal Project would not conflict with implementation of these strategies. Additionally, the Airport would comply with CARB requirements to minimize short-term emissions from on-road and off-road diesel equipment. The Airport would also comply with SCAQMD regulations for controlling fugitive dust pursuant to SCAQMD Rule 403.

Compliance with these requirements is consistent with and meets or exceeds the AQMP requirements for control strategies intended to reduce emissions from construction equipment and activities. Because the Airport would not conflict with the control strategies intended to reduce emissions from construction equipment, the Airport would not conflict with or obstruct implementation of the AQMP, and impacts would be less than significant.

OPERATIONS

The 2012 AQMP (which will be updated in 2016) was prepared to accommodate growth, reduce the levels of pollutants within the areas under the jurisdiction of SCAQMD, return clean air to the region, and minimize the impact on the economy. Projects that are considered consistent with the AQMP would not interfere with attainment because this growth is included in the projections used in the formulation of the AQMP.

The Adjacent Property Full-Size Terminal Option would add airport and commercial land uses to the existing Airport and Golden State Commercial/Industrial zone. The project is consistent with the underlying *General Plan* Land Use designation for the northeast quadrant, and, with the exception of the requested Zone Change for PD Zone # 2004-170 to allow the entrance/exit road to the new terminal and ground access vehicle staging area, is consistent with the underlying zoning.

The FAA and SCAG have projected aviation activity using past growth and economic assumptions.[12] The AQMP is based on these growth assumptions and current zoning. The project would not increase the existing rate of growth in enplanements and would be consistent with overall growth on a regional level. As such, the project would be consistent with the FAA's growth projections and the Burbank 2035 General Plan and would thus be consistent with the growth projections in the AQMP.

The AQMP includes Transportation Control Measures that are intended to reduce regional mobile source emissions. While the majority of the measures are implemented by cities, counties, and other regional agencies such as SCAG and SCAQMD, the Airport would be supportive of measures related to reducing vehicle trips for patrons and employees and increasing connectivity to public transit.

As the project would be consistent with the growth projections in the AQMP and would be supportive of relevant Transportation Control Measures aimed at reducing vehicle trips, impacts related to consistency with these plans would be less than significant.

Mitigation Measure ADJ PROP FULL-AIR-1
No mitigation is warranted.

IMPACT ADJ PROP FULL-AIR-2: Violation of Construction Air Quality Standards

Construction of the proposed uses has the potential to create air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated from construction workers traveling to and from the Adjacent Property Full-Size Terminal Option. In addition, fugitive dust emissions would result from excavation and debris removal. The maximum daily regional construction emissions were calculated for the two phases of construction. It should be noted that the maximum daily emissions are predicted values for the worst-case day and do not represent the emissions that would occur for every day within the construction period. Detailed emissions calculations are provided in **Appendix F** of this Draft EIR. Results of the criteria pollutant calculations are presented in **Table 3.4-4**. As shown, construction-related daily emissions for the criteria and precursor pollutants would not exceed the SCAQMD regional thresholds of significance for VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$. These calculations include appropriate dust control measures that would be implemented during each phase of construction, as required by SCAQMD Rule 403 (Control of Fugitive Dust). In addition, the emissions take into account the use of cleaner construction equipment as specified in PDF-AIR-2, which requires the use of off-road diesel-powered construction equipment that meets or exceeds the CARB and USEPA Tier 3 off-road emissions standard with Level 3 diesel particular filters for equipment rated at 100 hp or greater during Airport construction. Therefore, with respect to regional emissions from construction activities, impacts would be less than significant.

12 The SCAG projections utilized in the AQMP are higher than the forecasts used in this EIR. See also **Appendix E**.

Mitigation Measure ADJ PROP FULL-AIR-2

No mitigation is warranted**.**

IMPACT ADJ PROP FULL-AIR-3: Violation of Operational Air Quality Standards

Operation of the existing and proposed uses has the potential to create air quality impacts from vehicle trips to and from the site, vehicles traveling on the Airport property for parking or for passenger pick-up and drop-off, from building energy usage, aircraft LTO, taxiing, and other aircraft supporting equipment. Fugitive emissions of VOCs would also be generated from the use of consumer products, coatings, and from fuel throughput. The maximum daily regional operational emissions were calculated for the existing conditions and the Adjacent Property Full-Size Terminal Option in order to estimate the net change in emissions. Detailed emissions calculations are provided in **Appendix F** of this Draft EIR. Results of the criteria pollutant calculations are presented in **Table 3.4-5**. As shown, the net change in operational-related daily emissions for the criteria and precursor pollutants would not exceed the SCAQMD regional thresholds of significance for CO, SO_X, PM_{10}, and $PM_{2.5}$ but would exceed the thresholds for VOC and NO_X.

Table 3.4-4

Adjacent Property Full-Size Terminal Option

Maximum Unmitigated Regional Construction Emissions (pounds per day) [a]

	Regional Emissions					
Construction Source	**VOC**	**NO_X**	**CO**	**SO_X**	**PM_{10} [c]**	**$PM_{2.5}$ [b]**
Northeast Quadrant Phase						
Demolition (Lot A) + Grading	6	90	54	<1	11	5
Grading + Foundation	5	51	42	<1	6	3
Building Construction	6	53	65	<1	11	4
Building Construction + Demolition (Temporary Parking Lot)	6	58	72	<1	14	5
Building Construction + Paving + Architectural Coating	43	62	90	<1	14	5
Building Construction + Paving + Architectural Coating	42	51	87	<1	14	5
Air Cargo Building & Existing Terminal Phase						
Demolition (Terminal/Parking) + Building Construction + Taxiway Paving	7	70	81	<1	13	5
Building Construction + Taxiway Paving + Paving + Architectural Coating	42	63	91	<1	10	5
Taxiway Paving + Demolition	3	30	36	<1	3	1
Maximum Regional Emissions	**43**	**90**	**91**	**<1**	**14**	**5**
Regional Significance Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Over (Under)	(32)	(10)	(459)	(150)	(136)	(50)
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

[a] *Emission quantities are rounded to "whole number" values. As such, the "total" values presented herein may be 1 unit more or less than actual values. Exact values (i.e., nonrounded) are provided in the CalEEMod printout sheets and/or calculation worksheets that are presented in **Appendix F** of this Draft EIR.*

[b] *PM_{10} and $PM_{2.5}$ emissions estimates are based on compliance with SCAQMD Rule 403 requirements for fugitive dust suppression.*

Source: ESA PCR, 2016

The VOC and NO_X exceedances are due to the increase in emissions from aircraft LTOs and taxiing relative to existing conditions. The increase in aircraft LTOs and taxiing would occur with or without implementation of the project under the future No Project condition. Nonetheless, relative to existing conditions, regional emission impacts from operational activities under the Adjacent Property Full-Size Terminal Option would be significant for VOCs and NO_X.

The project would result in a replacement passenger terminal with no change in the number of gates[13] or in the total number of public parking spaces for commercial airline passengers (refer to the project description in **Chapter 2**). Implementation of the project itself would not directly cause future growth in passengers that would result in an increase in emissions. The existing passenger terminal building and supporting facilities can accommodate the projected future growth in passengers for the reasonably foreseeable time period without the need for additional gates or building floor area. Therefore, the emissions shown in **Table 3.4-5** would also occur under future No Project conditions.

Mitigation Measure ADJ PROP FULL-AIR-3

Regional emissions of VOC and NO_X would exceed the SCAQMD threshold due to the increased emissions from aircraft LTOs and taxiing. The increase in aircraft LTOs and taxiing would occur with or without implementation of the project under the future No Project condition. In addition, emissions associated with aircraft are under the jurisdiction of the FAA. The Authority has no ability to regulate aircraft emissions. The project would implement PDF-AIR-1 to minimize emissions associated with building energy use and mobile sources.

Significance After Mitigation: No feasible mitigation is available to reduce impacts to less than significant and impacts would be considered significant and unavoidable.

13 A gate is defined as the waiting area for passengers before boarding a flight and consists of one exit doorway that leads to one aircraft.

Table 3.4-5

Adjacent Property Full-Size Terminal Option

Maximum Unmitigated Regional Operational Emissions (pounds per day) [a]

Operational Source	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Existing Emissions						
Aircraft	1,123	2,420	7,032	311	43	43
Aircraft Fuel	29	–	–	–	–	–
Ground Support Equipment	41	130	1,181	5	5	5
Area (Coating, Consumer Products, Landscaping)	92	<1	1	<1	<1	<1
Energy (Natural Gas)	<1	1	1	<1	<1	<1
Mobile (Motor Vehicles)	136	109	1,170	3	226	61
Total Emissions	**1,419**	**2,660**	**9,385**	**319**	**274**	**109**
Project Emissions						
Aircraft [b]	1,269	3,065	7,703	363	48	48
Aircraft Fuel [b]	38	–	–	–	–	–
Ground Support Equipment [b]	48	153	1,389	6	6	6
Area (Coating, Consumer Products, Landscaping)	92	<1	1	<1	<1	<1
Energy (Natural Gas)	<1	1	1	<1	<1	<1
Mobile (Motor Vehicles)	91	62	759	3	291	79
Total Emissions	**1,538**	**3,281**	**9,853**	**372**	**345**	**133**
Net Emissions	**116**	**621**	**468**	**53**	**17**	**24**
SCAQMD Significance Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Over/(Under)	61	566	(82)	(97)	(133)	(31)
Exceed Threshold?	**Yes**	**Yes**	**No**	**No**	**No**	**No**

[a] *Emission quantities are rounded to "whole number" values. As such, the "total" values presented herein may be 1 unit more or less than actual values. Exact values (i.e., nonrounded) are provided in the CalEEMod printout sheets and/or calculation worksheets that are presented in **Appendix F**.*

[b] *Aircraft, aircraft fuel, and ground support equipment emissions include future growth in passengers that would occur with or without implementation of the project.*

Source: ESA PCR, 2016

IMPACT ADJ PROP FULL-AIR-4: Increase in Non-Attainment Criteria Pollutants

The Air Basin is considered to be in "nonattainment" for O_3 (for both the 1-hour and 8-hour standard), PM_{10}, and $PM_{2.5}$ (24 hour and annual). As shown in Table 3.4-4 project construction would not exceed SCAQMD indicators for ozone precursors (i.e., VOCs and NO_X), PM_{10} and $PM_{2.5}$. As shown in Table 3.4-5, project operation would exceed the SCAQMD indicators for emissions of NO_X and VOCs. As a result, operations would potentially contribute to the Basin's nonattainment of national and state standards for O_3. The VOC and NO_X exceedances are due to the increase in emissions from aircraft LTOs and taxiing relative to existing conditions. The increase in aircraft LTOs and taxiing would occur with or without implementation of the project under the future No Project condition. Nonetheless, impacts are considered potentially significant.

Mitigation Measure ADJ PROP FULL-AIR-4

Regional emissions of VOC and NO_X would exceed the SCAQMD threshold due to the increased emissions from aircraft LTOs and taxiing. The increase in aircraft LTOs and taxiing would occur with or without implementation of the project under the future No Project condition. In addition, emissions associated with aircraft are under the jurisdiction of the FAA. The Authority has no ability to regulate aircraft emissions. The project would implement PDF-AIR-1 to minimize emissions associated with building energy use and mobile sources.

Significance After Mitigation: No feasible mitigation is available to reduce impacts to less than significant and impacts would be considered significant and unavoidable.

IMPACT ADJ PROP FULL-AIR-5: Generation of Pollutant Emissions Greater Than Localized Significance Thresholds

CONSTRUCTION

The localized construction air quality analysis was conducted consistent with the SCAQMD Localized Significance Threshold methodology. Impacts were determined based on the incremental increase in off-site concentrations of NO_2, CO, PM_{10}, and $PM_{2.5}$ from onsite project construction emissions predicted by dispersion modeling and the background ambient monitoring data for the same pollutants. Meteorological conditions and separation distances between onsite construction emission sources and off-site sensitive receptor locations were taken into account in the dispersion modeling. The results of the dispersion modeling are presented in **Table 3.4-6**. As shown, maximum concentrations during construction activities would not exceed the allowable thresholds at the closest sensitive receptors CO, NO_2, PM_{10}, and $PM_{2.5}$. As such, localized air quality impacts during construction would be less than significant.

Table 3.4-6

Adjacent Property Full-Size Terminal Option

Maximum Unmitigated Localized Construction Dispersion Modeling Analysis [a]

Pollutant [a]	Averaging Period	Project Concentration (μg/m³)	Ambient Background (μg/m³)	Total (μg/m³)	Threshold (μg/m³)	Exceed Threshold?
CO	1-hr	23.9	3,433 [c]	3,457	23,000	NO
CO	8-hr	3.97	3,433 [c]	3,437	10,000	NO
NO_2	1-hr	19.3	137.6	156.9	339	NO
NO_2	1-hr 98th Percentile [b]	13.5	114.2	127.7	188	NO
PM_{10}	24-hr	0.31	—	0.31	10.4	NO
PM_{10}	Annual	0.07	—	0.07	2.5	NO
$PM_{2.5}$	24-hr	0.17	—	0.17	10.4	NO
$PM_{2.5}$	Annual	0.04	—	0.04	2.5	NO

[a] *Detailed calculations are provided in the CalEEMod model printout sheets and/or calculation worksheets that are presented in **Appendix F**.*

[b] *Based on the 3-year average of the 98th percentile of the yearly distribution of 1-hour daily maximum concentrations.*

[c] *The CO 1-hour and 8-hour ambient background concentrations are rounded to 3 ppm. Therefore, for the purpose of this analysis, the ambient background concentrations are the same.*

Source: ESA PCR, 2016

OPERATIONS

The localized operational air quality analysis was conducted consistent with the SCAQMD Localized Significance Threshold methodology. Impacts were determined based on the maximum off-site concentrations of NO_2 and CO that would result from the incremental increase in Airport runway emissions from future growth in passengers relative to existing conditions and the total emissions from relocated emissions sources, which include the aircraft taxiing pathways, replacement terminal building and other buildings, and usage areas for GSE and auxiliary power units. Because the Airport runways would remain in their current location and orientation, the existing emissions from aircraft LTOs along the runways are considered to be part of the ambient pollutant background concentrations for the area. By modeling the incremental increase in Airport runway emissions, the dispersion modeling analysis captures only the increase in emissions from future passenger growth (i.e., growth that would occur with or without implementation of the project) and does not double count the existing emissions that contribute to the existing background ambient pollutant background concentrations. The emissions associated with aircraft taxiing pathways, replacement terminal building and other buildings, and usage areas for GSE and auxiliary power units would be relocated generally towards the northeast quadrant of the Airport; therefore, these emission sources were modeled as based on their total emissions. It is noted that these sources currently contribute to area emissions existing conditions, and thus also contribute to the existing ambient pollutant background concentrations. Therefore, modeling the total emissions from these sources results in a highly conservative and health-protective analysis. Impacts related to emissions of PM_{10} and $PM_{2.5}$ from on-site project operational activities relative to existing conditions are compared to the allowable incremental increase in concentration as outlined in the SCAQMD Localized Significance Threshold methodology. Meteorological conditions and separation distances between on-site operational emission sources and off-site sensitive receptor locations were taken into account in the dispersion modeling. The results of the dispersion modeling analysis for NO_2 and CO are presented in **Table 3.4-7**. The results of the dispersion modeling analysis for PM_{10} and $PM_{2.5}$ are presented in **Table 3.4-8**. As shown, maximum concentrations during operations would not exceed the thresholds at the closest sensitive receptors for CO, NO_2, PM_{10}, and $PM_{2.5}$. As such, localized air quality impacts during operations would be less than significant.

Table 3.4-7

Adjacent Property Full-Size Terminal Option - Maximum Unmitigated Localized Operational Dispersion Modeling Analysis - NO_2 and CO [a]

Pollutant [a]	Averaging Period	Project Concentration (µg/m³)	Ambient Background (µg/m³)	Total (µg/m³)	Threshold (µg/m³)	Exceed Threshold?
CO	1-hr	183	3,433 [c]	3,616	23,000	NO
CO	8-hr	120	3,433 [c]	3,553	10,000	NO
NO_2	1-hr	66.6	137.6	204.2	339	NO
NO_2	1-hr 98th Percentile [b]	62.0	114.2	176.2	188	NO

[a] *Detailed calculations are provided in the CalEEMod model printout sheets and/or calculation worksheets that are presented in* ***Appendix F****.*

[b] *Based on the 3-year average of the 98th percentile of the yearly distribution of 1-hour daily maximum concentrations.*

[c] *The CO 1-hour and 8-hour ambient background concentrations are rounded to 3 ppm. Therefore, for the purpose of this analysis, the ambient background concentrations are the same.*

Source: ESA PCR, 2016

Table 3.4-8

Adjacent Property Full-Size Terminal Option

Maximum Incremental Unmitigated Localized Operational Dispersion Modeling Analysis

PM_{10} and $PM_{2.5}$ [a]

Pollutant [a]	Averaging Period	Project Concentration (μg/m³)	Total (μg/m³)	Threshold (μg/m³)	Exceed Threshold?
PM_{10}	24-hr	1.82	1.82	10.4	NO
PM_{10}	Annual	0.57	0.57	2.5	NO
$PM_{2.5}$	24-hr	0.92	0.92	10.4	NO
$PM_{2.5}$	Annual	0.40	0.40	2.5	NO

[a] *Detailed calculations are provided in the CalEEMod model printout sheets and/or calculation worksheets that are presented in **Appendix F**.*

Source: ESA PCR, 2016

Mitigation Measure ADJ PROP FULL-AIR-5
No mitigation is warranted.

ADJ PRO FULL-AIR-6: Contribution to an Exceedance of CO Standards

The potential for the project to cause or contribute to CO hotspots is evaluated by comparing project intersections (both intersection geometry and traffic volumes) with prior studies conducted by the SCAQMD in support of its AQMPs and considering existing background CO concentrations. As discussed below, this comparison provides evidence that the project would not cause or contribute to the formation of CO hotspots, that CO concentrations at Airport impacted intersections would remain well below the ambient air quality standards, and that no further CO analysis is warranted or required.

As shown previously in **Table 3.4-1**, CO levels in the Airport area are substantially below the federal and State standards. Maximum CO levels in recent years are 3 ppm (one-hour average) and 2.4 ppm (eight-hour average) compared to the thresholds of 20 ppm (one-hour average) and 9.0 (eight-hour average). Carbon monoxide decreased dramatically in the Air Basin with the introduction of the catalytic converter in 1975.

No exceedances of CO have been recorded at monitoring stations in the Air Basin for some time, and the Air Basin is currently designated as a CO attainment area for both the CAAQS and NAAQS. Thus, it is not expected that CO levels at project-impacted intersections would rise to the level of an exceedance of these standards.

The SCAQMD conducted CO modeling for the 2003 AQMP for the four worst-case intersections in the Air Basin. These include: (a) Wilshire Boulevard and Veteran Avenue, (b) Sunset Boulevard and Highland Avenue,

(c) La Cienega and Century Boulevards, and (d) Long Beach Boulevard and Imperial Highway. In the 2003 AQMP, the SCAQMD notes that the intersection of Wilshire Boulevard and Veteran Avenue is the most congested intersection in Los Angeles County with an average daily traffic volume of about 100,000 vehicles per day. (SCAQMD AQMP, 2003) This intersection is located near the on- and off-ramps to Interstate 405 in West Los Angeles. The evidence provided in Table 4-10 of Appendix V of the 2003 AQMP shows that the peak modeled CO concentration due to vehicle emissions at these four intersections was 4.6 ppm (one-hour average) and 3.2 (eight-hour average) at Wilshire Boulevard and Veteran Avenue.[14] When added to the existing background CO concentrations, the screening values would be 7.6 ppm (one-hour average) and 5.6 ppm (eight-hour average).

Based on the project Traffic Impact Study (see **Appendix L**), of the studied intersections that are predicted to operate at a Level of Service (LOS) of D, E, or F under Future (2025) With Project Plus Cumulative conditions, no intersections would have peak traffic volumes exceeding 100,000 per day. The peak intersection under these conditions would have a peak traffic volume of approximately 82,600 per day based on peak hour trips comprising 10 percent of the daily trips. As a result, CO concentrations are expected to be less than 6.8 ppm (one-hour average) and 5.1 ppm (eight-hour average), which would not exceed the thresholds.[15] Thus, this comparison provides evidence that the project would not contribute to the formation of CO hotspots and no further CO analysis is required. Therefore, the Adjacent Property Full-Size Terminal Option would result in less-than-significant impacts with respect to CO hotspots.

Mitigation Measure ADJ PROP FULL-AIR-6
No mitigation is warranted.

IMPACT ADJ PROP FULL-AIR-7: Generation of Toxic Air Contaminants

CONSTRUCTION

The greatest potential for TAC emissions would be related to diesel particulate matter emissions associated with heavy equipment operations during demolition, grading and excavation, and building construction activities. In addition, incidental amounts of toxic substances such as oils, solvents, and paints would be used. These products would comply with all applicable SCAQMD rules for their manufacture and use. The project will be subject to several SCAQMD rules designed to limit exposure to TACs during construction activities. The project would be required to comply with the CARB Air Toxics Control Measure that limits diesel powered equipment and vehicle idling to no more than 5 minutes at a location, and the CARB In-Use Off-Road Diesel Vehicle Regulation; compliance with these would minimize emissions of TACs during construction. The project would also comply with the requirements of SCAQMD Rule 1403 if asbestos is found during the renovation and construction activities. Additional regulatory details, environmental

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[14] The eight-hour average is based on a 0.7 persistence factor, as recommended by the SCAQMD.

[15] The expected CO concentrations are calculated based on the ratio of 82,600/100,000 multiplied by the screening values of 4.6 ppm (one-hour average) and 3.2 ppm (eight-hour average), plus the ambient background values of 3 ppm (one-hour average) and 2.4 ppm (eight-hour average). Actual CO value would likely be less than the expected values reported in the analysis as the average CO emissions from motor vehicles operating today have declined as compared to motor vehicles operating in year 2003.

setting, and impacts associated with asbestos are discussed in **Section 3.9**. Furthermore, the project would voluntarily implement the control measures described in PDF-AIR-2.

Health risk impacts (cancer risk) were assessed for existing and future off-site sensitive receptors (residential uses). **Table 3.4-9** summarizes the carcinogenic risk for representative receptors located throughout the site vicinity. For carcinogenic exposures, the cancer risk from DPM emissions from construction of the project is estimated to result in a maximum carcinogenic risk of approximately 4.6 per one million. The maximum impact would occur at sensitive land uses (residences) directly east of the site. As discussed previously, the lifetime exposure under OEHHA guidelines takes into account early life (infant and children) exposure. It should be noted that the calculated cancer risk conservatively assumes sensitive receptors (residential uses) would not have any mitigation such as mechanical filtration. As the maximum impact would be less than the risk threshold of 10 in one million, impacts would be considered less than significant.

Table 3.4-9

Adjacent Property Full-Size Terminal Option

Maximum Carcinogenic Risk for Off-Site Sensitive Receptors from Construction

Sensitive Receptor	Maximum Cancer Risk (# in one million)
Maximum Exposed Residential Receptor	4.6 in one million
Maximum Individual Cancer Risk Threshold	*10 in one million*
Exceeds Threshold?	*No*

Source: ESA PCR, 2016

The process of assessing health risks and impacts includes a degree of uncertainty. The level of uncertainty is dependent on the availability of data and the extent to which assumptions are relied upon in cases where the data are incomplete or unknown. All HRAs rely upon scientific studies in order to reduce the level of uncertainty; however, it is not possible to completely eliminate uncertainty from the analysis. Where assumptions are used to substitute for incomplete or unknown data, it is standard practice in performing HRAs to err on the side of health protection in order to avoid underestimating or underreporting the risk to the public. In general, sources of uncertainty that may lead to an overestimation or an underestimation of the risk include extrapolation of toxicity data in animals to humans and uncertainty in the exposure estimates. In addition to uncertainty, there exists "a natural range or variability in the human population in such properties as height, weight, and susceptibility to chemical toxicants."[16] As mentioned previously, it is typical to err on the side of health protection by assessing risk on the most sensitive populations, such as children and the elderly, as was done for this assessment.

[16] OEHHA, Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments, (August 2003) 1-4.

Non-cancer impacts were assessed based on the Hazard Index. The state has identified chronic health impacts from DPM while acute impacts for DPM are not known based on the latest scientific data. The evaluation of non-cancer chronic impacts is based on the maximum incremental increase in annual concentration at a sensitive receptor. The Hazard Index is calculated by dividing the maximum modeled annual average concentration at the maximum impacted sensitive receptor by the Reference Exposure Level (REL). A significant impact would occur if the Hazard Index is 1.0 or greater. The REL is the concentration at or below which no adverse health effects are anticipated. OEHHA has recommended an ambient concentration of 5 $\mu g/m^3$ as the chronic inhalation REL for DPM exhaust. Therefore, a sensitive receptor exposed to an annual average DPM concentration of 5 $\mu g/m^3$ or less would not result in a chronic impact. Non-cancer chronic impacts affect specific target organ systems (also called toxicological endpoints), such as the eye, nervous system, reproductive system, and respiratory system. The chronic health impact with the maximum Hazard Index for the same target organ system is used for impact determination. For DPM, the respiratory system is the target organ system for chronic impacts. The dispersion modeling analysis conducted for the cancer risk analysis determined a maximum annual DPM concentration of approximately 0.013 micrograms per cubic meter. Therefore, the chronic health impact would be approximately 0.003, which is less than the threshold of 1.0. Therefore, non-cancer chronic impacts would be less than significant.

OPERATIONS

The greatest potential for TAC emissions would be related to operation of aircraft and diesel particulate matter emissions associated with ground support equipment. Health risk impacts were assessed for the previously identified sensitive receptors. **Table 3.4-10** summarizes the carcinogenic risk for sensitive receptors located throughout the site vicinity. Project impacts were determined based on the maximum incremental in off-site concentrations of operational TACs that would result from future plus project conditions compared to future No Project conditions. Because future growth in passengers would occur with or without implementation of the project, the comparison of future plus project conditions to future No Project conditions is an appropriate metric for identifying the incremental health risk impact from the project due to relocation of the replacement terminal building and other buildings, and usage areas for GSE and auxiliary power units.

Table 3.4-10

Adjacent Property Full-Size Terminal Option
Maximum Incremental Increase in Carcinogenic Risk for Off-Site Sensitive Receptors from Operations

Sensitive Receptor	Maximum Cancer Risk (# in one million)
Total Incremental Increase (30-Year)	*4.2 in one million*
Threshold	*10 in one million*
Exceeds Threshold?	***No***
Total Incremental Increase (70-Year)	*4.9 in one million*
Threshold	*10 in one million*
Exceeds Threshold?	***No***

Source: ESA PCR, 2016

For carcinogenic exposures, operation of the project would result in a maximum increase in incremental cancer risk that would not exceed the threshold for a 30-year typical residential exposure period and a 70-year lifetime exposure period. As discussed previously, the lifetime exposure under OEHHA guidelines takes into account early life (infant and children) exposure. It should be noted that the calculated cancer risk conservatively assumes sensitive receptors (residential uses) would not have any mitigation such as mechanical filtration. As the maximum impact would be less than the risk threshold of 10 in one million, impacts would be considered less than significant.

As previously mentioned, the same degree of uncertainty exists in the process of assessing health risks and impacts. It is typical to err on the side of health protection by assessing risk on the most sensitive populations, such as children and the elderly, as was done for this assessment.

Non-cancer impacts were assessed based on the Hazard Index. The state has identified acute 1-hour, acute 8-hour, and/or chronic health impacts from TAC emissions that would be emitted during operations, such as 1,3-butadiene, benzene, DPM, formaldehyde, and toluene. The evaluation of non-cancer acute impacts is based on the maximum incremental increase in 1-hour and 8-hour concentrations and the evaluation chronic impacts is based on the maximum incremental increase in annual concentrations at a sensitive receptor. The Hazard Index is calculated by dividing the maximum modeled annual average concentration at the maximum impacted sensitive receptor by the REL. A significant impact would occur if the Hazard Index is 1.0 or greater for acute or chronic exposures. The REL is the concentration at or below which no adverse health effects are anticipated. OEHHA has recommended different acute and/or chronic inhalation RELs for the various TAC compounds. Not every compound has an acute or chronic REL. For example, toluene has an acute 1-hour and chronic REL but does not have an acute 8-hour REL. DPM has a chronic REL, but does not have an acute 1-hour or 8-hour REL. Non-cancer acute and chronic impacts affect specific target organ systems (also called toxicological endpoints), such as the eye, nervous system, reproductive system, and respiratory system. The acute and chronic health impacts with the maximum Hazard Index for the same target organ system is used for impact determination. **Table 3.4-11** summarizes the non-carcinogenic risks for sensitive receptors located throughout the site vicinity. As shown, acute and chronic health impacts would not exceed a Hazard Index of 1.0. Therefore, non-cancer acute and chronic impacts would be less than significant.

Table 3.4-11

Adjacent Property Full-Size Terminal Option
Maximum Incremental Increase in Non-Carcinogenic Risk for Off-Site Sensitive Receptors from Operations

Sensitive Receptor	Hazard Index
Chronic Hazard Index	*0.025*
Threshold	*1.0*
Exceeds threshold?	***No***
Acute (1-hour) Hazard Index	*0.051*
Threshold	*1.0*
Exceeds threshold?	***No***
Acute (8-hour) Hazard Index	*0.128*
Threshold	*1.0*
Exceeds threshold?	***No***

Source: ESA PCR, 2016

Mitigation Measure ADJ PROP FULL-AIR-7
No mitigation is warranted.

IMPACT ADJ PROP FULL-AIR-8: Creation of Objectionable Odors

CONSTRUCTON

Potential activities that may emit odors during construction activities include the use of architectural coatings and solvents and the combustion of diesel fuel in on- and off-road equipment. As discussed in Subsection 2.b.(3)(a)(iii), SCAQMD Rule 1113 would limit the amount of VOCs in architectural coatings and solvents. In addition, the Airport would comply with the applicable provisions of the CARB Air Toxics Control Measure regarding idling limitations for diesel trucks. Through mandatory compliance with SCAQMD Rules, no construction activities or materials are expected to create objectionable odors affecting a substantial number of people. Therefore, construction of the Airport would result in less-than-significant impacts.

OPERATIONS

According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The Airport does include industrial and fueling uses identified by the SCAQMD as being associated with substantial odors. Volatile odors from the jet fuel station and idling of aircraft and vehicles could generate odors in a predominantly industrial area. However, given the separation distance between off-site sensitive uses and fueling and idling areas and prevailing winds, odors would be contained within the general area of the Airport and be consistent with the surrounding uses. In addition, the project would not introduce new sources of odors to the area. Therefore, impacts would be less than significant.

Operation of the Airport could also include potential sources of odors associated with the preparation and disposal of food products from restaurants within the terminal. Food would be prepared and disposed of in accordance with local regulations relating to ventilation control and refuse disposal. In addition, the food would normally be prepared within an enclosed kitchen area and not outdoors. Therefore, it is unlikely for substantial nuisance odors to permeate to the outside environment. It is assumed that the restaurant uses may charbroil meat during food preparation. Such charbroiling activities would be required to comply with applicable provisions of SCAQMD Rule 1138, which requires the control of smoke (PM_{10} and $PM_{2.5}$) and gas (VOCs) generated by the cooking of meat. Compliance with Rule 1138 would reduce the emissions of odorous compounds. As a result, the project is not expected to discharge contaminants into the air in quantities that would cause a nuisance, injury, or annoyance to the public or property pursuant to SCAQMD Rule 402. Therefore, the project would not create adverse odors affecting a substantial number of people and impacts would be less than significant.

Mitigation Measure ADJ PROP FULL-AIR-8
No mitigation is warranted.

Cumulative Impacts

IMPACT ADJ PROP FULL-AIR-9: Cumulative Air Quality Impacts

The other projects in the vicinity of the Airport are presented in **Section 3.1**. A number of related projects in the Airport area have not yet been built or are currently under construction. Since the Applicant has no control over the timing or sequencing of the related projects, any quantitative analysis to ascertain daily construction emissions that assumes multiple and concurrent construction projects would be speculative. For this reason, the SCAQMD's methodology to assess a project's cumulative impact differs from the cumulative impacts methodology employed elsewhere in this Draft EIR.

CONSTRUCTION

With respect to the project's short-term construction-related air quality emissions and cumulative conditions, the SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the AQMP pursuant to the federal Clean Air Act mandates. As such, construction of the project would comply with SCAQMD Rule 403 requirements and the ATCM to limit heavy duty diesel motor vehicle idling to no more than five minutes at any given time. In addition, the Airport would utilize a construction contractor(s) that complies with required and applicable BACT and the In-Use Off-Road Diesel Vehicle Regulation. Per SCAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on construction projects in the Air Basin, which would include each of the related projects in the Airport area. As shown above in **Table 3.4-4** and **Table 3.4-6**, regional and localized construction emissions associated with the Airport would not exceed the SCAQMD numeric indicators. Since construction would not exceed the regional numeric indicator of significance for criteria pollutants, the Adjacent Property Full-Size Terminal Option would result in a less-than-significant impact with regard to cumulative construction emissions.

OPERATIONS

The SCAQMD's approach for assessing cumulative impacts related to operations or long-term implementation is based on attainment of ambient air quality standards in accordance with the requirements of the federal and State Clean Air Acts. As discussed earlier, the SCAQMD has developed a comprehensive plan, the AQMP, which addresses the region's cumulative air quality condition.

A significant impact may occur if a project would add a cumulatively considerable contribution of a federal or State nonattainment pollutant. Because the Los Angeles County portion of the Air Basin is currently in nonattainment for ozone, PM_{10}, and $PM_{2.5}$, related projects could exceed an air quality standard or contribute to an existing or projected air quality exceedance. Cumulative impacts on air quality are evaluated under two sets of thresholds for CEQA and the SCAQMD. In particular, Section 15064(h)(3) of the CEQA *Guidelines* provides guidance in determining the significance of cumulative impacts. Specifically, Section 15064(h)(3) states in part that:

> *A lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that will avoid or substantially lessen the cumulative problem (e.g., water quality control plan, air quality plan, integrated waste management plan) within the geographic area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency…*

For purposes of the cumulative air quality analysis with respect to CEQA Guidelines Section 15064(h)(3), the project's incremental contribution to cumulative air quality impacts is determined based on compliance with the SCAQMD adopted 2012 AQMP. As described above, the project would not conflict with or obstruct implementation of AQMP and thus would be consistent with the growth projections in the AQMP.

Nonetheless, SCAQMD no longer recommends relying solely upon consistency with the AQMP as an appropriate methodology for assessing cumulative air quality impacts. The SCAQMD recommends that project-specific air quality impacts be used to determine the potential cumulative impacts on regional air quality. As discussed above, peak daily operation-related emissions for the Adjacent Property Full-Size Terminal Option would exceed the SCAQMD regional significance thresholds for VOCs and NO_X relative to existing conditions. The VOC and NO_X exceedances are due to the increase in emissions from aircraft LTOs and taxiing relative to existing conditions. The increase in aircraft LTOs and taxiing would occur with or without implementation of the project under the future No Project condition. Nonetheless, the emissions of nonattainment pollutants and precursors generated by Airport operation would be in excess of the SCAQMD project-level thresholds and impacts would be cumulatively significant.

Cumulative TAC impacts are based on the future growth in passengers that would occur under both the future plus project and future No Project conditions compared to existing conditions. The incremental increase in health risk would be approximately 17 in one million over a typical 30-year residential exposure and approximately 20 in one million over a 70-year lifetime exposure. As discussed previously, the health risk calculations are based on conservative assumptions and incorporate age sensitive factors that account for the sensitivity of children to TAC emissions, high-end breathing rates, and the assumption that the vast majority of time is spent at home. The future growth in passengers would occur with or without implementation of the project. Therefore, the while the cumulative TAC impact is considered to be cumulatively significant, the project's contribution is not cumulatively considerable.

CONSISTENCY WITH GENERAL PLANS

With respect to air quality, the pertinent County *General Plan* policy recommends strict regulation of mobile and stationary sources as well as vanpooling, carpooling and improved public transportation. The Airport would comply with applicable air quality rules and regulations, and would implement a number PDFs that would reduce the generation of criteria pollutant. Several transit options are available in the Airport vicinity as an alternative to private vehicles. The Airport would allow for nearby residents to find goods and services in their immediate vicinity. Finally, the Airport would provide the Code-required amount of short- and long-term bicycle parking as well as amenities such as lockers and showers. Accordingly, the Airport would be consistent with *General Plan* policy concerning Airport sources of stationary and mobile emissions as well as alternatives to private vehicle use.

Mitigation Measure ADJ PROP FULL-AIR-9

Regional emissions of VOC and NO_X would exceed the SCAQMD threshold due to the increased emissions from aircraft LTOs and taxiing. The increase in aircraft LTOs and taxiing would occur with or without implementation of the project under the future No Project condition. In addition, emissions associated with aircraft are under the jurisdiction of the FAA. The Authority has no ability to regulate aircraft emissions. The project would implement PDF-AIR-1 to minimize emissions associated with building energy use and mobile sources.

Significance After Mitigation: No feasible mitigation is available to reduce criteria pollutant impacts to less than significant and impacts would be considered significant and unavoidable. For TACs, the impact is cumulatively significant; however, the project's contribution is not cumulatively considerable. Therefore, the project would not result in a significant impact with respect to cumulative TACs.

3.4.3.2 SOUTHWEST QUADRANT FULL-SIZE TERMINAL OPTION

Project Impacts

IMPACT SW QUAD FULL-AIR-1: Consistency with Applicable Plans and Policies

CONSTRUCTION

Under this criterion, the SCAQMD recommends that lead agencies demonstrate that a project would not directly obstruct implementation of an applicable air quality plan and that a project be consistent with the assumptions (typically land use related, such as resultant employment or residential units) upon which the air quality plan are based. The Airport would result in an increase in short-term employment compared to existing conditions. Being relatively small in number and temporary in nature, construction jobs under the proposed project would not conflict with the long-term employment projections upon which the AQMP is based. Control strategies in the AQMP with potential applicability to short-term emissions from construction activities include strategies denoted in the AQMP as ONRD-04 and OFFRD-01, which are intended to reduce emissions from on-road and off-road heavy-duty vehicles and equipment by accelerating replacement of older, emissions-prone engines with newer engines meeting more stringent emission standards. The Bob Hope Airport Replacement Terminal Project would not conflict with implementation of these strategies. Additionally, the Airport would comply with CARB requirements to minimize short-term emissions from on-road and off-road diesel equipment. The Airport would also comply with SCAQMD regulations for controlling fugitive dust pursuant to SCAQMD Rule 403.

Compliance with these requirements is consistent with and meets or exceeds the AQMP requirements for control strategies intended to reduce emissions from construction equipment and activities. Because the Airport would not conflict with the control strategies intended to reduce emissions from construction equipment, the Airport would not conflict with or obstruct implementation of the AQMP, and impacts would be less than significant.

OPERATIONS

The 2012 AQMP (which will be updated in 2016) was prepared to accommodate growth, reduce the levels of pollutants within the areas under the jurisdiction of SCAQMD, return clean air to the region, and minimize the impact on the economy. Projects that are considered consistent with the AQMP would not interfere with attainment because this growth is included in the projections used in the formulation of the AQMP.

The Southwest Quadrant Full-Size Terminal Option would add airport and commercial land uses to the existing Airport and Golden State Commercial/Industrial zone. The project is consistent with the underlying *General Plan* Land Use designation for the southwest quadrant and is consistent with the underlying zoning.

The FAA and SCAG have projected aviation activity using past growth and economic assumptions.[17] The AQMP is based on these growth assumptions and current zoning. The project would not increase the existing rate of growth in enplanements and would be consistent with overall growth on a regional level. As such, the project would be consistent with the FAA's growth projections and the Burbank 2035 General Plan and would thus be consistent with the growth projections in the AQMP.

The AQMP includes Transportation Control Measures that are intended to reduce regional mobile source emissions. While the majority of the measures are implemented by cities, counties, and other regional agencies such as SCAG and SCAQMD, the Airport would be supportive of measures related to reducing vehicle trips for patrons and employees and increasing connectivity to public transit.

As the project would be consistent with the growth projections in the AQMP and would be supportive of relevant Transportation Control Measures aimed at reducing vehicle trips, impacts related to consistency with these plans would be less than significant.

Mitigation Measure SW QUAD FULL-AIR-1
No mitigation is warranted.

[17] The SCAG projections utilized in the AQMP are higher than the forecasts used in this EIR. See also Appendix E.

IMPACT SW QUAD FULL-AIR-2: Violation of Construction Air Quality Standards

Construction of the Southwest Quadrant Full-Size Terminal Option would generate emissions similar to those associated with the Adjacent Property Full-Size Terminal Option. Results of the criteria pollutant calculations are presented in **Table 3.4-12**. As shown, construction-related daily emissions for the criteria and precursor pollutants would not exceed the SCAQMD regional thresholds of significance for VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$. These calculations include appropriate dust control measures that would be implemented during each phase of construction, as required by SCAQMD Rule 403 (Control of Fugitive Dust). In addition, the emissions take into account the use of cleaner construction equipment as specified in PDF-AIR-2, which requires the use of off-road diesel-powered construction equipment that meets or exceeds the CARB and USEPA Tier 3 off-road emissions standard with Level 3 diesel particular filters for equipment rated at 100 hp or greater during Airport construction. Therefore, with respect to regional emissions from construction activities, impacts would be less than significant.

Mitigation Measure SW QUAD FULL-AIR-2
No mitigation is warranted.

IMPACT SW QUAD FULL-AIR-3: Violation of Operational Air Quality Standards

Operation of the existing and proposed uses has the potential to create air quality impacts from vehicle trips to and from the site, vehicles traveling on the Airport property for parking or for passenger pick-up and drop-off, from building energy usage, aircraft LTO, taxiing, and other aircraft supporting equipment. Fugitive emissions of VOCs would also be generated from the use of consumer products, coatings, and from fuel throughput. The maximum daily regional operational emissions were calculated for the existing conditions and the Southwest Quadrant Full-Size Terminal Option in order to estimate the net change in emissions. Detailed emissions calculations are provided in **Appendix F** of this Draft EIR. Results of the criteria pollutant calculations are presented in **Table 3.4-13**. As shown, the net change in operational-related daily emissions for the criteria and precursor pollutants would not exceed the SCAQMD regional thresholds of significance for SO_X, PM_{10}, and $PM_{2.5}$ but would exceed the thresholds for VOC, NO_X, and CO. The VOC, NO_X, and CO exceedances are due to the increase in emissions from aircraft LTOs and taxiing relative to existing conditions. The increase in aircraft LTOs and taxiing would occur with or

Table 3.4-12

Southwest Quadrant Full-Size Terminal Option

Maximum Unmitigated Regional Construction Emissions (pounds per day) [a]

Construction Source	Regional Emissions					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10} [c]**	**$PM_{2.5}$ [b]**
Southwest Quadrant Phase						
Demolition (Parking Lot A) + Grading	6	90	54	<1	11	5
Grading + Foundation	5	51	42	<1	6	3
Terminal Building Construction	6	53	65	<1	11	4
Terminal Building Construction + Demolition (Temporary Parking Lot)	6	58	72	<1	14	5
Terminal Building Construction + Paving + Architectural Coating	43	62	90	<1	14	5
Terminal Building Construction + Paving + Architectural Coating	42	51	87	<1	14	5
Air Cargo Building & Existing Terminal Phase						
Demolition (Terminal/Parking) + Airline Cargo Building Construction + Taxiway Paving	7	70	81	<1	13	5
Taxiway Paving + Airline & All Cargo Building Construction + Paving + Architectural Coating	58	82	117	<1	11	5
Taxiway Paving + Airline Cargo Building Demolition	3	30	36	<1	3	1
Maximum Regional Emissions	**58**	**90**	**117**	**<1**	**14**	**5**
Regional Significance Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Over (Under)	(17)	(10)	(433)	(150)	(136)	(50)
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

[a] *Emission quantities are rounded to "whole number" values. As such, the "total" values presented herein may be 1 unit more or less than actual values. Exact values (i.e., nonrounded) are provided in the CalEEMod printout sheets and/or calculation worksheets that are presented in* ***Appendix F*** *of this Draft EIR.*

[b] *PM_{10} and $PM_{2.5}$ emissions estimates are based on compliance with SCAQMD Rule 403 requirements for fugitive dust suppression.*

Source: ESA PCR, 2016

Table 3.4-13

Southwest Quadrant Full-Size Terminal Option
Maximum Unmitigated Regional Operational Emissions (pounds per day) [a]

Operational Source	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Existing Emissions						
Aircraft	1,123	2,420	7,032	311	43	43
Aircraft Fuel	29	–	–	–	–	–
Ground Support Equipment	41	130	1,181	5	5	5
Area (Coating, Consumer Products, Landscaping)	92	<1	1	<1	<1	<1
Energy (Natural Gas)	<1	1	1	<1	<1	<1
Mobile (Motor Vehicles)	136	109	1,170	3	226	61
Total Emissions	**1,419**	**2,660**	**9,385**	**319**	**274**	**109**
Project Emissions						
Aircraft [b]	1,345	3,161	8,338	393	48	48
Aircraft Fuel [b]	39	–	–	–	–	–
Ground Support Equipment [b]	48	153	1,389	6	6	6
Area (Coating, Consumer Products, Landscaping)	92	<1	1	<1	<1	<1
Energy (Natural Gas)	<1	1	1	<1	<1	<1
Mobile (Motor Vehicles)	91	61	753	3	290	78
Total Emissions	**1,615**	**3,376**	**10,482**	**402**	**344**	**132**
Net Emissions	**196**	**716**	**1,097**	**83**	**70**	**23**
SCAQMD Significance Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Over/(Under)	141	661	547	(67)	(80)	(32)
Exceed Threshold?	**Yes**	**Yes**	**Yes**	**No**	**No**	**No**

[a] *Emission quantities are rounded to "whole number" values. As such, the "total" values presented herein may be 1 unit more or less than actual values. Exact values (i.e., nonrounded) are provided in the CalEEMod printout sheets and/or calculation worksheets that are presented in **Appendix F**.*

[b] *Aircraft, aircraft fuel, and ground support equipment emissions include future growth in passengers that would occur with or without implementation of the project.*

Source: ESA PCR, 2016

without implementation of the project under the future No Project condition. Nonetheless, relative to existing conditions, regional emission impacts from operational activities under the Southwest Quadrant Full-Size Terminal Option would be significant for VOCs, NO_X, and CO.

The project would result in a replacement terminal with no change in the number of gates[18] or in the total number of public parking spaces for commercial airline passengers (refer to the project description in **Chapter 2**). Implementation of the project itself would not directly cause future growth in passengers that would result in an increase in emissions. The existing terminal building and supporting facilities can accommodate the projected future growth in passengers for the reasonably foreseeable time period without the need for additional gates or building floor area. Therefore, the emissions presented in **Table 3.4-13** would also occur under future No Project conditions.

Mitigation Measure SW QUAD FULL-AIR-3

Regional emissions of VOC and NO_X would exceed the SCAQMD threshold due to the increased emissions from aircraft LTOs and taxiing. The increase in aircraft LTOs and taxiing would occur with or without implementation of the project under the future No Project condition. In addition, emissions associated with aircraft are under the jurisdiction of the FAA. The Authority has no ability to regulate aircraft emissions. The project would implement PDF-AIR-1 to minimize emissions associated with building energy use and mobile sources.

Significance After Mitigation: No feasible mitigation is available to reduce impacts to less than significant and impacts would be considered significant and unavoidable.

IMPACT SW QUAD FULL-AIR-4: Increase in Non-Attainment Criteria Pollutants

The Air Basin is considered to be in "nonattainment" for O_3 (for both the 1-hour and 8-hour standard), PM_{10}, and $PM_{2.5}$ (24 hour and annual). As shown in **Table 3.4-12**, project construction would not exceed SCAQMD indicators for ozone precursors (i.e., VOCs and NO_X), PM_{10} and $PM_{2.5}$. As shown in **Table 3.4-13**, project operation would exceed the SCAQMD indicators for emissions of NOx, VOCs, and CO. As a result, operations would potentially contribute to the Basin's nonattainment of national and state standards for O_3. The VOC, NO_X, and CO exceedances are due to the increase in emissions from aircraft LTOs and taxiing relative to existing conditions. The increase in aircraft LTOs and taxiing would occur with or without implementation of the project under the future No Project condition. Nonetheless, impacts are considered potentially significant.

Mitigation Measure SW QUAD FULL-AIR-4

Regional emissions of VOC and NO_X would exceed the SCAQMD threshold due to the increased emissions from aircraft LTOs and taxiing. The increase in aircraft LTOs and taxiing would occur with or without implementation of the project under the future No Project condition. In addition, emissions associated with aircraft are under the jurisdiction of the FAA. The Authority has no ability to regulate aircraft emissions. The project would implement PDF-AIR-1 to minimize emissions associated with building energy use and mobile sources.

Significance After Mitigation: No feasible mitigation is available to reduce impacts to less than significant and impacts would be considered significant and unavoidable.

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[18] A gate is defined as the waiting area for passengers before boarding a flight and consists of one exit doorway that leads to one aircraft.

IMPACT SW QUAD FULL-AIR-5: Generation of Pollutant Emissions Greater than Localized Significance Thresholds

CONSTRUCTION

The localized construction air quality analysis was conducted similarly to that of the Southwest Quadrant Full-Size Terminal Option with the exception of locating the terminal building and ancillary building construction sources generally in the southwest quadrant of the Airport. Additionally, terminal construction in the southwest quadrant would require the relocation of air cargo facilities currently located in the southwest quadrant. The results of the dispersion modeling are presented in **Table 3.4-14**. As shown, maximum concentrations during construction activities would not exceed the allowable thresholds at the closest sensitive receptors CO, NO_2, PM_{10}, and $PM_{2.5}$. As such, localized air quality impacts during construction would be less than significant.

Table 3.4-14

Southwest Quadrant Full-Size Terminal Option

Maximum Unmitigated Localized Construction Dispersion Modeling Analysis [a]

Pollutant [a]	Averaging Period	Project Concentration (μg/m^3)	Ambient Background (μg/m^3)	Total (μg/m^3)	Threshold (μg/m^3)	Exceed Threshold?
CO	1-hr	52.5	3,433 [c]	3,485	23,000	NO
CO	8-hr	11.6	3,433 [c]	3,445	10,000	NO
NO_2	1-hr	29.7	137.6	167.4	339	NO
NO_2	1-hr 98th Percentile [b]	25.5	114.2	139.6	188	NO
PM_{10}	24-hr	0.39	—	0.39	10.4	NO
PM_{10}	Annual	0.12	—	0.12	2.5	NO
$PM_{2.5}$	24-hr	0.20	—	0.20	10.4	NO
$PM_{2.5}$	Annual	0.06	—	0.06	2.5	NO

[a] *Detailed calculations are provided in the CalEEMod model printout sheets and/or calculation worksheets that are presented in* ***Appendix F****.*

[b] *Based on the 3-year average of the 98th percentile of the yearly distribution of 1-hour daily maximum concentrations.*

[c] *The CO 1-hour and 8-hour ambient background concentrations are rounded to 3 ppm. Therefore, for the purpose of this analysis, the ambient background concentrations are the same.*

Source: ESA PCR, 2016

OPERATIONS

The localized operational air quality analysis was conducted similarly to that of the Adjacent Property Full-Size Terminal Option with the exception of the location of the emission sources for aircraft taxiing pathways, replacement terminal building and other buildings, and usage areas for GSE and auxiliary power units. These sources would be relocated generally towards the southwest quadrant of the Airport. The results of the dispersion modeling analysis for NO_2 and CO are presented in **Table 3.4-15**. The results of the dispersion modeling analysis for PM_{10} and $PM_{2.5}$ are presented in **Table 3.4-16**. As shown, maximum concentrations during operational activities would not exceed the allowable thresholds at the closest sensitive receptors CO, NO_2, PM_{10}, and $PM_{2.5}$. As such, localized air quality impacts during operation would be less than significant.

Table 3.4-15

Southwest Quadrant Full-Size Terminal Option

Maximum Unmitigated Localized Operational Dispersion Modeling Analysis

NO_2 and CO [a]

Pollutant [a]	Averaging Period	Project Concentration (µg/m³)	Ambient Background (µg/m³)	Total (µg/m³)	Threshold (µg/m³)	Exceed Threshold?
CO	1-hr	249	3,433 [c]	3,682	23,000	NO
CO	8-hr	168	3,433 [c]	3,601	10,000	NO
NO_2	1-hr	65.9	137.6	203.5	339	NO
NO_2	1-hr 98th Percentile [b]	63.8	114.2	178.0	188	NO

[a] *Detailed calculations are provided in the CalEEMod model printout sheets and/or calculation worksheets that are presented in **Appendix F**.*

[b] *Based on the 3-year average of the 98th percentile of the yearly distribution of 1-hour daily maximum concentrations.*

[c] *The CO 1-hour and 8-hour ambient background concentrations are rounded to 3 ppm. Therefore, for the purpose of this analysis, the ambient background concentrations are the same.*

Source: ESA PCR, 2016

Table 3.4-16

Southwest Quadrant Full-Size Terminal Option
Maximum Unmitigated Incremental Localized Operational Dispersion Modeling Analysis
PM_{10} and $PM_{2.5}$ [a]

Pollutant [a]	Averaging Period	Project Concentration ($\mu g/m^3$)	Total ($\mu g/m^3$)	Threshold ($\mu g/m^3$)	Exceed Threshold?
PM_{10}	24-hr	4.98	4.98	10.4	NO
PM_{10}	Annual	2.10	2.10	2.5	NO
$PM_{2.5}$	24-hr	2.07	2.07	10.4	NO
$PM_{2.5}$	Annual	0.87	0.87	2.5	NO

[a] *Detailed calculations are provided in the CalEEMod model printout sheets and/or calculation worksheets that are presented in **Appendix F**.*

Source: ESA PCR, 2016

Mitigation Measure SW QUAD FULL-AIR-5
No mitigation is warranted.

IMPACT SW QUAD FULL-AIR-6: Contribution to an Exceedance of CO Standards

The potential for the project to cause or contribute to CO hotspots is evaluated by comparing project intersections (both intersection geometry and traffic volumes) with prior studies conducted by the SCAQMD in support of its AQMPs and considering existing background CO concentrations. As discussed below, this comparison provides evidence that the project would not cause or contribute to the formation of CO hotspots, that CO concentrations at project-impacted intersections would remain well below the ambient air quality standards, and that no further CO analysis is warranted or required.

As shown previously in **Table 3.4-1**, CO levels in the Airport area are substantially below the federal and State standards. Maximum CO levels in recent years are 3 ppm (one-hour average) and 2.4 ppm (eight-hour average) compared to the thresholds of 20 ppm (one-hour average) and 9.0 (eight-hour average). Carbon monoxide decreased dramatically in the Air Basin with the introduction of the catalytic converter in 1975.

No exceedances of CO have been recorded at monitoring stations in the Air Basin for some time, and the Air Basin is currently designated as a CO attainment area for both the CAAQS and NAAQS. Thus, it is not expected that CO levels at project-impacted intersections would rise to the level of an exceedance of these standards.

The SCAQMD conducted CO modeling for the 2003 AQMP for the four worst-case intersections in the Air Basin. These include: (a) Wilshire Boulevard and Veteran Avenue, (b) Sunset Boulevard and Highland Avenue, (c) La Cienega and Century Boulevards, and (d) Long Beach Boulevard and Imperial Highway. In the 2003 AQMP, the SCAQMD notes that the intersection of Wilshire Boulevard and Veteran Avenue is the most congested intersection in Los Angeles County with an average daily traffic volume of about 100,000 vehicles per day. (SCAQMD AQMP, 2003) This intersection is located near the on- and off-ramps to Interstate 405 in West Los Angeles. The evidence provided in Table 4-10 of Appendix V of the 2003 AQMP shows that the peak modeled CO concentration due to vehicle emissions at these four intersections was 4.6 ppm (one-hour average) and 3.2 (eight-hour average) at Wilshire Boulevard and Veteran Avenue.[19] When added to the existing background CO concentrations, the screening values would be 7.6 ppm (one-hour average) and 5.6 ppm (eight-hour average).

Based on the project Traffic Impact Study (see **Appendix L**), of the studied intersections that are predicted to operate at a Level of Service (LOS) of D, E, or F under Future (2025) With Project Plus Cumulative conditions, no intersections would have peak traffic volumes exceeding 100,000 per day. The peak intersection under these conditions would have a peak traffic volume of approximately 82,500 per day based on peak hour trips comprising 10 percent of the daily trips. (Gibson, 2016) As a result, CO concentrations are expected to be less than 6.8 ppm (one-hour average) and 5.1 ppm (eight-hour average), which would not exceed the thresholds.[20] Thus, this comparison provides evidence that the project would not contribute to the formation of CO hotspots and no further CO analysis is required. Therefore, the Adjacent Property Full-Size Terminal Option would result in less-than-significant impacts with respect to CO hotspots.

Mitigation Measure SW QUAD FULL-AIR-6

No mitigation is warranted.

IMPACT SW QUAD FULL-AIR-7: Generation of Toxic Air Contaminants

CONSTRUCTION

The greatest potential for TAC emissions would be related to diesel particulate matter emissions associated with heavy equipment operations during demolition, grading and excavation, and building construction activities. The project will be subject to several SCAQMD rules designed to limit exposure to TACs during construction activities. The project would be required to comply with the CARB Air Toxics Control Measure that limits diesel powered equipment and vehicle idling to no more than 5 minutes at a location, and the CARB In-Use Off-Road Diesel Vehicle Regulation; compliance with these would minimize emissions of TACs during construction. The project would also comply with the requirements of SCAQMD Rule 1403 if asbestos is found during the renovation and construction activities. Additional regulatory details, environmental

[19] The eight-hour average is based on a 0.7 persistence factor, as recommended by the SCAQMD.

[20] The expected CO concentrations are calculated based on the ratio of 82,500/100,000 multiplied by the screening values of 4.6 ppm (one-hour average) and 3.2 ppm (eight-hour average), plus the ambient background values of 3 ppm (one-hour average) and 2.4 ppm (eight-hour average). Actual CO value would likely be less than the expected values reported in the analysis as the average CO emissions from motor vehicles operating today have declined as compared to motor vehicles operating in year 2003.

setting, and impacts associated with asbestos are discussed in **Section 3.9**. Furthermore, the project would voluntarily implement the control measures described in PDF-AIR-2.

The health risk assessment was conducted similarly to that of the Adjacent Property Full-Size Terminal Option with the exception of locating the terminal building and ancillary building construction sources generally in the southwest quadrant of the Airport. The maximum health risk impacts were assessed for the previously identified off-site sensitive receptors. **Table 3.4-17** summarizes the carcinogenic risk for the sensitive receptors located throughout the site vicinity. For carcinogenic exposures, the cancer risk from DPM emissions from construction of the Southwest Quadrant Full-Size Terminal Option is estimated to result in a maximum carcinogenic risk of approximately 7.9 per one million. As the maximum impact would be less than the risk threshold of 10 in one million, impacts would be considered less than significant.

Table 3.4-17

Southwest Quadrant Full-Size Terminal Option
Maximum Carcinogenic Risk for Off-Site Sensitive Receptors from Construction

Sensitive Receptor	Maximum Cancer Risk (# in one million)
Maximum Exposed Residential Receptor	7.9 in one million
Maximum Individual Cancer Risk Threshold	*10 in one million*
Exceeds Threshold?	*No*

Source: ESA PCR, 2016

As previously mentioned, the same degree of uncertainty exists in the process of assessing health risks and impacts. It is typical to err on the side of health protection by assessing risk on the most sensitive populations, such as children and the elderly, as was done for this assessment.

Non-cancer impacts were assessed based on the Hazard Index similarly to that of the Adjacent Property Full-Size Terminal Option. The state has identified chronic health impacts from DPM while acute impacts for DPM are not known based on the latest scientific data. The evaluation of non-cancer chronic impacts is based on the maximum annual concentration at a sensitive receptor. The dispersion modeling analysis conducted for the cancer risk analysis determined a maximum annual DPM concentration of approximately 0.022 micrograms per cubic meter. Therefore, the chronic health impact would be approximately 0.005, which is less than the threshold of 1.0. Therefore, non-cancer chronic impacts would be less than significant.

OPERATIONS

The health risk assessment was conducted similarly to that of the Adjacent Property Full-Size Terminal Option with the exception of the location of the emission sources for aircraft taxiing pathways and usage areas for GSE and auxiliary power units. Health risk impacts were assessed for the previously identified sensitive receptors. **Table 3.4-18** summarizes the carcinogenic risk for representative receptors located throughout the site vicinity. Given the proximity of residential uses to the south of the Southwest Quadrant terminal site and the prevailing wind patterns, dispersal of TAC emissions in the direction of the residential uses would increase, resulting in an incremental increase in carcinogenic risk above the significance threshold. For carcinogenic exposures, operation of the project would result in a maximum increase in incremental cancer risk that would exceed the threshold for a 30-year typical residential exposure period and a 70-year lifetime exposure period. As the maximum impact would exceed the risk threshold of 10 in one million, impacts would be considered significant.

As previously mentioned, the same degree of uncertainty exists in the process of assessing health risks and impacts. It is typical to err on the side of health protection by assessing risk on the most sensitive populations, such as children and the elderly, as was done for this assessment.

Table 3.4-18

Southwest Quadrant Full-Size Terminal Option - Maximum Incremental Increase in Carcinogenic Ris Off-Site Sensitive Receptors from Operations

Sensitive Receptor	Maximum Cancer Risk (# in one million)
Total Increase (30 Year)	*31 in one million*
Threshold	*10 in one million*
Exceeds Threshold?	***Yes***
Existing Maximum Exposed Residential Receptor (70 Year)	286
Southwest Quadrant Maximum Exposed Residential Receptor (70 Year)	150
Total Increase (70 Year)	*37 in one million*
Threshold	*10 in one million*
Exceeds Threshold?	***Yes***

Source: ESA PCR, 2016

Non-cancer impacts were assessed based on the Hazard Index. The state has identified acute 1-hour, acute 8-hour, and/or chronic health impacts from TAC emissions that would be emitted during operations, such as 1,3-butadiene, benzene, DPM, formaldehyde, and toluene. The evaluation of non-cancer acute impacts is based on the maximum incremental increase in 1-hour and 8-hour concentrations and the evaluation chronic impacts is based on the maximum incremental increase in annual concentrations at a sensitive receptor. The Hazard Index is calculated by dividing the maximum modeled annual average concentration at the maximum impacted sensitive receptor by the REL. A significant impact would occur if the Hazard Index is 1.0 or greater for acute or chronic exposures. The acute and chronic health impacts with the maximum Hazard Index for the same target organ system is used for impact determination. **Table 3.4-19** summarizes the non-carcinogenic risks for sensitive receptors located throughout the site vicinity. As shown, acute and chronic health impacts would not exceed a Hazard Index of 1.0. Therefore, non-cancer acute and chronic impacts would be less than significant.

Table 3.4-19

Southwest Quadrant Full-Size Terminal Option - Maximum Incremental Increase in Non-Carcinog Risk for Off-Site Sensitive Receptors from Operations

Sensitive Receptor	Hazard Index
Chronic Hazard Index	*0.186*
Threshold	*1.0*
Exceeds threshold?	***No***
Acute (1-hour) Hazard Index	*0.262*
Threshold	*1.0*
Exceeds threshold?	***No***
Acute (8-hour) Hazard Index	*0.731*
Threshold	*1.0*
Exceeds threshold?	***No***

Source: ESA PCR, 2016

Mitigation Measure SW QUAD FULL-AIR-7

Operational TAC impacts would exceed the SCAQMD threshold due to the relocation of emissions sources such as aircraft taxiing, GSE, and auxiliary power units. Emissions associated with aircraft are under the jurisdiction of the FAA. The Authority has no ability to regulate aircraft emissions. The Authority would implement the following mitigation measure to reduce GSE-related TAC emissions.

The Authority would require the installation of commercially available diesel particulate matter filters (DPFs) for those classes and categories of GSE that CARB has verified that DPFs are technically feasible and do not pose safety or reliability problem. This measure does not apply to specific GSE if it is scheduled to be replaced or converted within 36 months after the opening of the replacement terminal to meet the USEPA Tier 3 standards or better or the Zero Emissions Vehicle (ZEV) standard as set forth in the California Exhaust Emission Standards and Test Procedures for 2003 and Subsequent Model Zero-Emission Vehicles, and 2001 and Subsequent Model Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes or is certified to meet applicable ZEV standards in Title 13 of the California Code of Regulations. This measure does not apply to specific GSE if it operates for less than 200 hours per year.

Significance After Mitigation: Implementation of Mitigation Measure SW QUAD FULL-AIR-7 would reduce TAC emissions associated with the relocation of GSE. However, no feasible mitigation is available to reduce impacts to less than significant and impacts would be considered significant and unavoidable.

IMPACT SW QUAD FULL-AIR-8: Creation of Objectionable Odors

CONSTRUCTON

Potential activities that may emit odors during construction activities include the use of architectural coatings and solvents and the combustion of diesel fuel in on- and off-road equipment. As discussed in Subsection 2.b.(3)(a)(iii), SCAQMD Rule 1113 would limit the amount of VOCs in architectural coatings and solvents. In addition, the Airport would comply with the applicable provisions of the CARB Air Toxics Control Measure regarding idling limitations for diesel trucks. Through mandatory compliance with SCAQMD Rules, no construction activities or materials are expected to create objectionable odors affecting a substantial number of people. Therefore, construction of the Southwest Quadrant Full-Size Terminal Option would result in less-than-significant impacts.

OPERATIONS

According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The Airport does include industrial and fueling uses identified by the SCAQMD as being associated with substantial odors. Volatile odors from the jet fuel station and idling of aircraft and vehicles could generate substantial odors in a predominantly industrial area. However, given the separation distance between off-site sensitive uses and fueling and idling areas and prevailing winds, odors would be contained within the general area of the Airport and be consistent with the surrounding uses. In addition, the project would not introduce new sources of odors to the area. Therefore, impacts would be less than significant.

Operation of the Airport could also include potential sources of odors associated with the preparation and disposal of food products from restaurants within the terminal. Food would be prepared and disposed of in accordance with local regulations relating to ventilation control and refuse disposal. In addition, the food would normally be prepared within an enclosed kitchen area and not outdoors. Therefore, it is unlikely for substantial nuisance odors to permeate to the outside environment. It is assumed that the restaurant uses may charbroil meat during food preparation. Such charbroiling activities would be required to comply with applicable provisions of SCAQMD Rule 1138, which requires the control of smoke (PM_{10} and $PM_{2.5}$) and gas (VOCs) generated by the cooking of meat. Compliance with Rule 1138 would reduce the emissions of odorous compounds. As a result, the project is not expected to discharge contaminants into the air in quantities that would cause a nuisance, injury, or annoyance to the public or property pursuant to SCAQMD Rule 402. Therefore, the Southwest Quadrant Full-Size Terminal Option would not create adverse odors affecting a substantial number of people and impacts would be less than significant.

Mitigation Measure SW QUAD FULL-AIR-8

No mitigation is warranted.

Cumulative Impacts

IMPACT SW QUAD FULL-AIR-9: Cumulative Air Quality Impacts

The other projects in the vicinity of the Airport are presented in **Section 3.1**. A number of related projects in the Airport area have not yet been built or are currently under construction. Since the Applicant has no control over the timing or sequencing of the related projects, any quantitative analysis to ascertain daily construction emissions that assumes multiple and concurrent construction projects would be speculative. For this reason, the SCAQMD's methodology to assess a project's cumulative impact differs from the cumulative impacts methodology employed elsewhere in this Draft EIR.

CONSTRUCTION

With respect to the project's short-term construction-related air quality emissions and cumulative conditions, the SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the AQMP pursuant to the federal Clean Air Act mandates. As such, construction of the project would comply with SCAQMD Rule 403 requirements and the ATCM to limit heavy duty diesel motor vehicle idling to no more than five minutes at any given time. In addition, the Airport would utilize a construction contractor(s) that complies with required and applicable BACT and the In-Use Off-Road Diesel Vehicle Regulation. Per SCAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on construction projects in the Air Basin, which would include each of the related projects in the Airport area. As shown above in **Table 3.4-12** and **Table 3.4-14**, regional and localized construction emissions associated with the Southwest Quadrant Full-Size Terminal Option would not exceed the SCAQMD numeric indicators. Since construction would not exceed the regional numeric indicator of significance for criteria pollutants, the Southwest Quadrant Full-Size Terminal Option would result in a less-than-significant impact with regard to cumulative construction emissions.

OPERATIONS

The SCAQMD's approach for assessing cumulative impacts related to operations or long-term implementation is based on attainment of ambient air quality standards in accordance with the requirements of the federal and State Clean Air Acts. As discussed earlier, the SCAQMD has developed a comprehensive plan, the AQMP, which addresses the region's cumulative air quality condition.

A significant impact may occur if a project would add a cumulatively considerable contribution of a federal or State nonattainment pollutant. Because the Los Angeles County portion of the Air Basin is currently in nonattainment for ozone, PM_{10}, and $PM_{2.5}$, related projects could exceed an air quality standard or contribute to an existing or projected air quality exceedance. Cumulative impacts on air quality are evaluated under two sets of thresholds for CEQA and the SCAQMD. In particular, Section 15064(h)(3) of the CEQA *Guidelines* provides guidance in determining the significance of cumulative impacts. Specifically, Section 15064(h)(3) states in part that:

> *A lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that*

will avoid or substantially lessen the cumulative problem (e.g., water quality control plan, air quality plan, integrated waste management plan) within the geographic area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency…

For purposes of the cumulative air quality analysis with respect to CEQA Guidelines Section 15064(h)(3), the project's incremental contribution to cumulative air quality impacts is determined based on compliance with the SCAQMD adopted 2012 AQMP. As described above, the project would not conflict with or obstruct implementation of AQMP and thus would be consistent with the growth projections in the AQMP.

Nonetheless, SCAQMD no longer recommends relying solely upon consistency with the AQMP as an appropriate methodology for assessing cumulative air quality impacts. The SCAQMD recommends that project-specific air quality impacts be used to determine the potential cumulative impacts on regional air quality. As discussed above, peak daily operation-related emissions for the Southwest Quadrant Full-Size Terminal Option would exceed the SCAQMD regional significance thresholds for VOCs, NO_X, and CO relative to existing conditions. The VOC, NO_X, and CO exceedances are due to the increase in emissions from aircraft LTOs and taxiing relative to existing conditions. The increase in aircraft LTOs and taxiing would occur with or without implementation of the project under the future No Project condition. Nonetheless, the emissions of nonattainment pollutants and precursors generated by Southwest Quadrant Full-Size Terminal Option operation would be in excess of the SCAQMD project-level thresholds and impacts would be cumulatively significant.

Cumulative TAC impacts are based on the future growth in passengers that would occur under both the future plus project and future No Project conditions compared to existing conditions. The incremental increase in health risk would be approximately 52 in one million over a typical 30-year residential exposure and approximately 62 in one million over a 70-year lifetime exposure. As discussed previously, the health risk calculations are based on conservative assumptions and incorporate age sensitive factors that account for the sensitivity of children to TAC emissions, high-end breathing rates, and the assumption that the vast majority of time is spent at home. The future growth in passengers would occur with or without implementation of the project. However, as the Southwest Quadrant Full-Size Terminal Option would result in a significant project-level TAC impact, the cumulative TAC impact is considered to be cumulatively significant, and the project's contribution is cumulatively considerable.

CONSISTENCY WITH GENERAL PLANS

With respect to air quality, the pertinent County *General Plan* policy recommends strict regulation of mobile and stationary sources as well as vanpooling, carpooling and improved public transportation. The Airport would comply with applicable air quality rules and regulations, and would implement a number PDFs that would reduce the generation of criteria pollutant. Several transit options are available in the Airport vicinity as an alternative to private vehicles. The Airport would allow for nearby residents to find goods and services in their immediate vicinity. Finally, the Airport would provide the Code-required amount of short- and long-term bicycle parking as well as amenities such as lockers and showers. Accordingly, the Southwest Quadrant Full-Size Terminal Option would be consistent with *General Plan* policy concerning Airport sources of stationary and mobile emissions as well as alternatives to private vehicle use.

Mitigation Measure SW QUAD FULL-AIR-9

Regional emissions of VOC and NO_X would exceed the SCAQMD threshold due to the increased emissions from aircraft LTOs and taxiing. The increase in aircraft LTOs and taxiing would occur with or without implementation of the project under the future No Project condition. In addition, emissions associated with aircraft are under the jurisdiction of the FAA. The Authority has no ability to regulate aircraft emissions. The project would implement PDF-AIR-1 to minimize emissions associated with building energy use and mobile sources.

Significance After Mitigation: No feasible mitigation is available to reduce criteria pollutant impacts to less than significant and impacts would be considered significant and unavoidable. For TACs, the impact is cumulatively significant and the project's contribution is cumulatively considerable. No feasible mitigation is available to reduce TAC impacts to less than significant and impacts would be considered significant and unavoidable.

3.4.3.3 SOUTHWEST QUADRANT SAME-SIZE TERMINAL OPTION

Project Impacts

IMPACT SW QUAD SAME-AIR-1: Consistency with Applicable Plans and Policies

CONSTRUCTION

Under this criterion, the SCAQMD recommends that lead agencies demonstrate that a project would not directly obstruct implementation of an applicable air quality plan and that a project be consistent with the assumptions (typically land use related, such as resultant employment or residential units) upon which the air quality plan are based. The Airport would result in an increase in short-term employment compared to existing conditions. Being relatively small in number and temporary in nature, construction jobs under the proposed project would not conflict with the long-term employment projections upon which the AQMP is based. Control strategies in the AQMP with potential applicability to short-term emissions from construction activities include strategies denoted in the AQMP as ONRD-04 and OFFRD-01, which are intended to reduce emissions from on-road and off-road heavy-duty vehicles and equipment by accelerating replacement of older, emissions-prone engines with newer engines meeting more stringent emission standards. The Bob Hope Airport Replacement Terminal Project would not conflict with implementation of these strategies. Additionally, the Airport would comply with CARB requirements to minimize short-term emissions from on-road and off-road diesel equipment. The Airport would also comply with SCAQMD regulations for controlling fugitive dust pursuant to SCAQMD Rule 403.

Compliance with these requirements would be similar to the Adjacent Property Full-Size Terminal Option. The Southwest Quadrant Same-Size Terminal Option is consistent with and meets or exceeds the AQMP requirements for control strategies intended to reduce emissions from construction equipment and activities. Because the Airport would not conflict with the control strategies intended to reduce emissions from construction equipment, the Southwest Quadrant Same-Size Terminal Option would not conflict with or obstruct implementation of the AQMP, and impacts would be less than significant.

OPERATIONS

The 2012 AQMP (which will be updated in 2016) was prepared to accommodate growth, reduce the levels of pollutants within the areas under the jurisdiction of SCAQMD, return clean air to the region, and minimize the impact on the economy. Projects that are considered consistent with the AQMP would not interfere with attainment because this growth is included in the projections used in the formulation of the AQMP.

The Southwest Quadrant Same-Size Terminal Option would add the same airport and commercial land uses as the SOUTHWEST QUADRANT FULL-SIZE Terminal Option. The Southwest Quadrant Same-Size Terminal Option is consistent with the underlying *General Plan* Land Use designation for the southwest quadrant, and is consistent with the underlying zoning.

The FAA and SCAG have projected aviation activity using past growth and economic assumptions.[21] The AQMP is based on these growth assumptions and current zoning. The project would not increase the existing rate of growth in enplanements and would be consistent with overall growth on a regional level. As such, the project would be consistent with the FAA's growth projections and the Burbank 2035 General Plan and would thus be consistent with the growth projections in the AQMP.

The AQMP includes Transportation Control Measures that are intended to reduce regional mobile source emissions. While the majority of the measures are implemented by cities, counties, and other regional agencies such as SCAG and SCAQMD, the Airport would be supportive of measures related to reducing vehicle trips for patrons and employees and increasing connectivity to public transit.

As the project would be consistent with the growth projections in the AQMP and would be supportive of relevant Transportation Control Measures aimed at reducing vehicle trips, impacts related to consistency with these plans would be less than significant.

Mitigation Measure SW QUAD SAME-AIR-1
No mitigation is warranted.

IMPACT SW QUAD SAME-AIR-2: Violation of Construction Air Quality Standards

Construction of the Southwest Quadrant Same-Size Terminal Option would generate emissions similar to those associated with the Adjacent Property Full-Size Terminal Option. Results of the criteria pollutant calculations are presented in **Table 3.4-20**. As shown, construction-related daily emissions for the criteria and precursor pollutants would not exceed the SCAQMD regional thresholds of significance for VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$. These calculations include appropriate dust control measures that would be

[21] The SCAG projections utilized in the AQMP are higher than the forecasts used in this EIR. See also **Appendix E**.

Table 3.4-20

Southwest Quadrant Same-Size Terminal Option

Maximum Unmitigated Regional Construction Emissions (pounds per day) [a]

Construction Source	Regional Emissions					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10} [c]**	**$PM_{2.5}$ [b]**
Southwest Quadrant Phase						
Demolition (Parking Lot A) + Grading	6	90	54	<1	11	5
Grading + Foundation	5	51	42	<1	6	3
Terminal Building Construction	6	53	65	<1	11	4
Terminal Building Construction + Demolition (Parking Lot H)	6	58	72	<1	14	5
Terminal Building Construction + Paving + Architectural Coating	43	62	90	<1	14	5
Terminal Building Construction + Paving + Architectural Coating	42	51	87	<1	14	5
Air Cargo Building & Existing Terminal Phase						
Demolition (Terminal/Parking) + Airline Cargo Building Construction + Taxiway Paving	7	70	81	<1	13	5
Taxiway Paving + Airline & All Cargo Building Construction + Paving + Architectural Coating	58	82	117	<1	11	5
Taxiway Paving + Airline Cargo Building Demolition	3	30	36	<1	3	1
Maximum Regional Emissions	**58**	**90**	**117**	**<1**	**14**	**5**
Regional Significance Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Over (Under)	(17)	(10)	(433)	(150)	(136)	(50)
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

[a] *Emission quantities are rounded to "whole number" values. As such, the "total" values presented herein may be 1 unit more or less than actual values. Exact values (i.e., nonrounded) are provided in the CalEEMod printout sheets and/or calculation worksheets that are presented in* ***Appendix F*** *of this Draft EIR.*

[b] *PM_{10} and $PM_{2.5}$ emissions estimates are based on compliance with SCAQMD Rule 403 requirements for fugitive dust suppression.*

Source: ESA PCR, 2016

implemented during each phase of construction, as required by SCAQMD Rule 403 (Control of Fugitive Dust). In addition, the emissions take into account the use of cleaner construction equipment as specified in PDF-AIR-2, which requires the use of off-road diesel-powered construction equipment that meets or exceeds the CARB and USEPA Tier 3 off-road emissions standard with Level 3 diesel particular filters for equipment rated at 100 hp or greater during Airport construction. Therefore, with respect to regional emissions from construction activities, impacts would be less than significant.

Mitigation Measure SW QUAD SAME-AIR-2

No mitigation is warranted.

IMPACT SW QUAD SAME-AIR-3: Violation of Operational Air Quality Standards

Operation of the existing and proposed uses has the potential to create air quality impacts from vehicle trips to and from the site, vehicles traveling on the Airport property for parking or for passenger pick-up and drop-off, from building energy usage, aircraft LTO, taxiing, and other aircraft supporting equipment. Fugitive emissions of VOCs would also be generated from the use of consumer products, coatings, and from fuel throughput. The maximum daily regional operational emissions were calculated for the existing conditions and the Southwest Quadrant Same-Size Terminal Option in order to estimate the net change in emissions. Detailed emissions calculations are provided in **Appendix F** of this Draft EIR. Results of the criteria pollutant calculations are presented in **Table 3.4-21**. As shown, the net change in operational-related daily emissions for the criteria and precursor pollutants would not exceed the SCAQMD regional thresholds of significance for SO_X, PM_{10}, and $PM_{2.5}$ but would exceed the thresholds for VOC, NO_X, and CO. The VOC, NO_X, and CO exceedances are due to the increase in emissions from aircraft LTOs and taxiing relative to existing conditions. The increase in aircraft LTOs and taxiing would occur with or without implementation of the project under the future No Project condition. Nonetheless, relative to existing conditions, regional emission impacts from operational activities under the Adjacent Property Same-Size Terminal Option would be significant for VOCs, NO_X, and CO.

The project would result in a replacement terminal with no change in the number of gates[22] or in the total number of public parking spaces for commercial airline passengers (refer to the project description in **Chapter 2**). Implementation of the project itself would not directly cause future growth in passengers that would result in an increase in emissions. The existing terminal building and supporting facilities can accommodate the projected future growth in passengers for the reasonably foreseeable time period without the need for additional gates or building floor area. Therefore, the emissions presented in **Table 3.4-21** would also occur under future No Project conditions.

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[22] A gate is defined as the waiting area for passengers before boarding a flight and consists of one exit doorway that leads to one aircraft.

Table 3.4-21

Southwest Quadrant Same-Size Terminal Option

Maximum Unmitigated Regional Operational Emissions (pounds per day) [a]

Operational Source	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Existing Emissions						
Aircraft	1,123	2,420	7,032	311	43	43
Aircraft Fuel	29	–	–	–	–	–
Ground Support Equipment	41	130	1,181	5	5	5
Area (Coating, Consumer Products, Landscaping)	92	<1	1	<1	<1	<1
Energy (Natural Gas)	<1	1	1	<1	<1	<1
Mobile (Motor Vehicles)	136	109	1,170	3	226	61
Total Emissions	**1,419**	**2,660**	**9,385**	**319**	**274**	**109**
Project Emissions						
Aircraft [b]	1,345	3,161	8,338	393	48	48
Aircraft Fuel [b]	39	–	–	–	–	–
Ground Support Equipment [b]	48	153	1,389	6	6	6
Area (Coating, Consumer Products, Landscaping)	92	<1	1	<1	<1	<1
Energy (Natural Gas)	<1	1	1	<1	<1	<1
Mobile (Motor Vehicles)	91	61	753	3	290	78
Total Emissions	**1,615**	**3,376**	**10,482**	**402**	**344**	**132**
Net Emissions	**196**	**716**	**1,097**	**83**	**70**	**23**
SCAQMD Significance Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Over/(Under)	141	661	547	(67)	(80)	(32)
Exceed Threshold?	**Yes**	**Yes**	**Yes**	**No**	**No**	**No**

[a] *Emission quantities are rounded to "whole number" values. As such, the "total" values presented herein may be 1 unit more or less than actual values. Exact values (i.e., nonrounded) are provided in the CalEEMod printout sheets and/or calculation worksheets that are presented in **Appendix F**.*

[b] *Aircraft, aircraft fuel, and ground support equipment emissions include future growth in passengers that would occur with or without implementation of the project.*

Source: ESA PCR, 2016

Mitigation Measure SW QUAD SAME-AIR-3

Regional emissions of VOC and NO_X would exceed the SCAQMD threshold due to the increased emissions from aircraft LTOs and taxiing. The increase in aircraft LTOs and taxiing would occur with or without implementation of the project under the future No Project condition. In addition, emissions associated with aircraft are under the jurisdiction of the FAA. The Authority has no ability to regulate aircraft emissions. The project would implement PDF-AIR-1 to minimize emissions associated with building energy use and mobile sources.

Significance After Mitigation: No feasible mitigation is available to reduce impacts to less than significant and impacts would be considered significant and unavoidable.

IMPACT SW QUAD SAME-AIR-4: Increase in Non-Attainment Criteria Pollutants

The Air Basin is considered to be in "nonattainment" for O_3 (for both the 1-hour and 8-hour standard), PM_{10}, and $PM_{2.5}$ (24 hour and annual). As shown in **Table 3.4-20**, Southwest Quadrant Same-Size Terminal Option construction would not exceed SCAQMD indicators for ozone precursors (i.e., VOCs and NO_X), PM_{10} and $PM_{2.5}$. As shown in **Table 3.4-21**, project operation would exceed the SCAQMD indicators for emissions of NO_X, VOCs, and CO. As a result, operations would potentially contribute to the Basin's nonattainment of national and state standards for O_3. The VOC, NO_X, and CO exceedances are due to the increase in emissions from aircraft LTOs and taxiing relative to existing conditions. The increase in aircraft LTOs and taxiing would occur with or without implementation of the project under the future No Project condition. Nonetheless, impacts are considered potentially significant.

Mitigation Measure SW QUAD SAME-AIR-4

Regional emissions of VOC and NO_X would exceed the SCAQMD threshold due to the increased emissions from aircraft LTOs and taxiing. The increase in aircraft LTOs and taxiing would occur with or without implementation of the project under the future No Project condition. In addition, emissions associated with aircraft are under the jurisdiction of the FAA. The Authority has no ability to regulate aircraft emissions. The project would implement PDF-AIR-1 to minimize emissions associated with building energy use and mobile sources.

Significance After Mitigation: No feasible mitigation is available to reduce impacts to less than significant and impacts would be considered significant and unavoidable.

IMPACT SW QUAD SAME-AIR-5: Generation of Pollutant Emissions Greater than Localized Significance Thresholds

CONSTRUCTION

The localized construction air quality analysis was conducted similarly to that of the Adjacent Property Full-Size Terminal Option with the exception of locating the terminal building and ancillary building construction sources generally in the southwest quadrant of the Airport. Additionally, terminal construction in the southwest quadrant would require the relocation of air cargo facilities currently located in the southwest quadrant. The results of the dispersion modeling are presented in **Table 3.4-22**. As shown, maximum concentrations during construction activities would not exceed the allowable thresholds at the closest sensitive receptors CO, NO_2, PM_{10}, and $PM_{2.5}$. As such, localized air quality impacts during construction would be less than significant.

OPERATIONS

The localized operational air quality analysis was conducted similarly to that of the Adjacent Property Full-Size Terminal Option with the exception of the location of the emission sources for aircraft taxiing pathways, replacement terminal building and other buildings, and usage areas for GSE and auxiliary power units. These sources would be relocated generally towards the southwest quadrant of the Airport. The results of the dispersion modeling analysis for NO_2 and CO are presented in **Table 3.4-23**. The results of the dispersion modeling analysis for PM_{10} and $PM_{2.5}$ are presented in **Table 3.4-24**. As shown, maximum concentrations during operational activities would not exceed the allowable thresholds at the closest sensitive receptors CO, NO_2, PM_{10}, and $PM_{2.5}$. As such, localized air quality impacts during operation would be less than significant.

Table 3.4-22

Southwest Quadrant Same-Size Terminal Option - Maximum Unmitigated Localized Construction Dispersion Modeling Analysis [a]

Pollutant [a]	Averaging Period	Project Concentration (μg/m³)	Ambient Background (μg/m³)	Total (μg/m³)	Threshold (μg/m³)	Exceed Threshold?
CO	1-hr	52.5	3,433 [c]	3,485	23,000	NO
CO	8-hr	11.6	3,433 [c]	3,445	10,000	NO
NO_2	1-hr	29.7	137.6	167.4	339	NO
NO_2	1-hr 98th Percentile [b]	25.5	114.2	139.6	188	NO
PM_{10}	24-hr	0.39	—	0.39	10.4	NO
PM_{10}	Annual	0.12	—	0.12	2.5	NO
$PM_{2.5}$	24-hr	0.20	—	0.20	10.4	NO
$PM_{2.5}$	Annual	0.06	—	0.06	2.5	NO

[a] *Detailed calculations are provided in the CalEEMod model printout sheets and/or calculation worksheets that are presented in **Appendix F**.*

[b] *Based on the 3-year average of the 98th percentile of the yearly distribution of 1-hour daily maximum concentrations.*

[c] *The CO 1-hour and 8-hour ambient background concentrations are rounded to 3 ppm. Therefore, for the purpose of this analysis, the ambient background concentrations are the same.*

Source: ESA PCR, 2016

Mitigation Measure SW QUAD SAME-AIR-5

No mitigation is warranted.

IMPACT SW QUAD SAME-AIR-6: Contribution to an Exceedance of CO Standards

The potential for the project to cause or contribute to CO hotspots is evaluated by comparing project intersections (both intersection geometry and traffic volumes) with prior studies conducted by the SCAQMD in support of its AQMPs and considering existing background CO concentrations. As discussed below, this comparison provides evidence that the project would not cause or contribute to the formation of CO hotspots, that CO concentrations at project-impacted intersections would remain well below the ambient air quality standards, and that no further CO analysis is warranted or required.

Table 3.4-23

Southwest Quadrant Same-Size Terminal Option - Maximum Unmitigated Localized Operational Dispersion Modeling Analysis - NO_2 and CO [a]

Pollutant [a]	Averaging Period	Project Concentration (µg/m³)	Ambient Background (µg/m³)	Total (µg/m³)	Threshold (µg/m³)	Exceed Threshold?
CO	1-hr	249	3,433 [c]	3,682	23,000	NO
CO	8-hr	168	3,433 [c]	3,601	10,000	NO
NO_2	1-hr	65.9	137.6	203.5	339	NO
NO_2	1-hr 98th Percentile [b]	63.8	114.2	178.0	188	NO

[a] *Detailed calculations are provided in the CalEEMod model printout sheets and/or calculation worksheets that are presented in **Appendix F**.*

[b] *Based on the 3-year average of the 98th percentile of the yearly distribution of 1-hour daily maximum concentrations.*

[c] *The CO 1-hour and 8-hour ambient background concentrations are rounded to 3 ppm. Therefore, for the purpose of this analysis, the ambient background concentrations are the same.*

Source: ESA PCR, 2016

Table 3.4-24

Southwest Quadrant Same-Size Terminal Option - Maximum Unmitigated Localized Operational Dispersion Modeling Analysis - PM_{10} and $PM_{2.5}$ [a]

Pollutant [a]	Averaging Period	Project Concentration (µg/m³)	Total (µg/m³)	Threshold (µg/m³)	Exceed Threshold?
PM_{10}	24-hr	4.98	4.98	10.4	NO
PM_{10}	Annual	2.10	2.10	2.5	NO
$PM_{2.5}$	24-hr	2.07	2.07	10.4	NO
$PM_{2.5}$	Annual	0.87	0.87	2.5	NO

[a] *Detailed calculations are provided in the CalEEMod model printout sheets and/or calculation worksheets that are presented in **Appendix F**.*

Source: ESA PCR, 2016

As shown previously in **Table 3.4-1**, CO levels in the Airport area are substantially below the federal and State standards. Maximum CO levels in recent years are 3 ppm (one-hour average) and 2.4 ppm (eight-hour average) compared to the thresholds of 20 ppm (one-hour average) and 9.0 (eight-hour average). Carbon monoxide decreased dramatically in the Air Basin with the introduction of the catalytic converter in 1975.

No exceedances of CO have been recorded at monitoring stations in the Air Basin for some time, and the Air Basin is currently designated as a CO attainment area for both the CAAQS and NAAQS. Thus, it is not expected that CO levels at project-impacted intersections would rise to the level of an exceedance of these standards.

The SCAQMD conducted CO modeling for the 2003 AQMP for the four worst-case intersections in the Air Basin. These include: (a) Wilshire Boulevard and Veteran Avenue, (b) Sunset Boulevard and Highland Avenue, (c) La Cienega and Century Boulevards, and (d) Long Beach Boulevard and Imperial Highway. In the 2003 AQMP, the SCAQMD notes that the intersection of Wilshire Boulevard and Veteran Avenue is the most congested intersection in Los Angeles County with an average daily traffic volume of about 100,000 vehicles per day. (SCAQMD AQMP, 2003) This intersection is located near the on- and off-ramps to Interstate 405 in West Los Angeles. The evidence provided in Table 4-10 of Appendix V of the 2003 AQMP shows that the peak modeled CO concentration due to vehicle emissions at these four intersections was 4.6 ppm (one-hour average) and 3.2 (eight-hour average) at Wilshire Boulevard and Veteran Avenue.[23] When added to the existing background CO concentrations, the screening values would be 7.6 ppm (one-hour average) and 5.6 ppm (eight-hour average).

Based on the project Traffic Impact Study (see **Appendix L**), of the studied intersections that are predicted to operate at a Level of Service (LOS) of D, E, or F under Future (2025) With Project Plus Cumulative conditions, no intersections would have peak traffic volumes exceeding 100,000 per day. The peak intersection under these conditions would have a peak traffic volume of approximately 82,500 per day based on peak hour trips comprising 10 percent of the daily trips. (Gibson, 2016) As a result, CO concentrations are expected to be less than 6.8 ppm (one-hour average) and 5.1 ppm (eight-hour average), which would not exceed the thresholds.[24] Thus, this comparison provides evidence that the project would not contribute to the formation of CO hotspots and no further CO analysis is required. Therefore, the Adjacent Property Full-Size Terminal Option would result in less-than-significant impacts with respect to CO hotspots.

Mitigation Measure SW QUAD SAME-AIR-6

No mitigation is warranted.

IMPACT SW QUAD SAME-AIR-7: Generation of Toxic Air Contaminants

CONSTRUCTION

The greatest potential for TAC emissions would be related to diesel particulate matter emissions associated with heavy equipment operations during demolition, grading and excavation, and building construction activities. The project will be subject to several SCAQMD rules designed to limit exposure to TACs during construction activities. The project would be required to comply with the CARB Air Toxics Control Measure

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23 The eight-hour average is based on a 0.7 persistence factor, as recommended by the SCAQMD.

24 The expected CO concentrations are calculated based on the ratio of 82,500/100,000 multiplied by the screening values of 4.6 ppm (one-hour average) and 3.2 ppm (eight-hour average), plus the ambient background values of 3 ppm (one-hour average) and 2.4 ppm (eight-hour average). Actual CO value would likely be less than the expected values reported in the analysis as the average CO emissions from motor vehicles operating today have declined as compared to motor vehicles operating in year 2003.

that limits diesel powered equipment and vehicle idling to no more than 5 minutes at a location, and the CARB In-Use Off-Road Diesel Vehicle Regulation; compliance with these would minimize emissions of TACs during construction. The project would also comply with the requirements of SCAQMD Rule 1403 if asbestos is found during the renovation and construction activities. Additional regulatory details, environmental setting, and impacts associated with asbestos are discussed in **Section 3.9**. Furthermore, the project would voluntarily implement the control measures described in PDF-AIR-2.

The health risk assessment was conducted similarly to that of the Adjacent Property Full-Size Terminal Option with the exception of locating the terminal building and ancillary building construction sources generally in the southwest quadrant of the Airport. The maximum health risk impacts were assessed for the previously identified off-site sensitive receptors. **Table 3.4-25** summarizes the carcinogenic risk for sensitive receptors located throughout the site vicinity. For carcinogenic exposures, the cancer risk from DPM emissions from construction of the Southwest Quadrant Same size Terminal Option is estimated to result in a maximum carcinogenic risk of approximately 7.9 per one million. As the maximum impact would be less than the risk threshold of 10 in one million, impacts would be considered less than significant.

As previously mentioned, the same degree of uncertainty exists in the process of assessing health risks and impacts. It is typical to err on the side of health protection by assessing risk on the most sensitive populations, such as children and the elderly, as was done for this assessment.

Non-cancer impacts were assessed based on the Hazard Index similarly to that of the Adjacent Property Full-Size Terminal Option. The state has identified chronic health impacts from DPM while acute impacts for DPM are not known based on the latest scientific data. The evaluation of non-cancer chronic impacts is based on the maximum annual concentration at a sensitive receptor. The dispersion modeling analysis conducted for the cancer risk analysis determined a maximum annual DPM concentration of

Table 3.4-25

Southwest Quadrant Same-Size Terminal Option
Maximum Carcinogenic Risk for Off-Site Sensitive Receptors from Construction

Sensitive Receptor	Maximum Cancer Risk (# in one million)
Maximum Exposed Residential Receptor	7.9 in one million
Maximum Individual Cancer Risk Threshold	*10 in one million*
Exceeds Threshold?	***No***

Source: ESA PCR, 2016

approximately 0.022 micrograms per cubic meter. Therefore, the chronic health impact would be approximately 0.005, which is less than the threshold of 1.0. Therefore, non-cancer chronic impacts would be less than significant.

OPERATIONS

The health risk assessment was conducted similarly to that of the Adjacent Property Full-Size Terminal Option with the exception of the location of the emission sources for aircraft taxiing pathways, replacement terminal building and other buildings, and usage areas for GSE and auxiliary power units. Health risk impacts were assessed for the previously identified sensitive receptors. **Table 3.4-26** summarizes the carcinogenic risk for representative receptors located throughout the site vicinity. Given the proximity of residential uses to the south of the Southwest Quadrant terminal site and the prevailing wind patterns, dispersal of TAC emissions in the direction of the residential uses would increase, resulting in an incremental increase in carcinogenic risk above the significance threshold. For carcinogenic exposures, operation of the project would result in a maximum increase in incremental cancer risk that would exceed the threshold for a 30-year typical residential exposure period and a 70-year lifetime exposure period. As the maximum impact would exceed the risk threshold of 10 in one million, impacts would be considered significant.

As previously mentioned, the same degree of uncertainty exists in the process of assessing health risks and impacts. It is typical to err on the side of health protection by assessing risk on the most sensitive populations, such as children and the elderly, as was done for this assessment.

Table 3.4-26

Southwest Quadrant Same-Size Terminal Option
Maximum Incremental Increase in Carcinogenic Risk for Off-Site Sensitive Receptors from Operations

Sensitive Receptor	Maximum Cancer Risk (# in one million)
Total Increase (30 Year)	*31 in one million*
Threshold	*10*
Exceeds Threshold?	***Yes***
Total Increase (70 Year)	*37 in one million*
Threshold	*10*
Exceeds Threshold?	***Yes***

Source: ESA PCR, 2016

Non-cancer impacts were assessed based on the Hazard Index. The state has identified acute 1-hour, acute 8-hour, and/or chronic health impacts from TAC emissions that would be emitted during operations, such as 1,3-butadiene, benzene, DPM, formaldehyde, and toluene. The evaluation of non-cancer acute impacts is based on the maximum incremental increase in 1-hour and 8-hour concentrations and the evaluation chronic impacts is based on the maximum incremental increase in annual concentrations at a sensitive receptor. The Hazard Index is calculated by dividing the maximum modeled annual average concentration at the maximum impacted sensitive receptor by the REL. A significant impact would occur if the Hazard Index is 1.0 or greater for acute or chronic exposures. The acute and chronic health impacts with the maximum Hazard Index for the same target organ system is used for impact determination. **Table 3.4-27** summarizes the non-carcinogenic risks for sensitive receptors located throughout the site vicinity. As shown, acute and chronic health impacts would not exceed a Hazard Index of 1.0. Therefore, non-cancer acute and chronic impacts would be less than significant.

Table 3.4-27

Southwest Quadrant Same-Size Terminal Option
Maximum Incremental Increase in Non-Carcinogenic Risk for Off-Site Sensitive Receptors from Operations

Sensitive Receptor	Hazard Index
Chronic Hazard Index	*0.186*
Threshold	*1.0*
Exceeds threshold?	***No***
Acute (1-hour) Hazard Index	*0.262*
Threshold	*1.0*
Exceeds threshold?	***No***
Acute (8-hour) Hazard Index	*0.731*
Threshold	*1.0*
Exceeds threshold?	***No***

Source: ESA PCR, 2016

Mitigation Measure SW QUAD SAME-AIR-7

Operational TAC impacts would exceed the SCAQMD threshold due to the relocation of emissions sources such as aircraft taxiing, GSE, and auxiliary power units. Emissions associated with aircraft are under the jurisdiction of the FAA. The Authority has no ability to regulate aircraft emissions. The Authority would implement the following mitigation measure to reduce GSE-related TAC emissions.

The Authority would require the installation of commercially available diesel particulate matter filters (DPFs) for those classes and categories of GSE that CARB has verified that DPFs are technically feasible and do not pose safety or reliability problem. This measure does not apply to specific GSE if it is scheduled to be replaced or converted within 36 months after the opening of the replacement terminal to meet the USEPA Tier 3 standards or better or the Zero Emissions Vehicle (ZEV) standard as set forth in the California Exhaust Emission Standards and Test Procedures for 2003 and Subsequent Model Zero-Emission Vehicles, and 2001 and Subsequent Model Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes or is certified to meet applicable ZEV standards in Title 13 of the California Code of Regulations. This measure does not apply to specific GSE if it operates for less than 200 hours per year.

Significance After Mitigation: Implementation of Mitigation Measure SW QUAD SAME-AIR-7 would reduce TAC emissions associated with the relocation of GSE. However, no feasible mitigation is available to reduce impacts to less than significant and impacts would be considered significant and unavoidable.

IMPACT SW QUAD SAME-AIR-8: Creation of Objectionable Odors

CONSTRUCTION

Potential activities that may emit odors during construction activities include the use of architectural coatings and solvents and the combustion of diesel fuel in on- and off-road equipment. As discussed in Subsection 2.b.(3)(a)(iii), SCAQMD Rule 1113 would limit the amount of VOCs in architectural coatings and solvents. In addition, the Airport would comply with the applicable provisions of the CARB Air Toxics Control Measure regarding idling limitations for diesel trucks. Through mandatory compliance with SCAQMD Rules, no construction activities or materials are expected to create objectionable odors affecting a substantial number of people. Therefore, construction of the Southwest Quadrant Same-Size Terminal Option would result in less-than-significant impacts.

OPERATIONS

According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The Airport does include industrial and fueling uses identified by the SCAQMD as being associated with substantial odors. Volatile odors from the jet fuel station and idling or aircraft and vehicles could generate substantial odors in a predominantly industrial area. However, given the separation distance between off-site sensitive uses and fueling and idling areas and prevailing winds, odors would be contained within the general area of the Airport and be consistent with the surrounding uses. In addition, the project would not introduce new sources of odors to the area. Therefore, thus impacts would be less than significant.

Operation of the Airport could also include potential sources of odors associated with the preparation and disposal of food products from restaurants within the terminal. Food would be prepared and disposed of in accordance with local regulations relating to ventilation control and refuse disposal. In addition, the food would normally be prepared within an enclosed kitchen area and not outdoors. Therefore, it is unlikely for substantial nuisance odors to permeate to the outside environment. It is assumed that the restaurant uses may charbroil meat during food preparation. Such charbroiling activities would be required to comply with applicable provisions of SCAQMD Rule 1138, which requires the control of smoke (PM_{10} and $PM_{2.5}$) and gas (VOCs) generated by the cooking of meat. Compliance with Rule 1138 would reduce the emissions of odorous compounds. As a result, the project is not expected to discharge contaminants into the air in quantities that would cause a nuisance, injury, or annoyance to the public or property pursuant to SCAQMD Rule 402. Therefore, the Southwest Quadrant Same-Size Terminal Option would not create adverse odors affecting a substantial number of people and impacts would be less than significant.

Mitigation Measure SW QUAD SAME-AIR-8
No mitigation is warranted.

Cumulative Impacts

IMPACT SW QUAD SAME-AIR-9: Cumulative Air Quality Impacts

CONSTRUCTION

With respect to the project's short-term construction-related air quality emissions and cumulative conditions, the SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the AQMP pursuant to the federal Clean Air Act mandates. As such, construction of the project would comply with SCAQMD Rule 403 requirements and the ATCM to limit heavy duty diesel motor vehicle idling to no more than five minutes at any given time. In addition, the Airport would utilize a construction contractor(s) that complies with required and applicable BACT and the In-Use Off-Road Diesel Vehicle Regulation. Per SCAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on construction projects in the Air Basin, which would include each of the related projects in the Airport area. As shown above in **Table 3.4-20** and **Table 3.4-22**, regional and localized construction emissions associated with the Southwest Quadrant Same-Size Terminal Option would not exceed the SCAQMD numeric indicators. Since construction would not exceed the regional numeric indicator of significance for criteria pollutants, the Southwest Quadrant Same-Size Terminal Option would result in a less-than-significant impact with regard to cumulative construction emissions.

OPERATIONS

The SCAQMD's approach for assessing cumulative impacts related to operations or long-term implementation is based on attainment of ambient air quality standards in accordance with the requirements of the federal and State Clean Air Acts. As discussed earlier, the SCAQMD has developed a comprehensive plan, the AQMP, which addresses the region's cumulative air quality condition.

A significant impact may occur if a project would add a cumulatively considerable contribution of a federal or State nonattainment pollutant. Because the Los Angeles County portion of the Air Basin is currently in nonattainment for ozone, PM_{10}, and $PM_{2.5}$, related projects could exceed an air quality standard or contribute to an existing or projected air quality exceedance. Cumulative impacts on air quality are evaluated under two sets of thresholds for CEQA and the SCAQMD. In particular, Section 15064(h)(3) of the CEQA *Guidelines* provides guidance in determining the significance of cumulative impacts. Specifically, Section 15064(h)(3) states in part that:

A lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that will avoid or substantially lessen the cumulative problem (e.g., water quality control plan, air quality plan, integrated waste management plan) within the geographic area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency…

For purposes of the cumulative air quality analysis with respect to CEQA Guidelines Section 15064(h)(3), the project's incremental contribution to cumulative air quality impacts is determined based on compliance with the SCAQMD adopted 2012 AQMP. As described above, the Southwest Quadrant Same-Size Terminal Option would not conflict with or obstruct implementation of AQMP and thus would be consistent with the growth projections in the AQMP.

Nonetheless, SCAQMD no longer recommends relying solely upon consistency with the AQMP as an appropriate methodology for assessing cumulative air quality impacts. The SCAQMD recommends that project-specific air quality impacts be used to determine the potential cumulative impacts on regional air quality. As discussed above, peak daily operation-related emissions for the Southwest Quadrant Same-Size Terminal Option would exceed SCAQMD regional significance thresholds for VOCs, NO_X, and CO relative to existing conditions. The VOC, NO_X, and CO exceedances are due to the increase in emissions from aircraft LTOs and taxiing relative to existing conditions. The increase in aircraft LTOs and taxiing would occur with or without implementation of the project under the future No Project condition. Nonetheless, the emissions of nonattainment pollutants and precursors generated by Southwest Quadrant Same-Size Terminal Option operation would be in excess of the SCAQMD project-level thresholds and impacts would be cumulatively significant.

Cumulative TAC impacts are based on the future growth in passengers that would occur under both the future plus project and future No Project conditions compared to existing conditions. The incremental increase in health risk would be approximately 52 in one million over a typical 30-year residential exposure and approximately 62 in one million over a 70-year lifetime exposure. As discussed previously, the health risk calculations are based on conservative assumptions and incorporate age sensitive factors that account for the sensitivity of children to TAC emissions, high-end breathing rates, and the assumption that the vast majority of time is spent at home. The future growth in passengers would occur with or without implementation of the project. However, as the Southwest Quadrant Same-Size Terminal Option would result in a significant project-level TAC impact, the cumulative TAC impact is considered to be cumulatively significant, and the project's contribution is cumulatively considerable.

CONSISTENCY WITH GENERAL PLANS

With respect to air quality, the pertinent County *General Plan* policy recommends strict regulation of mobile and stationary sources as well as vanpooling, carpooling and improved public transportation. The Airport would comply with applicable air quality rules and regulations, and would implement a number PDFs that would reduce the generation of criteria pollutant. Several transit options are available in the Airport vicinity as an alternative to private vehicles. The Airport would allow for nearby residents to find goods and services in their immediate vicinity. Finally, the Airport would provide the Code-required amount of short- and long-term bicycle parking as well as amenities such as lockers and showers. Accordingly, the Southwest Quadrant Same-Size Terminal Option would be consistent with *General Plan* policy concerning Airport sources of stationary and mobile emissions as well as alternatives to private vehicle use.

Mitigation Measure SW QUAD SAME-AIR-9

Regional emissions of VOC and NO_X would exceed the SCAQMD threshold due to the increased emissions from aircraft LTOs and taxiing. The increase in aircraft LTOs and taxiing would occur with or without implementation of the project under the future No Project condition. In addition, emissions associated with aircraft are under the jurisdiction of the FAA. The Authority has no ability to regulate aircraft emissions. The project would implement PDF-AIR-1 to minimize emissions associated with building energy use and mobile sources.

Significance After Mitigation: No feasible mitigation is available to reduce criteria pollutant impacts to less than significant and impacts would be considered significant and unavoidable. For TACs, the impact is cumulatively significant and the project's contribution is cumulatively considerable. No feasible mitigation is available to reduce TAC impacts to less than significant and impacts would be considered significant and unavoidable.

3.5 BIOLOGICAL RESOURCES

3.5.1 Background and Methodology

The purpose of this section is to determine whether implementation of the proposed project would result in significant environmental impacts on biological resources.

3.5.1.1 Regulatory Context

The California Environmental Quality Act (CEQA) requires that project sponsors evaluate the project's potential to affect biological resources, including endangered and threatened species and species of special concern.

FEDERAL

Endangered Species Act

The Federal Endangered Species Act (FESA) protects plants and wildlife that are listed by the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) as endangered or threatened. FESA Section 9 prohibits the take of endangered wildlife, where take is defined as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (Code of Federal Regulations, Title 50, Section 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land, as well as removing, cutting, digging up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law. Under FESA Section 7, agencies are required to consult with the USFWS or NMFS if their actions, including permit approvals or funding, could adversely affect an endangered species (including plants) or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS or NMFS may issue an incidental take statement allowing take of the species that is incidental to another authorized activity, provided the action will not jeopardize the continued existence of the species. In cases where the federal agency determines its action may affect, but would be unlikely to adversely affect, a federally listed species, the agency informally consults with the USFWS and/or NMFS. This informal consultation typically involves incorporating measures intended to ensure that project effects would not be adverse. Concurrence from the USFWS and/or NMFS concludes the informal process. Without such concurrence, the federal agency must formally consult to ensure full compliance with FESA.

Clean Water Act

The federal Water Pollution Control Act Amendments of 1972 (United States Code, Title 33, Sections 1251–1376), as amended by the Water Quality Act of 1987, and better known as the Clean Water Act, is the major federal legislation governing water quality. The purpose of the Clean Water Act is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Discharges into waters of the United States are regulated under Clean Water Act Section 404. Waters of the United States include: (1) all navigable waters, including all waters subject to the ebb and flow of the tide; (2) all interstate waters and wetlands; (3) all other waters, such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, or natural ponds; (4) all impoundments of waters mentioned above; (5) all tributaries to waters mentioned above; (6) the territorial seas; and (7) all wetlands adjacent to waters mentioned above. Important applicable sections of the Clean Water Act are discussed below:

- Section 303 requires states to develop water quality standards for inland surface and ocean waters and submit them to the U.S. Environmental Protection Agency for approval. Under Section 303(d), the state is required to list waters that do not meet water quality standards and to develop action plans to improve water quality.
- Section 304 provides water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for any federal permit that proposes an activity that may result in a discharge to waters of the United States to obtain certification from the state that the discharge will comply with other provisions of the Clean Water Act. Certification is provided by the respective Regional Water Quality Control Board (RWQCB). A Section 401 permit from the Los Angeles RWQCB would be required for the proposed project if a Section 404 permit were required (see below for description of permitting under Section 404).
- Section 402 establishes the National Pollutant Discharge Elimination System (NPDES), a permitting program regulating the discharge of pollutants (except for dredge or fill material) into waters of the United States. The program is administered by the RWQCB. Conformance with Section 402 is typically addressed in conjunction with water quality certification under Section 401.
- Section 404 provides for the issuance of dredge/fill permits by the U.S. Army Corps of Engineers (USACE). Permits typically include conditions to minimize impacts on water quality. Common conditions include: (1) USACE review and approval of sediment quality analysis before dredging; (2) preparation of a detailed pre- and post-construction monitoring plan that includes disposal site monitoring; and (3) compensation for loss of waters of the United States. Any areas of the project site that lie below "mean higher high water" would be subject to regulation under Section 404.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act prohibits the take of nearly all native birds. Under the act, take means to kill, directly harm, or destroy individuals, eggs, or nests, or to otherwise cause failure of an ongoing nesting effort.

STATE

California Endangered Species Act

The California Endangered Species Act (CESA) authorizes the California Fish and Game Commission (Commission) to designate endangered, threatened, and rare species and to regulate the taking of these species (California Fish and Game Code Sections 2050–2098). CESA defines endangered species as those whose continued existence in California is jeopardized. State-listed threatened species are those not presently facing extinction but that may become endangered in the foreseeable future. California Fish and Game Code Section 2080 prohibits the taking of state-listed plants and animals. The California Department of Fish and Wildlife (CDFW) also designates fully protected or protected species as those that may not be taken or possessed without a permit from the Commission and/or CDFW. Species designated as fully protected or protected may or may not be listed as endangered or threatened. When a species is both state- and federally listed, an expedited request for consistency with the USFWS biological opinion may be issued through a request for a Section 2080.1 consistency determination.

California Fish and Game Code

The Commission implements the Fish and Game Code, as authorized by Article IV, Section 20, of the Constitution of the State of California. Fish and Game Code Sections 3503, 3503.5, 3505, 3800, and 3801.6 protect all native birds, birds of prey, and nongame birds, including their eggs and nests, that are not already listed as fully protected and that occur naturally within the state. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (e.g., hawks, owls, eagles, and falcons), including their nests or eggs. The CDFW is the state agency that manages native fish, wildlife, plant species, and natural communities for their ecological value and their benefits to people.

California Native Plant Society

The California Native Plant Society (CNPS) is a private plant conservation organization dedicated to monitoring and protecting sensitive species in California. The CNPS compiled the Rare and Endangered Plant Inventory, an online database containing information on rare, threatened, and endangered vascular plant species of California, including qualitative characterizations and geographic distribution of these species. The CDFW has used the inventory as a potential candidate list for plants being considered for listing as threatened or endangered. The CNPS has developed five categories of rarity, referred to as California Rare Plant Ranks (CRPRs), of which CRPRs 1A, 1B, 2A, and 2B are considered particularly sensitive:

- CRPR 1A Presumed extirpated in California and either rare or extinct elsewhere.
- CRPR 1B Plants rare, threatened, or endangered in California and elsewhere.
- CRPR 2A Presumed extirpated in California, but more common elsewhere.
- CRPR 2B Plants rare, threatened, or endangered in California, but more common elsewhere.
- CRPR 3 Plants about which we need more information – a review list.
- CRPR 4 Plants of limited distribution – a watch list.

The CNPS appends CRPR categorizations with "threat ranks" that parallel the rankings used by the CDFW's California Natural Diversity Database (CNDDB).[1] These threat ranks are added as a decimal code after the CRPR category as follows:

- .1 – Seriously endangered in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)
- .2 – Fairly endangered in California (20 to 80 percent occurrences threatened)
- .3 – Not very endangered in California (less than 20 percent of occurrences threatened or no current threats known)

LOCAL

Burbank Municipal Code

Chapter 4, Trees and Vegetation, of Title 7 of the Burbank Municipal Code provides protection for street trees. In accordance with Section 7.4.115, Protection of Trees, project proponents performing work (i.e., excavation, construction of buildings or structures, or street work) on any street or other publicly owned

1 The CNDDB inventories the status and locations of rare plants and animals in California. CNDDB staff work with partners to maintain current lists of rare species as well as maintain a growing database of GIS-mapped locations for these species.

property must sufficiently guard and protect all trees from injury. The municipal code also prohibits the excavation of ditches, tunnels, or trenches or the installation of pavement within a 10-foot radius of any public tree without first notifying the director of the Park, Recreation & Community Services department.

In accordance with Section 7-4-111, Removal for the Purpose of Construction, any person or property owner proposing to remove a street tree for the purpose of construction must replace the removed tree with a tree of the nearest size available, of a species and in the location determined by the director of the Park, Recreation & Community Services department. The person or property owner must pay the City the total cost of removal prior to any such action being undertaken. If the tree(s) are not replaced, the City must be reimbursed the value of the tree, as established in Section 7-4-105 of the municipal code, in addition to the cost to the City of removal.

Los Angeles Municipal Code

Article 6, Preservation of Protected Trees, of Chapter IV of the City of Los Angeles Municipal Code provides for the preservation of protected trees. In accordance with Section 46.01, a protected tree is any of the following Southern California native trees that measure 4 inches or more in cumulative diameter, 4.5 feet above the ground level at the base of the tree:

- Oak tree, including valley oak (*Quercus lobata*) and California live oak (*Quercus agrifolia*), or any other tree of the oak genus indigenous to California, but excluding the scrub oak (*Quercus dumosa*)
- Southern California black walnut (*Juglans californica* var. *californica*)
- Western sycamore (*Platanus racemosa*)
- California bay (Umbellularia californica)

Any tree grown or held for sale by a licensed nursery or trees planted or grown as part of a tree planting program are not included.

Section 46.02 prohibits the relocation or removal of any protected tree without a permit from the Board of Public Works. The permit shall specify and approve the location(s) to which trees may be relocated; designate the species, number, and size of any replacement tree(s); and set forth any other conditions or requirements deemed necessary by the Board of Public Works.

3.5.1.2 Significance Thresholds

For purposes of this analysis, implementation of the proposed project would cause a significant impact on biological resources if it resulted in:

- BIO-1: A substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- BIO-2: A substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- BIO-3: A substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

- BIO-4: Substantial interference with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or if it impeded the use of native wildlife nursery sites;
- BIO-5: Conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- BIO-6: Conflicts with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.
- BIO-7: A substantial contribution to cumulative impacts to biological resources.

3.5.1.3 Methodologies

The evaluation of potential impacts on biological resources in the Airport vicinity is based on information obtained through literature review and field investigation, as described below. The potential for the project to affect plant and wildlife resources was determined by reviewing applicable laws, regulations, and policies designed to protect sensitive and special-status resources.

LITERATURE REVIEW

The EIR preparers conducted a review of relevant literature on the biological resources in the Airport vicinity. The CNDDB was reviewed for pertinent information on special-status species and sensitive habitats in the Airport vicinity. The CNPS Rare and Endangered Plant Inventory was also reviewed for special-status plant species recorded in the Airport vicinity.

FIELD INVESTIGATION

A qualified biologist conducted a general biological survey and vegetation mapping on January 19, 2016 to document existing conditions and inventory plant and wildlife species observed in areas of the Airport that could be subject to development as result of any of the three development options. Plant communities were mapped directly in the field using a 350-scale (1 inch = 350 feet) aerial photograph. Plant community names, codes, and descriptions follow *A Manual of California Vegetation*.[2] After completing the survey, the biologist digitized the plant community polygons using Geographic Information System (GIS) technology to calculate acreages.

The plant species observed during surveys were either identified in the field or collected and later identified using taxonomic keys. Wildlife species observed at the Airport, as well as any diagnostic signs (calls, tracks, nests, scat, remains, or other sign), were recorded in field notes. Binoculars and regional field guides were used to identify wildlife, as necessary. Because common names for species vary among references, the scientific names are presented at the first mention of each species, after which their common names are used throughout this section.

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2 Sawyer, John O., T. Keeler-Wolf, and J. Evens. 2009. *A Manual of California Vegetation, Second Edition*. Sacramento: California Native Plant Society.

3.5.2 Existing Conditions / Environmental Setting

3.5.2.1 Plant Communities

DEVELOPED AREAS

Developed areas consist of man-made structures such as runways, airport aprons, buildings, air traffic control tower, hangars, and paved parking lots. Non-native species found in association with developed areas (e.g., planted vegetation within the paved parking lots or along streets) include fern pine tree (*Afrocarpus gracilior*), Mexican fan palm (*Washingtonia robusta*), queen palm (*Syagrus romanzoffiana*), Brazilian pepper (*Schinus terebinthifolius*), magnolia (*Magnolia grandiflora*), and London plane tree (*Platanus × acerifolia*). Developed areas are shown on **Figure 3.5-1**.

DISTURBED AREAS

Disturbed areas are areas that have been heavily disturbed by human activities and that support little to no vegetation. The plant species found in this community are typically ruderal (i.e., weedy) species. During the survey of disturbed areas at the Airport, the following species were observed: Mexican fan palm, redstem filaree (*Erodium cicutarium*), Russian thistle (*Salsola tragus*), African daisy (*Gazania* sp.), flatspine bur ragweed (*Ambrosia acanthicarpa*), Bermuda grass (*Cynodon dactylon*), African fountain grass (*Pennisetum setaceum*), cheeseweed (*Malva parviflora*), lambs quarters (*Chenopodium album*), spotted spurge (*Euphorbia maculata*), and sprangletop (*Leptochloa* sp.). Native species included telegraphweed (*Heterotheca grandiflora*) and Canadian horseweed (*Erigeron canadensis*). These disturbed areas are regularly mowed to ensure vegetation does not get too high. Disturbed areas on the Airport property are primarily found along undeveloped areas adjacent to the runway tarmac and in gravelly, empty lots that are not paved. These disturbed areas are shown on **Figure 3.5-1**.

3.5.2.2 Sensitive Biological Resources

SENSITIVE PLANT COMMUNITIES

Although two native species were observed in disturbed areas, the Airport does not support native plant communities. In addition, the CNDDB does not indicate the presence of any sensitive plant communities with a high inventory priority (i.e., species considered sensitive due to their decline in the region and/or their ability to support sensitive species).

SPECIAL-STATUS PLANT SPECIES

The Airport does not support native plant communities and does not contain any suitable habitat to support special-status plant species.

SPECIAL-STATUS WILDLIFE SPECIES

The Airport does not support native plant communities and does not contain any suitable habitat to support special-status wildlife species.

Figure 3.5-1

Existing Biological Resources in the Airport Vicinity

Source: PCR, 2016.

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Burrowing owl (*Athene cunicularia*) is a California Species of Special Concern and subject to protection under the federal Migratory Bird Treaty Act. Although the burrowing owl may be found in association with disturbed areas and open fields in and around airports, no potential burrows, burrowing owls, or sign thereof were observed during the field investigation, and the nearest burrowing owl occurrences documented in CNDDB was more than 6 miles south-southeast of the Airport in 1895, more than 11 miles east-southeast of the Airport in 1921, and more than 15 miles south-southwest of the Airport in 2010.[3] Furthermore, for safety reasons the Airport implements a wildlife prevention plan to deter wildlife from establishing on Airport grounds, so maintenance crews remove wildlife (e.g., rodents and small mammals) that may attract other wildlife, such as raptors, to the area.

3.5.2.3 Jurisdictional Features

The Airport does not support any waters, wetlands, or associated riparian habitat that are potentially subject to the jurisdiction of the USACE, RWQCB, or CDFW.

3.5.2.4 Wildlife Movement

The Airport is not within any habitat linkages identified in the *South Coast Missing Linkages* report.[4] A linkage is a wildlife corridor that allows animals to move through developed areas to access critical habitat. The nearest identified linkage is the Santa Monica–Sierra Madre Connection, which is more than 10 miles to the west and northwest. Furthermore, the Airport does not support any native plant communities that would provide habitat, cover, or natural resources to facilitate local or regional wildlife movement. In addition, the Airport is surrounded by development, including major roadways and Interstate 5 Freeway, which would serve as barriers to wildlife movement and preclude regional movement through the Airport.

3.5.2.5 Regulated Trees

Chapter 4, Trees and Vegetation, of Title 7 of the Burbank Municipal Code provides protection for street trees. During the survey of the Airport, 13 magnolia trees were identified along West Empire Avenue (see **Figure 3.5-1**).

Article 6, Preservation of Protected Trees, of Chapter IV of the City of Los Angeles Municipal Code provides for the preservation of protected trees. No protected tree species (i.e., oak tree, Southern California black walnut, western sycamore, or California bay) were identified at the Airport.

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3 California Natural Diversity Database (CNDDB). 2016. RareFind 5 [Internet]. California Department of Fish and Wildlife [Commercial Version - Dated February 28, 2016].

4 South Coast Wildlands, *South Coast Missing Linkages: A Wildland Network for the South Coast Ecoregion*, 2008. The South Coast Missing Linkages project is an inter-agency collaboration to develop a comprehensive plan to identify critical habitat linkages between existing reserves in order to form a regional wildland network. Partners in this collaborative effort included the National Park Service, U.S. Forest Service, and California State Parks, among others.

3.5.3 Environmental Impacts and Mitigation Measures

3.5.3.1 ADJACENT PROPERTY FULL-SIZE TERMINAL OPTION

Project Impacts

IMPACT ADJ PROP FULL-BIO-1: Impacts on Special-Status Species

The Airport, and specifically the Adjacent Property, does not support any special-status plant or wildlife species. Therefore, construction and operation of the Adjacent Property Full-Size Terminal Option would not have a substantial adverse effect, either directly or through habitat modifications, on any special-status plant or wildlife species.

Mitigation Measure ADJ PROP FULL-BIO-1

No mitigation is warranted.

IMPACT ADJ PROP FULL-BIO-2: Impacts on Riparian Habitat or Sensitive Natural Communities

The Airport, and specifically the Adjacent Property, does not support any riparian habitat that is potentially subject to the jurisdiction of the USACE, RWQCB, or CDFW or any sensitive plant communities with a CNDDB high inventory priority. Therefore, construction and operation of the Adjacent Property Full-Size Terminal Option would not result in substantial adverse effects on riparian habitat or other sensitive natural community.

Mitigation Measure ADJ PROP FULL-BIO-2

No mitigation is warranted.

IMPACT ADJ PROP FULL-BIO-3: Impacts on Wetlands

The Airport does not support any waters or wetlands that are potentially subject to the jurisdiction of the USACE, RWQCB, or CDFW. Therefore, construction and operation of the Adjacent Property Full-Size Terminal Option would not result in substantial adverse effects on federally protected wetlands.

Mitigation Measure ADJ PROP FULL-BIO-3

No mitigation is warranted.

IMPACT ADJ PROP FULL-BIO-4: Impacts on Wildlife Movement

The Airport does not contain any movement corridors for migratory fish or wildlife species. In addition, for safety reasons, the Airport implements a wildlife prevention plan to deter wildlife from being established on the Airport. Although this greatly reduces the potential for nesting birds to occur at the Airport, there is still a low potential for nesting birds. Therefore, trees and shrubs within developed areas of the Airport are considered to be suitable for nesting songbirds. Construction of the Adjacent Property Full-Size Terminal Option could result in significant impacts on nesting bird species protected under the California Fish and Game Code and the Migratory Bird Treaty Act if vegetation removal, clearing, and/or grubbing were to occur during the avian nesting season (February 15 to August 31).

Mitigation Measure ADJ PROP FULL-BIO-4

The Authority and its contractors will avoid vegetation removal, clearing, and/or grubbing during the avian nesting season (February 15 to August 31). However, if removal, clearing, and/or grubbing must take place during the nesting season, a qualified biologist will conduct a nesting bird survey within three days before vegetation clearing activities. If any active nests are detected, the biologist will delineate and flag a buffer of 300 feet (500 feet for raptors) around the nest, and the construction contractors shall not engage in construction activities within this buffer zone until the nesting cycle is complete. The buffer may be modified and/or other recommendations proposed, as determined appropriate by the biological monitor, to minimize impacts. The biologist will provide a written summary of the nesting bird survey within three days of survey completion.

Significance after Mitigation: Implementation of Mitigation Measure ADJ PROP FULL-BIO-4 would reduce the impact related to local polices and ordinances to a less-than-significant level.

IMPACT ADJ PROP FULL-BIO-5: Conflict with Local Policies or Ordinances

During the field investigation of the Airport, 13 magnolia trees were identified along West Empire Avenue (see **Figure 3.5-1**); however, because none of the project element associated with the Adjacent Property Full-Size Terminal Option would occur along Empire Avenue, these trees would not be affected by the Adjacent Property Full-Size Terminal Option. The Adjacent Property Full-Size Terminal Option would not affect any street trees in Burbank or Los Angeles; therefore, no conflicts with local policies or ordinances would occur.

Mitigation Measure ADJ PROP FULL-BIO-5

No mitigation is warranted.

IMPACT ADJ PROP FULL-BIO-6: Conflict with Adopted Plans

The Airport property is not within or subject to any habitat conservation plans, natural community conservation plans, or other related plans. Therefore, the Adjacent Property Full-Size Terminal Option would not conflict with the provisions of adopted plans.

Mitigation Measure ADJ PROP FULL-BIO-6

No mitigation is warranted.

Cumulative Impacts

IMPACT ADJ PROP FULL-BIO-7: Cumulative Impacts on Biological Resources

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Construction and operation of the Adjacent Property Full-Size Terminal Option could affect nesting bird species if vegetation removal, clearing, and/or grubbing were to take place during the nesting season. For safety reasons, the Airport implements a wildlife prevention plan to deter wildlife from being established on the Airport. Although this greatly reduces the potential for nesting birds to occur at the Airport, there is still a low potential for nesting birds. However, implementation of Mitigation Measure ADJ PROP FULL-BIO-4 would reduce project-related impacts on nesting birds to a less-than-significant level. Other projects in the Airport vicinity also have the potential to affect nesting birds. Because nesting birds are protected from disturbance, each individual project would be required to comply with the California Fish and Game Code and the Migratory Bird Treaty Act. Therefore, the Adjacent Property Full-Size Terminal Option would have no significant effect on biological resources and any incremental effect in this regard would not be cumulatively considerable.

Mitigation Measure ADJ PROP FULL-BIO-7

No mitigation is warranted.

3.5.3.2 SOUTHWEST QUADRANT FULL-SIZE TERMINAL OPTION

Project Impacts

IMPACT SW QUAD FULL-BIO-1: Impacts on Special-Status Species

The Airport, and the Southwest Quadrant in particular, does not support any special-status plant or wildlife species. Further, as shown in **Figure 3.5-1**, the Southwest Quadrant is fully developed, with virtually no open area to accommodate plants or wildlife. Therefore, construction and operation of the Southwest Quadrant Full-Size Terminal Option would not have a substantial adverse effect, either directly or through habitat modifications, on any special-status plant or wildlife species.

Mitigation Measure SW QUAD FULL-BIO-1

No mitigation is warranted.

IMPACT SW QUAD FULL-BIO-2: Impacts on Riparian Habitat or Sensitive Natural Communities

The Airport, and the Southwest Quadrant in particular, does not support any riparian habitat that is potentially subject to the jurisdiction of the USACE, RWQCB, or CDFW or any sensitive plant communities with a CNDDB high inventory priority. As shown in **Figure 3.5-1**, the Southwest Quadrant is fully developed, with virtually no open area for riparian or other sensitive habitat. Therefore, construction and operation of the Southwest Quadrant Full-Size Terminal Option would not result in substantial adverse effects on riparian habitat or other sensitive natural community.

Mitigation Measure SW QUAD FULL-BIO-2

No mitigation is warranted.

IMPACT SW QUAD FULL-BIO-3: Impacts on Wetlands

The Airport, and the Southwest Quadrant in particular, does not support any waters or wetlands that are potentially subject to the jurisdiction of the USACE, RWQCB, or CDFW. Therefore, construction and operation of the Southwest Quadrant Full-Size Terminal Option would not result in substantial adverse effects on federally protected wetlands.

Mitigation Measure SW QUAD FULL-BIO-3

No mitigation is warranted.

IMPACT SW QUAD FULL-BIO-4: Impacts on Wildlife Movement

The Airport does not contain any movement corridors for migratory fish or wildlife species. In addition, for safety reasons, the Airport implements a wildlife prevention plan to deter wildlife from being established on the Airport. Although this greatly reduces the potential for nesting birds to occur at the Airport, there is still a low potential for nesting birds. Therefore, trees and shrubs within developed areas of the Airport are considered to be suitable for nesting songbirds. Construction of the Adjacent Property Full-Size Terminal Option could result in significant impacts on nesting bird species protected under the California Fish and Game Code and the Migratory Bird Treaty Act if vegetation removal, clearing, and/or grubbing were to occur during the avian nesting season (February 15 to August 31).

Mitigation Measure SW QUAD FULL-BIO-4

The Authority and its contractors will avoid vegetation removal, clearing, and/or grubbing during the avian nesting season (February 15 to August 31). However, if removal, clearing, and/or grubbing must take place during the nesting season, a qualified biologist will conduct a nesting bird survey within three days before vegetation clearing activities. If any active nests are detected, the biologist will delineate and flag a buffer of 300 feet (500 feet for raptors) around the nest, and the construction contractors shall not engage in construction activities within this buffer zone until the nesting cycle is complete. The buffer may be modified and/or other recommendations proposed, as determined appropriate by the biological monitor, to minimize impacts. The biologist will provide a written summary of the nesting bird survey within three days of survey completion.

Significance after Mitigation: Implementation of Mitigation Measure SW QUAD FULL-BIO-4 would reduce the impact related to local polices and ordinances to a less-than-significant level.

IMPACT SW QUAD FULL-BIO-5: Conflict with Local Policies or Ordinances

The proposed extension of the Terminal Access Road under the Southwest Quadrant Full-Size Terminal Option could require the removal of some street trees along West Empire Avenue. Any such tree removal would conflict with Chapter 4, Trees and Vegetation, of Title 7 of the Burbank Municipal Code, resulting in a potentially significant impact.

Mitigation Measure SW QUAD FULL-BIO-5

In accordance with Section 7-4-111 of the Burbank Municipal Code, the Authority would coordinate any street tree removal with the director of the Park, Recreation & Community Services department. Any street tree removed shall be replaced with a tree of the nearest size available, of a species and in the location to be determined by the director.

Significance after Mitigation: Implementation of Mitigation Measure SW QUAD FULL-BIO-5 would reduce the impact related to local polices and ordinances to a less-than-significant level.

IMPACT SW QUAD FULL-BIO-6: Conflict with Adopted Plans

The Airport property is not within or subject to any habitat conservation plans, natural community conservation plans, or other related plans. Therefore, the Southwest Quadrant Full-Size Terminal Option would not conflict with the provisions of adopted plans.

Mitigation Measure SW QUAD FULL-BIO-6

No mitigation is warranted.

Cumulative Impacts

IMPACT SW QUAD FULL-BIO-7: Cumulative Impacts on Biological Resources

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Construction and operation of the Southwest Quadrant Full-Size Terminal Option could affect nesting bird species if vegetation removal, clearing, and/or grubbing were to take place during the nesting season. For safety reasons, the Airport implements a wildlife prevention plan to deter wildlife from being established on the Airport. Although this greatly reduces the potential for nesting birds to occur at the Airport, there is still a low potential for nesting birds. However, implementation of Mitigation Measure SW QUAD FULL-BIO-4 would reduce project-related impacts on nesting birds to a less-than-significant level. Other projects in the Airport vicinity also have the potential to affect nesting birds. Because nesting birds are protected from disturbance, each individual project would be required to comply with the California Fish and Game Code and the Migratory Bird Treaty Act. Therefore, the Southwest Quadrant Full-Size Terminal Option would have no significant effect on biological resources and any incremental effect in this regard would not be cumulatively considerable.

Additionally, the proposed extension of the Terminal Access Road under the Southwest Quadrant Full-Size Terminal Option could require the removal of some street trees along West Empire Avenue. Any such tree removal would conflict with Chapter 4, Trees and Vegetation, of Title 7 of the Burbank Municipal Code, resulting in a potentially significant impact. However, with the implementation of Mitigation Measure SW QUAD FULL-BIO-5, project-related impacts on trees would be reduced to a less-than-significant level. Other projects in the Airport vicinity may also have the potential to affect street trees. However, each individual project would be required to comply with local regulations regarding street trees. Therefore, the Southwest Quadrant Full-Size Terminal Option would have no significant effect on biological resources and any incremental effect in this regard would not be cumulatively considerable.

Mitigation Measure SW QUAD FULL-BIO-7

No mitigation is warranted.

3.5.3.3 SOUTHWEST QUADRANT SAME-SIZE TERMINAL OPTION

Project Impacts

IMPACT SW QUAD SAME-BIO-1: Impacts on Special-Status Species

The Airport, and the Southwest Quadrant in particular, does not support any special-status plant or wildlife species. Further, as shown in Figure 3.5-1, the Southwest Quadrant is fully developed, with virtually no open area to accommodate plants or wildlife. Therefore, construction and operation of the Southwest Quadrant Same-Size Terminal Option would not have a substantial adverse effect, either directly or through habitat modifications, on special-status plant or wildlife species.

Mitigation Measure SW QUAD SAME-BIO-1

No mitigation is warranted.

IMPACT SW QUAD SAME-BIO-2: Impacts on Riparian Habitat or Sensitive Natural Communities

The Airport, and the Southwest Quadrant in particular, does not support any riparian habitat that is potentially subject to the jurisdiction of the USACE, RWQCB, or CDFW or any sensitive plant communities with a CNDDB high inventory priority. As shown in **Figure 3.5-1**, the Southwest Quadrant is fully developed, with virtually no open area for riparian or other sensitive habitat. Therefore, construction and operation of the Southwest Quadrant Same-Size Terminal Option would not result in substantial adverse effects on riparian habitat or other sensitive natural community.

Mitigation Measure SW QUAD SAME-BIO-2
No mitigation is warranted.

IMPACT SW QUAD SAME-BIO-3: Impacts on Wetlands

The Airport, and the Southwest Quadrant in particular, does not support any waters or wetlands that are potentially subject to the jurisdiction of the USACE, RWQCB, or CDFW. Therefore, the construction and operation of Southwest Quadrant Same-Size Terminal Option would not have a substantial adverse effect on federally protected wetlands.

Mitigation Measure SW QUAD SAME-BIO-3
No mitigation is warranted.

IMPACT SW QUAD SAME-BIO-4: Impacts on Wildlife Movement

The Airport does not contain any movement corridors for migratory fish or wildlife species. In addition, for safety reasons, the Airport implements a wildlife prevention plan to deter wildlife from being established on the Airport. Although this greatly reduces the potential for nesting birds to occur at the Airport, there is still a low potential for nesting birds. Therefore, trees and shrubs within developed areas of the Airport are considered to be suitable for nesting songbirds. Construction of the Southwest Quadrant Same-Size Terminal Option could result in significant impacts on nesting bird species protected under the California Fish and Game Code and the Migratory Bird Treaty Act if vegetation removal, clearing, and/or grubbing were to occur during the avian nesting season (February 15 to August 31).

Mitigation Measure SW QUAD SAME-BIO-4
The Authority and its contractors will avoid vegetation removal, clearing, and/or grubbing during the avian nesting season (February 15 to August 31). However, if removal, clearing, and/or grubbing must take place during the nesting season, a qualified biologist will conduct a nesting bird survey within three days before vegetation clearing activities. If any active nests are detected, the biologist will delineate and flag a buffer of 300 feet (500 feet for raptors) around the nest, and the construction contractors shall not engage in construction activities within this buffer zone until the nesting cycle is complete. The buffer may be modified and/or other recommendations proposed, as determined appropriate by the biological monitor, to minimize impacts. The biologist will provide a written summary of the nesting bird survey within three days of survey completion.

Significance after Mitigation: Implementation of Mitigation Measure SW QUAD SAME-BIO-4 would reduce the impact related to local polices and ordinances to a less-than-significant level.

IMPACT SW QUAD SAME-BIO-5: Conflict with Local Policies or Ordinances

The proposed extension of the Terminal Access Road under the Southwest Quadrant Same-Size Terminal Option could require the removal of some street trees along West Empire Avenue. Any such tree removal would conflict with Chapter 4, Trees and Vegetation, of Title 7 of the Burbank Municipal Code, resulting in a significant impact.

Mitigation Measure SW QUAD SAME-BIO-5

In accordance with Section 7-4-111 of the Burbank Municipal Code, the Authority would coordinate any street tree removal with the director of the Park, Recreation & Community Services department. Any street tree removed will be replaced with a tree of the nearest size available, of a species and in the location to be determined by the director.

Significance after Mitigation: Implementation of Mitigation Measure SW QUAD SAME-BIO-5 would reduce the impact related to local polices and ordinances to a less-than-significant level.

IMPACT SW QUAD SAME-BIO-6: Conflict with Adopted Plans

The Airport property is not within or subject to any habitat conservation plans, natural community conservation plans, or other related plans. Therefore, the Southwest Quadrant Same-Size Terminal Option would not conflict with the provisions of adopted plans.

Mitigation Measure SW QUAD SAME-BIO-6

No mitigation is warranted.

Cumulative Impacts

IMPACT SW QUAD SAME-BIO-7: Cumulative Impacts on Biological Resources

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Construction and operation of the Southwest Quadrant Same-Size Terminal Option could affect nesting bird species if vegetation removal, clearing, and/or grubbing were to take place during the nesting season. For safety reasons, the Airport implements a wildlife prevention plan to deter wildlife from being established on the Airport. Although this greatly reduces the potential for nesting birds to occur at the Airport, there is still a low potential for nesting birds. However, implementation of Mitigation Measure SW QUAD SAME-BIO-4 would reduce project-related impacts on nesting birds to a less-than-significant level. Other projects in the Airport vicinity also have the potential to affect nesting birds. Because nesting birds are protected from disturbance, each individual project would be required to comply with the California Fish and Game Code and the Migratory Bird Treaty Act. Therefore, the Southwest Quadrant Full-Size Terminal Option would have no significant effect on biological resources and any incremental effect in this regard would not be cumulatively considerable.

Additionally, the proposed extension of the Terminal Access Road under the Southwest Quadrant Same-Size Terminal Option could require the removal of some street trees along West Empire Avenue. Any such tree removal would conflict with Chapter 4, Trees and Vegetation, of Title 7 of the Burbank Municipal Code, resulting in a potentially significant impact. However, with the implementation of Mitigation Measure SW QUAD SAME-BIO-5, project-related impacts on trees would be reduced to a less-than-significant level. Other projects in the Airport vicinity may also have the potential to affect street trees. However, each individual project would be required to comply with local regulations regarding street trees. Therefore, the Southwest Quadrant Same-Size Terminal Option would have no significant effect on biological resources and any incremental effect in this regard would not be cumulatively considerable.

Mitigation Measure SW QUAD SAME-BIO-7

No mitigation is warranted.

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3.6 CULTURAL RESOURCES

3.6.1 Background and Methodology

The purpose of this section is to determine whether implementation of the proposed project would result in significant environmental impacts on cultural resources. This section summarizes the results of the Historic Resources Assessment and Environmental Impacts Analysis (Historic Report) included in **Appendix G** of this Draft EIR.

3.6.1.1 Regulatory Context

Numerous laws and regulations require State and local agencies to consider the effects of a proposed project on archaeological, paleontological, tribal cultural resources, and historical resources. These laws and regulations stipulate a process for compliance, define the responsibilities of the various agencies proposing the action, and proscribe the relationship among other involved agencies.

National Register of Historic Places

The National Register of Historic Places (National Register) was established by the National Historic Preservation Act (NHPA) as "an authoritative guide to be used by Federal, State, and local governments, private groups and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment."[1] The National Register recognizes properties that are significant at the national, state, and/or local levels.

To be eligible for listing in the National Register, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Four criteria for evaluation have been established to determine the significance of a resource:

- It is associated with events that have made a significant contribution to the broad patterns of our history;
- It is associated with the lives of persons significant in our past;
- It embodies the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction;
- It yields, or may be likely to yield, information important in prehistory or history.[2]

Districts, sites, buildings, structures, and objects that are 50 years in age must meet one or more of the above criteria and retain integrity (that is, convey their significance) to be eligible for listing. Under the National Register, a property can be significant not only for the way it was originally constructed, but also

1 36 CFR Section 60.2.

2 "Guidelines for Completing National Register Forms," in National Register Bulletin 16, U.S. Department of Interior, National Park Service, September 30, 1986. This bulletin contains technical information on comprehensive planning, survey of cultural resources and registration in the NRHP.

for the way it was adapted at a later period, or for the way it illustrates changing tastes, attitudes, and uses over a period of time.[3] Within the concept of integrity, the National Register recognizes seven aspects or qualities that, in various combinations, define integrity: Location, Design, Setting, Materials, Workmanship, Feeling, and Association.

To retain historic integrity, a property will always possess most of the aspects and depending upon its significance, retention of specific aspects of integrity that may be paramount for a property to convey its significance.[4] Determining which of these aspects are most important to a particular property requires knowing why, where and when a property is significant.[5] For properties that are considered significant under National Register Criteria A and B, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation ("National Register Bulletin 15")* explains, "a property that is significant for its historic association is eligible if it retains the essential physical features that made up its character or appearance during the period of its association with the important event, historical pattern, or person(s)."[6] In assessing the integrity of properties that are considered significant under National Register Criterion C, *National Register Bulletin 15* states, "a property important for illustrating a particular architectural style or construction technique must retain most of the physical features that constitute that style or technique."[7]

California Register of Historic Places

Created by Assembly Bill 2881, which was signed into law on September 27, 1992, the California Register of Historical Resources (California Register) is "an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change."[8] The criteria for eligibility for the California Register are based upon National Register criteria.[9] Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register.[10]

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3 National Register Bulletin 15, p. 19.

4 The National Register defines a property as an "area of land containing a single historic resource or a group of resources, and constituting a single entry in the National Register of Historic Places." A "Historic Property" is defined as "any prehistoric or historic district, site, building, structure, or object". Glossary of National Register Terms, http://www.nps.gov/nr/publications/bulletins/nrb16a/nrb16a_appendix_IV.htm, accessed June 1, 2013.

5 National Register Bulletin 15, p. 44.

6 "A property retains association if it is the place where the event or activity occurred and is sufficiently intact to convey that relationship to an observer. Like feeling, association requires the presence of physical features that convey a property's historic character. Because feeling and association depend on individual perceptions, their retention alone is never sufficient to support eligibility of a property for the National Register." Ibid, p. 46.

7 "A property that has lost some historic materials or details can be eligible if it retains the majority of the features that illustrate its style in terms of the massing, spatial relationships, proportion, pattern of windows and doors, texture of materials, and ornamentation. The property is not eligible, however, if it retains some basic features conveying massing but has lost the majority of the features that once characterized its style." Ibid.

8 California Public Resources Code Section 5024.1(a).

9 California Public Resources Code Section 5024.1(c).

10 California Public Resources Code Section 5024.1(d).

To be eligible for the California Register, a prehistoric or historic property must be significant at the local, state, and/or federal level under one or more of the following criteria:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- Has yielded, or may be likely to yield, information important in prehistory or history.

A resource eligible for the California Register must meet one of the criteria of significance described above and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. It is possible that a historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but it may still be eligible for listing in the California Register.

California Environmental Quality Act

CEQA is the principal statute governing environmental review of projects occurring in the State. CEQA requires lead agencies to determine if a proposed project would have a significant effect on archaeological resources (Public Resources Code Sections 21000 et seq.). As defined in Section 21083.2 of the Public Resources Code a "unique archaeological resource" is an archaeological artifact, object, or site, about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

In addition, *State CEQA Guidelines* Section 15064.5 broadens the approach of classifying archaeological resources by using the term "historical resource" instead of "unique archaeological resource." The *State CEQA Guidelines* recognize that certain archaeological resources may also have significance. The *State CEQA Guidelines* recognize that a historical resource includes: (1) a resource listed in, or determined by the State Historical Resources Commission to be eligible for listing in, the California Register; (2) a resource included in a local register of historical resources, as defined in California Public Resources Code Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of California Public Resources Code Section 5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of

California, provided the lead agency's determination is supported by substantial evidence in light of the whole record.

If a lead agency determines that an archaeological site is a historical resource, the provisions of Section 21084.1 of the California Public Resources Code and Section 15064.5 of the *CEQA Guidelines* apply. If an archaeological site does not meet the criteria for a historical resource contained in the *State CEQA Guidelines*, then the site is to be treated in accordance with the provisions of California Public Resources Code Section 21083.2, which refer to a unique archaeological resource. The *CEQA Guidelines* note that if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment.[11]

Paleontological resources are afforded protection by environmental legislation set forth under CEQA. Appendix G (part V) of the *CEQA Guidelines* provides guidance relative to significant impacts on paleontological resources, stating that "a project will normally result in a significant impact on the environment if it will …"directly or indirectly destroy a unique paleontological resource or site or unique geologic feature." The *CEQA Guidelines* do not define "directly or indirectly destroy," but it can be reasonably interpreted as the physical damage, alteration, disturbance, or destruction of a paleontological resource. The *CEQA Guidelines* also do not define the criteria or process to determine whether a paleontological resource is significant or "unique." Section 5097.5 of the California Public Resources Code specifies that any unauthorized removal of paleontological remains is a misdemeanor. Further, California Penal Code Section 622½ states that damage or removal of archaeological or historical resources (which may be interpreted to include paleontological resources) on public or private lands constitutes a misdemeanor.

Assembly Bill 52

Assembly Bill 52 (AB 52) is recent legislation that amends CEQA and requires lead agencies to consult with California Native American tribes to identity, evaluate, and mitigate impacts to a new type of cultural resource called "tribal cultural resources", if the tribes formally request consultation. A tribal cultural resource is any of the following:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
    - Included or determined to be eligible for inclusion in the California Register.
    - Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of California Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

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11 State CEQA Guidelines Section 15064.5(c)(4).

A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape. A historical resource described in California Public Resources Code Section 21084.1, a unique archaeological resource as defined in subdivision (g) of California Public Resources Code Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of California Public Resources Code Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment.

Burbank Historic Resource Management Ordinance[12]

Seeking to develop guidelines for historic preservation, the City of Burbank formed an ordinance drafting committee in 1992 comprised of members from the Historical Society and the Chamber of Commerce. Several versions of the ordinance were considered by the committee. The rights of property owners being a major consideration throughout the process, a somewhat unusual compromise was reached allowing landmarks to be designated only with owner consent to the entire review and designation processes, including background historical research. Burbank Ordinance 3381 was adopted on September 6, 1994 establishing the Heritage Commission and regulating historic preservation.

The intent of the Historic Resource Management Ordinance is to recognize, preserve, and protect historic resources in the interest of the health, prosperity, social and cultural enrichment, and general welfare of the people. Prior to any resource being approved as a Designated Historic Resource, the City Council shall find that the resource satisfies one or more of the following criteria. The Resource:

- Is associated with events that have made a significant contribution to the broad patterns of Burbank's or California's history and cultural heritage.
- Is associated with the lives of persons important in the past.
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
- Has yielded, or may be likely to yield, information important in prehistory or history.

Applications for approval of Designated Historic Resources shall be reviewed by the Heritage Commission at a public meeting. The Heritage Commission shall determine whether the resource meets one or more of the criteria for approval as a Designated Historic Resource and, based on this determination, shall recommend to the City Council that the application be approved or denied. The Heritage Commission shall adopt a resolution stating its recommendation, focusing on the criteria set forth in Burbank Municipal Code Section 10-1-926, and incorporating its reasons in support or denial of the application.

12 "Division 6. Historic Preservation Regulations," City of Burbank Historic Preservation http://www.burbankca.gov/home/showdocument?id=4384, accessed December 29, 2015, 1-3.

Following the Heritage Commission's consideration of the application, the City Council shall hold a public hearing to consider the application. The applicant shall be provided with at least 15 days notice of the hearing date. Following the public hearing, the City Council shall adopt a resolution to approve or deny the application based on the criteria specified in Burbank Municipal Code Section 10-1-927. If the application is approved by the City Council, the Designated Historic Resource shall be added to the City's Register of Historic Resources.

3.6.1.2 Significance Thresholds

For purposes of this analysis, implementation of the proposed project would result in a significant impact related to cultural resources if it resulted in:

- CULT-1: A substantial adverse change in the significance of an archaeological resource.
- CULT-2: Directly or indirectly destroying a unique paleontological resource or site or unique geologic feature.
- CULT-3: A substantial adverse change in the significance of a tribal cultural resource.
- CULT-4: A substantial adverse change in the significance of a historical resource.
- CULT-5: A substantial contribution to cumulative impacts on cultural resources.

In accordance with the CEQA Guidelines, a "substantial adverse change" occurs when there is physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired. A historic resource is materially impaired when the project results in one of the following:

- Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the California Register
- Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources or its identification in a historical resources survey, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant
- Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register

3.6.1.3 Methodologies

Archaeological Resources

The analysis of archaeological resources is based on a cultural resources records search, a Sacred Lands File (SLF) search conducted by the Native American Heritage Commission (NAHC), a review of historic aerial photography, Sanborn maps, and topographic maps to understand the land use history, and a review of the geotechnical report that was prepared for the project to understand the soil conditions. The cultural resource records search at the South Central Coastal Information Center (SCCIC) included a review of cultural resource reports and historic topographic maps on file using the California Points of Historical Interest (CPHI), California Historical Landmarks (CHL), the California Register, the National Register, and the California Historic Resources Inventory System (CHRIS) listings.

Paleontological Resources

The analysis of paleontological resources is based on a paleontological resources records search through the Vertebrate Paleontology Section of the Natural History Museum of Los Angeles County (NHMLAC), a review of historic aerial photography, Sanborn maps, and topographic maps to understand the land use history, and a review of the geotechnical report that was prepared for the project to understand the soil conditions.

Tribal Cultural Resources

The analysis of tribal cultural resources is based on an SLF search through the NAHC. In addition, the Authority has submitted project notification letters to various Native American individuals and organizations identified by the NAHC.

Historical Resources

The historical resources evaluation documented in the Historic Report (see **Appendix G**) involved a review of the National Register and its annual updates, the California Register, the Statewide Historical Resources Inventory (HRI) database maintained by the State Office of Historic Preservation (OHP), the City of Burbank's inventory of historic resources designations, and the commissioned SCCIC cultural resource records search to identify any previously recorded properties within 0.25 miles of the Airport. An intensive pedestrian survey was also undertaken to document the existing conditions of the Airport and photograph structures that exhibited potential architectural and/or historical associations. A review of building permits, assessor's records, Sanborn fire insurance maps, City directories, historical photographs, California Index, Avery Index, Online Archive of California, USC Digital Collections, historical *Los Angeles Times*, the Authority's archives, and other published sources also was conducted.

3.6.2 Existing Conditions / Environmental Setting

3.6.2.1 Archaeological Resources

The purpose of the record search is to determine whether previously recorded archaeological resources exist within the project site and surrounding vicinity that require evaluation and treatment. The results also provide a basis for assessing the sensitivity of the project site in regards to the potential for encountering buried archaeological resources during construction of the project. The sensitivity of the project site for encountering buried archaeological resources during construction was also assessed based on the findings of historic land use research, soil conditions, and the proposed excavation parameters for the project. None of the research revealed any known archaeological resources at the Airport. In addition, modern aerial photography research revealed that no exposed native ground surface was present at the Airport, as it is currently developed with surface parking lots, hangars, airfield pavement, and other airport-related uses. However, the surface parking lots have the potential to cap and seal archaeological resources below the surface as excavations for parking lots are typically shallow and would therefore not disturb or displace deeper archaeological resources while the asphalt pavement could have served as a barrier that prevented further impacts to those resources.

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3.6.2.2 Paleontological Resources

Results of the paleontological resources records search through the NHMLAC indicate that no known vertebrate fossil localities have been recorded at the Airport. However, there are fossil localities in close proximity from the same sedimentary deposits that occur below the surface within the Airport. The surficial deposits consist of Quaternary alluvial sediments of clays, sands, and gravels from the San Fernando flood plain that were derived from the alluvial fan deposits from the Verdugo Mountains.

The closest vertebrate fossil locality from older Quaternary deposits is LACM 1146, located approximately three miles northwest of the Airport. This locality produced fossil specimens of mastodon, horse and camel from a gravel pit at depths of 160-170 feet below surface. The next closest locality is LACM 6970, three miles south of the Airport. This locality produced fossil specimens of camel, bison, and ground sloth at 60 to 80 feet below surface during the construction of the Metrorail Redline Universal City Tunnel. LACM 3822 is located approximately five miles southwest of the Airport and yielded fossil specimens of extinct peccary, camel, and bison at depths between 75 and 100 feet below surface. LACM 6208 and LACM 3263 are located approximately 5.5 miles southwest of the airport and produced fossil specimens of extinct bison at a depth of 20 feet below surface and fossil specimens of extinct horse at a depth of 14 feet below surface, respectively.

Since the Airport is completely developed with existing Airport-related uses, no unique geologic features are known to exist at the Airport.

3.6.2.3 Tribal Cultural Resources

According to the SLF records search, no known Native American resources from the NAHC database have been recorded at the Airport.

3.6.2.4 Historical Resources

A complete evaluation of all structures at the Airport is provided in the Historic Report (see **Appendix G**). Since 1994 the Airport has undergone several historic resources survey evaluations and several buildings and hangars have been demolished. The Hamilton Aero Company Hangar, listed as a California Historical Point of Interest, was demolished due to damage inflicted by the 1994 Northridge Earthquake. In August 1997, the Lockheed Martin B-6 site was found ineligible for the National Register due to a lack of integrity.[13] In 2004, the property was evaluated as a district and found ineligible for National Register listing.

Fifteen properties were evaluated during a previous district survey (Primary # 19-187105) and found ineligible in 1986, however, the Office of Historic Preservation Directory of Historic Property Data File for Los Angeles County lists the buildings with a National Register Status code of 7R, "identified in reconnaissance survey; not evaluated." One of the buildings, the existing passenger terminal, was included in the evaluation and found ineligible.

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[13] Kessler, David B., AICP, and Edward L. Melisky, Federal Aviation Administration. "U.S. Department of Transportation Federal Aviation Administration "No Eligibility Determination" regarding the Lockheed-Martin B-6 Site for inclusion in the National Register of Historic Places." August 1997.

Four historical resources located within the Airport were previously evaluated and found ineligible. Because multiple hangars are physically connected, they were evaluated as one hangar. Hangars 4 and 5 are connected, as are Hangars 6, 7, 7A, and 7B, so they were evaluated as one building. In 2002, a historic property survey of the Airport found Hangar 3 (Primary# 19-187327), Hangars 4 and 5 (Primary# 19-187328), Hangars 6, 7, 7A and 7B (Primary# 19-187329), and Hangar 22 (Primary# 19-187330) ineligible for the National Register, California Register and local designation.[14] A complete architectural description of each structure is provided in the Historic Report (see **Appendix G**).

There is one historical resource on the National Register in the Airport vicinity. The Portal of the Folded Wings Shrine to Aviation (Primary # 19-180686) is located 0.30 miles south of the Airport at the entrance to the Pierce Brothers Valhalla Memorial Park Cemetery.

Survey and evaluation methods for air terminals were used that followed the guidelines of the National Park Service that identifies six features commonly associated with historic air terminals, Hangars/Aircraft Shelters, Passenger Terminals, Control Towers, Ground Service Facilities, Administration Facilities, and Flight Training Facilities. An analysis of the potential for a historic district compromised of facilities associated with the former United Air Terminal (Building 10) was conducted. The district was previously evaluated in 1986, but due to the passage of time, the district was reevaluated. Although historic research determined that the United Air Terminal was significantly associated with early commercial air travel, the facility has lost a majority of its character defining features associated with that historic context. Only hangars 1, 2, 4, 5, 6, 7, 7A, 34, and 35 remain from the period of significance (1929-1949) and convey high enough integrity to be considered contributors to a potential historic district. Although the original passenger terminal (Building 10) completed in 1929 remains on the site, the building has experienced significant alterations dating from after the period of significance, including near total devastation from a fire in 1966. Due to the alterations, the existing passenger terminal (Building 10), which also acted as the Airport's control tower and administration offices, lacks sufficient integrity to be considered a contributor to the potential historic district.

The Airport has also been associated with Lockheed Aircraft, however, a majority of the facilities related to that historic association have been demolished. Therefore, the Airport does not qualify as a historic district associated with either early commercial air travel or events related to Lockheed Aircraft's history.

An evaluation of the individual eligibility of eleven existing hangars and buildings over 45 years in age was conducted in February 2016. Based upon this evaluation, it was determined that the existing passenger terminal (Building 10), Building 3, Hangars 4 and 5, Hangars 6, 7 and 7A, and Hangars 34 and 35 are not eligible at the federal, state, and local levels due to a lack of historical and architectural significance. Furthermore, Building 10, Building 3, Hangars 4 and 5, and Hangars 6, 7 and 7A were recommended

[14] Jordan, Stacey C., PH.D., Environmental Science Associates and Mooney & Associates. Historic Properties Inventory and Evaluation for the Burbank-Glendale-Pasadena Airport, Burbank, California. Submitted to Burbank-Glendale-Pasadena Airport Authority. October 2002.

ineligible in previous evaluations from 1987 and 2002. Only Hangars 1 and 2 in the southwest quadrant of the Airport appear to be eligible for the National Register and are therefore also eligible for the California Register, and local listing.

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3.6.3 Environmental Impacts and Mitigation Measures

3.6.3.1 Adjacent Property Full-Size Terminal Option

Project Impacts

IMPACT ADJ PROP FULL-CULT-1: Impacts on Archaeological Resources

No known prehistoric archaeological resources have been recorded at the Airport. However, as shown on a topographic map from 1932, evidence of water sources (two unnamed tributaries of the Los Angeles River) are known to once have existed at the Airport, which could have attracted prehistoric inhabitants to the Airport vicinity. It is likely that any historic and prehistoric archaeological resources located on or near the surface have been displaced by the original construction of the Airport and by subsequent improvements. However, it is possible that the surface parking lots have sealed archaeological resources deeper below the surface as excavations for parking lots are typically shallow and would therefore, not disturb or displace deeper archaeological resources, while the asphalt pavement may have served as a barrier that prevented further impacts to these resources. Proposed construction excavations associated with implementation of the project would extend from approximately the surface to 30 feet below the surface. Geotechnical borings at the Regional Intermodal Transportation Center (RITC) reveal that fill soils have been encountered to depths of approximately 2 to 13 feet below the ground surface in that particular area of the Airport. It is therefore possible that fill soils underlie other areas of the Airport at currently unknown depths and thicknesses. There is limited potential to encounter archaeological resources and human remains in fill soils; however, there is still at least a moderate, potential to encounter buried resources in certain areas where undisturbed native soil/sediment associated with younger-aged Holocene alluvial fan deposits are located, such as those areas found underneath paved surface parking lots which could have served as effective caps for the preservation of buried historic and prehistoric archaeological resources. Thus, where construction excavation is planned in Holocene-aged undisturbed native soils and underneath surface parking lots, impacts to buried archaeological resources and human remains are considered potentially significant.

Mitigation Measure ADJ PROP FULL-CULT-1A

A qualified archaeologist shall be retained to develop and implement an archaeological monitoring program for construction excavations that would encounter younger Holocene-age native soils. The archaeologist shall attend a pre-grading/excavation meeting to discuss an archaeological monitoring program. The qualified archaeologist shall supervise an archaeological monitor who shall be present during construction excavations (e.g., demolition, grading, trenching, or clearing/grubbing) into non-fill Holocene-aged native soils that are located underneath surface parking lots. The frequency of monitoring shall be based on the rate of excavation and grading activities, proximity to known archaeological resources, the materials being excavated (native versus artificial fill soils and/or older versus younger alluvial soils), and the depth of excavation, and if found, the abundance and type of archaeological resources encountered. Full-time monitoring can be reduced to part-time inspections or ceased entirely if determined adequate by the archaeologist.

Mitigation Measure ADJ PROP FULL-CULT-1B

In the event that historic or prehistoric archaeological resources (e.g., bottles, foundations, refuse dumps, Native American artifacts or features, etc.) are unearthed during ground-disturbing activities, the Authority shall halt or redirect ground-disturbing activities away from the vicinity of the find so that the find can be evaluated by a qualified archaeologist. A buffer area of at least 25 feet shall be established around the find where construction activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area. All archaeological resources unearthed by project construction activities shall be evaluated by an archaeologist. The Authority shall coordinate with the archaeologist and the building official for the proposed project to develop an appropriate treatment plan for the resources if they are determined to be potentially eligible for the California Register or potentially qualify as unique archaeological resources pursuant to CEQA. Preservation in place (i.e., avoidance) shall be considered as a treatment measure first. If preservation in place is not feasible, treatment may include the implementation of archaeological data recovery excavations to remove the resource from the project site along with subsequent laboratory processing and analysis. Any archaeological material collected shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, they shall be donated to a Burbank school or historical society for educational purposes.

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The archaeologist shall prepare a final report and appropriate California Department of Parks and Recreation Site Forms at the conclusion of treatment and/or the any follow-up archaeological construction monitoring. The report shall include a description of resources unearthed, if any, treatment of the resources, results of the artifact processing, analysis, and research, and evaluation of the resources with respect to the California Register of Historical Resources. The report and the Site Forms shall be submitted to the Authority, the SCCIC, and representatives of other appropriate or concerned agencies to signify the satisfactory completion of the project and required mitigation measures.

Mitigation Measure ADJ PROP FULL-CULT-1C

If human remains are encountered unexpectedly during implementation of the proposed project, California Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to California Public Resources Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the NAHC. The NAHC shall then identify the person(s) thought to be the Most Likely Descendent (MLD). The MLD may, with the permission of the Authority, inspect the site of the discovery of the Native American remains and may recommend to the Authority or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The MLD shall complete their inspection and make their recommendation within 48 hours of being granted access by the Authority to inspect the discovery. The recommendation may include the scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Upon the discovery of the Native American remains, the Authority shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the Authority has discussed and conferred, as prescribed in this mitigation measure, with the MLD regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The Authority shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment.

Whenever the NAHC is unable to identify a MLD, or the MLD identified fails to make a recommendation, or the Authority rejects the recommendation of the descendants and the mediation provided for in subdivision (k) of Section 5097.94, if invoked, fails to provide measures acceptable to the Authority, the Authority shall inter the human remains and items associated with Native American human remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance.

Significance after Mitigation: Implementation of Mitigation Measures ADJ PROP FULL-CULT-1A, 1B, and 1C would reduce the impact related to archaeological resources to a less-than-significant level.

IMPACT ADJ PROP FULL-CULT-2: Impacts on Paleontological Resources

Since the Airport is completely developed with existing Airport-related uses, no unique geologic features are known to exist within the boundaries of the Adjacent Property Full-Size Terminal Option. No known vertebrate fossil localities have been recorded from the NHMLAC database within the boundaries of the Adjacent Property Full-Size Terminal Option. However, several fossil localities that have been identified nearby from the same sedimentary deposits (older Quaternary alluvium deposits) that occur at an unknown depth at the Airport. These fossil resources have been recorded within several miles from the project site and have been recovered from depths between 14 feet and 170 feet below the surface. Proposed construction excavations associated with implementation of the project would extend from approximately the surface to 30 feet below the surface. There is limited potential to encounter paleontological resources in fill soils; however, resources may exist in previously undisturbed native soil/sediment associated with older Pleistocene-aged alluvium within the Airport. Thus, where construction excavation is planned in undisturbed older Quaternary alluvial soils, impacts to buried paleontological resources are considered potentially significant.

Mitigation Measure ADJ PROP FULL-CULT-2A

A qualified paleontologist shall be retained to develop and implement a paleontological monitoring program for construction excavations that would encounter the fossiliferous older Quaternary alluvium deposits. The paleontologist shall attend a pre-grading/excavation meeting to discuss a paleontological monitoring program. A qualified paleontologist is defined as a paleontologist meeting the criteria established by the Society for Vertebrate Paleontology. The qualified paleontologist shall supervise a paleontological monitor who shall be present during construction excavations into non-fill older Quaternary alluvium. Monitoring shall consist of visually inspecting fresh exposures of rock for larger fossil remains and, where appropriate, collecting wet or dry screened sediment samples of promising horizons for smaller fossil remains. The frequency of monitoring inspections shall be determined by the paleontologist and shall be based on the rate of excavation and grading activities, the materials being excavated (native vs. fill soils; younger vs. older Quaternary alluvium), and the depth of excavation, and if found, the abundance and type of fossils encountered. Full-time monitoring can be reduced to part-time inspections, or ceased entirely, if determined adequate by the paleontologist.

Mitigation Measure ADJ PROP FULL-CULT-2B

If a potential fossil is found, the paleontological monitor shall be allowed to temporarily divert or redirect grading and excavation activities in the area of the exposed fossil to facilitate evaluation of the discovery. A buffer area of at least 25 feet, or larger as determined by the paleontologist, shall be established around the find where construction activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area. At the paleontologist’s discretion, and to reduce any construction delay, the grading and excavation contractor shall assist in removing rock samples for initial processing and evaluation. If preservation in place is not feasible, the paleontologist shall implement a paleontological salvage program to remove the resources form the project site. Any fossils encountered and recovered shall be prepared to the point of identification and catalogued before they are submitted to their final repository. Any fossils collected shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County, if such an institution agrees to accept the fossils. If no institution accepts the fossil collection, they shall be donated to a local school in the area for educational purposes. Accompanying notes, maps, and photographs shall also be filed at the repository and/or school.

Mitigation Measure ADJ PROP FULL-CULT-2C

The paleontologist shall prepare a report summarizing the results of the monitoring and salvaging efforts, the methodology used in these efforts, as well as a description of the fossils collected and their significance. The report shall be submitted by the Authority to the Natural History Museum of Los Angeles County, and other appropriate or concerned agencies to signify the satisfactory completion of the project and required mitigation measures.

Significance after Mitigation: Implementation of Mitigation Measures ADJ PROP FULL-CULT-2A, 2B, and 2C would reduce the impact related to paleontological resources to a less-than-significant level.

IMPACT ADJ PROP FULL-CULT-3: Impacts on Tribal Cultural Resources

No tribal cultural resources have been identified in the Airport vicinity. However, because water sources are known to once have existed at the Airport, there is the possibility of the discovery of previously unknown tribal cultural resources at the Airport with the implementation of the Adjacent Property Full-Size Terminal Option. Any impacts to tribal cultural resources are considered potentially significant.

Mitigation Measure ADJ PROP FULL-CULT-3

The implementation of Mitigation Measures ADJ PROP FULL-CULT-1A, 1B, 1C, 2A, 2B, and 2C also would apply to the discovery of any previously unknown tribal cultural resource.

Significance after Mitigation: Implementation of Mitigation Measures ADJ PROP FULL-CULT-1A, 1B, 1C, 2A, 2B, and 2C would reduce the impact related to tribal cultural resources to a less-than-significant level.

IMPACT ADJ PROP FULL-CULT-4: Impacts on Historical Resources

Construction of the Adjacent Property Full-Size Terminal Option would have no effect on the two structures considered eligible for listing on the National Register, the California Register, and local listing. The Adjacent Property Full-Size Terminal Option would not result in any development in the southwest quadrant of the Airport. Therefore, the Adjacent Property Full-Size Terminal Option would not materially impair any resource eligible for listing. Although the Adjacent Property Full-Size Terminal Option would result in indirect impact affecting the resources' integrity of setting, the indirect impact would be less than significant because the potential resources have already lost their historic setting due to their previous relocation.

Mitigation Measure ADJ PROP FULL-CULT-4

No mitigation is warranted.

Cumulative Impacts

IMPACT ADJ PROP FULL-CULT-5: Cumulative Impacts on Cultural Resources

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Construction of the Adjacent Property Full-Size Terminal Option has the potential to affect previously unknown prehistoric archaeological resources and paleontological resources. Other projects in the Airport vicinity also have the potential to affect prehistoric archaeological resources and paleontological resources. However, with the implementation of Mitigation Measures ADJ PROP FULL-CULT-1A, 1B, 1C, 2A, 2B, and 2C, construction-related impacts on prehistoric archaeological resources and paleontological resources would be reduced to a less-than-significant level. Therefore, the Adjacent Property Full-Size Terminal Option would have no significant effect on cultural resources and any incremental effect in this regard would not be cumulatively considerable.

Mitigation Measure ADJ PROP FULL-CULT-5

No mitigation is warranted.

3.6.3.2 Southwest Quadrant Full-Size Terminal Option

Project Impacts

IMPACT SW QUAD FULL-CULT-1: Impacts on Archaeological Resources

No known prehistoric archaeological resources have been recorded at the Airport. However, as shown on a topographic map from 1932, evidence of water sources (two unnamed tributaries of the Los Angeles River) are known to once have existed at the Airport, which could have attracted prehistoric inhabitants to the Airport vicinity. It is likely that any historic and prehistoric archaeological resources located on or near the surface have been displaced by the original construction of the Airport and by subsequent improvements. However, it is possible that the surface parking lots have sealed archaeological resources deeper below the surface as excavations for parking lots are typically shallow and would therefore, not disturb or displace deeper archaeological resources, while the asphalt pavement may have served as a barrier that prevented further impacts to these resources. Proposed construction excavations associated with implementation of the project would extend from approximately the surface to 30 feet below the surface. Geotechnical borings at the Regional Intermodal Transportation Center (RITC) reveal that fill soils have been encountered to depths of approximately 2 to 13 feet below the ground surface in that particular area of the Airport. It is therefore possible that fill soils underlie other areas of the Airport at currently unknown depths and thicknesses. There is limited potential to encounter archaeological resources and human remains in fill soils; however, there is still at least a moderate, potential to encounter buried resources in certain areas where undisturbed native soil/sediment associated with younger-aged Holocene alluvial fan deposits are located, such as those areas found underneath paved surface parking lots which could have served as effective caps for the preservation of buried historic and prehistoric archaeological resources. Thus, where construction excavation is planned in Holocene-aged undisturbed native soils and underneath surface parking lots, impacts to buried archaeological resources and human remains are considered potentially significant.

Mitigation Measure SW QUAD FULL-CULT-1A

A qualified archaeologist shall be retained to develop and implement an archaeological monitoring program for construction excavations that would encounter younger Holocene-age native soils. The archaeologist shall attend a pre-grading/excavation meeting to discuss an archaeological monitoring program. The qualified archaeologist shall supervise an archaeological monitor who shall be present during construction excavations (e.g., demolition, grading, trenching, or clearing/grubbing) into non-fill Holocene-aged native soils that are located underneath surface parking lots. The frequency of monitoring shall be based on the rate of excavation and grading activities, proximity to known archaeological resources, the materials being excavated (native versus artificial fill soils and/or older versus younger alluvial soils), and the depth of excavation, and if found, the abundance and type of archaeological resources encountered. Full-time monitoring can be reduced to part-time inspections or ceased entirely if determined adequate by the archaeologist.

Mitigation Measure SW QUAD FULL-CULT-1B

In the event that historic or prehistoric archaeological resources (e.g., bottles, foundations, refuse dumps, Native American artifacts or features, etc.) are unearthed during ground-disturbing activities, the Authority shall halt or redirect ground-disturbing activities away from the vicinity of the find so that the find can be evaluated by a qualified archaeologist. A buffer area of at least 25 feet shall be established around the find where construction activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area. All archaeological resources unearthed by project construction activities shall be evaluated by an archaeologist. The Authority shall coordinate with the archaeologist and the building official for the proposed project to develop an appropriate treatment plan for the resources if they are determined to be potentially eligible for the California Register or potentially qualify as unique archaeological resources pursuant to CEQA. Preservation in place (i.e., avoidance) shall be considered as a treatment measure first. If preservation in place is not feasible, treatment may include the implementation of archaeological data recovery excavations to remove the resource from the project site along with subsequent laboratory processing and analysis. Any archaeological material collected shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, they shall be donated to a Burbank school or historical society for educational purposes.

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The archaeologist shall prepare a final report and appropriate California Department of Parks and Recreation Site Forms at the conclusion of treatment and/or the any follow-up archaeological construction monitoring. The report shall include a description of resources unearthed, if any, treatment of the resources, results of the artifact processing, analysis, and research, and evaluation of the resources with respect to the California Register of Historical Resources. The report and the Site Forms shall be submitted to the Authority, the SCCIC, and representatives of other appropriate or concerned agencies to signify the satisfactory completion of the project and required mitigation measures.

Mitigation Measure SW QUAD FULL-CULT-1C

If human remains are encountered unexpectedly during implementation of the proposed project, California Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to California Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the NAHC. The NAHC shall then identify the person(s) thought to be the Most Likely Descendent (MLD). The MLD may, with the permission of the Authority, inspect the site of the discovery of the Native American remains and may recommend to the Authority or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The MLD shall complete their inspection and make their recommendation within 48 hours of being granted access by the Authority to inspect the discovery. The recommendation may include the scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Upon the discovery of the Native American remains, the Authority shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the Authority has discussed and conferred, as prescribed in this mitigation measure, with the MLD regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The Authority shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment.

Whenever the NAHC is unable to identify a MLD, or the MLD identified fails to make a recommendation, or the Authority rejects the recommendation of the descendants and the mediation provided for in subdivision (k) of Section 5097.94, if invoked, fails to provide measures acceptable to the Authority, the Authority shall inter the human remains and items associated with Native American human remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance.

Significance after Mitigation: Implementation of Mitigation Measures SW QUAD FULL-CULT-1A, 1B, and 1C would reduce the impact related to archaeological resources to a less-than-significant level.

IMPACT SW QUAD FULL-CULT-2: Impacts on Paleontological Resources

Since the Airport is completely developed with existing Airport-related uses, no unique geologic features are known to exist within the boundaries of the Southwest Quadrant Full-Size Terminal Option. No known vertebrate fossil localities have been recorded from the NHMLAC database within the boundaries of the Southwest Quadrant Full-Size Terminal Option. However, there are several localities that have been identified nearby from the same sedimentary deposits (older Quaternary alluvium deposits) that occur at an unknown depth at the Airport. These fossil resources have been recorded within several miles from the project site and have been recovered from depths between 14 feet and 170 feet below the surface. Proposed construction excavations associated with implementation of the project would extend from approximately the surface to 30 feet below the surface. There is limited potential to encounter paleontological resources in fill soils; however, resources may exist in previously undisturbed native soil/sediment associated with older Pleistocene-aged alluvium within the Airport. Thus, where construction excavation is planned in undisturbed older Quaternary alluvial soils, impacts to buried paleontological resources are considered potentially significant.

Mitigation Measure SW QUAD FULL-CULT-2A

A qualified paleontologist shall be retained to develop and implement a paleontological monitoring program for construction excavations that would encounter the fossiliferous older Quaternary alluvium deposits. The paleontologist shall attend a pre-grading/excavation meeting to discuss a paleontological monitoring program. A qualified paleontologist is defined as a paleontologist meeting the criteria established by the Society for Vertebrate Paleontology. The qualified paleontologist shall supervise a paleontological monitor who shall be present during construction excavations into non-fill older Quaternary alluvium. Monitoring shall consist of visually inspecting fresh exposures of rock for larger fossil remains and, where appropriate, collecting wet or dry screened sediment samples of promising horizons for smaller fossil remains. The frequency of monitoring inspections shall be determined by the paleontologist and shall be based on the rate of excavation and grading activities, the materials being excavated (native vs. fill soils; younger vs. older Quaternary alluvium), and the depth of excavation, and if found, the abundance and type of fossils encountered. Full-time monitoring can be reduced to part-time inspections, or ceased entirely, if determined adequate by the paleontologist.

Mitigation Measure SW QUAD FULL-CULT-2B

If a potential fossil is found, the paleontological monitor shall be allowed to temporarily divert or redirect grading and excavation activities in the area of the exposed fossil to facilitate evaluation of the discovery. A buffer area of at least 25 feet or larger as determined by the paleontologist, shall be established around the find where construction activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area. At the paleontologist's discretion, and to reduce any construction delay, the grading and excavation contractor shall assist in removing rock samples for initial processing and evaluation. If preservation in place is not feasible, the paleontologist shall implement a paleontological salvage program to remove the resources form the project site. Any fossils encountered and recovered shall be prepared to the point of identification and catalogued before they are submitted to their final repository. Any fossils collected shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County, if such an institution agrees to accept the fossils. If no institution accepts the fossil collection, they shall be donated to a local school in the area for educational purposes. Accompanying notes, maps, and photographs shall also be filed at the repository and/or school.

Mitigation Measure SW QUAD FULL-CULT-2C

The paleontologist shall prepare a report summarizing the results of the monitoring and salvaging efforts, the methodology used in these efforts, as well as a description of the fossils collected and their significance. The report shall be submitted by the Authority to the Natural History Museum of Los Angeles County, and other appropriate or concerned agencies to signify the satisfactory completion of the project and required mitigation measures.

Significance after Mitigation: Implementation of Mitigation Measures SW QUAD FULL-CULT-2A, 2B, and 2C would reduce the impact related to paleontological resources to a less-than-significant level.

IMPACT SW QUAD FULL-CULT-3: Impacts on Tribal Cultural Resources

No tribal cultural resources have been identified in the Airport vicinity. However, because water sources are known to once have existed at the Airport, there is the possibility of the discovery of previously unknown tribal cultural resources at the Airport with the implementation of the Southwest Quadrant Full-Size Terminal Option. Any impacts to tribal cultural resources are considered potentially significant.

Mitigation Measure SW QUAD FULL-CULT-3

The implementation of Mitigation Measures SW QUAD FULL-CULT-1A, 1B, 1C, 2A, 2B, and 2C also would apply to the discovery of any previously unknown tribal cultural resource.

Significance after Mitigation: Implementation of Mitigation Measures SW QUAD FULL-CULT-1A, 1B, 1C, 2A, 2B, and 2C would reduce the impact related to tribal cultural resources to a less-than-significant level.

IMPACT SW QUAD FULL-CULT-4: Impacts on Historical Resources

The Southwest Quadrant Full-Size Terminal Option includes the construction of a replacement passenger terminal and an air cargo building in the southwest quadrant of the Airport. These structures would result in the removal of Hangars 1 and 2, which were found eligible for listing at the national, state, and local levels. The removal of Hangars 1 and 2 would be considered a significant impact.

It may be possible for Hangar 1 to be reused as the air cargo building under the Southwest Quadrant Full-Size Terminal Option. Hangar 2 would be relocated on Airport property. While the option to reuse Hangar 1 would result in a reduced impact to historic resources, the impact of the Southwest Quadrant Full-Size Terminal Option on historic resources would be potentially significant due to the removal of Hangar 2. Potentially significant impacts would be reduced to a less than significant level through the implementation of the following mitigation measures.

Mitigation Measure SW QUAD FULL-CULT-4A

If Hangar 1 is reused as an air cargo building, or other owner or tenant improvements are proposed that have the potential to materially impair the historical significance of Hangar 1, the improvements shall be designed and undertaken to comply with the Standards. Prior to designing or implementing owner or tenant improvements that have the potential to alter the identified significant character defining features of the building, the owner or tenant, as appropriate, shall engage a qualified preservation consultant to review the proposed improvements and the compatibility of new design and construction components with retained historic features. A qualified preservation consultant is an architectural historian, historic architect, or historic preservation professional who satisfies the Secretary of the Interior's Professional Qualification Standards for History, Architectural History, or Architecture, pursuant to 36 CFR 61, and has at least 10 years' experience in reviewing architectural plans for conformance to the Secretary's Standards and Guidelines. The preservation consultant shall review the final project plans for conformance to the Secretary of the Interior's Standards and prepare a memorandum commenting on the projects adherence to the Standards and pertinent preservation recommendations, if any. The memorandum shall be submitted to the City's Community Development Department for review and approval prior to project approval or issuance of a building permit, if any. The owner or tenant shall undertake and complete construction in a manner consistent with the preservation consultant's and City's recommendations, and the preservation consultant shall complete and submit a monitoring report to the City at project completion to ensure that the proposed project meets the Standards to the degree feasible and does not materially impair the historical significance of Hangar 1.

Mitigation Measure SW QUAD FULL-CULT-4B (see SW QUAD FULL-AESTH-2)

Hangar 2 would be moved to another location on Airport property. A Relocation and Rehabilitation Plan shall be commissioned by the Authority and developed by a qualified historic preservation consultant. The Plan shall include relocation methodology recommended by the National Park Service (NPS), which are outlined in the booklet entitled "Moving Historic Buildings," by John Obed Curtis (1979). The Plan shall include an assessment of the condition of both hangars by a qualified engineer, and a shoring plan for relocation and storage, and relocation to the final site. If temporary storage is required, the storage conditions should closely follow the recommendations of *NPS Preservation Brief 31: Mothballing Historic Buildings* with regard to recommendations for structural stabilization, pest control, protection against vandalism, fire, and moisture, adequate ventilation which should be applied to the hangars at the temporary storage location to ensure the safety of the building during storage. A periodic maintenance and monitoring plan shall also be included in the Plan and implemented during the storage period in accordance with the guidance outlined in *NPS Preservation Brief 31*. The Relocation and Rehabilitation Plan shall be reviewed and approved by the project building official prior to its implementation.

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Upon relocation of the hangars to the new site, any maintenance, repair, stabilization, rehabilitation, preservation, conservation, or reconstruction work performed in conjunction with the relocation of the hangars shall be undertaken in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Properties. In addition, a plaque describing the date of the move and the original location shall be placed in a visible location on each of the hangars. The removal, storage, relocation and rehabilitation process shall be monitored by a qualified historic preservation consultant at key intervals to ensure conformance with the Standards and NPS guidelines. The preservation consultant shall also be available to provide technical expertise to reduce potential impacts to historical resources from unforeseen circumstances.

Mitigation Measure SW QUAD FULL-CULT-4C

Prior to the issuance of a relocation permit for the Hangar 2, a recordation document in accordance with Historic American Buildings Survey (HABS) Level II requirements shall be completed for the existing buildings. The HABS document shall be prepared by a qualified architectural historian or historic preservation professional. This document shall include a historical narrative on the architectural and historical importance of Hangar 2, and record the existing appearance of Hangar 2 in professional large format HABS photographs. The building exteriors, representative interior spaces, character-defining features, as well as the setting and contextual views shall be documented. All documentation components shall be completed in accordance with the Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation (HABS standards). Original archivally-sound copies of the report shall be submitted to the HABS collection at the Library of Congress, and SCCIC, California State University, Fullerton, CA. Non-archival copies will be distributed to the City of Burbank and Burbank Public Library. In addition, any existing and available design and/or as-built drawings shall be compiled, reproduced, and incorporated into the recordation document.

Mitigation Measure SW QUAD FULL-CULT-4D

A permanent metal plaque will be affixed to the primary elevation of the relocated Hangar 2 or a marker will be imbedded in the pavement in front of the relocated Hangar 2, which briefly explains the relocation of the hangar and its original site.

Significance After Mitigation: Implementation of Mitigation Measures SW QUAD FULL-CULT-4A, 4B, 4C, and 4D would reduce the impact related to historic resources to a less-than-significant level.

Cumulative Impacts

IMPACT SW QUAD FULL-CULT-5: Cumulative Impacts on Cultural Resources

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Construction of the Southwest Quadrant Full-Size Terminal Option has the potential to affect previously unknown prehistoric archaeological resources and paleontological resources. Other projects in the Airport vicinity also have the potential to affect prehistoric archaeological resources and paleontological resources. However, with the implementation of Mitigation Measures SW QUAD FULL-CULT-1A, 1B, 1C, 2A, 2B, and 2C, construction-related impacts on prehistoric archaeological resources and paleontological resources would be reduced to a less-than-significant level. In addition, construction of the Southwest Quadrant Full-Size Terminal Option would affect existing historical resources. However, with the implementation of Mitigation Measures 4A, 4B, 4C, and 4D construction-related impacts on historical resources would be reduced to a less-than–significant level. Therefore, the Southwest Quadrant Full-Size Terminal Option would have no significant effect on cultural resources and any incremental effect in this regard would not be cumulatively considerable.

Mitigation Measure SW QUAD FULL-CULT-5
No mitigation is warranted.

3.6.3.3 Southwest Quadrant Same-Size Terminal Option

Project Impacts

IMPACT SW QUAD SAME-CULT-1: Impacts on Archaeological Resources

No known prehistoric archaeological resources have been recorded at the Airport. However, as shown on a topographic map from 1932, evidence of water sources (two unnamed tributaries of the Los Angeles River) are known to once have existed at the Airport, which could have attracted prehistoric inhabitants to the Airport vicinity. It is likely that any historic and prehistoric archaeological resources located on or near the surface have been displaced by the original construction of the Airport and by subsequent improvements. However, it is possible that the surface parking lots have sealed archaeological resources deeper below the surface as excavations for parking lots are typically shallow and would therefore, not disturb or displace deeper archaeological resources, while the asphalt pavement may have served as a barrier that prevented further impacts to these resources. Proposed construction excavations associated with implementation of the project would extend from approximately the surface to 30 feet below the surface. Geotechnical borings at the Regional Intermodal Transportation Center (RITC) reveal that fill soils have been encountered to depths of approximately 2 to 13 feet below the ground surface in that particular area of the Airport. It is therefore possible that fill soils underlie other areas of the Airport at currently unknown depths and thicknesses. There is limited potential to encounter archaeological resources and human remains in fill soils; however, there is still at least a moderate, potential to encounter buried resources in certain areas where undisturbed native soil/sediment associated with younger-aged Holocene alluvial fan deposits are located, such as those areas found underneath paved surface parking lots which could have served as effective caps for the preservation of buried historic and prehistoric archaeological resources. Thus, where construction excavation is planned in Holocene-aged undisturbed native soils and underneath surface parking lots, impacts to buried archaeological resources and human remains are considered potentially significant.

Mitigation Measure SW QUAD SAME-CULT-1A
A qualified archaeologist shall be retained to develop and implement an archaeological monitoring program for construction excavations that would encounter younger Holocene-age native soils. The archaeologist shall attend a pre-grading/excavation meeting to discuss an archaeological monitoring program. The qualified archaeologist shall supervise an archaeological monitor who shall be present during construction excavations (e.g., demolition, grading, trenching, or clearing/grubbing) into non-fill Holocene-

aged native soils that are located underneath surface parking lots. The frequency of monitoring shall be based on the rate of excavation and grading activities, proximity to known archaeological resources, the materials being excavated (native versus artificial fill soils and/or older versus younger alluvial soils), and the depth of excavation, and if found, the abundance and type of archaeological resources encountered. Full-time monitoring can be reduced to part-time inspections or ceased entirely if determined adequate by the archaeologist.

Mitigation Measure SW QUAD SAME-CULT-1B

In the event that historic or prehistoric archaeological resources (e.g., bottles, foundations, refuse dumps, Native American artifacts or features, etc.) are unearthed during ground-disturbing activities, the Authority shall halt or redirect ground-disturbing activities away from the vicinity of the find so that the find can be evaluated by a qualified archaeologist. A buffer area of at least 25 feet shall be established around the find where construction activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area. All archaeological resources unearthed by project construction activities shall be evaluated by an archaeologist. The Authority shall coordinate with the archaeologist and the project building official to develop an appropriate treatment plan for the resources if they are determined to be potentially eligible for the California Register or potentially qualify as unique archaeological resources pursuant to CEQA. Preservation in place (i.e., avoidance) shall be considered as a treatment measure first. If preservation in place is not feasible, treatment may include the implementation of archaeological data recovery excavations to remove the resource from the project site along with subsequent laboratory processing and analysis. Any archaeological material collected shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, they shall be donated to a Burbank school or historical society for educational purposes.

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The archaeologist shall prepare a final report and appropriate California Department of Parks and Recreation Site Forms at the conclusion of treatment and/or the any follow-up archaeological construction monitoring. The report shall include a description of resources unearthed, if any, treatment of the resources, results of the artifact processing, analysis, and research, and evaluation of the resources with respect to the California Register of Historical Resources. The report and the Site Forms shall be submitted to the Authority, the SCCIC, and representatives of other appropriate or concerned agencies to signify the satisfactory completion of the project and required mitigation measures.

Mitigation Measure SW QUAD SAME-CULT-1B
If human remains are encountered unexpectedly during implementation of the proposed project, California Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to California Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the NAHC. The NAHC shall then identify the person(s) thought to be the Most Likely Descendent (MLD). The MLD may, with the permission of the Authority, inspect the site of the discovery of the Native American remains and may recommend to the Authority or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The MLD shall complete their inspection and make their recommendation within 48 hours of being granted access by the Authority to inspect the discovery. The recommendation may include the scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Upon the discovery of the Native American remains, the Authority shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the Authority has discussed and conferred, as prescribed in this mitigation measure, with the MLD regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The Authority shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment.

Whenever the NAHC is unable to identify a MLD, or the MLD identified fails to make a recommendation, or the Authority rejects the recommendation of the descendants and the mediation provided for in subdivision (k) of Section 5097.94, if invoked, fails to provide measures acceptable to the Authority, the Authority shall inter the human remains and items associated with Native American human remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance.

Significance after Mitigation: Implementation of Mitigation Measures SW QUAD SAME-CULT-1A, 1B, and 1C would reduce the impact related to archaeological resources to a less-than-significant level.

IMPACT SW QUAD SAME-CULT-2: Impacts on Paleontological Resources

Since the Airport is completely developed with existing Airport-related uses, no unique geologic features are known to exist within the boundaries of the Southwest Quadrant Same-Size Terminal Option. No known vertebrate fossil localities have been recorded from the NHMLAC database within the boundaries of the Southwest Quadrant Same-Size Terminal Option. However, there are several localities that have been identified nearby from the same sedimentary deposits (older Quaternary alluvium deposits) that occur at an unknown depth at the Airport. These fossil resources have been recorded within several miles from the project site and have been recovered from depths between 14 feet and 170 feet below the surface. Proposed construction excavations associated with implementation of the project would extend from approximately the surface to 30 feet below the surface. There is limited potential to encounter paleontological resources in fill soils; however, resources may exist in previously undisturbed native soil/sediment associated with older Pleistocene-aged alluvium within the Airport. Thus, where construction excavation is planned in undisturbed older Quaternary alluvial soils, impacts to buried paleontological resources are considered potentially significant.

Mitigation Measure SW QUAD SAME-CULT-2A

A qualified paleontologist shall be retained to develop and implement a paleontological monitoring program for construction excavations that would encounter the fossiliferous older Quaternary alluvium deposits. The paleontologist shall attend a pre-grading/excavation meeting to discuss a paleontological monitoring program. A qualified paleontologist is defined as a paleontologist meeting the criteria established by the Society for Vertebrate Paleontology. The qualified paleontologist shall supervise a paleontological monitor who shall be present during construction excavations into non-fill older Quaternary alluvium. Monitoring shall consist of visually inspecting fresh exposures of rock for larger fossil remains and, where appropriate, collecting wet or dry screened sediment samples of promising horizons for smaller fossil remains. The frequency of monitoring inspections shall be determined by the paleontologist and shall be based on the rate of excavation and grading activities, the materials being excavated (native vs. fill soils; younger vs. older Quaternary alluvium), and the depth of excavation, and if found, the abundance and type of fossils encountered. Full-time monitoring can be reduced to part-time inspections, or ceased entirely, if determined adequate by the paleontologist.

Mitigation Measure SW QUAD SAME-CULT-2B

If a potential fossil is found, the paleontological monitor shall be allowed to temporarily divert or redirect grading and excavation activities in the area of the exposed fossil to facilitate evaluation of the discovery. A buffer area of at least 25 feet, or larger as determined by the paleontologist shall be established around the find where construction activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area. At the paleontologist's discretion, and to reduce any construction delay, the grading and excavation contractor shall assist in removing rock samples for initial processing and evaluation. If preservation in place is not feasible, the paleontologist shall implement a paleontological salvage program to remove the resources form the project site. Any fossils encountered and recovered shall be prepared to the point of identification and catalogued before they are submitted to their final repository. Any fossils collected shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County, if such an institution agrees to accept the fossils. If no institution accepts the fossil collection, they shall be donated to a local school in the area for educational purposes. Accompanying notes, maps, and photographs shall also be filed at the repository and/or school.

Mitigation Measure SW QUAD SAME-CULT-2C
The paleontologist shall prepare a report summarizing the results of the monitoring and salvaging efforts, the methodology used in these efforts, as well as a description of the fossils collected and their significance. The report shall be submitted by the Authority to the Natural History Museum of Los Angeles County, and other appropriate or concerned agencies to signify the satisfactory completion of the project and required mitigation measures.

Significance after Mitigation: Implementation of Mitigation Measures SW QUAD SAME-CULT-2A, 2B, and 2C would reduce the impact related to archaeological resources to a less-than-significant level.

IMPACT SW QUAD SAME-CULT-3: Impacts on Tribal Cultural Resources

No tribal cultural resources have been identified in the Airport vicinity. However, because water sources are known to once have existed at the Airport, there is the possibility of the discovery of previously unknown tribal cultural resources at the Airport with the implementation of the Southwest Quadrant Same-Size Terminal Option. Any impacts to tribal cultural resources are considered potentially significant.

Mitigation Measure SW QUAD SAME-CULT-3
The implementation of Mitigation Measures SW QUAD SAME-CULT-1A, 1B, 1C, 2A, 2B, and 2C also would apply to the discovery of any previously unknown tribal cultural resource.

Significance after Mitigation: Implementation of Mitigation Measures SW QUAD SAME-CULT-1A, 1B, 1C, 2A, 2B, and 2C would reduce the impact related to tribal cultural resources to a less-than-significant level.

IMPACT SW QUAD SAME-CULT-4: Impacts on Historical Resources

The Southwest Quadrant Same-Size Terminal Option includes the construction of a replacement passenger terminal and an air cargo building in the southwest quadrant of the Airport. These structures would result in the removal of Hangars 1 and 2, which were found eligible for listing at the national, state, and local levels. The removal of Hangars 1 and 2 would be considered a significant impact.

It may be possible for Hangar 1 to be reused as the air cargo building under the Southwest Quadrant Same-Size Terminal Option. Hangar 2 would be relocated to the Northwest Quadrant of the Airport. While the option to reuse Hangar 1 would result in a reduced impact to historic resources, the impact of the Southwest Quadrant Same-Size Terminal Option on historic resources would be potentially significant due to the removal of Hangar 2. Potentially significant impacts would be reduced to a less than significant level through the implementation of the following mitigation measures.

Mitigation Measure SW QUAD SAME-CULT-4A
If Hangar 1 is reused as an air cargo building, or other owner or tenant improvements are proposed that have the potential to materially impair the historical significance of Hangar 1, the improvements shall be designed and undertaken to comply with the Standards. Prior to designing or implementing owner or tenant improvements that have the potential to alter the identified significant character defining features of the building, the owner or tenant, as appropriate, shall engage a qualified preservation consultant to review the proposed improvements and the compatibility of new design and construction components with retained historic features. A qualified preservation consultant is an architectural historian, historic architect, or historic preservation professional who satisfies the Secretary of the Interior's Professional Qualification Standards for History, Architectural History, or Architecture, pursuant to 36 CFR 61, and has at least 10 years' experience in reviewing architectural plans for conformance to the Secretary's Standards and Guidelines. The preservation consultant shall review the final project plans for conformance to the Secretary of the Interior's Standards and prepare a memorandum commenting on the projects adherence to the Standards and pertinent preservation recommendations, if any. The memorandum shall be submitted to the City's Community Development Department for review and approval prior to project approval or issuance of a building permit, if any. The owner or tenant shall undertake and complete construction in a manner consistent with the preservation consultant's and City's recommendations, and the preservation consultant shall complete and submit a monitoring report to the City at project completion to ensure that the proposed project meets the Standards to the degree feasible and does not materially impair the historical significance of Hangar 1.

Mitigation Measure SW QUAD SAME-CULT-4B (SW QUAD SAME-AESTH-2)
Hangar 2 would be moved to the Northwest Quadrant of the Airport. A Relocation and Rehabilitation Plan shall be commissioned by the Authority and developed by a qualified historic preservation consultant. The Plan shall include relocation methodology recommended by the National Park Service (NPS), which are outlined in the booklet entitled "Moving Historic Buildings," by John Obed Curtis (1979). The Plan shall include an assessment of the condition of both hangars by a qualified engineer, and a shoring plan for relocation and storage, and relocation to the final site. If temporary storage is required, the storage conditions should closely follow the recommendations of *NPS Preservation Brief 31: Mothballing Historic Buildings* with regard to recommendations for structural stabilization, pest control, protection against vandalism, fire, and moisture, adequate ventilation which should be applied to the hangars at the temporary storage location to ensure the safety of the building during storage. A periodic maintenance and monitoring plan shall also be included in the Plan and implemented during the storage period in accordance with the guidance outlined in *NPS Preservation Brief 31*. The Relocation and Rehabilitation Plan shall be reviewed and approved by the project building official prior to its implementation.

Upon relocation of the hangars to the new site, any maintenance, repair, stabilization, rehabilitation, preservation, conservation, or reconstruction work performed in conjunction with the relocation of the hangars shall be undertaken in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Properties. In addition, a plaque describing the date of the move and the original location shall be placed in a visible location on each of the hangars. The removal, storage, relocation and rehabilitation process shall be monitored by a qualified historic preservation consultant at key intervals to ensure conformance with the Standards and NPS guidelines. The preservation consultant shall also be available to provide technical expertise to reduce potential impacts to historical resources from unforeseen circumstances.

Mitigation Measure SW QUAD SAME-CULT-4C

Prior to the issuance of a relocation permit for the Hangar 2, a recordation document in accordance with Historic American Buildings Survey (HABS) Level II requirements shall be completed for the existing buildings. The HABS document shall be prepared by a qualified architectural historian or historic preservation professional. This document shall include a historical narrative on the architectural and historical importance of Hangar 2, and record the existing appearance of Hangar 2 in professional large format HABS photographs. The building exteriors, representative interior spaces, character-defining features, as well as the setting and contextual views shall be documented. All documentation components shall be completed in accordance with the Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation (HABS standards). Original archivally-sound copies of the report shall be submitted to the HABS collection at the Library of Congress, and SCCIC, California State University, Fullerton, CA. Non-archival copies will be distributed to the City of Burbank and Burbank Public Library. In addition, any existing and available design and/or as-built drawings shall be compiled, reproduced, and incorporated into the recordation document.

Mitigation Measure SW QUAD SAME-CULT-4D

A permanent metal plaque will be affixed to the primary elevation of the relocated Hangar 2 or a marker will be imbedded in the pavement in front of the relocated Hangar 2, which briefly explains the relocation of the hangar and its original site.

Significance After Mitigation: Implementation of Mitigation Measures SW QUAD SAME-CULT-4A, 4B, 4C, and 4D would reduce the impact related to historic resources to a less-than-significant level.

Cumulative Impacts

IMPACT SW QUAD SAME-CULT-5: Cumulative Impacts on Cultural Resources

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Construction of the Southwest Quadrant Same-Size Terminal Option has the potential to affect previously unknown prehistoric archaeological resources and paleontological resources. Other projects in the Airport vicinity also have the potential to affect prehistoric archaeological resources and paleontological resources. However, with the implementation of Mitigation Measures SW QUAD SAME-CULT-1A, 1B, 1C, 2A, 2B, and 2C, construction-related impacts on prehistoric archaeological resources and paleontological resources would be reduced to a less-than-significant level. In addition, construction of the Southwest Quadrant Same-Size Terminal Option would affect existing historical resources. However, with the implementation of Mitigation Measures 4A, 4B, 4C, and 4D construction-related impacts on historical resources would be reduced to a less-than–significant level. Therefore, the Southwest Quadrant Same-Size Terminal Option would have no significant effect on cultural resources and any incremental effect in this regard would not be cumulatively considerable.

Mitigation Measure SW QUAD SAME-CULT-5
No mitigation is warranted.

3.7 GEOLOGY AND SOILS

3.7.1 Background and Methodology

The purpose of this section is to determine whether implementation of the proposed project would result in significant environmental impacts related to geology and soils.

3.7.1.1 Regulatory Context

FEDERAL

Earthquake Hazards Reduction Act

The U.S. congress passed the Earthquake Hazards Reduction Act of 1977[1] in an effort to minimize the risk to life and property from earthquakes. To accomplish this goal, the act established the National Earthquake Hazards Reduction Program; in 1990, this program was substantially amended by the National Earthquake Hazards Reduction Program Act,[2] which refined the description of agency responsibilities and program goals and objectives.

STATE

Alquist-Priolo Earthquake Fault Zoning Act

The State of California passed the Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act)[3] in 1972 as a direct result of the 1971 San Fernando Earthquake, which caused extensive surface rupture and widespread damage. The Alquist-Priolo Act prohibits the location of structures designed for human occupancy across the traces of active faults (lines of surface rupture), thereby reducing the potential for loss of life and property from an earthquake. The Airport is not located within a mapped Alquist-Priolo Earthquake Fault Zone.

Seismic Hazards Mapping Act of 1990

The California legislature enacted the Seismic Hazards Mapping Act following the Bay Area's Loma Prieta Earthquake to reduce threats to public health and safety and to minimize property damage caused by earthquakes. This act directs the Department of Conservation to identify and map areas prone to the earthquake hazards of strong groundshaking, liquefaction, and seismically induced landslides. The state regulates proposed development in these high-risk areas, known as Seismic Hazard Zones, through the permit review process. The Seismic Hazards Mapping Act prohibits development in identified hazard zones until project proponents have carried out appropriate geotechnical investigations and incorporated risk-reduction measures into development plans.[4]

California Code of Regulations, California Building Code, Title 24, Part 2

The California Building Code (CBC), which is codified in Title 24, Part 2, of the California Code of Regulations, was promulgated to safeguard the public health, safety, and general welfare by establishing minimum

1 United States Code, Section 7701 et seq., Earthquake Hazards Reduction Act of 1977 (amended 2004).

2 United States Code, Section 7704, National Earthquake Hazards Reduction Program Act (1990).

3 California Public Resources Code, Section 2621, Alquist-Priolo Earthquake Fault Zoning Act (1972).

4 California Public Resources Code, Sections 2690–2699.6, Seismic Hazards Mapping Act (1990).

standards related to structural strength, egress facilities, and general building stability. The purpose of the CBC is to regulate and control the design, construction, quality of materials, use/occupancy, location, and maintenance of all building and structures within its jurisdiction. Title 24 is administered by the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. Under state law, all building standards must be centralized in Title 24 or they are not enforceable. The CBC is based on the Uniform Building Code (UBC), with necessary California amendments to accommodate the increased risk from seismic hazards. The UBC, enacted in 1927 by the International Conference of Building Officials, is the industry standard for building codes ensuring consistent requirements for construction and safety across the country. The City of Burbank and City of Los Angeles have adopted the 2013 CBC.

3.7.1.2 Significance Thresholds

For purposes of this EIR, implementation of the proposed project would result in a significant impact related to soils or geology if it resulted in:

- GEO-1: Exposure of people or structures to surface rupture.
- GEO-2: Exposure of people or structures to strong seismic groundshaking, ground failure, or liquefaction.
- GEO-3: Substantial soil erosion or loss of topsoil.
- GEO-4: Potential for impacts from unstable soils.
- GEO-5: Potential for impacts due to expansive or corrosive soils.
- GEO-6: Cumulative impacts related to geotechnical hazards.

3.7.1.3 Methodologies

The following evaluation of potential impacts is based on published reports and topographic images from the California Geological Survey (CGS) and the United States Geological Survey (USGS). These agencies offer information which is used to determine the existence of known geologic formations and historical conditions. Relevant information was also taken from the Ninyo & Moore, *Geotechnical Evaluation Design Phase, Regional Intermodal Transportation Center, Bob Hope Airport, Burbank, California, Project Number E09-11*, *July 29, 2010* prepared for Burbank-Glendale-Pasadena Airport Authority. This report included field exploration and exploration for the Regional Intermodal Transportation Center (RITC) site located in the southeast portion of the Bob Hope Airport which consisted of the excavation, logging, and sampling of eleven hollow-stem auger borings to depths of approximately 85.5 to 100.7 feet and six cone penetrometer tests to depths of approximately 9 to 50 feet. Geotechnical laboratory testing of selected soil samples included tests to evaluate in-situ moisture and density, percent particles, and gradation, Proctor density, shear strength, expansion index, soil corrosivity, and R-value were also conducted. Finally, this analysis relies on the findings of the *Updated Preliminary Geotechnical Evaluation Replacement Terminal Project Bob Hope Airport Burbank, California, Project No. 207789006, March 10 2016*, prepared for the Burbank-Glendale-Pasadena Airport Authority by Ninyo & Moore (included as **Appendix H**). After reports and technical information were reviewed, site conditions were compared by evaluating the potential for the proposed Project to impact geologic conditions while also being compared against CEQA thresholds.

3.7.2 Existing Conditions / Environmental Setting

3.7.2.1 Regional Geology

The Airport is located in the San Fernando Valley, a Tertiary-Quaternary period sediment-filled basin within the Transverse Ranges geomorphic province of southern California. The Transverse Ranges geomorphic province is generally underlain by thick sequences of marine and non-marine sedimentary rock that have been folded and uplifted due to compression and rotation associated with a restraining bend on the San Andreas Fault. The folding and uplifting of the region led to characteristic east-to-west trending structural troughs and mountain ranges. The San Fernando Valley formed as sediment infilled a subsiding basin between the Santa Susana Mountains to the north and the Santa Monica Mountains to the south. The Airport is situated on a southeast sloping alluvial fan derived from the San Gabriel Mountains to the north.

3.7.2.2 Site Geology and Generalized Subsurface Conditions

The Airport is located in the eastern part of the San Fernando Valley west of the Verdugo Mountains and north of the Santa Monica Mountains. As shown on **Figure 3.7-1**, the Airport is underlain by Holocene and late Pleistocene alluvial fan deposits consisting of unconsolidated gravel, sand, and silt. Topography of the airport slopes gently down from the northwest toward the southeast. Elevations at the Airport range from approximately 750 feet above mean sea level to 700 feet above mean sea level.

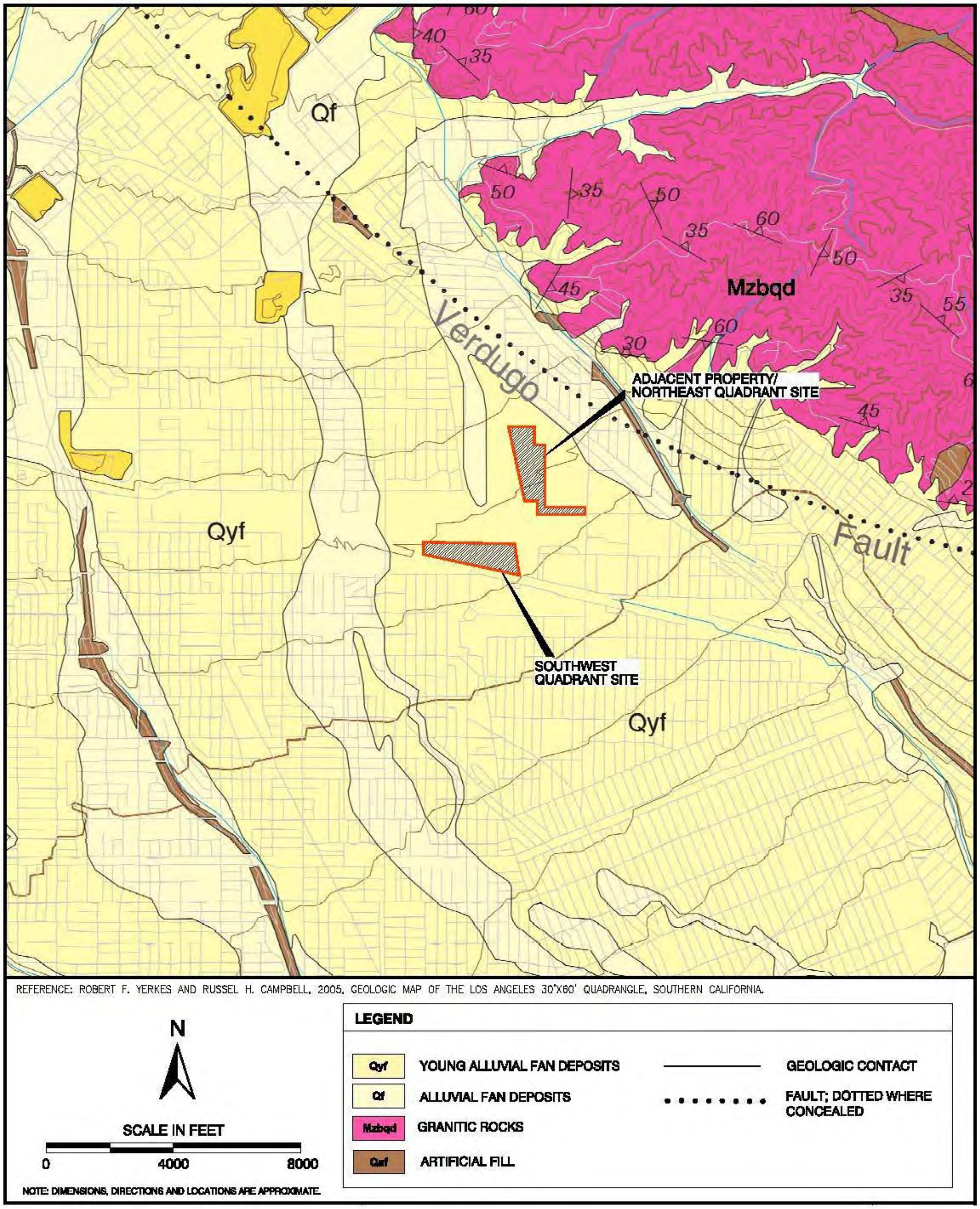
The Airport is anticipated to be underlain by alluvial deposits to depths of more than 100 feet. The alluvial materials, observed as part of the *Geotechnical Evaluation Design Phase Regional Intermodal Transportation Center Report*[5], consist of loose to very dense, poorly graded sand, well-graded sand, silty sand, and poorly graded gravel with silt and sand. The report sited that gravel and cobbles were encountered in the alluvium. In addition, fill materials, present at the RITC site, consisted of dense to very dense, sand and sand with silt and gravel. The expansion index of the near-surface soils are very low.

The Airport is located in the San Fernando Valley Groundwater Basin. Groundwater monitoring well data from the State of California Water Resources Control Board's GeoTracker website were reviewed for wells in the vicinity of the Airport. The data from wells located on off-site properties adjacent to the Airport indicate a depth to groundwater around 250 feet below ground surface. Historical high groundwater beneath the sites are mapped at a depths of approximately 70 to 100 feet below ground surface. Historic groundwater monitoring well data from the Los Angeles County Department of Public Works Historical Well Measurement Data website was reviewed for wells located adjacent to the Airport. Based upon groundwater measurements from 1958 to 2008 in a well approximately 0.6 miles to the southwest of the Airport, groundwater levels ranged from 168 to 248 feet below ground level.

5 Ninyo & Moore, *Geotechnical Evaluation Design Phase, Regional Intermodal Transportation Center, Bob Hope Airport, Burbank, California, Project Number E09-11*, prepared for Burbank-Glendale-Pasadena Airport Authority, July 29, 2010.

Figure 3.7-1

Regional Geologic Map



3.7.2.3 Faulting and Seismicity

The Airport is located in an area of relatively high seismicity, as is the majority of southern California and the potential for strong ground motion exists at the Airport. Earthquakes generated from nearby or distant faults would result in groundshaking at the Airport.

Surface fault rupture is the offset or rupturing of the ground surface by relative displacement across a fault during an earthquake. There are no known active faults crossing the Airport and the Airport is not located in a State of California Earthquake Fault Zone. The effect of an earthquake originating on any given fault would depend on the earthquake magnitude and the distance of the Airport from the earthquake source. In general, the more distant the source fault is from a location and the smaller the magnitude of the potential earthquake, the smaller the expected groundshaking effect. The nearest active faults are the Verdugo and Sierra Madre Fault Zones. The Verdugo fault is located approximately 0.8 miles from the northeast corner of the Airport. The Sierra Madre (San Fernando) fault is located approximately 5 miles north of the Airport. Due to the distance of the Airport from a known active fault zone, the risk of fault rupture is considered to be low.

Figure 3.7-2 shows the approximate site location relative to the major faults in the region. **Table 3.7-1** lists selected principal known active faults that may affect the Airport and the maximum moment magnitude (Mmax) from the United States Geological Survey (USGS). Moment is a physical quantity proportional to the slip on the fault times the area of the fault surface that slips; it is related to the total energy released. The moment magnitude provides an estimate of earthquake size that is valid over the complete range of magnitudes and has replaced the Richter scale[6]. Blind thrust faults are low-angle faults at depths that do not break the surface and are, therefore, not shown on **Figure 3.7-2**. Although blind thrust faults do not have a surface trace, they can be capable of generating damaging earthquakes and are included in **Table 3.7-1**.

3.7.2.4 Liquefaction

Liquefaction is the phenomenon in which loosely deposited granular soils located below the water table undergo rapid loss of shear strength due to excess pore pressure generation when subjected to strong earthquake-induced groundshaking. Groundshaking of sufficient duration results in the loss of grain-to-grain contact due to a rapid rise in pore water pressure causing the soil to behave as a fluid for a short period of time. Liquefaction is known generally to occur in saturated or near saturated cohesionless soils at depths shallower than 50 feet. Factors known to influence liquefaction potential include composition and thickness of soil layers, grain size, relative density, groundwater level, degree of saturation, and both intensity and duration of groundshaking. The potential damaging effects of liquefaction include differential settlement, loss of ground support for foundations, ground cracking, heaving and cracking of slabs due to sand boiling, and buckling of deep foundations due to liquefaction-induced ground settlement. Groundwater at the Airport is anticipated to be deeper than 70 feet below ground surface, the historic high groundwater level. The Airport is not located in an area mapped as potentially susceptible to liquefaction. Therefore, the Airport is not subject to liquefaction or liquefaction-related seismic hazards (liquefaction-induced dynamic settlement and/or lateral spreading).

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6 U.S. Geological Survey, http://www.usgs.gov/faq/categories/9828/3286%20 and http://earthquake.usgs.gov/learn/topics/measure.php, Accessed April 12, 2016.

Figure 3.7-2

Regional Fault Map

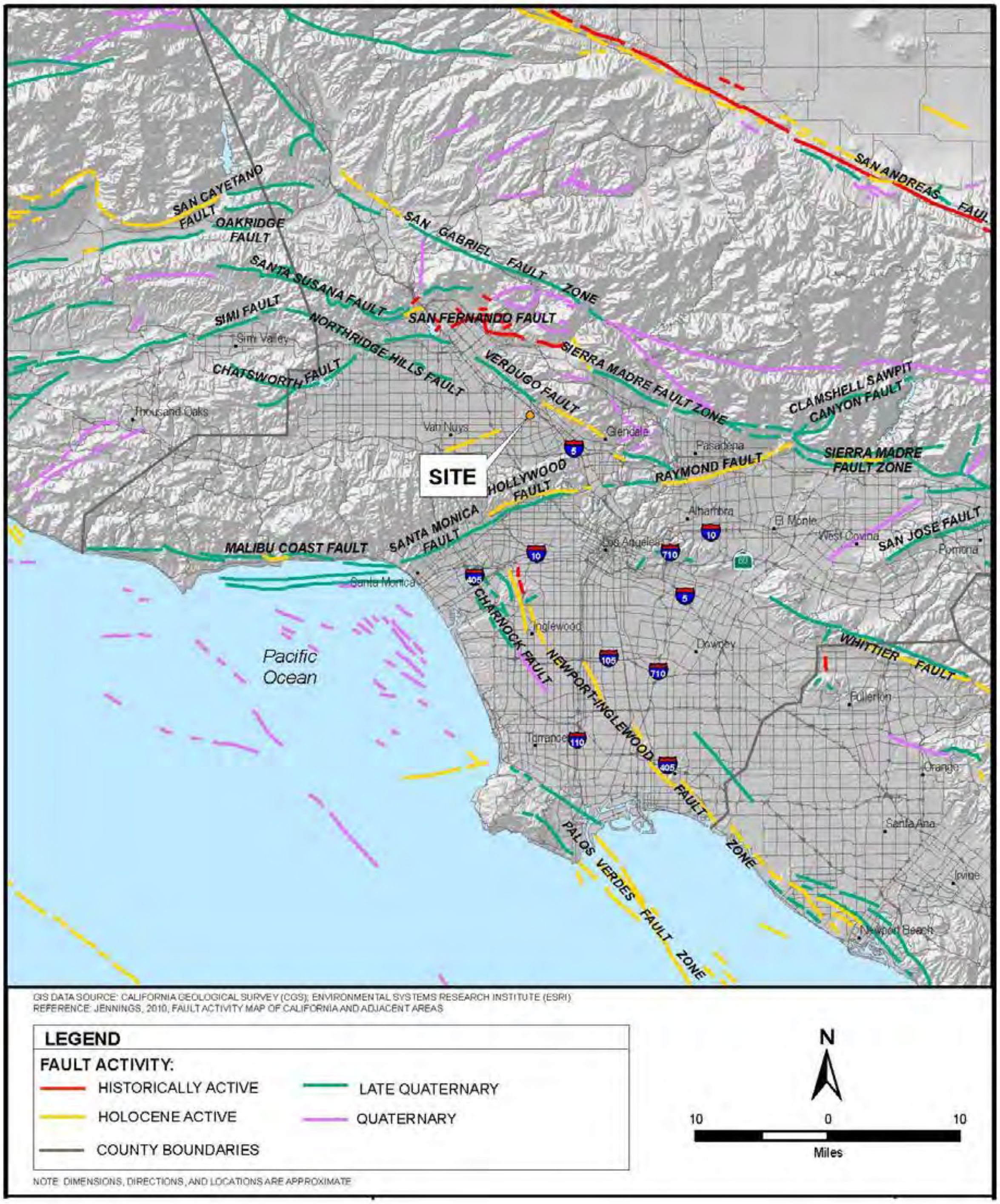

Table 3.7-1
Principal Active Faults

Fault	Approximate Fault-to-Site Distance miles (kilometers)	Maximum Moment Magnitude (Mmax)
Verdugo	0.8 (1.3)	6.9
Sierra Madre (San Fernando)	5.0 (8.0)	6.7
Hollywood	6.4 (10.3)	6.7
Upper Elysian Park Blind Thrust	6.8 (11.0)	6.7
Santa Monica	7.3 (11.7)	7.4
Northridge	7.8 (12.5)	6.9
Chatsworth	8.0 (12.9)	6.8
Raymond	9.3(15.0)	6.8
San Gabriel	9.3(15.0)	7.3
Newport-Inglewood	10.9 (17.5)	7.5
Puente Hills Blind Thrust	11.5 (18.5)	7.0
Santa Susana	11.8 (19.0)	6.9
Charnock	15 (24.1)	6.5
Malibu Coast	15.2 (24.4)	7.0
Anacapa-Dume	16.6 (26.7)	7.2
Holser	18.7 (30.0)	6.8
Palos Verdes	19.5 (31.3)	7.7
Clamshell-Sawpit	20.5 (33.0)	6.7
Simi-Santa Rosa	20.8 (33.4)	6.9
Elsinore (Whittier)	22.6 (36.3)	7.9
San Jose	25 (40.2)	6.5
San Andreas	27.9 (44.9)	8.2

Source: United States Geological Survey, 2008

3.7.2.5 Dynamic Compaction of Dry Soils

Relatively dry soils (e.g., soils above the groundwater table) with low density or softer consistency tend to undergo a degree of compaction during a seismic event. Earthquake shaking often induces significant cyclic shear strain in a soil mass, which responds to the vibration by undergoing volumetric changes. Volumetric changes in dry soils take place primarily through changes in the void ratio (usually contraction in loose or normally consolidated soft soils, and dilation in dense or over consolidated stiff soils) and secondarily through particle reorientation. Such volumetric changes are generally non-recoverable. Potential settlement induced by dynamic compaction of relatively dry soil is low at the Airport.

3.7.2.6 Landforms and Landslides

Landslides, slope failures, and mudflows of earth materials generally occur where slopes are steep and/or earth materials are too weak to support themselves. Earthquake-induced landslides may also occur due to seismic groundshaking. The Airport is relatively flat, has been extensively developed, and is covered primarily with pavements, hardscape and structures. Therefore, the potential for landslides at the Adjacent Property and Southwest Quadrant Sites is non-existent.

3.7.2.7 Expansive Soils

Expansive soils include clay minerals that are characterized by their ability to undergo significant volume change (shrink or swell) due to variations in moisture content. Sandy soils are generally less expansive. Changes in soil moisture can result from rainfall, irrigation, pipeline leakage, surface drainage, perched groundwater, drought, or other factors. Volumetric change of expansive soils may cause excessive cracking and heaving of structures with shallow foundations, concrete slabs-on-grade, or pavements supported on these materials. Because soils at the Airport generally consist of sandy materials, which have a low expansion potential, impacts from expansive soils would be low.

3.7.2.8 Subsidence

Subsidence is characterized as a sinking of the ground surface relative to surrounding areas, and can generally occur where deep soil deposits are present. Subsidence in areas of deep soil deposits is typically associated with regional groundwater withdrawal or other fluid withdrawal from the ground such as oil and natural gas. Subsidence can result in the development of ground cracks and damage to subsurface vaults, pipelines and other improvements. Historic subsidence has neither occurred nor been reported in the vicinity of the Airport; therefore, the potential for subsidence at the Airport is highly unlikely.

3.7.2.9 Compressible / Collapsible Soils

Compressible soils are generally comprised of souls that undergo consolidation when exposed to new loading, such as fill or foundation loads. Soil collapse is a phenomenon where the soils undergo a significant decrease in volume upon increase in moisture content, with or without an increase in external loads. Buildings, structures and other improvements may be subject to excessive settlement-related distress when compressible soils or collapsible soils are present. The Airport is generally underlain by alluvial soils and older fill soils may be present. The alluvial soils underlying the Airport are generally unconsolidated, reflecting a depositional history without substantial loading, and may be subject to collapse. Older, undocumented fill soils related to previous developments may be present at the Airport and, if so, may be potentially compressible/collapsible.

3.7.2.10 Corrosive Soils

The Airport is located in a geologic environment that could potentially contain soil conditions that are corrosive to concrete and metals. The criteria for non-corrosive soils is soils having a chloride concentration of 500 parts per million [ppm] or less, a soluble sulfate content of approximately 0.20 percent (2,000 ppm) or less, and a pH value of 5.5 or higher. If corrosive soil conditions exist, they may exacerbate the corrosion hazard to buried conduits, foundations, and other buried concrete or metal improvements. Corrosive soils could cause premature deterioration of these underground structures or foundations.

3.7.3 Environmental Impacts and Mitigation Measures

All of the alternatives under consideration would be subject to the same earthquake hazards, and all construction would be performed in accordance with building standards designed to limit structural damage in the event of an earthquake. Additionally, the replacement passenger terminal and associated development would be required to adhere to site-specific seismic design parameters during the building permit process. Because the Authority would adhere to current building code requirements and California seismic safety standards for new buildings, the replacement passenger terminal would afford a higher level of safety than that provided by the existing terminal.

3.7.3.1 ADJACENT PROPERTY FULL-SIZE TERMINAL OPTION

Project Impacts

IMPACT ADJ PROP FULL-GEO-1: Expose People or Structures to Surface Rupture

CONSTRUCTION AND OPERATION

Potential surface rupture impacts as a result of the replacement terminal project would be the same for both construction and operation.

The Alquist-Priolo Act places restrictions on development in areas subject to surface rupture. There are no active faults known to cross the Adjacent Property and it is not located in an Alquist-Priolo Zone. Although the active Verdugo Fault passes through Burbank, this fault has not experienced Holocene surface rupture, and its mapped fault trace does not intersect any part of the Adjacent Property. In addition, all structures would be designed and built in accordance with City of Burbank Building Division requirements and current seismic design provisions of the 2013 CBC or using the Building Code in effect when final design plans are submitted. Therefore, construction and operational impacts related to surface rupture under this development option would be less than significant.

Mitigation Measure ADJ PROP FULL-GEO-1

No mitigation is warranted.

IMPACT ADJ PROP FULL-GEO-2: Expose People or Structures to Strong Seismic Groundshaking, Ground Failure, or Liquefaction

CONSTRUCTION AND OPERATION

Potential seismic groundshaking, ground failure and liquefaction impacts as a result of the replacement terminal project would be the same for both construction and operation.

The Verdugo Fault and a number of other regional faults, including the San Fernando, Sierra Madre, Hollywood, Raymond, Newport-Inglewood, and San Andreas Faults, are the main contributors to potential seismic groundshaking and liquefaction in Burbank and the surrounding region. As previously noted, the Verdugo Fault passes approximately 0.5 mile from the Airport and is believed capable of generating a magnitude 6.9 earthquake with strong groundshaking. The effect of seismic shaking due to an earthquake on any of these faults would depend on the earthquake magnitude and the Airport's distance from the earthquake epicenter. In general, groundshaking would be less damaging the farther the fault is from the Airport and the lower the earthquake magnitude.

A site-specific analysis was conducted to evaluate the potential levels of groundshaking that could occur at the Adjacent Property. The 2013 CBC recommends that the design of structures be based on spectral response accelerations in the direction of maximum horizontal response (5 percent damped) having a 1 percent probability of collapse in 50 years. These spectral response accelerations represent the Risk-Targeted Maximum Considered Earthquake (MCE_R) ground motion. The horizontal peak ground acceleration (PGA) that corresponds to the MCE_R for the Adjacent Property was calculated at 0.95g using the USGS web-based seismic design tool. The mapped PGA (PGA_M) which is defined as the Maximum Considered Earthquake Geometric Mean (MCE_G) PGA with adjustment for site class effects in accordance with the American Society of Civil Engineers (ASCE) 7-10 Standard was estimated to be 0.83g using the USGS seismic design tool. Based on horizontal peak ground acceleration calculated for the Adjacent Property, groundshaking would be a potentially significant impact[7]. As with any new development in the State of California, building design and construction for the replacement terminal would be required to conform to current seismic design provisions of the CBC and be designed to resist or accommodate appropriate site-specific ground motions. The 2013 CBC incorporates the latest seismic design standards for structural loads and materials as well as provisions from the National Earthquake Hazards Reduction Program to mitigate losses from an earthquake and provide for the latest in earthquake safety. For these reasons, construction and operational impacts related to groundshaking under this development option would be less than significant.

According to the Seismic Hazard Zone Map for the Burbank Quadrangle[8] published by the CGS, the Airport is not located in a potential liquefaction zone and is not likely to experience liquefaction and related phenomena such as liquefaction induced settlement. Additionally, historic groundwater depth at the Airport suggests that the potential for liquefaction is low. For these reasons, potential impacts associated with liquefaction and liquefaction induced settlement during construction and operation would be less than significant.

Dry soils, above the groundwater table, with low density or softer consistency tend to undergo a degree of compaction during a seismic event which could cause ground failure. According to the *Geotechnical Evaluation Design Phase Regional Intermodal Transportation Center Report,* soils at the Airport indicate a potential for dynamic compaction[9]. The replacement terminal would be designed with structural design recommendations from a detailed subsurface geotechnical evaluation report which would assess the potential for dynamic compaction and recommend structural design techniques to reduce the impacts from seismically induced ground failure as required by the 2013 CBC or by the Building Code in effect when final design plans are submitted. Therefore, required compliance with appropriate structural design or other

7 Ninyo & Moore, *Updated Preliminary Geotechnical Evaluation Replacement Terminal Project Bob Hope Airport, March 10, 2016.*

8 California Geological Survey (CGS), State of California Seismic Hazard Zones, *Seismic Hazard Zone Map, Burbank Quadrangle,* "Seismic Hazard Zonation Program," 1999, http://gmw.consrv.ca.gov/shmp/download/pdf/ozn_bur.pdf.

9 Ninyo & Moore, *Geotechnical Evaluation Design Phase, Regional Intermodal Transportation Center, Bob Hope Airport, Burbank, California, Project Number E09-11*, prepared for Burbank-Glendale-Pasadena Airport Authority, July 29, 2010.

techniques would reduce potential construction and operational impacts related to seismically induced compaction to less than significant.

Mitigation Measure ADJ PROP FULL-GEO-2

No mitigation is warranted.

IMPACT ADJ PROP FULL-GEO-3: Result in Substantial Soil Erosion or Loss of Top Soil

CONSTRUCTION

This project site is currently developed with buildings, paved areas, and limited open spaces. Because there are no areas of topsoil at the Airport, the project would not result in impacts related to the loss of topsoil. During construction activities for the replacement passenger terminal, specifically excavation and grading, the amount of impervious surfaces would be temporarily reduced, thus creating new exposed surfaces that would be subject to windborne soil erosion. Areas of stockpiled materials would also increase the possibility of windborne erosion. Additionally, the potential for soil erosion of these exposed areas would increase during periods of heavy precipitation. However, the Authority would prepare a stormwater pollution prevention plan (SWPPP) and implement best management practices (BMPs), as required by the Los Angeles Regional Water Quality Control Board, which would minimize the potential for soil erosion. Therefore, impacts under this development option would be less than significant by complying with the applicable regulatory standards.

OPERATION

During operation of the replacement terminal, BMPs related to ongoing drainage design and maintenance practices would be included in the SWPPP and implemented to reduce soil erosion during operation. Operational soil erosion can also be controlled through design procedures such as appropriate surface drainage design of roadways and facilities to provide for positive surface runoff. The replacement terminal, like the current Airport, would be developed with buildings, paved areas and have limited open spaces and would have minimal to no areas of topsoil. Loss of topsoil would not be a concern for the Adjacent Property. Therefore, impacts under this development option would be less than significant by complying with the applicable regulatory standards.

Mitigation Measure ADJ PROP FULL-GEO-3

No mitigation is warranted.

IMPACT ADJ PROP FULL-GEO-4: Potential for Impacts from Unstable Soils

CONSTRUCTION AND OPERATION

Potential unstable soil impacts as a result of the replacement terminal project would be the same for both construction and operation.

The Airport lies within the Quaternary active wash and Quaternary younger alluvium units shown on the map entitled *2000 Quaternary Geology of the San Fernando Valley*.[10] The Quaternary active wash deposits are composed of loose to moderately dense sand and silty sand, while the Quaternary younger alluvium and alluvial fan deposits are composed of loose to moderately dense sand and silty sand with minor clay. The previous subsurface exploration for the RITC airport site, to 100 feet below ground surface, indicates that the Airport is underlain by relatively dense, granular, sand, silty sand, and gravelly soils and that groundwater wasn't encountered.[11] The replacement terminal would involve construction upon existing soils which are generally unconsolidated alluvial deposits that could be subject to collapse and undocumented fill soils which may be potentially compressible/collapsible. Due to the presence of potentially compressible/collapsible soils, there is a potentially significant impact for differential settlement. The replacement terminal would incorporate structural design recommendations from a detailed subsurface geotechnical evaluation report which would assess the potential for compressible/collapsible soils, if required, to reduce their impacts. Historic subsidence is not known to have occurred or been reported at the Airport. As a result, the potential for subsidence in the project area is very low. In addition, the Adjacent Property does not lie within an earthquake-induced landslide zone, according to the Seismic Hazard Zone Map for the Burbank Quadrangle[12] As a result, there is no potential for landslides or mudflows to affect the terminal replacement during construction and operation. There are no unstable geological units or soils known to be present at the Airport. Therefore, construction and operational impacts related to unstable soils under this development option would be less than significant.

Mitigation Measure ADJ PROP FULL-GEO-4
No mitigation is warranted.

IMPACT ADJ PROP FULL-GEO-5: Potential for Impacts due to Expansive or Corrosive Soils

CONSTRUCTION AND OPERATION

Potential expansive or corrosive soil impacts as a result of the replacement terminal project would be the same for both construction and operation.

Near-surface site soils at the Adjacent Property are generally comprised of granular materials that are considered to possess a low expansion potential[13]. However, expansive soils may be present at the site in areas not previously explored. The replacement terminal may be located in a geologic environment that

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10 C.S. Hitchcock and C.J. Wills, U.S. Geological Survey (USGS), *Quaternary Geology of the San Fernando Valley*, Los Angeles County, California, "National Geologic Map Database," Map Sheet MS 50 (California Division of Mines and Geology: 2000) http://ngmdb.usgs.gov/Prodesc/proddesc_43656.htm.

11 Ninyo & Moore, *Geotechnical Evaluation Design Phase, Regional Intermodal Transportation Center, Bob Hope Airport, Burbank, California, Project Number E09-11*, prepared for Burbank-Glendale-Pasadena Airport Authority, July 29, 2010.

12 California Geological Survey (CGS), State of California Seismic Hazard Zones, *Seismic Hazard Zone Map, Burbank Quadrangle,* "Seismic Hazard Zonation Program," 1999, http://gmw.consrv.ca.gov/shmp/download/pdf/ozn_bur.pdf.

13 ` Ninyo & Moore, *Updated Preliminary Geotechnical Evaluation Replacement Terminal Project, Bob Hope Airport, Burbank, California, Project Number 207789006*, prepared for Burbank-Glendale-Pasadena Airport Authority, March 10, 2016.

could potentially contain soil conditions that are corrosive to concrete and metal which could cause premature deterioration of underground structures or foundations.

The City of Burbank has adopted the 2013 CBC, which requires the proposed replacement passenger terminal and other Airport improvements to comply with the building permit or with the Building Code in effect when final design plans are submitted. Compliance with state and local regulations, including the CBC, would reduce potential effects related to expansive and corrosive soils in the event such soils are encountered during grading and excavation. The CBC regulates the excavation of foundations and retaining walls by requiring preparation of a preliminary soil report, engineering geologic report, geotechnical report, and supplemental ground-response report. The CBC also regulates the analysis of expansive soils and establishes guidelines for determining depth to the groundwater table. Therefore, impacts related to expansive or corrosive soils would be less than significant.

Mitigation Measure ADJ PROP FULL-GEO-5

No mitigation is warranted.

Cumulative Impacts

IMPACT ADJ PROP FULL-GEO-6: Cumulative Impacts Related to Geotechnical Hazards

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Because geotechnical hazards are site-specific, the geographic context for evaluating potential cumulative impacts consists of individual project development sites in the greater Los Angeles region. Although cumulative development in Burbank and the Los Angeles area includes numerous projects that could cause geology and soil impacts, these projects do not overlap geographically and the corresponding impacts would be site-specific rather than adding to an overall cumulative effect. In addition, all projects must be designed in accordance with state and local building standards. Because the incremental effect of the Adjacent Property Full-Size Terminal Option would not be cumulatively considerable as to geotechnical hazards, it would not contribute to a significant cumulative impact in these regards.

Mitigation Measure ADJ PROP FULL-GEO-6

No mitigation is warranted.

3.7.3.2 SOUTHWEST QUADRANT FULL-SIZE TERMINAL OPTION

Project Impacts

IMPACT SW QUAD FULL-GEO-1: Expose People or Structures to Surface Rupture

CONSTRUCTION AND OPERATION

Potential surface rupture impacts as a result of the replacement terminal project would be the same for both construction and operation.

The Alquist-Priolo Act places restrictions on development in areas subject to surface rupture. There are no active faults known to cross the Southwest Quadrant and it is not located in an Alquist-Priolo Zone.

Although the active Verdugo Fault passes through Burbank, this fault has not experienced Holocene surface rupture, and its mapped fault trace does not intersect any part of the Southwest Quadrant. In addition, all structures would be designed and built in accordance with City of Burbank Building Division requirements and current seismic design provisions of the 2013 CBC or using the Building Code in effect when final design plans are submitted. Therefore, construction and operational impacts related to surface rupture under this development option would be less than significant.

Mitigation Measure SW QUAD FULL-GEO-1

No mitigation is warranted.

IMPACT SW QUAD FULL-GEO-2: Expose People or Structures to Strong Seismic Groundshaking, Ground Failure, or Liquefaction

CONSTRUCTION AND OPERATION

Potential seismic groundshaking, ground failure and liquefaction impacts as a result of the replacement terminal project would be the same for both construction and operation.

The Verdugo Fault and a number of other regional faults, including the San Fernando, Sierra Madre, Hollywood, Raymond, Newport-Inglewood, and San Andreas Faults, are the main contributors to potential seismic groundshaking and liquefaction in Burbank and the surrounding region. As previously noted, the Verdugo Fault passes approximately 0.5 mile from the Airport and is believed capable of generating a magnitude 6.9 earthquake with strong groundshaking. The effect of seismic shaking due to an earthquake on any of these faults would depend on the earthquake magnitude and the Airport's distance from the earthquake epicenter. In general, groundshaking would be less damaging the farther the fault is from the Airport and the lower the earthquake magnitude.

A site-specific analysis was conducted to evaluate the potential levels of groundshaking that could occur at the Southwest Quadrant. The 2013 CBC recommends that the design of structures be based on spectral response accelerations in the direction of maximum horizontal response (5 percent damped) having a 1 percent probability of collapse in 50 years. These spectral response accelerations represent the Risk-Targeted Maximum Considered Earthquake (MCE_R) ground motion. The horizontal PGA that corresponds to the MCE_R for the Southwest Quadrant Full-Size Terminal Option Site was calculated at 0.88g using the USGS web-based seismic design tool. The PGA_M was estimated to be 0.83g using the USGS seismic design tool, in accordance with ASCE 7-10 Standard. Based on horizontal peak ground acceleration calculated for the Southwest Quadrant, groundshaking would be a potentially significant impact[14]. As with any new development in the State of California, building design and construction for the replacement terminal would be required to conform to current seismic design provisions of the CBC and be designed to resist or accommodate appropriate site-specific ground motions. The 2013 CBC incorporates the latest seismic design standards for structural loads and materials as well as provisions from the National Earthquake Hazards Reduction Program to mitigate losses from an earthquake and provide for the latest in earthquake

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14 Ninyo & Moore, *Updated Preliminary Geotechnical Evaluation Replacement Terminal Project Bob Hope Airport, March 10, 2016.*

safety. For these reasons, construction and operational impacts related to groundshaking under this development option would be less than significant.

According to the Seismic Hazard Zone Map for the Burbank Quadrangle[15] published by the CGS, the Airport is not located in a potential liquefaction zone and is not likely to experience liquefaction and related phenomena such as liquefaction induced settlement. Additionally, historic groundwater depth at the Airport suggests that the potential for liquefaction is low. For these reasons, potential impacts associated with liquefaction and liquefaction induced settlement during construction and operation would be less than significant.

Dry soils, above the groundwater table, with low density or softer consistency tend to undergo a degree of compaction during a seismic event which could cause ground failure. According to the *Geotechnical Evaluation Design Phase Regional Intermodal Transportation Center Report,* soils at the Airport indicate a potential for dynamic compaction[16]. The replacement terminal would be designed with structural design recommendations from a detailed subsurface geotechnical evaluation report which would assess the potential for dynamic compaction and recommend structural design techniques to reduce the impacts from seismically induced ground failure as required by the 2013 CBC or by the Building Code in effect when final design plans are submitted. Therefore, required compliance with appropriate structural design or other techniques would reduce potential construction and operational impacts related to seismically induced compaction to less than significant.

Mitigation Measure SW QUAD FULL-GEO-2
No mitigation is warranted.

IMPACT SW QUAD FULL-GEO-3: Result in Substantial Soil Erosion or Loss of Top Soil

CONSTRUCTION

This project site is currently developed with buildings, paved areas, and limited open spaces. Because there are no areas of topsoil at the Airport, the project would not result in impacts related to the loss of topsoil. During construction activities for the replacement passenger terminal, specifically excavation and grading, the amount of impervious surfaces would be temporarily reduced, thus creating new exposed surfaces that would be subject to windborne soil erosion. Areas of stockpiled materials would also increase the possibility of windborne erosion. Additionally, the potential for soil erosion of these exposed areas would increase during periods of heavy precipitation. However, the Authority would prepare a stormwater pollution prevention plan (SWPPP) and implement best management practices (BMPs), as required by the Los Angeles Regional Water Quality Control Board, which would minimize the potential for soil erosion. Therefore,

15 California Geological Survey (CGS), State of California Seismic Hazard Zones, *Seismic Hazard Zone Map, Burbank Quadrangle,* "Seismic Hazard Zonation Program," 1999, http://gmw.consrv.ca.gov/shmp/download/pdf/ozn_bur.pdf.

16 Ninyo & Moore, *Geotechnical Evaluation Design Phase, Regional Intermodal Transportation Center, Bob Hope Airport, Burbank, California, Project Number E09-11*, prepared for Burbank-Glendale-Pasadena Airport Authority, July 29, 2010.

impacts under this development option would be less than significant by complying with applicable regulatory standards.

OPERATION

During operation of the replacement terminal, BMPs related to ongoing drainage design and maintenance practices would be included in the SWPPP and implemented to reduce soil erosion during operation. Operational soil erosion can also be controlled through design procedures such as appropriate surface drainage design of roadways and facilities to provide for positive surface runoff. The replacement terminal, like the current Airport, would be developed with buildings, paved areas and have limited open spaces and would have minimal to no areas of topsoil. Loss of topsoil would not be a concern for the Southwest Quadrant. Therefore, impacts under this development option would be less than significant by complying with the applicable regulatory standards.

Mitigation Measure SW QUAD FULL-GEO-3

No mitigation is warranted.

IMPACT SW QUAD FULL-GEO-4: Potential for Impacts from Unstable Soils

CONSTRUCTION AND OPERATION

Potential unstable soil impacts as a result of the replacement terminal project would be the same for both construction and operation.

The Airport lies within the Quaternary active wash and Quaternary younger alluvium units shown on the map entitled *2000 Quaternary Geology of the San Fernando Valley*.[17] The Quaternary active wash deposits are composed of loose to moderately dense sand and silty sand, while the Quaternary younger alluvium and alluvial fan deposits are composed of loose to moderately dense sand and silty sand with minor clay. The previous subsurface exploration for the RITC airport site, to 100 feet below ground surface, indicates that the Airport is underlain by relatively dense, granular, sand, silty sand, and gravelly soils and that groundwater wasn't encountered[18], The replacement terminal would involve construction upon existing soils which are generally unconsolidated alluvial deposits that could be subject to collapse and undocumented fill soils which may be potentially compressible/collapsible. Due to the presence of potentially compressible/collapsible soils, there is a potentially significant impact for differential settlement. The replacement terminal would incorporate structural design recommendations from a detailed subsurface geotechnical evaluation report which would assess the potential for compressible/collapsible soils, if required, to reduce their impacts. Historic subsidence is not known to have occurred or been reported at the Airport. As a result, the potential for subsidence in the project area is very low. In addition, the Southwest Quadrant does not lie within an earthquake-induced landslide zone, according to the Seismic Hazard Zone

17 C.S. Hitchcock and C.J. Wills, U.S. Geological Survey (USGS), *Quaternary Geology of the San Fernando Valley*, Los Angeles County, California, "National Geologic Map Database," Map Sheet MS 50 (California Division of Mines and Geology: 2000) http://ngmdb.usgs.gov/Prodesc/proddesc_43656.htm.

18 Ninyo & Moore, *Geotechnical Evaluation Design Phase, Regional Intermodal Transportation Center, Bob Hope Airport, Burbank, California, Project Number E09-11*, prepared for Burbank-Glendale-Pasadena Airport Authority, July 29, 2010.

Map for the Burbank Quadrangle[19] As a result, there is no potential for landslides or mudflows to affect the terminal replacement during construction and operation. There are no unstable geological units or soils known to be present at the Airport. Therefore, construction and operational impacts related to unstable soils under this development option would be less than significant.

Mitigation Measure SW QUAD FULL-GEO-4

No mitigation is warranted.

IMPACT SW QUAD FULL-GEO-5: Potential for Impacts due to Expansive or Corrosive Soils

CONSTRUCTION AND OPERATION

Potential expansive or corrosive impacts as a result of the replacement terminal project would be the same for both construction and operation.

Near-surface site soils at the Southwest Quadrant are generally comprised of granular materials that are considered to possess a low expansion potential[20]. However, expansive soils may be present at the site in areas not previously explored. The replacement terminal may be located in a geologic environment that could potentially contain soil conditions that are corrosive to concrete and metal which could cause premature deterioration of underground structures or foundations.

The City of Burbank has adopted the 2013 CBC, which requires the proposed replacement passenger terminal and other Airport improvements to comply with the building permit or with the Building Code in effect when final design plans are submitted. Compliance with state and local regulations, including the CBC, would reduce potential effects related to expansive or corrosive soils in the event such soils are encountered during grading and excavation. The CBC regulates the excavation of foundations and retaining walls by requiring preparation of a preliminary soil report, engineering geologic report, geotechnical report, and supplemental ground-response report. The CBC also regulates the analysis of expansive or corrosive soils and establishes guidelines for determining depth to the groundwater table. Therefore, impacts related to expansive or corrosive soils would be less than significant.

Mitigation Measure SW QUAD FULL-GEO-5

No mitigation is warranted.

Cumulative Impacts

IMPACT SW QUAD FULL-GEO-6: Cumulative Impacts related to Geotechnical Hazards

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Because geotechnical hazards are site-specific, the geographic context for evaluating potential cumulative impacts consists of individual

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19 California Geological Survey (CGS), State of California Seismic Hazard Zones, *Seismic Hazard Zone Map, Burbank Quadrangle,* "Seismic Hazard Zonation Program," 1999, http://gmw.consrv.ca.gov/shmp/download/pdf/ozn_bur.pdf.

20 ` Ninyo & Moore, *Updated Preliminary Geotechnical Evaluation Replacement Terminal Project, Bob Hope Airport, Burbank, California, Project Number 207789006*, prepared for Burbank-Glendale-Pasadena Airport Authority, March 10, 2016.

project development sites in the greater Los Angeles region. Although cumulative development in Burbank and the Los Angeles area includes numerous projects that could cause geology and soil impacts, these projects do not overlap geographically and the corresponding impacts would be site-specific rather than adding to an overall cumulative effect. All projects must be designed in accordance with state and local building standards. Because the incremental effect of the Southwest Quadrant Full-Size Terminal Option would not be cumulatively considerable as to geotechnical hazards, it would not contribute to a significant cumulative impact in these regards.

Mitigation Measure SW QUAD FULL-GEO-6
No mitigation is warranted.

3.7.3.3 SOUTHWEST QUADRANT SAME-SIZE TERMINAL OPTION

Project Impacts

IMPACT SW QUAD SAME-GEO-1: Expose People or Structures to Surface Rupture

CONSTRUCTION AND OPERATION

Potential surface rupture impacts as a result of the replacement terminal project would be the same for both construction and operation.

The Alquist-Priolo Act places restrictions on development in areas subject to surface rupture. There are no active faults known to cross the Southwest Quadrant and it is not located in an Alquist-Priolo Zone. Although the active Verdugo Fault passes through Burbank, this fault has not experienced Holocene surface rupture, and its mapped fault trace does not intersect any part of the Southwest Quadrant. In addition, all structures would be designed and built in accordance with City of Burbank Building Division requirements and current seismic design provisions of the 2013 CBC or using the Building Code in effect when final design plans are submitted. Therefore, construction and operational impacts related to surface rupture under this development option would be less than significant.

Mitigation Measure SW QUAD SAME-GEO-1
No mitigation is warranted.

IMPACT SW QUAD SAME-GEO-2: Expose People or Structures to Strong Seismic Groundshaking, Ground Failure, or Liquefaction

CONSTRUCTION AND OPERATION

Potential seismic groundshaking, ground failure and liquefaction impacts as a result of the replacement terminal project would be the same for both construction and operation.

The Verdugo Fault and a number of other regional faults, including the San Fernando, Sierra Madre, Hollywood, Raymond, Newport-Inglewood, and San Andreas Faults, are the main contributors to potential seismic groundshaking and liquefaction in Burbank and the surrounding region. As previously noted, the Verdugo Fault passes approximately 0.5 mile from the Airport and is believed capable of generating a magnitude 6.9 earthquake with strong groundshaking. The effect of seismic shaking due to an earthquake on any of these faults would depend on the earthquake magnitude and the Airport's distance from the earthquake epicenter. In general, groundshaking would be less damaging the farther the fault is from the Airport and the lower the earthquake magnitude.

A site-specific analysis was conducted to evaluate the potential levels of groundshaking that could occur at the Southwest Quadrant. The 2013 CBC recommends that the design of structures be based on spectral response accelerations in the direction of maximum horizontal response (5 percent damped) having a 1 percent probability of collapse in 50 years. These spectral response accelerations represent the Risk-Targeted Maximum Considered Earthquake (MCE_R) ground motion. The horizontal PGA that corresponds to the MCE_R for the Southwest Quadrant Full-Size Terminal Option Site was calculated at 0.88g using the USGS web-based seismic design tool. The PGA_M was estimated to be 0.83g using the USGS seismic design tool, in accordance with ASCE 7-10 Standard. Based on horizontal peak ground acceleration calculated for the Southwest Quadrant, groundshaking would be a potentially significant impact[21]. As with any new development in the State of California, building design and construction for the replacement terminal would be required to conform to current seismic design provisions of the CBC and be designed to resist or accommodate appropriate site-specific ground motions. The 2013 CBC incorporates the latest seismic design standards for structural loads and materials as well as provisions from the National Earthquake Hazards Reduction Program to mitigate losses from an earthquake and provide for the latest in earthquake safety. For these reasons, construction and operational impacts related to groundshaking under this development option would be less than significant.

According to the Seismic Hazard Zone Map for the Burbank Quadrangle[22] published by the CGS, the Airport is not located in a potential liquefaction zone and is not likely to experience liquefaction and related phenomena such as liquefaction induced settlement. Additionally, historic groundwater depth at the Airport suggests that the potential for liquefaction is low. For these reasons, potential impacts associated with liquefaction and liquefaction induced settlement during construction and operation would be less than significant.

Dry soils, above the groundwater table, with low density or softer consistency tend to undergo a degree of compaction during a seismic event which could cause ground failure. According to the *Geotechnical Evaluation Design Phase Regional Intermodal Transportation Center Report,* soils at the Airport indicate a potential for dynamic compaction[23]. The replacement terminal would be designed with structural design recommendations from a detailed subsurface geotechnical evaluation report which would assess the

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21 Ninyo & Moore, *Updated Preliminary Geotechnical Evaluation Replacement Terminal Project Bob Hope Airport, March 10, 2016.*

22 California Geological Survey (CGS), State of California Seismic Hazard Zones, *Seismic Hazard Zone Map, Burbank Quadrangle,* "Seismic Hazard Zonation Program," 1999, http://gmw.consrv.ca.gov/shmp/download/pdf/ozn_bur.pdf.

23 Ninyo & Moore, *Geotechnical Evaluation Design Phase, Regional Intermodal Transportation Center, Bob Hope Airport, Burbank, California, Project Number E09-11*, prepared for Burbank-Glendale-Pasadena Airport Authority, July 29, 2010.

potential for dynamic compaction and recommend structural design techniques to reduce the impacts from seismically induced ground failure as required by the 2013 CBC or by the Building Code in effect when final design plans are submitted. Therefore, required compliance with appropriate structural design or other techniques would reduce potential construction and operational impacts related to seismically induced compaction to less than significant.

Mitigation Measure SW QUAD SAME-GEO-2
No mitigation is warranted.

IMPACT SW QUAD SAME-GEO-3: Result in Substantial Soil Erosion

CONSTRUCTION

This project site is currently developed with buildings, paved areas, and limited open spaces. Because there are no areas of topsoil at the Airport, the project would not result in impacts related to the loss of topsoil. During construction activities for the replacement passenger terminal, specifically excavation and grading, the amount of impervious surfaces would be temporarily reduced, thus creating new exposed surfaces that would be subject to windborne soil erosion. Areas of stockpiled materials would also increase the possibility of windborne erosion. Additionally, the potential for soil erosion of these exposed areas would increase during periods of heavy precipitation. However, the Authority would prepare a stormwater pollution prevention plan (SWPPP) and implement best management practices (BMPs), as required by the Los Angeles Regional Water Quality Control Board, which would minimize the potential for soil erosion. Therefore, impacts under this development option would be less than significant by complying with applicable regulatory standards.

OPERATION

During operation of the replacement terminal, BMPs related to ongoing drainage design and maintenance practices would be included in the SWPPP and implemented to reduce soil erosion during operation. Operational soil erosion can also be controlled through design procedures such as appropriate surface drainage design of roadways and facilities to provide for positive surface runoff. The replacement terminal, like the current Airport, would be developed with buildings, paved areas and have limited open spaces and would have minimal to no areas of topsoil. Loss of topsoil would not be a concern for the Southwest Quadrant. Therefore, impacts under this development option would be less than significant by complying with the applicable regulatory standards.

Mitigation Measure SW QUAD SAME-GEO-3
No mitigation is warranted.

IMPACT SW QUAD SAME-GEO-4: Potential for Impacts from Unstable Soils

CONSTRUCTION AND OPERATION

Potential unstable soil impacts as a result of the replacement terminal project would be the same for both construction and operation.

The Airport lies within the Quaternary active wash and Quaternary younger alluvium units shown on the map entitled *2000 Quaternary Geology of the San Fernando Valley*.[24] The Quaternary active wash deposits are composed of loose to moderately dense sand and silty sand, while the Quaternary younger alluvium and alluvial fan deposits are composed of loose to moderately dense sand and silty sand with minor clay. The previous subsurface exploration for the RITC airport site, to 100 feet below ground surface, indicates that the Airport is underlain by relatively dense, granular, sand, silty sand, and gravelly soils and that groundwater wasn't encountered[25]. The replacement terminal would involve construction upon existing soils which are generally unconsolidated alluvial deposits that could be subject to collapse and undocumented fill soils which may be potentially compressible/collapsible. Due to the presence of potentially compressible/collapsible soils, there is a potentially significant impact for differential settlement. The replacement terminal would incorporate structural design recommendations from a detailed subsurface geotechnical evaluation report which would assess the potential for compressible/collapsible soils, if required, to reduce their impacts. Historic subsidence is not known to have occurred or been reported at the Airport. As a result, the potential for subsidence in the project area is very low. In addition, the Southwest Quadrant does not lie within an earthquake-induced landslide zone, according to the Seismic Hazard Zone Map for the Burbank Quadrangle[26] As a result, there is no potential for landslides or mudflows to affect the terminal replacement during construction and operation. There are no unstable geological units or soils known to be present at the Airport. Therefore, construction and operational impacts related to unstable soils under this development option would be less than significant.

Mitigation Measure SW QUAD SAME-GEO-4

No mitigation is warranted.

IMPACT SW QUAD SAME-GEO-5: Impacts due to Expansive or Corrosive Soils

CONSTRUCTION AND OPERATION

Potential expansive or corrosive soil impacts as a result of the replacement terminal project would be the same for both construction and operation.

Near-surface site soils at the Southwest Quadrant are generally comprised of granular materials that are considered to possess a low expansion potential[27]. However, expansive soils may be present at the site in areas not previously explored. The replacement terminal may be located in a geologic environment that

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24 C.S. Hitchcock and C.J. Wills, U.S. Geological Survey (USGS), *Quaternary Geology of the San Fernando Valley*, Los Angeles County, California, "National Geologic Map Database," Map Sheet MS 50 (California Division of Mines and Geology: 2000) http://ngmdb.usgs.gov/Prodesc/proddesc_43656.htm.

25 Ninyo & Moore, *Geotechnical Evaluation Design Phase, Regional Intermodal Transportation Center, Bob Hope Airport, Burbank, California, Project Number E09-11*, prepared for Burbank-Glendale-Pasadena Airport Authority, July 29, 2010.

26 California Geological Survey (CGS), State of California Seismic Hazard Zones, *Seismic Hazard Zone Map, Burbank Quadrangle,* "Seismic Hazard Zonation Program," 1999, http://gmw.consrv.ca.gov/shmp/download/pdf/ozn_bur.pdf.

27 ` Ninyo & Moore, *Updated Preliminary Geotechnical Evaluation Replacement Terminal Project, Bob Hope Airport, Burbank, California, Project Number 207789006*, prepared for Burbank-Glendale-Pasadena Airport Authority, March 10, 2016.

could potentially contain soil conditions that are corrosive to concrete and metal which could cause premature deterioration of underground structures or foundations.

The City of Burbank has adopted the 2013 CBC, which requires the proposed replacement passenger terminal and other Airport improvements to comply with the building permit or with the Building Code in effect when final design plans are submitted. Compliance with state and local regulations, including the CBC, would reduce potential effects related to expansive or corrosive soils in the event such soils are encountered during grading and excavation. The CBC regulates the excavation of foundations and retaining walls by requiring preparation of a preliminary soil report, engineering geologic report, geotechnical report, and supplemental ground-response report. The CBC also regulates the analysis of expansive or corrosive soils and establishes guidelines for determining depth to the groundwater table. Therefore, impacts related to expansive or corrosive soils would be less than significant.

Mitigation Measure SW QUAD SAME-GEO-5
No mitigation is warranted.

Cumulative Impacts

IMPACT SW QUAD SAME-GEO-6: Cumulative Impacts related to Geotechnical Hazards

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Because geotechnical hazards are site-specific, the geographic context for evaluating potential cumulative impacts consists of individual project development sites in the greater Los Angeles region. Although cumulative development in Burbank and the Los Angeles area includes numerous projects that could cause geology and soil impacts, these projects do not overlap geographically and the corresponding impacts would be site-specific rather than adding to an overall cumulative effect. All projects must be designed in accordance with state and local building standards. Because the incremental effect of the Southwest Quadrant Same-Size Terminal Option would not be cumulatively considerable as to geotechnical hazards, it would not contribute to a significant cumulative impact in these regards.

Mitigation Measure SW QUAD SAME-GEO-6
No mitigation is warranted.

3.8 GREENHOUSE GAS EMISSIONS

3.8.1 Background and Methodology

3.8.1.1 Regulatory Context

FEDERAL

The United States Environmental Protection Agency (U.S. EPA) is responsible for implementing federal policy to address GHGs. The federal government administers a wide array of public-private partnerships to reduce the GHG intensity generated in the United States. These programs focus on energy efficiency, renewable energy, methane and other non-CO_2 gases, agricultural practices, and implementation of technologies to achieve GHG reductions. The U.S. EPA implements numerous voluntary programs that contribute to the reduction of GHG emissions. These programs (e.g., the Energy Star labeling system for energy-efficient products) play a significant role in encouraging voluntary reductions from large corporations, consumers, industrial and commercial buildings, and many major industrial sectors.

On May 19, 2009, the President announced a national policy for fuel efficiency and emissions standards in the United States auto industry. The federal standard adopted in 2010 applies to passenger cars and light-duty trucks for model years 2012 through 2016. The rule surpasses the prior Corporate Average Fuel Economy standards and requires an average fuel economy standard of 35.5 miles per gallon (mpg) and 250 grams of CO_2 per mile by model year 2016, based on U.S. EPA calculation methods. In August 2012, standards were adopted for model year 2017 through 2025 passenger cars and light-duty trucks. By 2025, vehicles are required to achieve 54.5 mpg and 163 grams of CO_2 per mile. According to the U.S. EPA, a model year 2025 vehicle would emit one-half of the GHG emissions from a model year 2010 vehicle.[1]

On December 7, 2009, the U.S. EPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the federal Clean Air Act. The U.S. EPA adopted a Final Endangerment Finding for the six defined GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) on December 7, 2009. The U.S. EPA also adopted a Cause or Contribute Finding in which the U.S. EPA Administrator found that GHG emissions from new motor vehicle and motor vehicle engines are contributing to air pollution, which is endangering public health and welfare. These findings do not themselves impose any requirements on industry or other entities. However, these actions were a prerequisite for implementing GHG emissions standards for vehicles.

STATE

California has promulgated a series of executive orders, laws, and regulations aimed at reducing both the level of GHGs in the atmosphere and emissions of GHGs from commercial and private activities within the State.

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[1] U.S. EPA Fuel Economy, 2012.

California Air Resources Board

CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and State air pollution control programs within California. In this capacity, CARB conducts research, sets the California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB has primary responsibility for the development of California's State Implementation Plan, for which it works closely with the federal government and the local air districts. The State Implementation Plan is required for the State to take over implementation of the federal Clean Air Act.

Executive Order S-3-05

California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following GHG emission reduction targets:

- By 2010, California shall reduce GHG emissions to 2000 levels;
- By 2020, California shall reduce GHG emissions to 1990 levels; and
- By 2050, California shall reduce GHG emissions to 80 percent below 1990 levels.

The Secretary of CalEPA is required to coordinate efforts of various agencies to collectively and efficiently reduce GHGs. Some of the agency representatives involved in the GHG reduction plan include the Secretary of the Business, Transportation and Housing Agency, the Secretary of the Department of Food and Agriculture, the Secretary of the Resources Agency, the Chairperson of CARB, the Chairperson of the California Energy Commission, and the President of the Public Utilities Commission. Representatives from these agencies comprise the California Climate Action Team (CAT).

The CAT provides biennial reports to the Governor and Legislature on the state of GHG reductions in the State, as well as strategies for mitigating and adapting to climate change. The first CAT Report to the Governor and the Legislature in 2006 contained recommendations and strategies to help meet the targets in Executive Order S 3-05.[2] The 2010 CAT Report, finalized in December 2010, expands on the policy oriented 2006 assessment.[3] The new information detailed in the CAT Report includes development of revised climate and sea-level projections using new information and tools that have become available in the last 2 years, together with an evaluation of climate change within the context of broader social changes, such as land-use changes and demographic shifts.

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[2] CalEPA CAT, 2006.

[3] CalEPA CAT, 2010.

California Assembly Bill 32

In 2006, the California State Legislature adopted Assembly Bill (AB) 32 (Chapter 488, Statutes of 2006), the California Global Warming Solutions Act of 2006, focusing on reducing Statewide GHG emissions in California to 1990 levels by 2020. As required by AB 32, CARB approved the 1990 GHG emissions inventory, thereby establishing the emissions limit for 2020. The 2020 emissions limit was originally set at 427 $MMTCO_2e$ using the GWP values from the IPCC SAR. CARB also projected the State's 2020 GHG emissions under business-as-usual (BAU) conditions—that is, emissions that would occur without any plans, policies, or regulations to reduce GHG emissions. CARB originally used an average of the State's GHG emissions from 2002 through 2004 and projected the 2020 levels at approximately 596 $MMTCO_2e$ (using GWP values from the IPCC SAR). Therefore, under the original projections, the State must reduce its 2020 BAU emissions by 28.4 percent in order to meet the 1990 target of 427 $MMTCO_2e$. In 2014, CARB revised the target using the GWP values from the IPCC AR4 and determined that the 1990 GHG emissions inventory and 2020 GHG emissions limit is 431 $MMTCO_2e$. CARB also updated the State's 2020 BAU emissions estimate to account for the effect of the 2007–2009 economic recession, new estimates for future fuel and energy demand, and the reductions required by regulation that were recently adopted for motor vehicles and renewable energy.[4] CARB's revised 2020 BAU emissions estimate using the GWP values from the IPCC AR4 is 509.4 $MMTCO_2e$. Therefore, the emission reductions necessary to achieve the 2020 emissions target of 431 $MMTCO_2e$ would be 78.4 $MMTCO_2e$, or a reduction of GHG emissions by approximately 15.4 percent. A summary of the GHG emissions reductions required under AB 32 is provided in **Table 3.8-1**.

Table 3.8-1

Estimated Statewide Greenhouse Gas Emissions Reductions Required by AB 32

Emissions Category	GHG Emissions ($MMTCO_2e$)
2008 Scoping Plan (IPCC SAR)	
2020 BAU Forecast (CARB 2008 Scoping Plan Estimate)	596
2020 Emissions Target Set by AB 32 (i.e., 1990 level)	427
Reduction below Business-As-Usual necessary to achieve 1990 levels by 2020	**169 (28.4%) [a]**
First Update to the Scoping Plan (IPCC AR4)	
2020 BAU Forecast (CARB 2011 Scoping Plan Estimate)	509.4
2020 Emissions Target Set by AB 32 (i.e., 1990 level)	431
Reduction below Business-As-Usual necessary to achieve 1990 levels by 2020	**78.4 (15.4%) [b, c]**

$MMTCO_2e$ = million metric tons of carbon dioxide equivalents

[a] 596 – 427 = 169 / 596 = 28.4%

[b] 509.4 – 431 = 78.4 / 509.4 = 15.4%

[c] The reduction target using the GWP values from the IPCC SAR was 15.8 percent.

Source: CARB FED, 2011; CARB BAU, 2104.

[4] CARB BAU, 2014.

AB 32 defines GHGs as CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6 and represents the first enforceable Statewide program to limit emissions of these GHGs from all major industries, with penalties for noncompliance. The law further requires that reduction measures be technologically feasible and cost effective. Under AB 32, CARB has the primary responsibility for reducing GHG emissions. CARB is required to adopt rules and regulations directing State actions that would achieve GHG emissions reductions equivalent to 1990 Statewide levels by 2020. On or before June 30, 2007, CARB was required to publish a list of discrete early action GHG emission reduction measures that would be implemented to be made enforceable by 2010. In 2007, CARB published its Final Report for Proposed Early Actions to Mitigate Climate Change in California.[5] This report described recommendations for discrete early action measures to reduce GHG emissions as part of California's AB 32 GHG reduction strategy. Resulting from this are three new regulations proposed to meet the definition of "discrete early action greenhouse gas reduction measures," including the following: a low carbon fuel standard, reduction of HFC 134a (HFC used in automobile air-conditioning systems) emissions from non-professional servicing of motor vehicle air conditioning systems, and improved landfill gas capture. CARB estimates that by 2020, the reductions from these three measures would range from 13 to 26 $MMTCO_2e$. Six additional early-action regulations were adopted on October 25, 2007 that targeted motor vehicles, auxiliary engines from docked ships PFCs from the semiconductor industry, propellants in consumer products, automotive maintenance, and SF_6 from non-electricity sectors.

California Assembly Bill 1493

In response to the transportation sector accounting for more than half of California's CO_2 emissions, AB 1493 (Chapter 200, Statutes of 2002), enacted on July 22, 2002, required CARB to set GHG emission standards for passenger vehicles, light duty trucks, and other vehicles whose primary use is noncommercial personal transportation manufactured in and after 2009. In setting these standards, CARB considered cost effectiveness, technological feasibility, economic impacts, and providing maximum flexibility to manufacturers. The State of California in 2004 submitted a request for a waiver from federal clean air regulations, which ordinarily preempts State regulation of motor vehicle emission standards, to allow the State to require reduced tailpipe emissions of CO_2. In late 2007, the U.S. EPA denied California's waiver request. In early 2008, the State brought suit against U.S. EPA related to this denial. In January 2009, the President directed the U.S. EPA to assess whether its denial of the waiver was appropriate under the federal Clean Air Act. In June 2009, the U.S. EPA granted California the waiver.

However, as discussed previously, the U.S. EPA and USDOT have adopted federal standards for model year 2012 through 2016 light-duty vehicles. In light of the U.S. EPA and USDOT standards, California—and states adopting California emissions standards—have agreed to defer to the proposed national standard through model year 2016. The 2016 endpoint of the federal and State standards is similar, although the federal standard ramps up slightly more slowly than required under the State standard. The State standards (called the Pavley standards) require additional reductions in CO_2 emissions beyond model year 2016 (referred to as Pavley Phase II standards). As noted above, the U.S. EPA and USDOT have adopted GHG emission standards for model year 2017 through 2025 vehicles. These standards are slightly different from the Pavley

5 CARB Early Actions, 2007.

Phase II standards, but the State of California has agreed not to contest these standards, in part due to the fact that while the national standard would achieve slightly less reductions in California, it would achieve greater reductions nationally and is stringent enough to meet State GHG emission reduction goals.[6] On November 15, 2012, CARB approved an amendment that allows manufacturers to comply with the 2017-2025 national standards to meet State law.

Executive Order S-01-07

Executive Order S-01-07 was enacted by the Governor on January 18, 2007. The order mandates the following: (1) that a Statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020, and (2) that a Low Carbon Fuel Standard (LCFS) for transportation fuels be established in California.

Senate Bill 97

Senate Bill (SB) 97 (Chapter 185, Statutes of 2007), enacted in 2007, amended CEQA to clearly establish that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. It directed the California Office of Planning and Research to develop revisions to the State CEQA Guidelines "for the mitigation of GHG emissions or the effects of GHG emissions" and directed the Resources Agency to certify and adopt these revised State CEQA Guidelines by January 2010. The revisions were completed in March 2010 and codified into the California Code of Regulations and became effective within 120 days pursuant to CEQA. The amendments provide regulatory guidance for the analysis and mitigation of the potential effects of GHG emissions. The CEQA Guidelines require:

- Inclusion of GHG analyses in CEQA documents;
- Determination of significance of GHG emissions; and
- If significant GHG emissions would occur, adoption of mitigation to address significant emissions.

Senate Bill 375

Senate Bill 375 (Chapter 728, Statutes of 2008), which establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions, was adopted by the State on September 30, 2008. Under SB 375, CARB is required, in consultation with the Metropolitan Planning Organization, to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035. On September 23, 2010, CARB adopted the vehicular GHG emissions reduction targets for the Southern California Association of Governments (SCAG), which is the Metropolitan Planning Organization for the region in which the County of Los Angeles is located. The target is a per capita reduction of 8 percent for 2020 and 13 percent for 2035 compared to the 2005 baseline. Of note, the proposed reduction targets explicitly exclude emission reductions expected from the AB 1493 and the low carbon fuel standard regulations.

[6] CARB Clean Cars, 2015.

Under SB 375, the target must be incorporated within that region's Regional Transportation Plan (RTP), which is used for long-term transportation planning, in a Sustainable Communities Strategy (SCS). Certain transportation planning and programming activities would then need to be consistent with the SCS; however, SB 375 expressly provides that the SCS does not regulate the use of land, and further provides that local land use plans and policies (e.g., general plan) are not required to be consistent with either the RTP or SCS. On April 7, 2016, SCAG adopted the *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy*, which is an update to the previous 2012-2035 plan. (SCAG RTP, 2016) Using growth forecasts and economic trends, the *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* provides a vision for transportation throughout the region for the next 20 years. It considers the role of transportation in the broader context of economic, environmental, and quality-of-life goals for the future, identifying regional transportation strategies to address mobility needs. The *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* successfully achieves and exceeds the GHG emission-reduction targets set by CARB by demonstrating an 8 percent reduction by 2020 and 18 percent reduction by 2040 compared to the 2005 level on a per capita basis.

SCAG's Sustainable Communities Strategy provides specific strategies for successful implementation. These strategies include supporting projects that encourage a diverse job opportunities for a variety of skills and education, recreation and culture and a full-range of shopping, entertainment and services all within a relatively short distance; encouraging employment development around current and planned transit stations and neighborhood commercial centers; encouraging the implementation of a "Complete Streets" policy that meets the needs of all users of the streets, roads and highways including bicyclists, children, persons with disabilities, motorists, electric vehicles, movers of commercial goods, pedestrians, users of public transportation, and seniors; and supporting alternative fueled vehicles. In addition, the *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* includes new strategies to promote active transportation. It promotes short trips proposing to develop strategic framework to support local planning and projects that serve short trips, expand understanding and consideration of public health in the development of local plans and projects, through improvements in sidewalk quality, local bike networks, and neighborhood mobility areas. It also proposes increasing access to the California Coast Trail, light rail and ,bus stations and promoting corridors that support biking and walking, such as through a regional greenway network and local bike networks. The 2016 RTP/SCS proposes to better align active transportation investments with land use and transportation strategies, increase competitiveness of local agencies for federal and state funding, and to expand the potential for all people to use active transportation.

Title 24, Building Standards Code and CALGreen Code

The California Energy Commission first adopted the Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the State. Although not originally intended to reduce GHG emissions, increased energy efficiency and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods.

Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards (CALGreen) Code. The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) planning and design, (2) energy efficiency, (3) water efficiency and conservation, (4) material conservation and resource efficiency, and (5) environmental air quality." (CCR Title 24, 2010) The CALGreen Code is not intended to substitute for or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission. When the CALGreen Code went into effect in 2009, compliance through 2010 was voluntary. As of January 1, 2011, the CALGreen Code is mandatory for all new buildings constructed in the State. The CALGreen Code establishes mandatory measures for new residential and non-residential buildings. The CALGreen Code was most recently updated in 2013 to include new mandatory measures for residential as well as nonresidential uses; the new measures took effect on January 1, 2014 (the energy provisions took effect on July 1, 2014).

Senate Bill 1078, Senate Bill 107, and Executive Order S-14-08

SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. In November 2008, Governor Schwarzenegger signed Executive Order S-14-08, which expands the State's Renewables Portfolio Standard (SRPS) to 33 percent renewable power by 2020. Pursuant to Executive Order S-21-09, CARB was also preparing regulations to supplement the SRPS with a Renewable Energy Standard that will result in a total renewable energy requirement for utilities of 33 percent by 2020. But on April 12, 2011, Governor Jerry Brown signed SB X1-2 to increase California's SRPS to 33 percent by 2020.

Senate Bill 1368

Senate Bill 1368, a companion bill to AB 32, requires the California Public Utilities Commission (CPUC) and the CEC to establish GHG emission performance standards for the generation of electricity. These standards will also generally apply to power that is generated outside of California and imported into the State. SB 1368 provides a mechanism for reducing the emissions of electricity providers, thereby assisting CARB to meet its mandate under AB 32. On January 25, 2007, the CPUC adopted an interim GHG Emissions Performance Standard, which is a facility-based emissions standard requiring that all new long-term commitments for baseload generation to serve California consumers be with power plants that have GHG emissions no greater than a combined cycle gas turbine plant. That level is established at 1,100 pounds of CO_2 per megawatt-hour. Further, on May 23, 2007, the CEC adopted regulations that establish and implement an identical Emissions Performance Standard of 1,100 pounds of CO_2 per megawatt-hour.

Executive Order B-30-15

On April 29, 2015, Governor Jerry Brown issued Executive Order B-30-15, which:

- Established a new interim Statewide reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030,
- Ordered all State agencies with jurisdiction over sources of GHG emissions to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 reduction targets, and
- Directed CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent.

CARB subsequently expressed its intention to initiate the Climate Change Scoping Plan update during the summer of 2015, with adoption scheduled for 2016.

Cap and Trade Program

The Climate Change Scoping Plan identifies a Cap-and-Trade Program as one of the strategies California will employ to reduce GHG emissions. CARB asserts that this program will help put California on the path to meet its goal of reducing GHG emissions to 1990 levels by the year 2020, and ultimately achieving an 80 percent reduction from 1990 levels by 2050. Under Cap-and-Trade, an overall limit on GHG emissions from capped sectors is established and facilities subject to the cap will be able to trade permits to emit GHGs.

CARB designed and adopted a California Cap-and-Trade Program (17 CCR 95800) pursuant to its authority under AB 32. The development of this Program included a multi-year stakeholder process and consideration of potential impacts to disproportionately impacted communities. The Cap-and-Trade Program is designed to reduce GHG emissions from major sources (deemed "covered entities") by setting a firm cap on statewide GHG emissions and employing market mechanisms to achieve AB 32's emission-reduction mandate of returning to 1990 levels of emissions by 2020. The statewide cap for GHG emissions from the capped sectors (17 CCR 95811-12) (e.g., electricity generation, petroleum refining, and cement production) commenced in 2013 and will decline over time, achieving GHG emission reductions throughout the Program's duration.

Under the Cap-and-Trade Program, CARB issues allowances equal to the total amount of allowable emissions over a given compliance period and distributes these to regulated entities. Covered entities that emit more than 25,000 $MTCO_2e$ per year must comply with the Cap-and-Trade Program. Triggering of the 25,000 $MTCO_2e$ per year "inclusion threshold" is measured against a subset of emissions reported and verified under the California Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (Mandatory Reporting Rule or "MRR").

Each covered entity with a compliance obligation is required to surrender "compliance instruments"[7] for each $MTCO_2e$ of GHG they emit. Covered entities are allocated free allowances in whole or part (if eligible), buy allowances at auction, purchase allowances from others, or purchase offset credits. A "compliance period" is the time frame during which the compliance obligation is calculated. The years 2013 and 2014 are the first compliance period, the years 2015–2017 are the second compliance period, and the third

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7 Compliance instruments are permits to emit, the majority of which will be "allowances," but entities also are allowed to use CARB-approved offset credits to meet up to 8 percent of their compliance obligations.

compliance period is from 2018–2020. At the end of each compliance period, each facility will be required to surrender compliance instruments to CARB equivalent to their total GHG emissions throughout the compliance period. There also are requirements to surrender compliance instruments covering 30 percent of the prior year's compliance obligation by November of each year. For example, in November 2014, a covered entity was required to submit compliance instruments to cover 30 percent of its 2013 GHG emissions.

The Cap-and-Trade Regulation provides a firm cap, ensuring that the 2020 statewide emission limit will not be exceeded. An inherent feature of the Cap-and-Trade Program is that it does not guarantee GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are only guaranteed on an accumulative basis. As summarized by CARB in its First Update to the Climate Change Scoping Plan:

> *The Cap-and-Trade Regulation gives companies the flexibility to trade allowances with others or take steps to cost-effectively reduce emissions at their own facilities. Companies that emit more have to turn in more allowances or other compliance instruments. Companies that can cut their GHG emissions have to turn in fewer allowances.* ***But as the cap declines, aggregate emissions must be reduced.***[8]

In other words, a covered entity theoretically could increase its GHG emissions every year and still comply with the Cap-and-Trade Program. However, as climate change is a global phenomenon and the effects of GHG emissions are considered cumulative in nature, a focus on aggregate GHG emissions reductions is warranted.

Further, the reductions in GHG emissions that will be achieved by the Cap-and-Trade Program inherently are variable and, therefore, impossible to quantify with precision:

> *The Cap-and-Trade Regulation is different from most of the other measures in the Scoping Plan. The [R]egulation sets a hard cap, instead of an emission limit, so the emission reductions from the program vary as our estimates of "business as usual" emissions in the future are updated. In addition, the Cap-and-Trade Program works in concert with many of the direct regulatory measures—providing an additional economic incentive to reduce emissions. Actions taken to comply with direct regulations reduce an entity's compliance obligation under the Cap-and-Trade Regulation. So, for example, increased deployment of renewable electricity sources reduces a utility's compliance obligation under the Cap-and-Trade Regulation.*[9]

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8 CARB First Update, 2014.

9 CARB First Update, 2014.

If California's direct regulatory measures reduce GHG emissions more than expected, then the Cap-and-Trade Program will be responsible for relatively fewer emissions reductions. If California's direct regulatory measures reduce GHG emissions less than expected, then the Cap-and-Trade Program will be responsible for relatively more emissions reductions. In other words, the Cap-and-Trade Program functions sort of like an insurance policy for meeting California 2020's GHG emissions reduction mandate:

> *The Cap-and-Trade Program establishes an overall limit on GHG emissions from most of the California economy—the "capped sectors." Within the capped sectors, some of the reductions are being accomplished through direct regulations, such as improved building and appliance efficiency standards, the [Low Carbon Fuel Standard] LCFS, and the 33 percent [Renewables Portfolio Standard] SRPS. Whatever additional reductions are needed to bring emissions within the cap is accomplished through price incentives posed by emissions allowance prices. Together, direct regulation and price incentives assure that emissions are brought down cost-effectively to the level of the overall cap.*[10]

> *[T]he Cap-and-Trade Regulation provides assurance that California's 2020 limit will be met because the regulation sets a firm limit on 85 percent of California's GHG emissions.*[11]

In sum, the Cap-and-Trade Program will achieve aggregate, rather than site-specific or project-level, GHG emissions reductions. Also, due to the regulatory architecture adopted by CARB under AB 32, the reductions attributed to the Cap-and-Trade Program can change over time depending on the State's emissions forecasts and the effectiveness of direct regulatory measures.

The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program.

The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the Program's first compliance period. While the Cap-and-Trade Program technically covered fuel suppliers as early as 2012, they did not have a compliance obligation (i.e., they were not fully regulated) until 2015:

> *Suppliers of natural gas, suppliers of RBOB [Reformulated Gasoline Blendstock for Oxygenate Blending] and distillate fuel oils, suppliers of liquefied petroleum gas, and suppliers of liquefied natural gas specified in sections 95811(c), (d), (e), (f), and (g) that meet or exceed the annual threshold in section 95812(d)* ***will have a compliance obligation beginning with the second compliance period****.*

10 CARB First Update, 2014.

11 CARB First Update, 2014.

As of January 1, 2015, the Cap-and-Trade Program covered approximately 85 percent of California's GHG emissions.

The Cap-and-Trade Program covers the GHG emissions associated with the combustion of transportation fuels in California, whether refined in-state or imported. The point of regulation for transportation fuels is when they are "supplied" (i.e., delivered into commerce). However, transportation fuels that are "supplied" in California, but can be demonstrated to have a final destination outside California, do not generate a compliance obligation. The underlying concept here is that CARB is seeking to capture tailpipe GHG emissions from the combustion of transportation fuels supplied to California end-users. Accordingly, as with stationary source GHG emissions and GHG emissions attributable to electricity use, virtually all, if not all, of GHG emissions from CEQA projects associated with vehicle-miles traveled (VMT) are covered by the Cap-and-Trade Program.

REGIONAL

As described in Section 3.4, Air Quality, the subject property is located in the South Coast Air Basin (Air Basin), which consists of Orange County, Los Angeles County (excluding the Antelope Valley portion), and the western, non-desert portions of San Bernardino and Riverside Counties, in addition to the San Gorgonio Pass area in Riverside County. The South Coast Air Quality Management District (SCAQMD) is responsible for air quality planning in the Air Basin and developing rules and regulations to bring the area into attainment of the ambient air quality standards. This is accomplished through air quality monitoring, evaluation, education, implementation of control measures to reduce emissions from stationary sources, permitting and inspection of pollution sources, enforcement of air quality regulations, and by supporting and implementing measures to reduce emissions from motor vehicles.

After AB 32 was passed, SCAQMD formed a Climate Change Committee, along with a Greenhouse Gases CEQA Significance Thresholds Working Group and the SoCal Climate Solutions Exchange Technical Advisory Group. On September 5, 2008, the SCAQMD Board approved the SCAQMD Climate Change Policy, which outlines actions the SCAQMD will take to assist businesses and local governments in implementing climate change measures, decrease the agency's carbon emissions, and provide information to the public regarding climate change. On December 5, 2008, the Board approved interim CEQA GHG significance thresholds for stationary source projects where it is the lead agency. The threshold is a tiered approach to determine a project's significance, with 10,000 MT of CO_2e as a screening numerical threshold for stationary source projects. To provide guidance to local lead agencies on determining the significance of GHG emissions identified in CEQA documents, the GHG CEQA Significance Threshold Working Group drafted thresholds with the intent of capturing 90 percent of development projects.[12] Under Tiers 1 and 2, projects that are exempt from CEQA or consistent with an approved local GHG reduction plan can be found to be less than significant. Under Tier 3, a project's GHG emissions are compared to the draft screening thresholds. At

[12] SCAQMD GHG Thresholds, 2010.

present, the SCAQMD has not formally adopted thresholds for use by other lead agencies, but recommends that industrial projects utilize the 10,000 $MTCO_2e$ screening level that has been adopted for SCAQMD projects. The GHG CEQA Significance Threshold Working Group drafted a significance indicator of 3,000 $MTCO_2e$ for mixed-use or all land use projects, but it has not been formally adopted. Under Tier 4, a project's GHG emissions are compared to a performance standard, such as achieving a percentage reduction in GHG emissions from a base case scenario or achieving a project-level efficiency target of 4.8 $MTCO_2e$ per service population.

LOCAL

Burbank 2035 General Plan was adopted in 2013 and provides the fundamental basis for the City's land use and development policy, and addresses all aspects of development including public health, land use, transportation, housing, air quality, and other topics. The *General Plan* sets forth objectives, policies, standards, and programs for land use and new development. Measures related to GHG emissions that would be applicable to the project are contained in the Air Quality and Climate Change Element. Project consistency with the *General Plan* is discussed in Section 4.H, Land Use and Planning.

Burbank 2035 General Plan Greenhouse Gas Reduction Plan (GGRP)

In accordance with Assembly Bill 32 and Executive Order S-03-05, the City of Burbank has adopted the GGRP to implement the GHG policies found in the *Burbank 2035 General Plan*. The GGRP provides a current GHG inventory for Burbank, emission reduction measures, and actions that implement the policies of the *Burbank 2035 General Plan* Air Quality and Climate Change Element. The GGRP was adopted by the City along with *Burbank 2035 General Plan* to address GHG emissions at a programmatic level. The process for establishing this programmatic approach included:

- Establishing a baseline emissions inventory and projecting future emissions;
- Identifying a citywide reduction target;
- Preparing a plan to identify strategies and measures to meet the reduction target;
- Identifying targets and reduction strategies in the *Burbank2035* General Plan;
- Monitoring the effectiveness of reduction measures
- Adapting the plan to changing conditions; and
- Adopting the emissions reduction plan in a public process following environmental review.

The GGRP discusses that environmental review documents on development projects may incorporate the existing programmatic review in their cumulative impacts analysis. Environmental review documents prepared for projects may rely on the GHG analysis from the EIR certified for *Burbank 2035 General Plan* and the GGRP to show consistency with the plans. Projects may identify applicable GGRP measures and describe how the project incorporates the measures. Measures that are not required by regulations must be incorporated by the project as mitigation measures.

City of Burbank Energy Efficiency Standards

In October 2013, the City of Burbank adopted the 2013 CALGreen Code as the City's Green Building Code (Burbank Municipal Code Title 9, Chapter 1, Article 10). The Green Building Code mandates new requirements for building planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, environmental quality, and installer and special inspector qualifications.

3.8.1.2 Significance Thresholds

Historically, CEQA documents generally did not evaluate GHG emissions or impacts on global climate change. Rather, the primary focus of air pollutant analysis in CEQA documents was the emission of criteria pollutants, or those identified in the California and federal Clean Air Acts as being of most concern to the public and government agencies (e.g., toxic air contaminants). With the passage of AB 32 and SB 97, CEQA documents now contain a more detailed analysis of GHG emissions. However, the analysis of GHGs is different from the analysis of criteria pollutants. Since the half-life of CO_2 is approximately 100 years, GHGs affect the global climate over a relatively long timeframe. Conversely, for criteria pollutants, significance thresholds/impacts are based on daily emissions, and the determination of attainment or non-attainment are based on the daily exceedance of applicable ambient air quality standards (e.g., 1-hour and 8-hour exposures). Also, the scope of criteria pollutant impacts is local and regional, while the scope of GHG impacts is global.

Section 15064.4 of the State CEQA Guidelines was adopted to assist lead agencies in determining the significance of the impacts of GHGs. Consistent with developing practice, this section urges lead agencies to quantify GHG emissions of projects where possible and includes language necessary to avoid an implication that a "life-cycle" analysis is required. In addition to quantification, this section recommends consideration of several other qualitative factors that may be used in the determination of significance (i.e., extent to which the project may increase or reduce GHG emissions compared to the existing environment; whether the project exceeds an applicable significance threshold; and extent to which the project complies with regulations or requirements adopted to implement a reduction or mitigation of GHGs). The amendments do not establish a threshold of significance. Lead agencies are called on to establish significance thresholds for their respective jurisdictions in which a lead agency may appropriately look to thresholds developed by other public agencies, or suggested by other experts, such as CAPCOA, so long as any threshold chosen is supported by substantial evidence (see Section 15064.7(c)). The CEQA Guidelines amendments also clarify that the effects of GHG emissions are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impact analysis. CEQA Guidelines specify that CEQA project evaluation of GHG emissions can "tier off" a programmatic analysis of GHG emissions, provided that the programmatic analysis (or climate action plan) meets the requirements listed in CEQA Guidelines Section 15183.5.

In its January 2008 CEQA and Climate Change white paper, CAPCOA identified a number of potential approaches for determining the significance of GHG emissions in CEQA documents. CAPCOA suggests making significance determinations on a case-by-case basis when no significance thresholds have been formally adopted by a lead agency.

Although GHG emissions can be quantified, CARB, SCAQMD, and the Authority have yet to adopt project-level numerical significance thresholds for GHG emissions that would be applicable to the project. Assessing the significance of a project's contribution to cumulative global climate change involves: (1) developing pertinent inventories of GHG emissions, and (2) considering project consistency with applicable emission reduction strategies and goals, such as those set forth in the *Burbank 2035* GGRP. As discussed previously, the GGRP meets CEQA Guidelines Section 15183.5, which means that project-specific environmental documents that incorporate applicable CCAP actions may "tier off" the EIR certified for the *Burbank 2035* General Plan and GGRP to meet project-level CEQA evaluation requirements for GHG emissions. Projects that demonstrate consistency with applicable GGRP actions can be determined to have a less than significant cumulative impact on GHG emissions and climate change (notwithstanding substantial evidence that warrants a more detailed review of project-level GHG emissions).

For purposes of this analysis, implementation of the proposed project would cause a significant impact related to GHG emissions if it resulted in:

- GHG-1: Generation of greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- GHG-2: A conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

3.8.1.3 Methodologies

The evaluation of potential impacts to GHG emissions that may result from the construction and long-term operations of the project has been conducted as described below.

PROJECT CONSISTENCY WITH GGRP

The significance of the project's GHG emissions are evaluated by evaluating the consistency of the project with applicable GHG reduction strategies and local actions in the *Burbank 2035* GGRP. As discussed previously, the GGRP meets CEQA Guidelines Section 15183.5, which means that project-specific environmental documents that incorporate applicable GGRP actions may "tier off" the EIR certified for the *Burbank 2035* General Plan and GGRP to meet project-level CEQA evaluation requirements for GHG emissions. Projects that demonstrate consistency with applicable GGRP actions can be determined to have a less than significant cumulative impact on GHG emissions and climate change (notwithstanding substantial evidence that warrants a more detailed review of project-level GHG emissions).

PROJECT-RELATED EMISSIONS

For the purposes of this EIR, total GHG emissions from the project were quantified to provide information to decision makers and the public regarding the level of the project's annual GHG emissions. The CCAR has prepared the General Reporting Protocol for calculating and reporting GHG emissions from a number of general and industry-specific activities. No specific protocols are available for land use projects, so the General Reporting Protocol has been adapted to address GHG emissions from the project. The information provided in this section is consistent with the General Reporting Protocol minimum reporting requirements. The General Reporting Protocol recommends the separation of GHG emissions into three categories that reflect different aspects of ownership or control over emissions. They include:

Scope 1: Direct, on-site combustion of fossil fuels (e.g., natural gas, propane, gasoline, and diesel)
Scope 2: Indirect, off-site emissions associated with purchased electricity or purchased steam
Scope 3: Indirect emissions associated with other emissions sources, such as third-party vehicles and embodied energy [13]

CARB believes that consideration of so-called indirect emissions provides a more complete picture of the GHG footprint of a facility: "As facilities consider changes that would affect their emissions – addition of a cogeneration unit to boost overall efficiency even as it increases direct emissions, for example – the relative impact on total (direct plus indirect) emissions by the facility should be monitored. Annually reported indirect energy usage also aids the conservation awareness of the facility and provides information" to CARB to be considered for future strategies by the industrial sector. (CARB AB 32, 2007) For these reasons, CARB has proposed requiring the calculation of direct and indirect GHG emissions as part of the AB 32 reporting requirements. Additionally, the Office of Planning and Research directs lead agencies to "make a good-faith effort, based on available information, to calculate, model, or estimate GHG emissions from a project, including the emissions associated with vehicular traffic, energy consumption, water usage and construction activities." Therefore, direct and indirect emissions have been calculated for the project.

For purposes of this analysis, it is considered reasonable and consistent with criteria pollutant calculations to consider those GHG emissions resulting from project-related emissions in the use of on-road mobile vehicles, electricity, and natural gas. This includes project construction activities such as demolition, hauling, and construction worker trips. This analysis also considers indirect GHG emissions from water conveyance, wastewater generation, and solid waste handling. Since potential impacts resulting from GHG emissions are long term rather than acute, GHG emissions are calculated on an annual basis. In order to report total GHG emissions using the CO_2e metric, the GWP ratios corresponding to the warming potential of CO_2 over a 100-year period is used in this analysis.

Construction emissions are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the mobile source emissions factors. The emissions are estimated using the California Emissions Estimator Model (CalEEMod) (Version 2013.2.2) software, an emissions inventory software program recommended by the SCAQMD. The model input values used in this analysis were adjusted to be project-specific based on the construction equipment types and the construction schedule. These input values were also applied to the same construction phasing assumptions used in the criteria pollutant analysis (see **Section 3.4**). CalEEMod does not include an "airport"

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[13] Embodied energy includes energy required for water pumping and treatment for end-uses.

land use type. Surrogate land use types were used to represent the emissions from the various structures. For example, the "general office building" land use type was used to represent the terminal building. Hangar, cargo, GSE, and other buildings were modeled as unrefrigerated warehouses or general light industrial buildings. CalEEMod outputs annual construction-related GHG emissions of CO_2, CH_4, N_2O, and CO_2e. The values are derived from factors published in the *2006 Intergovernmental Panel on Climate Change Guidelines for National Greenhouse Gas Inventories*. (IPCC, 2006) These values are then converted to units of metric tons for consistency with global GHG emissions inventories. The CO_2e emissions are calculated for the construction period and future project build-out conditions in order to estimate the net change in GHG emissions for project construction and operation. In accordance with SCAQMD guidance, GHG emissions from construction have been amortized over the 30-year lifetime of the project (i.e., total construction GHG emissions were divided by 30 to determine an annual construction emissions estimate comparable to operational emissions). Detailed construction GHG emissions calculations are provided in **Appendix I** of this Draft EIR.

The operational GHG emissions were estimated for the earliest buildout year for the alternatives, which provides for a conservative estimate as emission factors from each source tend to decrease over time. Aviation-related GHG emissions, including aircraft landings and take offs (LTOs) were evaluated using the Aviation Environmental Design Tool (AEDT) developed by the Federal Aviation Administration (FAA) to assess the emissions impacts of airport projects. Completion of the replacement terminal under each development option would result in a corresponding increase or decrease in the taxi distance traveled when compared to existing conditions. Taxi distances associated with each development option were compared to existing conditions to determine the net increase or decrease in taxi distances traveled. As in the noise analysis, a taxi speed of 15 knots was assumed. This speed was used to determine how much longer/shorter it would take aircraft to taxi across the routes established by the location of the replacement passenger terminal. These corresponding increases or decreases in taxi time were used to modify the existing taxi times used to model emissions in the existing conditions scenario for each study year (2015, 2023, and 2025).

In calculating mobile source emissions (i.e. ground access vehicles [GAV]), GHG emissions were estimated using CARB's on-road vehicle emissions factor (EMFAC) model. The most recent version is EMFAC2014, which "represents ARB's current understanding of motor vehicle travel activities and their associated emission levels."[14] Trip rates and trip length values were based on the data provided by Gibson Transportation and zip code data from the *Bob Hope Airport Ground Access Study Data Collection and Analysis* survey conducted by Unison Consulting, Inc. in 2012 to estimate the total vehicle miles traveled (VMT) associated with GAV.

With regard to energy usage, the consumption of fossil fuels to generate electricity and to provide heating and hot water generates GHG emissions. Future fuel consumption rates are estimated based on specific

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[14] California Air Resources Board, Mobile Source Emissions Inventory, http://www.arb.ca.gov/msei/categories.htm#emfac2014, accessed March 2016.

square footage of the hotel, office, retail, and restaurant land uses, as well as predicted water supply needs of the project. Energy usage (off-site electricity generation and on-site natural gas consumption) for the project is calculated within CalEEMod using the CEC's California Commercial End-Use Survey (CEUS) data set. (CEUS, 2013) This data set provides energy intensities of different land uses throughout the State and different climate zones. However, since the data from the CEUS is from 2002, the CalEEMod software incorporates correction factors to account for compliance with the Title 24 Building Standards Code. As the Title 24 Building Standards have been updated since the latest version of CalEEMod was released, adjustment factors have been applied to account for updated energy efficiency standards. In addition, emission rates due to electricity generation have been updated to account for SRPS requirements. (CARB EF, 2014) As discussed previously, surrogate land use types were used to represent the emissions from the various structures.

Water and wastewater generated from the project require energy to supply, distribute, and treat. Refer to **Section 3.18** for the estimated water usage rate for the project. The CalEEMod software uses the electrical intensity factors from the 2006 CEC report *Refining Estimates of Water-Related Energy Use in California*. (CEC PIER, 2006) The emissions of GHGs associated with the wastewater treatment process emissions are also calculated using the CalEEMod software as described in the *California Emissions Estimator Model User's Guide, Appendix A*.[15]

Emissions from solid waste handling generated from the project are also accounted for in the GHG emissions inventory. The GHG emission factors, particularly for CH_4, are based on the default values for the region, as provided in CalEEMod, for landfill gas capture (e.g., no capture, flaring, energy recovery).

Other sources of GHG emissions from operation of the project include equipment used to maintain landscaping, such as lawnmowers and trimmers. The CalEEMod tool uses landscaping equipment GHG emission factors from the CARB OFFROAD2011 model and the CARB *Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment (6/13/2003)*. The CalEEMod software estimates that landscaping equipment operate for 250 days per year in the South Coast Air Basin.

Emissions calculations for the project include credits or reductions for the Project Design Features (PDFs) and GHG reducing measures, such as reductions in energy and water demand. Information from the California Energy Commission (CEC) was also utilized for estimating the reduction in energy use from compliance with the Title 24 Building Standards Code and CALGreen Code.

GREENHOUSE GAS REDUCTION PLAN

In the latest *CEQA Guidelines* amendments, which went into effect on March 18, 2010, the Office and Planning and Research encourages lead agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses. The Authority has not adopted a programmatic mitigation plan to tier from, such as a Greenhouse Gas Emissions Reduction Plan as

15 CAPCOA, 2013.

recommended in the relevant amendments to the *CEQA Guidelines*. However, the City of Burbank has adopted the GGRP, which includes GHG reduction measures relevant to a portion of the project's sources of GHG emissions. In addition, the California CAT Report provides recommendations for specific emission reduction strategies for reducing GHG emissions and reaching the targets established in AB 32 and Executive Order S-3-05. Thus, if the project is designed in accordance with these applicable measures, it would result in a less than significant impact with respect to its contribution to the cumulative impact of global climate change. These criteria are consistent with Appendix G of the State CEQA Guidelines and will be used for determining significance for the project with respect to GHG reduction plans.

3.8.2 Existing Conditions / Environmental Setting

3.8.2.1 Greenhouse Gas Emissions Inventory

Worldwide, man-made emissions of GHGs were approximately 49,000 million metric tons (MMT) CO_2e annually, including ongoing emissions from industrial and agricultural sources and emissions from land use changes (e.g., deforestation).[16] Emissions of CO_2 emissions from fossil fuel use and industrial processes accounts for 65 percent of the total, while CO_2 emissions from all sources accounts for 76 percent of the total. Methane emissions account for 16 percent and N_2O emissions for 6.2 percent. In 2013, the United States was the world's second largest emitter of carbon dioxide at 5,300 MMT. (China was the largest emitter of carbon dioxide at 10,300 MMT.)

The California Air Resources Board (CARB) compiles GHG inventories for the State of California. Based on the 2013 GHG inventory data (i.e., the latest year for which data are available from CARB), California emitted 459.3 $MMTCO_2e$, including emissions resulting from imported electrical power and 419.3 $MMTCO_2e$ excluding emissions related to imported power.[17] Between 1990 and 2013, the population of California grew by approximately 8.6 million (from 29.8 to 38.4 million). This represents an increase of approximately 28.9 percent from 1990 population levels. In addition, the California economy, measured as gross State product, grew from $773 billion in 1990 to $2.05 trillion in 2013 representing an increase of approximately 165 percent (about two and half times the 1990 gross State product). (Finance, 2014) Despite the population and economic growth, California's net GHG emissions only grew by approximately 7.7 percent. The CEC attributes the slow rate of growth to the success of California's renewable energy programs and its commitment to clean air and clean energy.[18] **Table 3.8-2** identifies and quantifies statewide anthropogenic GHG emissions and sinks (e.g., carbon sequestration due to forest growth) in 1990 and 2013 (i.e., the most recent year in which data are available from CARB). As shown in the table, the transportation sector is the largest contributor to Statewide GHG emissions at 37 percent in 2013. California emissions are due in part to its large size and large population.

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16 IPCC, 2014.
17 CARB Inventory, 2015.
18 CEC Inventory, 2006.

Table 3.8-2

State of California Greenhouse Gas Emissions

Category	Total 1990 Emissions using IPCC SAR ($MMTCO_2e$)	Percent of Total 1990 Emissions	Total 2013 Emissions using IPCC AR4 ($MMTCO_2e$)	Percent of Total 2013 Emissions
Transportation	150.7	35%	169.0	37%
Electric Power	110.6	26%	90.5	20%
Commercial	14.4	3%	13.3	3%
Residential	29.7	7%	28.1	6%
Industrial	103.0	24%	92.7	20%
Recycling and Waste [a]	–	–	8.9	2%
High GWP/Non-Specified [b]	1.3	<1%	18.5	4%
Agriculture/Forestry	23.6	6%	36.2	8%
Forestry Sinks	-6.7		–[c]	–
Net Total (IPCC SAR)	**426.6**	**100%**	--	--
Net Total (IPCC AR4) [d]	**431**	**100%**	**459.3**	**100%**

[a] Included in other categories for the 1990 emissions inventory.
[b] High GWP gases are not specifically called out in the 1990 emissions inventory.
[c] Revised methodology under development (not reported for 2012).
[d] CARB revised the State's 1990 level GHG emissions using GWPs from the IPCC AR4.
Sources: CARB Report, 2007; CARB Inventory, 2015.

3.8.2.2 Effects of Global Climate Change

The scientific community's understanding of the fundamental processes responsible for global climate change has improved over the past decade, and its predictive capabilities are advancing. However, there remain significant scientific uncertainties in, for example, predictions of local effects of climate change, occurrence, frequency, and magnitude of extreme weather events, effects of aerosols, changes in clouds, shifts in the intensity and distribution of precipitation, and changes in oceanic circulation. Due to the complexity of the Earth's climate system and inability to accurately model it, the uncertainty surrounding climate change may never be completely eliminated. Nonetheless, the IPCC, in its *Fifth Assessment Report, Summary for Policy Makers*, stated that, "it is *extremely likely* that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic forcings together."[19] A report from the National Academy of Sciences concluded that 97 to 98 percent of the climate researchers most actively publishing in the field support the tenets of the IPCC in that climate change is very likely caused by human (i.e., anthropogenic) activity.[20]

[19] IPCC, 2013.
[20] Anderegg, 2010.

According to CARB, the potential impacts in California due to global climate change may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, more drought years, increased erosion of California's coastlines and sea water intrusion into the Sacramento and San Joaquin Deltas and associated levee systems, and increased pest infestation.[21] Below is a summary of some of the potential effects, reported by an array of studies that could be experienced in California as a result of global warming and climate change.

AIR QUALITY

Higher temperatures, conducive to air pollution formation, could worsen air quality in California. Climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore, its indirect effects, are uncertain. If higher temperatures are accompanied by drier conditions, the potential for large wildfires could increase, which, in turn, would further worsen air quality. However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains would tend to temporarily clear the air of particulate pollution and reduce the incidence of large wildfires, thus ameliorating the pollution associated with wildfires. Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the State.[22]

In 2009, the California Natural Resources Agency (CNRA) published the *California Climate Adaptation Strategy* as a response to the Governor's Executive Order S-13-2008. The CNRA report lists specific recommendations for State and local agencies to best adapt to the anticipated risks posed by a changing climate. In accordance with the *California Climate Adaptation Strategy*, the CEC was directed to develop a website on climate change scenarios and impacts that would be beneficial for local decision makers. The website, known as Cal-Adapt, became operational in 2011.[23] The information provided from the Cal-Adapt website represents a projection of potential future climate scenarios. The data comprise the average values from a variety of scenarios and models and are meant to illustrate how the climate may change based on a variety of different potential social and economic factors. According to the Cal-Adapt website, the portion of the city of Burbank in which the Airport is located could result in an average increase in temperature of approximately 5 to 9 percent (about 3.5 to 6 degrees F) by 2070-2090, compared to the baseline 1961-1990 period.

WATER SUPPLY

Uncertainty remains with respect to the overall impact of global climate change on future water supplies in California. Studies have found that, "Considerable uncertainty about precise impacts of climate change on California hydrology and water resources will remain until we have more precise and consistent information about how precipitation patterns, timing, and intensity will change." For example, some studies identify little change in total annual precipitation in projections for California, while others show significantly more

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[21] CalEPA CAT, 2006.
[22] CEC Scenarios, 2006.
[23] CEC Cal-Adapt, 2016.

precipitation. Warmer, wetter winters would increase the amount of runoff available for groundwater recharge; however, this additional runoff would occur at a time when some basins are either being recharged at their maximum capacity or are already full. Conversely, reductions in spring runoff and higher evapotranspiration because of higher temperatures could reduce the amount of water available for recharge.

The California Department of Water Resources report on climate change and effects on the State Water Project (SWP), the Central Valley Project, and the Sacramento-San Joaquin Delta, concludes that "climate change will likely have a significant effect on California's future water resources…[and] future water demand." It also reports that "much uncertainty about future water demand [remains], especially [for] those aspects of future demand that will be directly affected by climate change and warming. While climate change is expected to continue through at least the end of this century, the magnitude and, in some cases, the nature of future changes is uncertain." It also reports that the relationship between climate change and its potential effect on water demand is not well understood, but "[i]t is unlikely that this level of uncertainty will diminish significantly in the foreseeable future." Still, changes in water supply are expected to occur, and many regional studies have shown that large changes in the reliability of water yields from reservoirs could result from only small changes in inflows. (Water Resources, 2006) In its *Fifth Assessment Report*, the IPCC states "Changes in the global water cycle in response to the warming over the 21st century will not be uniform. The contrast in precipitation between wet and dry regions and between wet and dry seasons will increase, although there may be regional exceptions."[24]

HYDROLOGY AND SEA LEVEL RISE

As discussed above, climate changes could potentially affect the amount of snowfall, rainfall and snow pack; the intensity and frequency of storms; flood hydrographs (flash floods, rain or snow events, coincidental high tide, and high runoff events); sea level rise and coastal flooding; coastal erosion; and the potential for salt water intrusion. Sea level rise can be a product of global warming through two main processes: expansion of seawater as the oceans warm and melting of ice over land. A rise in sea levels could result in coastal flooding and erosion and could jeopardize California's water supply. Increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events.

AGRICULTURE

California has a $30 billion agricultural industry that produces half the country's fruits and vegetables. Higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, water demand could increase, crop-yield could be threatened by a less reliable water supply, and greater ozone pollution could render plants more susceptible to pest and disease outbreaks. In addition, temperature increases could change the time of year certain crops—such as wine grapes—bloom or ripen, and thus affect their quality.[25]

[24] IPCC. 2013.

[25] Climate Change Center, 2006.

ECOSYSTEMS AND WILDLIFE

Increases in global temperatures and the potential resulting changes in weather patterns could have ecological effects on a global and local scale. Increasing concentrations of GHGs are likely to accelerate the rate of climate change. Scientists expect that the average global surface temperature could rise by 2 to 11.5 degrees F (1.1-6.4 degrees C) by 2100, with significant regional variation.[26] Soil moisture is likely to decline in many regions, and intense rainstorms are likely to become more frequent. Sea level could rise as much as 2 feet along most of the U.S. coast. Rising temperatures could have four major impacts on plants and animals: (1) timing of ecological events, (2) geographic range, (3) species' composition within communities, and (4) ecosystem processes such as carbon cycling and storage.[27]

3.8.2.3 Existing Site Greenhouse Gas Emissions

The Airport is currently a fully-operational regional airport with a terminal building that provides access to 14 air carrier gates. Existing greenhouse gas emissions are dominated by mobile sources, including airplane take-off, landing, taxiing on the Airport's taxiways, and ground support equipment (GSE). In addition, stationary sources of emissions are associated with operation of buildings, such as the existing passenger terminal and supporting ground equipment. Automobile and bus emissions from passenger and employee traffic result from travel to and from the Airport. Under CEQA, the baseline environmental setting generally is established at the time that environmental assessment commences. Therefore, the existing GHG emissions from the existing passenger terminal and associated mobile and stationary sources are quantified in order to evaluate the net change in GHG emissions after implementation of the project.

3.8.2.4 Project Characteristics

The California Air Pollution Control Officers Association (CAPCOA) has provided guidance on mitigating or reducing emissions from land use developments. In September 2010, CAPCOA released a guidance document titled *Quantifying Greenhouse Gas Mitigation Measures* which provides emission reduction values for recommended strategies. The reduction of criteria pollutant emissions is a co-benefit of reducing GHGs. The Airport is located within a quarter-mile of multiple modes of public transportation. The Regional Intermodal Transportation Center (RITC) is located within a quarter-mile of the existing passenger terminal and will continue to provide public access to the Metro bus lines 94, 165, 169, 222, and 794, as well as the Metrolink and Amtrak regional trains. The Burbank City buses provide connections to the San Fernando Valley, downtown Burbank, downtown Los Angeles, and the Metro Red Line in North Hollywood (near Universal Studios). The Metrolink Ventura County Line station connects to Ventura County, the San Fernando Valley, and Union Station in Los Angeles, and the Amtrak station connects to downtown Burbank, Glendale, and Union Station in Los Angeles. The Airport's proximity to multiple modes of public transit could encourage the use of public transportation and could result in corresponding reductions in VMT and transportation-related emissions.

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[26] National Research Council, 2010.

[27] Parmesan Ecological, 2004, Parmesan Observed, 2004.

3.8.2.5 Project Design Features

The Airport would implement PDFs consistent with objectives of the City of Burbank 2035 General Plan GGRP. The Airport would meet energy efficiency standards that exceed regulatory requirements through the incorporation of green building techniques and other sustainability features. Key PDFs that would contribute to efficient resource use and reduced air pollutants and greenhouse gas emissions include the installation of efficient heating, ventilation, and air conditioning (HVAC) systems; installation of high-efficiency fixtures and appliances; and water conservation features. The following PDFs would reduce the Airport's air pollutant emissions as well as greenhouse gas emissions:

PDF-AIR-1: **Green Building Measures**: The Authority would design and operate the replacement passenger terminal to meet or exceed the applicable green building, energy, water, and waste requirements of the State of California Green Building Standards Code and the City of Burbank GGRP. Green building measures would include, but are not limited to the following:

- The Authority would implement a construction waste management plan to recycle and/or salvage a minimum of 75 percent of nonhazardous construction debris.
- The project, where feasible, would be constructed with materials, equivalent in performance to virgin materials with a total (combined) recycled content value (RCV) of 10 percent or more of the total material cost of the Airport.
- The Authority would design and operate the replacement passenger terminal to meet or exceed the Title 24, Part 11 (CALGreen) Tier 1 standards and would optimize energy performance and reduce building energy cost by at least 15 percent for new commercial construction compared to the Title 24, Part 6 standards.
- The Authority would optimize energy performance and reduce building energy cost by installing energy efficient commercial appliances that meet the USEPA ENERGY STAR rating standards or equivalent.
- The Authority would design the replacement passenger terminal to reduce its contribution to the urban heat island effect by using roofing materials with a minimum aged solar reflectance and thermal emittance or a minimum aged Solar Reflective Index (SRI) that meets or exceeds the Title 24, Part 11 (CALGreen) Tier 1 standards.
- The Airport would design the replacement passenger terminal so that the portions of the rooftop that could be suitable for solar are pre-wired for the installation of on-site solar photovoltaic (PV) or solar water heating (SWH) systems.
- The Authority would include double-paned windows to keep heat out during summer months and keep heat inside during winter months.
- The Authority would reduce indoor potable water use within the replacement passenger terminal by 12 percent (calculated using the water use baseline for applicable fixtures as described in the July 1, 2015 Supplement to the Title 24, Part 11 (CALGreen) Tier 1 standards) by installing water fixtures that exceed applicable standards. The reduction in indoor potable water would be achieved through the

installation of high-efficiency water faucets, high-efficiency toilets, flushless urinals, and other similar means.

- The Authority would reduce outdoor potable water use associated with the replacement passenger terminal landscaping as per the Title 24, Part 11 (CALGreen) Tier 1 standards by installing water-efficient irrigation systems, planting native or drought-tolerant plant species, using recycled water, or other similar means.
- The Authority would provide recycling collection bins within appropriate publicly accessible locations of the replacement passenger terminal.
- The Authority would design and operate the replacement passenger terminal such that mechanically ventilated areas would utilize air filtration media for outside and return air prior to occupancy that provides at least a Minimum Efficiency Reporting Value (MERV) of 11.
- To encourage employee carpooling and the use of low-emitting or fuel-efficient vehicles by employees, the Authority would designate a minimum of 10 percent of the onsite employee parking for carpool and/or low-emitting or fuel-efficient vehicles.
- The Authority would pre-wire, or install conduit and panel capacity for, electric vehicle charging stations for a minimum of three (3) percent of onsite parking spaces.

PDF-AIR-2: **Construction Measures**: The Authority shall require construction contractor(s) to utilize off-road diesel-powered construction equipment that meets or exceeds the CARB and USEPA Tier 3 off-road emissions standard with Level 3 diesel particular filters for equipment rated at 100 hp or greater during Airport construction. To the extent possible, pole power will be made available for use with electric tools, equipment, lighting, etc. These requirements shall be included in applicable bid documents and successful contractor(s) must demonstrate the ability to supply such equipment. A copy of each unit's certified tier specification or model year specification and CARB or SCAQMD operating permit (if applicable) shall be available upon request at the time of mobilization of each applicable unit of equipment. The Authority shall encourage construction contractors to apply for SCAQMD "SOON" funds, which provides funds to accelerate the clean-up of off-road diesel vehicles, such as heavy duty construction equipment. More information on this program can be found at the following website: http://www.aqmd.gov/tao/Implementation/SOONProgram.htm.

3.8.3 Environmental Impacts

3.8.3.1 ADJACENT PROPERTY FULL-SIZE TERMINAL OPTION

IMPACT ADJ PROP FULL-GHG-1: Generation of Greenhouse Gas Emissions

Construction of the proposed uses would generate GHG emissions through the use of heavy-duty construction equipment, vehicle trips generated from construction workers traveling to and from the Adjacent Property Full-Size Terminal Option site. The annual construction GHG emissions were calculated for the two phases of construction. Operational of the existing uses and the proposed uses would generate

GHG emissions from vehicle trips to and from the Adjacent Property Full-Size Terminal Option, vehicles traveling on the Airport property for parking or for passenger pick-up and drop-off, from building energy usage, aircraft LTO, taxiing, and other aircraft supporting equipment. Detailed emissions calculations are provided in **Appendix I**.

A large portion of the mobile source emissions are accounted for in the City of Burbank GGRP. As stated in the GGRP, "[v]ehicle trips and associated VMT were categorized according to three types of trips: Internal–Internal (I-I) trips, which begin and end in Burbank; Internal–External (I-X) trips, which begin in Burbank and end outside Burbank; and External–Internal (X-I) trips, which begin outside Burbank and end inside Burbank."[28] The GGRP accounts for 100 percent of the I-I trips and VMT and 50 percent of the I-X and X-I trips and VMT, which is consistent with the recommendations of the Regional Targets Advisory Committee, which is the body charged with making recommendations to CARB on implementation of SB 375. For the purpose of this analysis, mobile source GHG emissions were estimated for 100 percent of all trip types and VMT (i.e., I-I, I-X, and X-I). In addition, mobile source GHG emissions were also estimated and included for on-Airport travel for parking and passenger pick-up and drop-off, which are not accounted for in the GGRP.

The project would result in a replacement passenger terminal with no change in the number of gates[29] or in the total number of public parking spaces for commercial airline passengers. As a result, the project itself would not result in an increase in passengers. Assuming the project would be constructed and operational under the existing conditions (i.e., under existing passenger throughput levels), the project would result in similar GHG emissions as the existing conditions. The Adjacent Property Full-Size Terminal Option proposes to replace the existing 232,000-square-foot passenger terminal with a new, modern, energy-efficient 355,000 square-foot terminal. While the replacement passenger terminal would result in an increase in building floor area, it would be substantially more energy efficient than the existing passenger terminal based on compliance with the current Title 24 Building Standards Code and CALGreen Code as well as the additional energy efficiency measures discussed in PDF-AIR-1. Compliance with the current Title 24 Building Standards Code and CALGreen Code and implementation of PDF-AIR-1 would largely offset the increased energy demand form the larger building floor area. Therefore, the emissions from project construction and operation without growth in passengers would be similar to the current existing GHG emissions.

A comparison of the future with project to the future No Project conditions shows that GHG emissions would also be similar and the net change would be relatively minimal. Results of the GHG calculations are presented in **Table 3.8-3**. The GHG emissions from the Adjacent Property Full-Size Terminal Option are compared with the future No Project emissions. The No Project emissions accounts for future growth in passenger throughput, which would occur with or without implementation of the project. As shown, GHG emissions associated with the Adjacent Property Full-Size Terminal Option would result in relatively similar

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28 City of Burbank, Burbank2035 Greenhouse Gas Reduction Plan, Adopted February 19, 2013, accessed at http://www.burbankca.gov/home/showdocument?id=23440, 2016.

29 A gate is defined as the waiting area for passengers before boarding a flight and consists of one exit doorway that leads to one aircraft.

GHG emissions compared to the No Project conditions for the same operational years evaluated (a difference of approximately 1 percent). The majority of the emissions are associated with aircraft LTOs and taxiing. The Adjacent Property Full-Size Terminal Option would result in slightly less taxiing GHG emissions compared to the No Project conditions. The overall difference in GHG emissions is related to the reduced taxiing emissions, increased square footage of the terminal building and ancillary facilities (these emissions are largely offset by improved building energy efficiency standards), and the increase in on-site travel distance for on-site parking. This difference in GHG emissions is not substantial and would not result in a significant impact on the environment because the increase in GHG emissions resulting from the Adjacent Property Full-Size Terminal Option would be approximately 1 percent compared to the future No Project conditions (see **Table 3.8-3**). As a result, impacts related to GHG emissions would be considered less than significant.

A comparison of the future with project to existing conditions shows that GHG emissions would increase under the future with project conditions by approximately 15 percent; however, the increase is due primarily to future growth in passenger throughput, which would occur under the future No Project condition and the future with project conditions. In other words, GHG emissions associated with future growth in passenger throughput would occur with or without the development of a replacement passenger terminal. The existing passenger terminal and supporting facilities can accommodate the projected future growth for the reasonably foreseeable time period without the need for additional gates or building floor area. As a result, the increase in GHG emission between the future with project and existing conditions is not attributable to the project, but rather to growth projections that would occur with or without implementation of the project.

Table 3.8-3

Adjacent Property Full-Size Terminal Option

Greenhouse Gas Emissions (metric tons per year) [a]

Operational Source	Existing	2023	2025
Existing and No Project Emissions			
Aircraft [b]	121,843	144,382	149,000
Area (Landscaping)	<1	<1	<1
Energy (Natural Gas, Electricity) [c]	6,345	6,345	6,345
Solid Waste [d]	572	572	572
Water [e]	2,436	2,436	2,436
Mobile (Motor Vehicles) [f]	42,560	42,177	40,390
Total Emissions	**173,756**	**195,912**	**198,743**
Project Emissions			
Amortized Construction	—	476	476
Aircraft [b]	—	142,590	147,141
Area (Landscaping)	—	<1	<1
Energy (Natural Gas, Electricity) [c]	—	6,392	6,392
Solid Waste [d]	—	625	625
Water [e]	—	2,406	2,406
Mobile (Motor Vehicles) [f]	—	45,509	43,566
Total Emissions	—	**197,998**	**200,606**
Net Emissions	—	2,086	1,863

[a] Emission quantities are rounded to “whole number” values. As such, the “total” values presented herein may be 1 unit more or less than actual values. Exact values (i.e., nonrounded) are provided in the CalEEMod printout sheets and/or calculation worksheets that are presented in **Appendix I**.

[b] The FAA AEDT model only reports aircraft GHG emissions for CO_2. For the purposes of this assessment, CO_2 emissions are assumed to represent 99 percent of the total CO_2e emissions.

[c] Energy emissions from electricity usage would likely decline in future years due to increased renewable energy from implementation of the Renewables Portfolio Standard. However, future year CO_2 intensity factors are not known for Burbank Water and Power and it is not known the percentage of specific fossil-fuel generated electricity that would be replaced with renewable generation. In addition, Burbank Water and Power has a contract to procure electricity from a coal provider through 2027 and it is not known the specific percentage that coal-generated power would be procured for future years. Therefore, due to these unknowns, this analysis does not estimate reductions from an increase in future year renewable electricity generation.

[d] Solid waste GHG emissions are estimated using CalEEMod, which utilizes solid waste generation factors based on building square footage. Solid waste GHG emissions may be lower or higher in future years from the implementation of recycling and diversion measures and the future change in passenger throughput.

[e] Water GHG emissions are estimated using CalEEMod, which utilizes water demand factors based on building square footage. Water GHG emissions may be lower or higher in future years from the implementation of water conservation measures and the future change in passenger throughput.

[f] Mobile source GHG emissions are estimated using EMFAC2014 for 100 percent of trips and VMT (i.e., I-I, I-X, and X-I) and include emissions from on-Airport vehicle travel for parking and passenger pick-up and drop-off.

Source: ESA PCR, 2016

Mitigation Measure ADJ PROP FULL-GHG-1

No mitigation is warranted.

IMPACT ADJ PROP FULL-GHG-2: Conflict with Applicable Plan, Policy, or Regulation Regarding Emissions of Greenhouse Gases

Due to the complex physical, chemical and atmospheric mechanisms involved in global climate change, there is no basis for concluding that the project's less-than-significant increase in annual GHG emissions would cause a measurable change in global GHG emissions necessary to influence global climate change. Newer construction materials and practices, energy efficiency requirements, and newer appliances tend to emit lower levels of air pollutant emissions, including GHGs, as compared to those built years ago; however, the net effect is difficult to quantify. As discussed above, the GHG emissions of the project alone would not likely cause a direct physical change in the environment. According to CAPCOA, "GHG impacts are exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective." It is global GHG emissions in their aggregate that contribute to climate change, not any single source of GHG emissions alone. Because of the less-than-significant annual GHG emissions estimated for this project, the lack of evidence indicating that those emissions would cause a measurable change in global GHG emissions necessary to exacerbate global climate change, and the fact that the project incorporates physical and operational project characteristics and Project Design Features that would reduce potential GHG emissions to a less-than-significant level, the project is considered not to conflict with the GHG reduction goals of AB 32 and associated GHG reduction plans.

Consistency with GHG reduction strategies is an important priority and reasonable reduction efforts should be taken. The Adjacent Property Full-Size Terminal Option would be consistent with applicable GHG provisions of the GGRP. A consistency analysis of the Adjacent Property Full-Size Terminal Option is provided in **Table 3.8-4**. As discussed therein, the Adjacent Property Full-Size Terminal Option would be consistent with the applicable measures of the GGRP.

Table 3.8-4

Consistency Analysis of Applicable GHG Measures in the City of Burbank GGRP

Measure	Description	Consistency Analysis
Energy Efficiency in New Construction	The City will require new commercial projects to be constructed to Title 24 Tier 1 levels (e.g., exceed current efficiency standards by 15%) beginning in January 2015.	**Consistent.** The project would be meet this target and achieve the CALGreen Tier 1 standard of at least a 15 percent improvement in energy efficiency over the standards as provided in PDF-AIR-1.
Energy Star Appliances	The City will encourage voluntary community participation to install ENERGY STAR appliances or other energy-efficient appliance models in both new and existing residential units.	**Consistent.** While this measure is voluntary and only applies to residential uses, the project would be consistent by optimizing energy performance and reducing building energy cost by installing energy efficient commercial appliances that meet the USEPA ENERGY STAR rating standards or equivalent as provided in PDF-AIR-1.
Cool Roofs	The City will extend its current Cool Roof Pilot Program, and will advertise BWP's non-residential cool roof incentives to building owners when they obtain permits for re-roofing.	**Consistent.** The project would be consistent by designing the replacement passenger terminal to reduce its contribution to the urban heat island effect by using roofing materials with a minimum aged solar reflectance and thermal emittance or a minimum aged SRI that meets or exceeds the Title 24, Part 11 (CALGreen) Tier 1 standards as provided in PDF-AIR-1.
Renewable Energy/Solar Photovoltaics	The City will actively promote development of building-scale solar energy.	**Consistent.** The project would be consistent by designing the replacement passenger terminal so that the portions of the rooftop that could be suitable for solar are pre-wired for the installation of on-site solar PV or SWH systems as provided in PDF-AIR-1.

Table 3.8-4

Consistency Analysis of Applicable GHG Measures in the City of Burbank GGRP (cont.)

Transportation Demand Management Organization Expansion	The City will work with the Burbank Transportation Management Organization (TMO) to expand the geographic reach of its programs and the extent of services it currently provides.	**Consistent.** The project would be consistent by encouraging carpooling and the use of low-emitting or fuel-efficient vehicles by employees. The Authority would designate a minimum of 10 percent of the onsite employee parking for carpool and/or low-emitting or fuel-efficient vehicles. The Authority shall also implement and participate in area TMO programs as applicable to the Airport. Refer to **Section 3.17** for additional discussion related to traffic.
Traffic Signal Coordination	The City will implement signal synchronization along major roadways as a first choice when seeking to expand roadway capacity.	**Consistent.** The project would be consistent by implementing traffic signal coordination for existing and new roadway intersections that would be impacted by the project. Refer to **Section 3.17** for additional discussion related to traffic.
Water Conservation Programs	The City will implement water conservation programs described in the Urban Water Management Plan (UWMP) in support of BWP's goal to reduce water consumption by 1% annually	**Consistent.** The project would be consistent and reduce potable water use in accordance with the CALGreen Tier 1 standard by installing water fixtures that exceed applicable standards as provided in PDF-AIR-1.
Stormwater Management	The City will prepare a Stormwater Management Plan that seeks to apply best management practices, including low-impact development (LID) features, into future system upgrades or extensions.	**Consistent.** The project would be consistent and implement stormwater best management practices and LID features in compliance with applicable stormwater permits and plans.

Table 3.8-4

Consistency Analysis of Applicable GHG Measures in the City of Burbank GGRP (cont.)

Lumber Diversion Ordinance	The City will amend its existing ordinance to explicitly require the diversion of 75% of waste from construction and demolition debris generated by new construction and renovations, including scrap Lumber.	**Consistent.** The project would be consistent and implement a construction waste management plan to recycle and/or salvage a minimum of 75 percent of nonhazardous construction debris as provided in PDF-AIR-1.
Recycling Ordinance	The City will adopt an ordinance requiring the provision of recycling bins and/or recycling areas in all residential and non-residential buildings.	**Consistent.** The project would be consistent and provide recycling collection bins within appropriate publicly accessible locations of the replacement passenger terminal as provided in PDF-AIR-1.

Source: City of Burbank, Burbank2035 Greenhouse Gas Reduction Plan, 2013; ESA PCR, 2016

The FAA and SCAG have projected aviation activity using past growth and economic assumptions.[30] The project would not increase the existing rate of growth in enplanements and would be consistent with overall growth on a regional level. As such, the project would be consistent with the FAA's and SCAG's growth projections as well as the Burbank 2035 General Plan. Furthermore, as discussed in **Section 3.4**, the Air Quality Management Plan (AQMP) for the region is based on these growth assumptions and current zoning. The AQMP includes Transportation Control Measures that are intended to reduce regional mobile source emissions. While the majority of the measures are implemented by cities, counties, and other regional agencies such as SCAG and SCAQMD, the Airport would be supportive of measures related to reducing vehicle trips, vehicle miles traveled, and related emissions from patrons and employees and increasing connectivity to public transit.

Furthermore, the Adjacent Property Full-Size Terminal Option would be consistent with regional and state measures to reduce GHG emissions. **Table 3.8-5**, contains a list of GHG-reducing strategies potentially applicable to the project. The project-level analysis describes the consistency of the project with these strategies. Furthermore, in addition to the project's consistency with applicable GHG reduction strategies, the project would not conflict with the future statewide GHG reductions goals. CARB has outlined a number of potential strategies for achieving the 2030 reduction target of 40 percent below 1990 levels. These potential strategies include renewable resources for half of the State's electricity by 2030, increasing the fuel economy of vehicles and the number of zero-emission or hybrid vehicles, reducing the rate of growth in VMT, supporting high speed rail and other alternative transportation options, and use of high efficiency

30 The SCAG projections utilized in the AQMP are higher than the forecasts used in this EIR. See also **Appendix E**.

appliances, water heaters, and HVAC systems. The project would benefit from statewide and utility-provider efforts towards increasing the portion of electricity provided from renewable resources. The project would also benefit from statewide efforts towards increasing the fuel economy standards of vehicles. The project would utilize energy efficiency appliances and equipment and would exceed the energy standards in the Title 24 Building Energy Efficiency Standards. While CARB is in the process of developing a framework for the 2030 reduction target in the Scoping Plan, the project would support or not impede implementation of these potential reduction strategies identified by CARB.

Table 3.8-5

Consistency with Applicable Greenhouse Gas Reduction Strategies

Measure	Description	Consistency Analysis
AB 1493 (Pavley Regulations)	Reduces greenhouse gas emissions in new passenger vehicles from model year 2012 through 2016 (Phase I) and model year 2017-2025 (Phase II). Also reduces gasoline consumption to a rate of 31 percent of 1990 gasoline consumption (and associated GHG emissions) by 2020.	**Consistent.** The project would be consistent with this regulation and would not conflict with implementation of the vehicle emissions standards.
SB 1368	Establishes an emissions performance standard for power plants within the State of California.	**Consistent.** The project would be consistent with this regulation and would not conflict with implementation of the emissions standards for power plants.
Low Carbon Fuel Standard	Establishes protocols for measuring life-cycle carbon intensity of transportation fuels and helps to establish use of alternative fuels.	**Consistent.** The project would be consistent with this regulation and would not conflict with implementation of the transportation fuel standards.
California Green Building Standards Code Requirements	All bathroom exhaust fans shall be ENERGY STAR compliant.	**Consistent.** The project would utilize energy efficiency appliances and equipment and would meet or exceed the Title 24 Building Energy Efficiency Standards.

Table 3.8-5

Consistency with Applicable Greenhouse Gas Reduction Strategies (cont.)

HVAC Systems will be designed to meet ASHRAE standards.	**Consistent.** The project would utilize energy efficiency appliances and equipment and would meet or exceed the Title 24 Building Energy Efficiency Standards.
Energy commissioning shall be performed for buildings larger than 10,000 square feet.	**Consistent.** The project would meet this requirement as part of its compliance with the Title 24 Building Energy Efficiency Standards.
Air filtration systems are required to meet a minimum of MERV 8 or higher.	**Consistent.** The project would exceed this requirement and design the replacement passenger terminal such that mechanically ventilated areas would utilize air filtration media for outside and return air prior to occupancy that provides at least a MERV of 11 as provided in PDF-AIR-1.
Refrigerants used in newly installed HVAC systems shall not contain any CFCs.	**Consistent.** The project would meet this requirement as part of its compliance with the Title 24 Building Energy Efficiency Standards and the CALGreen Code.
Parking spaces shall be designed for carpool or alternative fueled vehicles. Up to eight percent of total parking spaces will be designed for such vehicles.	**Consistent.** The project would exceed this requirement and designate a minimum of 10 percent of the onsite parking for carpool and/or low-emitting or fuel-efficient vehicles as provided in PDF-AIR-1.
Stormwater Pollution Prevention Plan (SWPPP) required.	**Consistent.** The project would meet this requirement.
Indoor water usage must be reduced by 20% compared to current California Building Code Standards for maximum flow.	**Consistent.** The project would exceed this measure and reduce indoor potable water use within the replacement passenger terminal by 30 percent as provided in PDF-AIR-1
Wastewater usage shall be reduced by 20 percent compared to current California Building Standards.	**Consistent.** The project would meet or exceed this requirement as discussed in the prior measure.

Table 3.8-5

Consistency with Applicable Greenhouse Gas Reduction Strategies (cont.)

	Requires a minimum of 50 percent recycle or reuse of nonhazardous construction and demolition debris.	**Consistent.** The project would exceed this requirement by implementing a construction waste management plan to recycle and/or salvage a minimum of 75 percent of nonhazardous construction debris as provided in PDF-AIR-1.
	Requires documentation of types of waste recycled, diverted or reused.	**Consistent.** The project would meet this requirement as part of its construction waste management plan.
	Requires use of low VOC coatings consistent with SCAQMD Rule 1168.	**Consistent.** The project would be consistent with this regulation and would meet or exceed the low VOC coating requirements as per SCAQMD Rule 1168.
	100 percent of vegetation, rocks, soils from land clearing shall be recycled or stockpiled on-site.	**Consistent.** The project would meet this requirement as part of its construction waste management plan.
Climate Action Team	Reduce diesel-fueled commercial motor vehicle idling.	**Consistent.** The project would be consistent with the CARB Air Toxics Control Measure (ATCM) to limit heavy duty diesel motor vehicle idling to no more than 5 minutes at any given time (refer to Section 3.4, *Air Quality*, of this Draft EIR).
	Achieve California's 50 percent waste diversion mandate (Integrated Waste Management Act of 1989) to reduce GHG emissions associated with virgin material extraction.	**Consistent.** The project would meet this requirement as part of its compliance with the City and State waste diversion requirements.
	Implement efficient water management practices and incentives, as saving water saves energy and GHG emissions.	**Consistent.** The project would be consistent with this measure and reduce indoor potable water use within the replacement passenger terminal by 30 percent as provided in PDF-AIR-1

Table 3.8-5

Consistency with Applicable Greenhouse Gas Reduction Strategies (cont.)

	Reduce GHG emissions from electricity by reducing energy demand. The California Energy Commission updates appliance energy efficiency standards that apply to electrical devices or equipment sold in California. Recent policies have established specific goals for updating the standards; new standards are currently in development.	**Consistent.** The project would utilize energy efficiency appliances and equipment and would meet or exceed the Title 24 Building Energy Efficiency Standards and CALGreen Code.
	Reduce energy use in private buildings.	**Consistent.** The project would utilize energy efficiency appliances and equipment and would meet or exceed the Title 24 Building Energy Efficiency Standards and CALGreen Code.

Source: ESA PCR, 2016

Since the project would implement Project Design Features intended to achieve GHG reductions beyond regulatory requirements and incorporate water conservation, energy conservation, and other features consistent with the City of Burbank GGRP, the project would not conflict with any applicable plan, policy, or regulation to reduce GHG emissions and impacts would be less than significant.

It is noted that GHG emissions associated with aircraft are under the jurisdiction of the FAA. The Authority has no ability to regulate aircraft LTO emissions. In addition, the AB 32 Climate Change Scoping Plan states that "the State does not have regulatory authority over aviation" and "ARB has not identified aviation specific measures."[31] Any potential change in future aircraft LTO emissions from FAA-mandated or industry-wide improvements in aircraft design and technology would occur independently of the project. That is, improvements in aircraft design and technology and the resulting reduction in GHG emissions would occur independently of whether or not the project is implemented and the project would not conflict with or hinder the implementation of these FAA-mandated or industry-wide improvements.

Mitigation Measure ADJ PROP FULL-GHG-2

No mitigation is warranted.

[31] California Air Resources Board, Climate Change Scoping Plan, December 2008, accessed http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf, 2016.

3.8.3.2 SOUTHWEST QUADRANT FULL-SIZE TERMINAL OPTION

IMPACT SW QUAD FULL-GHG -1: Generation of Greenhouse Gas Emissions

Construction of the proposed uses would generate GHG emissions through the use of heavy-duty construction equipment, vehicle trips generated from construction workers traveling to and from the Southwest Quadrant Full-Size Terminal Option. The annual construction GHG emissions were calculated for the two phases of construction. Operational of the existing uses and the proposed uses would generate GHG emissions from vehicle trips to and from the Southwest Quadrant Full-Size Terminal Option, vehicles traveling on the Airport property for parking or for passenger pick-up and drop-off, from building energy usage, aircraft LTO, taxiing, and other aircraft supporting equipment. Detailed emissions calculations are provided in **Appendix I** of this Draft EIR.

A large portion of the mobile source emissions are accounted for in the City of Burbank GGRP. The GGRP accounts for three types of trips: Internal–Internal (I-I) trips, which begin and end in Burbank; Internal–External (I-X) trips, which begin in Burbank and end outside Burbank; and External–Internal (X-I) trips, which begin outside Burbank and end inside Burbank. The GGRP accounts for 100 percent of the I-I trips and VMT and 50 percent of the I-X and X-I trips and VMT, which is consistent with the recommendations of the Regional Targets Advisory Committee, which is the body charged with making recommendations to CARB on implementation of SB 375. For the purpose of this analysis, mobile source GHG emissions were estimated for 100 percent of all trip types and VMT (i.e., I-I, I-X, and X-I). In addition, mobile source GHG emissions were also estimated and included for on-Airport travel for parking and passenger pick-up and drop-off, which are not accounted for in the GGRP.

The project would result in a replacement passenger terminal with no change in the number of gates[32] or in the total number of public parking spaces for commercial airline passengers. As a result, the project itself would not result in an increase in passengers. Assuming the project would be constructed and operational under the existing conditions (i.e., under existing passenger throughput levels), the project would result in similar GHG emissions as the existing conditions. The Southwest Quadrant Full-Size Terminal Option proposes to replace the existing 232,000-square-foot terminal with a new, modern, energy-efficient 355,000 square-foot terminal. While the replacement passenger terminal would result in an increase in building floor area, it would be substantially more energy efficient than the existing terminal building based on compliance with the current Title 24 Building Standards Code and CALGreen Code as well as the additional energy efficiency measures discussed in PDF-AIR-1. Compliance with the current Title 24 Building Standards Code and CALGreen Code and implementation of PDF-AIR-1 would largely offset the increased energy demand form the larger building floor area. Therefore, the emissions from project construction and operation without growth in passengers would be similar to the current existing GHG emissions

[32] A gate is defined as the waiting area for passengers before boarding a flight and consists of one exit doorway that leads to one aircraft.

A comparison of the future with project to the future No Project conditions shows that GHG emissions would also be similar and the net change would be relatively minimal. Results of the GHG calculations are presented in **Table 3.8-6**, *Southwest Quadrant Full-Size Terminal Option: Greenhouse Gas Emissions*. The GHG emissions from the Southwest Quadrant Full-Size Terminal Option are compared with the future No Project emissions. The No Project emissions accounts for future growth in passenger throughput, which would occur with or without implementation of the project. As shown, GHG emissions associated with the Southwest Quadrant Full-Size Terminal Option would result in a small increase in GHG emissions compared to the No Project conditions for the same operational years evaluated (an increase of approximately 7 percent). The majority of the emissions are associated with aircraft LTOs and taxiing. The Southwest Quadrant Full-Size Terminal Option would result in greater aircraft LTOs and taxiing GHG emissions compared to the No Project conditions. The overall difference in GHG emissions is related to the increased aircraft LTO and taxiing emissions, increased square footage of the terminal building and ancillary facilities (these emissions are largely offset by improved building energy efficiency standards), and the increase in on-site travel distance for aircraft taxiing and on-site parking. This difference in GHG emissions is not substantial and would not result in a significant impact on the environment. As a result, impacts related to GHG emissions would be considered less than significant.

A comparison of the future with project to existing conditions shows that GHG emissions would increase under the future with project conditions by approximately 22 percent; however, the increase is due primarily to future growth in passenger throughput, which would occur under the future No Project condition and the future with project conditions. In other words, GHG emissions associated with future growth in passenger throughput would occur with or without implementation of the project. The existing passenger terminal and supporting facilities can accommodate the projected future growth for the reasonably foreseeable time period without the need for additional gates or building floor area. As a result, the increase in GHG emission between the future with project and existing conditions is not attributable to the project, but rather to growth projections that would occur with or without implementation of the project.

Mitigation Measure SW QUAD FULL-GHG-1

No mitigation is warranted.

Table 3.8-6

Southwest Quadrant Full-Size Terminal Option

Greenhouse Gas Emissions (metric tons per year) [a]

Operational Source	Existing	2023	2025
Existing and No Project Emissions			
Aircraft [b]	121,843	144,382	149,000
Area (Landscaping)	<1	<1	<1
Energy (Natural Gas, Electricity) [c]	6,345	6,345	6,345
Solid Waste [d]	572	572	572
Water [e]	2,436	2,436	2,436
Mobile (Motor Vehicles) [f]	42,560	42,177	40,390
Total Emissions	**173,756**	**195,912**	**198,743**
Project Emissions			
Amortized Construction	—	476	476
Aircraft [b]	—	154,646	159,576
Area (Landscaping)	—	<1	<1
Energy (Natural Gas, Electricity) [c]	—	6,377	6,377
Solid Waste [d]	—	621	621
Water [e]	—	2,393	2,393
Mobile (Motor Vehicles) [f]	—	44,799	42,889
Total Emissions	—	**209,312**	**212,332**
Net Emissions	—	13,400	13,589

a Emission quantities are rounded to "whole number" values. As such, the "total" values presented herein may be 1 unit more or less than actual values. Exact values (i.e., nonrounded) are provided in the CalEEMod printout sheets and/or calculation worksheets that are presented in **Appendix I**.

b The FAA AEDT model only reports aircraft GHG emissions for CO_2. For the purposes of this assessment, CO_2 emissions are assumed to represent 99 percent of the total CO_2e emissions.

c Energy emissions from electricity usage would likely decline in future years due to increased renewable energy from implementation of the Renewables Portfolio Standard. However, future year CO_2 intensity factors are not known for Burbank Water and Power and it is not known the percentage of specific fossil-fuel generated electricity that would be replaced with renewable generation. In addition, Burbank Water and Power has a contract to procure electricity from a coal provider through 2027 and it is not known the specific percentage that coal-generated power would be procured for future years. Therefore, due to these unknowns, this analysis does not estimate reductions from an increase in future year renewable electricity generation.

d Solid waste GHG emissions are estimated using CalEEMod, which utilizes solid waste generation factors based on building square footage. Solid waste GHG emissions may be lower or higher in future years from the implementation of recycling and diversion measures and the future change in passenger throughput.

e Water GHG emissions are estimated using CalEEMod, which utilizes water demand factors based on building square footage. Water GHG emissions may be lower or higher in future years from the implementation of water conservation measures and the future change in passenger throughput.

f Mobile source GHG emissions are estimated using EMFAC2014 for 100 percent of trips and VMT (i.e., I-I, I-X, and X-I) and include emissions from on-Airport vehicle travel for parking and passenger pick-up and drop-off.

Source: ESA PCR, 2016

IMPACT SW QUAD FULL-GHG-2: Conflict with Applicable Plan, Policy, or Regulation Regarding Emissions of Greenhouse Gases

Due to the complex physical, chemical and atmospheric mechanisms involved in global climate change, there is no basis for concluding that the project's less-than-significant increase in annual GHG emissions would cause a measurable change in global GHG emissions necessary to influence global climate change. Newer construction materials and practices, energy efficiency requirements, and newer appliances tend to emit lower levels of air pollutant emissions, including GHGs, as compared to those built years ago; however, the net effect is difficult to quantify. The GHG emissions of the project alone would not likely cause a direct physical change in the environment. According to CAPCOA, "GHG impacts are exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective." It is global GHG emissions in their aggregate that contribute to climate change, not any single source of GHG emissions alone. Because of the less than significant annual GHG emissions estimated for this project, the lack of evidence indicating that those emissions would cause a measurable change in global GHG emissions necessary to exacerbate global climate change, and the fact that the project incorporates physical and operational project characteristics and Project Design Features that would reduce potential GHG emissions to a less-than-significant level, the project is considered not to conflict with the GHG reduction goals of AB 32 and associated GHG reduction plans.

Consistency with GHG reduction strategies is an important priority and reasonable reduction efforts should be taken. The Southwest Quadrant Full-Size Terminal Option would comply with applicable GHG provisions of the GGRP. As discussed in the consistency analysis provided above in **Table 3.8-4**, the Southwest Quadrant Full-Size Terminal would be consistent with the applicable measures of the GGRP.

Furthermore, the Southwest Quadrant Full-Size Terminal Option would be consistent with regional and state measures to reduce GHG emissions. As discussed above in **Table 3.8-5**, the project-level analysis describes the consistency of the project with these strategies. Furthermore, in addition to the project's consistency with applicable GHG reduction strategies, the project would not conflict with the future statewide GHG reductions goals. CARB has outlined a number of potential strategies for achieving the 2030 reduction target of 40 percent below 1990 levels. These potential strategies include renewable resources for half of the State's electricity by 2030, increasing the fuel economy of vehicles and the number of zero-emission or hybrid vehicles, reducing the rate of growth in VMT, supporting high speed rail and other alternative transportation options, and use of high efficiency appliances, water heaters, and HVAC systems. The project would benefit from statewide and utility-provider efforts towards increasing the portion of electricity provided from renewable resources. The project would also benefit from statewide efforts towards increasing the fuel economy standards of vehicles. The project would utilize energy efficiency appliances and equipment and would exceed the energy standards in the Title 24 Building Energy Efficiency Standards. While CARB is in the process of developing a framework for the 2030 reduction target in the Scoping Plan, the project would support or not impede implementation of these potential reduction strategies identified by CARB.

As discussed previously, the FAA and SCAG have projected aviation activity using past growth and economic assumptions.[33] The project would not increase the existing rate of growth in enplanements and would be consistent with overall growth on a regional level. As such, the project would be consistent with the FAA's and SCAG's growth projections as well as the Burbank 2035 General Plan. Furthermore, the Airport would also be supportive of AQMP Transportation Control Measures related to reducing vehicle trips, vehicle miles traveled, and related emissions from patrons and employees and increasing connectivity to public transit.

Since the project would implement Project Design Features intended to achieve GHG reductions beyond regulatory requirements and incorporate water conservation, energy conservation, and other features consistent with the City of Burbank GGRP and other applicable plans, the project would not conflict with any applicable plan, policy, or regulation to reduce GHG emissions and impacts would be less than significant.

As discussed previously, aircraft emissions are under the jurisdiction of the FAA. Any potential change in future aircraft LTO emissions from FAA-mandated or industry-wide improvements in aircraft design and technology would occur independently of the project. That is, improvements in aircraft design and technology and the resulting reduction in GHG emissions would occur independently of whether or not the project is implemented and the project would not conflict with or hinder the implementation of these FAA-mandated or industry-wide improvements.

Mitigation Measure SW QUAD FULL-GHG-2
No mitigation is warranted.

3.8.3.3 SOUTHWEST QUADRANT SAME-SIZE TERMINAL OPTION

IMPACT SW QUAD SAME-GHG -1: Generation of Greenhouse Gas Emissions
Construction of the proposed uses would generate GHG emissions through the use of heavy-duty construction equipment, vehicle trips generated from construction workers traveling to and from the Southwest Quadrant Same-Size Terminal Option. The annual construction GHG emissions were calculated for the two phases of construction. Operational of the existing uses and the proposed uses would generate GHG emissions from vehicle trips to and from the Southwest Quadrant Same-Size Terminal Option, vehicles traveling on the Airport property for parking or for passenger pick-up and drop-off, from building energy usage, aircraft LTO, taxiing, and other aircraft supporting equipment. Detailed emissions calculations are provided in **Appendix I** of this Draft EIR.

A large portion of the mobile source emissions are accounted for in the City of Burbank GGRP. The GGRP accounts for three types of trips: Internal–Internal (I-I) trips, which begin and end in Burbank; Internal–External (I-X) trips, which begin in Burbank and end outside Burbank; and External–Internal (X-I) trips, which begin outside Burbank and end inside Burbank. The GGRP accounts for 100 percent of the I-I trips and VMT

33 The SCAG projections utilized in the AQMP are higher than the forecasts used in this EIR. See also Appendix E.

and 50 percent of the I-X and X-I trips and VMT, which is consistent with the recommendations of the Regional Targets Advisory Committee, which is the body charged with making recommendations to CARB on implementation of SB 375. For the purpose of this analysis, mobile source GHG emissions were estimated for 100 percent of all trip types and VMT (i.e., I-I, I-X, and X-I). In addition, mobile source GHG emissions were also estimated and included for on-Airport travel for parking and passenger pick-up and drop-off, which are not accounted for in the GGRP.

The project would result in a replacement passenger terminal with no change in the number of gates[34] or in the total number of public parking spaces for commercial airline passengers. As a result, the project itself would not result in an increase in passengers. Assuming the project would be constructed and operational under the existing conditions (i.e., under existing passenger throughput levels), the project would result in similar GHG emissions as the existing conditions. The Southwest Quadrant Same-Size Terminal Option proposes to replace the existing 232,000-square-foot passenger terminal with a new, modern, energy-efficient 232,000 square-foot passenger terminal. The replacement passenger terminal would result in same building floor area and would be substantially more energy efficient than the existing terminal building based on compliance with the current Title 24 Building Standards Code and CALGreen Code as well as the additional energy efficiency measures discussed in PDF-AIR-1. Compliance with the current Title 24 Building Standards Code and CALGreen Code and implementation of PDF-AIR-1 would largely offset the increased energy demand form the larger building floor area. Therefore, the emissions from project construction and operation without growth in passengers would be similar to the current existing GHG emissions.

A comparison of the future with project to the future No Project conditions shows that GHG emissions would also be similar and the net change would be relatively minimal. Results of the GHG calculations are presented in **Table 3.8-7**. The GHG emissions from the Southwest Quadrant Same-Size Terminal Option are compared with the future No Project emissions. The No Project emissions accounts for future growth in passenger throughput, which would occur with or without implementation of the project. As shown, GHG emissions associated with the Southwest Quadrant Same-Size Terminal Option would result in a small increase in GHG emissions compared to the future No Project conditions for the same operational years evaluated (an increase of approximately 7 percent or less). The majority of the emissions are associated with aircraft LTOs and taxiing. The Southwest Quadrant Same-Size Terminal Option would result in slightly greater aircraft LTOs and taxiing GHG emissions compared to the No Project conditions. The overall difference in GHG emissions is related to the increased aircraft LTO and taxiing emissions, the replacement terminal building and ancillary facilities (these emissions would be reduced due to improved building energy efficiency standards) as well as the increase in on-site travel distance for aircraft taxiing

[34] A gate is defined as the waiting area for passengers before boarding a flight and consists of one exit doorway that leads to one aircraft.

Table 3.8-7

Southwest Quadrant Same-Size Terminal Option

Greenhouse Gas Emissions (metric tons per year) [a]

Operational Source	Existing	2023	2025
Existing and No Project Emissions			
Aircraft [b]	121,843	144,382	149,000
Area (Landscaping)	<1	<1	<1
Energy (Natural Gas, Electricity) [c]	6,345	6,345	6,345
Solid Waste [d]	572	572	572
Water [e]	2,436	2,436	2,436
Mobile (Motor Vehicles) [f]	42,560	42,177	40,390
Total Emissions	**173,756**	**195,912**	**198,743**
Project Emissions			
Amortized Construction	—	476	476
Aircraft [b]	—	154,682	159,517
Area (Landscaping)	—	<1	<1
Energy (Natural Gas, Electricity) [c]	—	6,377	6,377
Solid Waste [d]	—	621	621
Water [e]	—	2,393	2,393
Mobile (Motor Vehicles) [f]	—	44,799	42,889
Total Emissions	—	**209,348**	**212,273**
Net Emissions	—	13,436	13,530

[a] Emission quantities are rounded to "whole number" values. As such, the "total" values presented herein may be 1 unit more or less than actual values. Exact values (i.e., nonrounded) are provided in the CalEEMod printout sheets and/or calculation worksheets that are presented in **Appendix I**.

[b] The FAA AEDT model only reports aircraft GHG emissions for CO_2. For the purposes of this assessment, CO_2 emissions are assumed to represent 99 percent of the total CO_2e emissions.

[c] Energy emissions from electricity usage would likely decline in future years due to increased renewable energy from implementation of the Renewables Portfolio Standard. However, future year CO_2 intensity factors are not known for Burbank Water and Power and it is not known the percentage of specific fossil-fuel generated electricity that would be replaced with renewable generation. In addition, Burbank Water and Power has a contract to procure electricity from a coal provider through 2027 and it is not known the specific percentage that coal-generated power would be procured for future years. Therefore, due to these unknowns, this analysis does not estimate reductions from an increase in future year renewable electricity generation.

[d] Solid waste GHG emissions are estimated using CalEEMod, which utilizes solid waste generation factors based on building square footage. Solid waste GHG emissions may be lower or higher in future years from the implementation of recycling and diversion measures and the future change in passenger throughput.

[e] Water GHG emissions are estimated using CalEEMod, which utilizes water demand factors based on building square footage. Water GHG emissions may be lower or higher in future years from the implementation of water conservation measures and the future change in passenger throughput.

[f] Mobile source GHG emissions are estimated using EMFAC2014 for 100 percent of trips and VMT (i.e., I-I, I-X, and X-I) and include emissions from on-Airport vehicle travel for parking and passenger pick-up and drop-off.

Source: ESA PCR, 2016

and on-site parking. This difference in GHG emissions is not substantial and would not result in a significant impact on the environment. As a result, impacts related to GHG emissions would be considered less than significant.

A comparison of the future with project to existing conditions shows that GHG emissions would increase under the future with project conditions by less than 22 percent; however, the increase is due future growth in passenger throughput, which would occur under the future No Project condition and the future with project conditions. In other words, GHG emissions associated with future growth in passenger throughput would occur with or without implementation of the project. The existing passenger terminal and supporting facilities can accommodate the projected future growth for the reasonably foreseeable time period without the need for additional gates or building floor area. As a result, the increase in GHG emission between the future with project and existing conditions is not attributable to the project, but rather to growth projections that would occur with or without implementation of the project.

Mitigation Measure SW QUAD SAME-GHG-1
No mitigation is warranted.

IMPACT SW QUAD SAME-GHG-2: Conflict with Applicable Plan, Policy, or Regulation Regarding Emissions of Greenhouse Gases

Due to the complex physical, chemical and atmospheric mechanisms involved in global climate change, there is no basis for concluding that the project's less-than-significant increase in annual GHG emissions would cause a measurable change in global GHG emissions necessary to influence global climate change. Newer construction materials and practices, energy efficiency requirements, and newer appliances tend to emit lower levels of air pollutant emissions, including GHGs, as compared to those built years ago; however, the net effect is difficult to quantify. The GHG emissions of the project alone would not likely cause a direct physical change in the environment. According to CAPCOA, "GHG impacts are exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective." It is global GHG emissions in their aggregate that contribute to climate change, not any single source of GHG emissions alone. Because of the less than significant annual GHG emissions estimated for this project, the lack of evidence indicating that those emissions would cause a measurable change in global GHG emissions necessary to exacerbate global climate change, and the fact that the project incorporates physical and operational project characteristics and Project Design Features that would reduce potential GHG emissions to a less-than-significant level, the project is considered not to conflict with the GHG reduction goals of AB 32 and associated GHG reduction plans.

Consistency with GHG reduction strategies is an important priority and reasonable reduction efforts should be taken. The Southwest Quadrant Same-Size Terminal Option would comply with applicable GHG provisions of the GGRP. As discussed in the consistency analysis provided above in **Table 3.8-4**, the Southwest Quadrant Same-Size Terminal would be consistent with the applicable measures of the GGRP.

Furthermore, the Southwest Quadrant Same-Size Terminal Option would be consistent with regional and state measures to reduce GHG emissions. As discussed above in **Table 3.8-5**, the project-level analysis describes the consistency of the project with these strategies. Furthermore, in addition to the project's consistency with applicable GHG reduction strategies, the project would not conflict with the future statewide GHG reductions goals. CARB has outlined a number of potential strategies for achieving the 2030 reduction target of 40 percent below 1990 levels. These potential strategies include renewable resources for half of the State's electricity by 2030, increasing the fuel economy of vehicles and the number of zero-emission or hybrid vehicles, reducing the rate of growth in VMT, supporting high speed rail and other alternative transportation options, and use of high efficiency appliances, water heaters, and HVAC systems. The project would benefit from statewide and utility-provider efforts towards increasing the portion of electricity provided from renewable resources. The project would also benefit from statewide efforts towards increasing the fuel economy standards of vehicles. The project would utilize energy efficiency appliances and equipment and would exceed the energy standards in the Title 24 Building Energy Efficiency Standards. While CARB is in the process of developing a framework for the 2030 reduction target in the Scoping Plan, the project would support or not impede implementation of these potential reduction strategies identified by CARB.

As discussed previously, the FAA and SCAG have projected aviation activity using past growth and economic assumptions.[35] The project would not increase the existing rate of growth in enplanements and would be consistent with overall growth on a regional level. As such, the project would be consistent with the FAA's and SCAG's growth projections as well as the Burbank 2035 General Plan. Furthermore, the Airport would also be supportive of AQMP Transportation Control Measures related to reducing vehicle trips, vehicle miles traveled, and related emissions from patrons and employees and increasing connectivity to public transit.

Since the project would implement Project Design Features intended to achieve GHG reductions beyond regulatory requirements and incorporate water conservation, energy conservation, and other features consistent with the City of Burbank GGRP and other applicable plans, the project would not conflict with any applicable plan, policy, or regulation to reduce GHG emissions and impacts would be less than significant.

As discussed previously, aircraft emissions are under the jurisdiction of the FAA. Any potential change in future aircraft LTO emissions from FAA-mandated or industry-wide improvements in aircraft design and technology would occur independently of the project. That is, improvements in aircraft design and technology and the resulting reduction in GHG emissions would occur independently of whether or not the project is implemented and the project would not conflict with or hinder the implementation of these FAA-mandated or industry-wide improvements.

Mitigation Measure SW QUAD SAME-GHG-2

No mitigation is warranted.

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[35] The SCAG projections utilized in the AQMP are higher than the forecasts used in this EIR. See also Appendix E.

3.9 HAZARDS AND HAZARDOUS MATERIALS

3.9.1 Background and Methodology

3.9.1.1 Regulatory Context

Hazards and hazardous materials (i.e. the use, storage, and disposal of hazardous materials) are subject to numerous federal, state, and local regulations intended to protect health, safety and the environment as discussed below.

FEDERAL

U.S. Environmental Protection Agency

The U. S. Environmental Protection Agency (U.S. EPA) is in charge of administering all or part of several hazardous material laws as described below.

Comprehensive Environmental Response, Compensation, and Liabilities Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) provides a framework for the remediation of hazardous waste disposal sites, provides funding for remediation and creates a list of national priority sites (i.e., Superfund sites), and provides standards and practices for conducting a Phase I Environmental Site Assessment.[1]

ASTM Standard E1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, effective December 30, 2013, amends the standards and practices for all appropriate inquiries under CERCLA.[2] This amendment clarifies that all appropriate inquiries or Phase I Environmental Site Assessments include, among other requirements, an investigation of both real and potential occurrence of vapor migration and vapor releases affecting the subject property. ASTM Standard E2600-10, Vapor Encroachment Screening on Property Involved in Real Estate Transactions, provides standards for conducting Tier 1 and Tier 2 screenings. A Tier 1 screening uses federal and state databases to identify those facilities with a potential to affect subsurface vapor conditions or areas of concern (AOC). AOC are identified for sources surrounding the Airport, the type of source, the area upgradient of the direction of groundwater flow from the Airport, and the type of contaminant of concern (COC): petroleum hydrocarbon-related (COC-tons per hour (ph)) or nonpetroleum COC. The search distance is one-third mile radius from the Airport for sources having or suspected to have a release of COC, and a one-tenth mile radius for sources having or suspected to have a release of COC-ph. A critical distance of 30 feet is also identified for COC-ph and 100 feet for nonpetroleum COC which could result in vapor encroachment. Tier 2 involves additional records review of regulatory files for sites identified in Tier 1 and may also require sampling of soil, soil gas, and/or groundwater to determine if a vapor encroachment conditions exists.

Toxics Substances Control Act

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1 United States Code, Title 42, sec. 96011 et seq., 1980.

2 Code of Federal Regulation, 40, part 312, 1980.

The Toxic Substances Control Act (TSCA) addresses the production, importation, use, and disposal of specific chemicals, including polychlorinated biphenyls (PCBs), asbestos, and lead-based paint (LBP). These regulations ban the manufacture of PCBs although the continued use of existing PCB-containing equipment is allowed. TSCA also contains provisions controlling the continued use and disposal of existing PCB-containing equipment. The disposal of PCB wastes is also regulated by TSCA.[3] which contains life cycle provisions similar to those in RCRA. In addition to TSCA, provisions relating to PCBs are contained in the HWCL, which lists PCBs as hazardous waste.

Resource Conservation and Recovery Act

The Federal Resource Conservation and Recovery Act (RCRA)[4] regulates the generation, transportation, treatment, storage, and disposal of hazardous waste. Under RCRA regulations, generators of hazardous waste must register and obtain a hazardous waste activity identification number. RCRA allows individual states to develop their own program for the regulation of hazardous waste as long as it is at least as stringent as RCRA.

Underground Storage Tanks (USTs) are regulated under Subtitle I of RCRA and its regulations which establish construction standards for new UST installations (those installed after December 22, 1988), as well as standards for upgrading existing USTs and associated piping. Since 1998, all nonconforming tanks were required to be either upgraded or closed.

Emergency Planning and Community Right-to-Know Act

The Emergency Planning and Community Right-to-Know Act (EPCRA) was passed by Congress in 1986 in response to concerns regarding the environmental and safety hazards posed by the storage and handling of toxic chemicals.[5] EPCRA improved community access to information regarding chemical hazards and facilitated the development of business chemical inventories and emergency response plans. EPCRA also established reporting obligations for facilities that store or manage specified chemicals.

Federal Occupational Safety and Health Administration

The Federal Occupational Safety and Health Act of 1970, which is implemented by the Federal Occupational Safety and Health Administration (OSHA), contains provisions with respect to hazardous materials handling. Federal OSHA requirements are designed to promote worker safety, worker training, and a worker's right–to-know.[6]

Federal Aviation Administration Advisory Circular No. 150/5200-33B

The Federal Aviation Administration (FAA) issued an Advisory Circular titled Hazardous Wildlife Attractants on or Near Airports, which provides guidance on certain land uses and development projects that have the

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3 Code of Federal Regulations, Title 40, part 761, 1976.

4 United States Code Title 42, secs 6901-6992k, 1976.

5 United States Code, Title 42, chapter 116, 1986.

6 Code of Federal Regulations, Title 29, section 1910 et seq., 1970.

potential to attract hazardous wildlife on or near public-use airports.[7] The standards and practices contained within the Advisory Circular are recommended for public-use airport operators and are required for airports that have received Federal grant-in-aid assistance. Additionally, the standards, practices, and recommendations of the Advisory Circular comply with the wildlife hazard management requirements of the Airport Operating Certificates.[8]

Wildlife-aircraft strikes have resulted in the loss of hundreds of lives worldwide as well as billions of dollars in aircraft damage. Most public-use airports have large tracts of open, undeveloped land that provide added margins of safety and noise mitigation. This undeveloped land can present potential hazards to aviation if it encourages wildlife to enter an airport's approach or departure airspace or air operations area. Also constructed or natural areas—such as poorly drained locations, detention/retention ponds, roosting habitats on buildings, landscaping, or wetlands—can encourage wildlife with ideal locations for feeding, loafing, reproduction, and escape.

STATE

California Environmental Protection Agency

The State of California has developed the California Hazardous Waste Control Law (HWCL) and the U.S. EPA has authorized RCRA enforcement to the State of California.[9] Primary authority for the statewide administration and enforcement of HWCL rests with California EPA's (Cal-EPA) Department of Toxic Substances Control (DTSC).

Basic requirements of California's Hazardous Materials Release Response Plans and Inventory Law include the development of detailed hazardous materials inventories used and stored on-site, a program of employee training for hazardous materials release response, identification of emergency contacts and response procedures, and reporting of releases of hazardous materials. Any facility that meets the minimum reporting thresholds must comply with the reporting requirements and file a plan with the California Environmental Reporting System (CERS). In California, any facility known to contain asbestos is required to have a written asbestos management plan (also known as an Operations and Maintenance Program).

California Occupational Safety and Health Administration

The U.S. Department of Labor has delegated the authority to administer OSHA regulations to the State of California. The California OSHA program (Cal-OSHA) is administered and enforced by the Division of Occupational Safety and Health.[10] Cal-OSHA is very similar to the Federal OSHA program. Among other provisions, Cal-OSHA requires employers to implement a comprehensive, written Injury and Illness Prevention Program for potential workplace hazards, including those associated with hazardous materials.

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7 Federal Aviation Administration, Advisory Circular No. 150/5200-33B, 2007

8 Code of Federal Regulations, Title 14, Part 139, Certification of Airports, Subpart D, 1997.

9 Health and Safety Code sec. 25100 et seq. and 22 California Code of Regulations sec. 66260.1 et seq.

10 California Code of Regulations Title 8 and California Labor Code secs. 6300-6719, 1973.

Cal-OSHA has established limits of exposure to lead contained in dusts and fumes. They have established rules and procedures for conducting demolition and construction activities and established exposure limits, exposure monitoring, and respiratory protection for workers exposed to lead.[11]

California Water Resources Control Board

Responsibility for the protection of water quality in California resides with the State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs). The SWRCB establishes statewide policies and regulations for the implementation of water quality control programs mandated by federal and state water quality statutes and regulations.

The State's UST program regulations include among others, permitting USTs, installation of leak detection systems and/or monitoring of USTs for leakage, UST closure requirements, release reporting/corrective action, and enforcement. Oversight of the statewide UST program is assigned to the SWRCB which has delegated authority to the RWQCB and typically on the local level, to the Fire Department.[12]

California Office of Environmental Health Hazards Assessment

The California Office of Environmental Health Hazards Assessment (OEHHA) is the state agency for the assessment of health risks posed by environmental contaminants. The mission of OEHHA is to protect human health and the environment through scientific evaluation of risks posed by hazardous substances. The Office is one of five state departments within the Cal EPA. OEHHA implements the Safe Drinking Water and Toxic Enforcement Act,[13] Proposition 65, and compiles the state's list of chemicals and substances believed to have the potential to cause cancer or deleterious reproductive effects in humans, restricts the discharges of listed chemicals into known drinking water sources at levels above the regulatory levels of concern, requires public notification of any unauthorized discharge of hazardous waste, and requires that a clear and understandable warning be given prior to a known and intentional exposure to a listed substance.

REGIONAL

Los Angeles Regional Water Quality Control Board

The Airport is within the jurisdiction of the Los Angeles RWQCB, which develops and implements Water Quality Control Plans (Basin Plans) that consider regional beneficial uses, water quality characteristics, and water quality problems. It implements a number of federal and state laws, the most important of which are the State Porter-Cologne Water Quality Control Act and the Federal Clean Water Act. The Los Angeles RWQCB has jurisdiction in matters concerning the management of potential sources of surface and groundwater contamination, including cleanup of underground and aboveground storage tanks spills.

South Coast Air Quality Management District

The South Coast Air Quality Management District (SCAQMD) regulates the removal of asbestos through Rule 1401 and VOC emissions from contaminated soil through Rule 1166. Removal of Asbestos Containing

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11 California Code of Regulations Title 8 sec 1532.1, 1973.

12 California Health and Safety Code, Division 20, Chapter 6.7, and California Code of Regulations Title 23, Division 3, Chapter 16 and Chapter 18, 2011.

13 California Code of Regulations Title 22 sec. 12000 et seq., 1986.

Material (ACM) must be conducted in accordance with the requirements of SCAQMD Rule 1403. Rule 1403 regulations require that the following actions be taken: (1) a survey of the facility prior to issuance of a permit by SCAQMD; (2) notification of SCAQMD prior to construction activity; (3) asbestos removal in accordance with prescribed procedures; (4) placement of collected asbestos in leak-tight containers or wrapping; and (5) proper disposal.

SCAQMD Rule 1166, Volatile Organic Compound Emissions from Decontamination of Soil, requires development and approval of a mitigation plan, monitoring of VOC concentrations, and implementation of the mitigation plan if "VOC-contaminated material"[14] is detected.

LOCAL

Burbank 2035 General Plan Safety Element

The Burbank 2035 General Plan Safety Element addresses environmental hazardous in the city and outlines the City's public health and safety goals/policies/actions for dealing with these hazards. An analysis of Project consistency with the applicable hazardous materials, emergency response, and goals/policies/actions of the Safety Element is provided later in this section.

City of Burbank All Hazard Mitigation Plan

The City of Burbank All Hazard Mitigation Plan, updated April 2011, identifies effective ways to assess the significant natural and manmade hazards that may affect the city and its inhabitants and reduce the City's vulnerability to these hazards. The Plan addresses hazards including earthquakes, wildland/urban fires, landslides, floods, windstorms and others. The plan includes a hazard assessment that prioritizes hazard risks within the City of Burbank based on the potential for occurring and the magnitude of damage that could occur from a risk incident.

City of Burbank Multi-Hazard Functional Plan

The City of Burbank Multi Hazard Functional Plan addresses the City's planned response to emergencies associated with natural disasters and technological incidents. It provides an overview of operational concepts, identifies components of the City's emergency management organization.

Los Angeles County Airport Land Use Plan

The project is located within the Burbank Airport Planning Boundary and Airport Influence Area which is contained in the Los Angeles County Airport Land Use Plan. The planning boundaries delineate areas subject to safety hazards such as height restrictions and runway protection zones (RPZ).

All three development options are located within the Burbank Airport Influence Area. The Airport Land Use Plan contains safety restrictions consistent with FAA guidelines including a Runway Protection Zone instituted by the FAA Regulations Part 77. The Runway Protection Zone is an area at ground level that provides for unobstructed passage of landing and departing aircraft through the above airspace.

[14] VOC-contaminated material is defined by SCAQMD as excavated soil that measures greater than 50 ppm total VOCs as measured with an OVA (e.g., PID), within three inches of the excavated material within three minutes of excavation.

In addition, the FAA has also established an advisory circular with regard to safety concerns associated with the construction of high-rise buildings since such buildings may present a hazard to aircraft operations.[15] Federal Aviation Regulations Part 77, Objects Affecting Navigable Airspace, establishes minimum standards to ensure air safety by regulating the construction or alteration of buildings or structures that may affect airport operations.)[16]

The FAA requires that Form 7460-1, Notice of Proposed Construction or Alteration be filed with the FAA regional office prior to construction of buildings that are 200 feet or greater in height from the graded terrain. Any structure that exceeds an overall height of 200 feet AGL should generally be marked and/or lighted.[17] However, this determination is made by FAA and depends on terrain features, weather patterns, geographic location, number of structures, and overall layout of design.[18]

Los Angeles County Fire Department

At the local level, the Los Angeles County Fire Department (LACoFD) monitors the storage of hazardous materials for compliance with local requirements within the City of Burbank. Specifically, businesses and facilities that store more than threshold quantities of hazardous materials as defined in Chapter 6.95 of the California Health and Safety Code are required to file an Accidental Risk Prevention Program with the Fire Department. This program includes information such as emergency contacts, phone numbers, facility information, chemical inventory, and hazardous materials handling and storage locations. The LACoFD also issues permits for hazardous materials handling and enforces California's Hazardous Materials Release Response Plans and Inventory Law.[19]

Basic requirements of California's Hazardous Materials Release Response Plans and Inventory Law include the development of detailed hazardous materials inventories used and stored on-site, a program of employee training for hazardous materials release response, identification of emergency contacts and response procedures, and reporting of releases of hazardous materials. Any facility that meets the minimum reporting thresholds must comply with the reporting requirements and file a Business Emergency Plan with the local administering agency.

The LACoFD administers and enforces federal and state laws and local ordinances for USTs at the Airport. Plans for the construction/installation, modification, upgrade, and removal of USTs are reviewed by LACoFD Inspectors. If a release is documented that affects groundwater, the project file is transferred to the RWQCB for oversight.

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[15] Federal Aviation Administration, AC 70/7460-1K, Obstruction Marking and Lighting, 2007.

[16] Code of Federal Regulations, Title 14 part 77, 2007.

[17] Federal Aviation Administration, AC 70/7460-1K, Obstruction Marking and Lighting, 2007.

[18] Ibid.

[19] Health and Safety Code sec. 25500 et seq., 2014.

3.9.1.2 Significance Thresholds

For purposes of this analysis, implementation of the proposed project would cause a significant impact related to hazards and hazardous materials if it resulted in:

- HAZARD-1: The creation of a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- HAZARD-2: The creation of a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.
- HAZARD-3: The emission of hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- HAZARD-4: Being located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.
- HAZARD-5: A safety hazard for people residing or working in the immediate Airport vicinity.
- HAZARD-6: Impairment of the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- HAZARD-7: The exposure of people or structures to a significant risk of loss, injury or death involving wildland fires.
- HAZARD-8: A substantial contribution to cumulative impacts on hazards or hazardous materials.

3.9.1.3 Methodologies

The evaluation of hazardous conditions and materials associated with construction and/or operation of the Project is based on numerous site investigations performed for the Airport. The evaluation is focused on the Phase I Environmental Site Assessments (ESA) performed separately for the former Lockheed Plant B-6 and Plant B-5.[20] The former Plant B-6 was located in the northeast quadrant of the Airport and is the site of the Adjacent Property Full-Size Terminal Option. The former Plant B-5 was located in the southwest quadrant of the Airport and is the site of the Southwest Quadrant Full-Size Terminal Option and the Southwest Quadrant Same-Size Terminal Option.

The Phase I Assessments identified the potential presence of hazardous materials occurring on and near the Adjacent Property Full-Size Terminal Option (Plant B-6) and the Southwest Quadrant Full-Size Terminal Option and the Southwest Quadrant Same-Size Terminal Option (Plant B-5). For both ESAs, the Phase I Assessment methodology includes a site survey, visual observation, interviews regarding current property usage and conditions, review of historical information (historic records sources, historic aerial photographs and topographic maps, historic city directories, property tax files,) and review of regulatory agency databases and files pertaining to the Airport and surrounding uses. The Phase I ESAs were also reviewed for

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20 Ardent, 2015. Phase I Environmental Site Assessments (ESA) performed separately for the former Lockheed Plant B-6 and Plant B-5.

the presence of underground storage tanks, PCB-containing transformers, and potential vapor encroachment.

GROUNDWATER AND SOILS INVESTIGATION

The Airport is currently included in the San Fernando Valley Groundwater Basin Superfund Site. As a result, environmental investigations and various remedial activities have taken place at the former Plant B-6 and Plant B-5. The RWQCB mandated a Well Investigation Program (WIP) associated with the Superfund Site. The WIP identified underground storage tanks and other subsurface features. As a result, remedial activities were performed including UST removal and closures, demolition of subsurface features of concern. Based on these investigations, the RWQCB has issued No Further Action (NFA) closure letters for all portions of the Airport, identifying locations in which soils are either not a threat to groundwater quality or do not require further remediation.[21] The NFA letters were reviewed to determine if the project would present a potential hazards impact.

In 2014, a soils investigation was performed, *Additional Site Investigation Report Former Lockheed Martin Plants A-1 North, B-1, B-6 and C-1,* as mandated by the RWQCB.[22] The soils investigation focused on sampling for hexavalent chromium and Volatile Organic Compounds (VOCs). Because the Adjacent Property Full-Size Terminal Option is located at the former Plant B-6 site, this document was reviewed for potential hazards impacts.

A soils investigation was performed, *Site Characterization Phase I: Soil Sampling Burbank-Glendale-Pasadena Airport Authority*,[23] for the area including the former Lockheed Plant B-5. As part of this investigation, soil sampling and vapor monitoring was performed at various locations. Results of this investigation were reviewed to determine if the project would present a potential hazards impact for the Southwest Quadrant Full-Size Terminal Option and the Southwest Quadrant Same-Size Terminal Option site.

CONCEPTUAL EXPOSURE MODEL

Sensitive receptors (workers) at the Airport may have the potential to be exposed to contaminated soils and water during long-term operational activities. Assessment of potential health risk impacts due to groundwater and soil contamination was performed qualitatively through a Conceptual Exposure Model (CEM).

The CEM provides the basis for a comprehensive evaluation of risks to human health by identifying the mechanisms through which receptors may be exposed to contaminated soil and groundwater. The CEM traces the pollutants from their sources through release mechanisms and exposure routes to the potentially affected receptors. An exposure pathway consists of three related components: (1) a source of pollutants

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21 California Regional Water Quality Control Board, 1996. No Further Requirements Letters regarding the Airport Property and Properties around the Airport.

22 Tetra Tech, 2014. Additional Site Investigation Report Former Lockheed Martin Plants A-1 North, B-1, B-6 and C-1

23 A.L. Burke Engineers, Inc., 1990. Site Characterization Phase I: Soil Sampling Burbank-Glendale-Pasadena Airport Authority

(often with a release mechanism specified); (2) a receptor; and (3) a route of exposure of the receptor to released pollutants. Sources of pollutants include excavation of soils and extraction of groundwater during construction (short-term) and potential vapor intrusion during operational (long-term) activities. Pathways of possible human exposure are termed “complete” exposure pathways.

ASBESTOS CONTAINING MATERIALSAND LEAD BASED PAINT

Several surveys regarding Lead-based Paint and Asbestos have been conducted for the Authority. Results of these reports were also used to evaluate Hazards impacts. The findings of the various reports and data base searches were reviewed to identify the potential hazardous impacts for construction and/or operation of the proposed Project.

COMPLIANCE WITH FAA REGULATIONS AND LOCAL PLANS

In determining the level of significance, the analysis assumes that construction and operation of the Project would be in compliance with relevant federal, state and local laws and regulations pertaining to the use, storage, and disposal of hazardous materials. Impacts regarding potential aircraft bird strike and high-rise building effects on air operations were based on review of FAA regulations.

The methodology for evaluating whether the Project would impair implementation or physically interfere with an adopted emergency response plan or emergency evaluation plan included an analysis of Project consistency with the applicable goals, policies and actions of the *Burbank 2035 General Plan* Safety Element and the Los Angeles County Airport Land Use Plan.

3.9.2 Existing Conditions / Environmental Setting

3.9.2.1 Historical Site Uses

NORTHEAST QUADRANT

The Adjacent Property Full-Size Terminal Option is located on a portion of the former Lockheed B-6 Plant, in the northeast quadrant of the Airport and is commonly referred to as the “Adjacent Property.” The Adjacent Property was used for agricultural purposes from at least 1928 through the late 1930s. From 1944 through the 1990s, Lockheed Plant B-6 was used for aircraft operations, aircraft research, manufacturing, assembly, and maintenance. Aircraft coming to and from Lockheed Plant B-6 routinely accessed both runways. Lockheed personnel were routinely ferried from Lockheed Plant B-6 to classified military sites using unmarked 737-200 aircraft. Facilities that performed aircraft operations, manufacturing, assembly, and maintenance are associated with the use of hazardous materials.

In the late 1990s and early 2000s, the buildings were demolished and removed from the Airport. Chemicals and materials used and/or stored at the Airport to support these operations included aircraft fuels, biocides, descalers, fuel oils and gasoline, paints, solvents, acids, caustics, and plastic resins and hardeners. Fuels used at the Airport include automobile gasoline, aviation gasoline, Jet A, JP-4, JP-5, JP-7, JP-8, and other thermally stable jet fuels.[24]

In 1984 and 1985, a leak detection program was conducted at Lockheed Plant B-6 which identified a total of 37 underground tanks, 6 sumps and 7 clarifiers. Underground tanks were used for storing heating fuel (diesel), jet fuel, water pump fuel, waste oil, and secondary containment for boilers. The majority of tanks were removed or abandoned in place during the mid-1980s through the early 1990s. Tanks abandoned in place were done so in accordance with closure permits and compliance with all regulatory requirements and do not pose a hazard to construction of the replacement terminal.[25] A few tanks storing jet fuel remained in operation through the early 1990s in support of aircraft operations at the site.[26] Those tanks no longer exist. If USTs are discovered during construction, they would be removed in accordance with applicable regulatory requirements with oversight by the Burbank Fire Prevention Bureau's Hazardous Materials Program.

SOUTHWEST QUADRANT

The site for the Southwest Quadrant Full-Size Terminal Option and Southwest Quadrant Same-Size Terminal Option is located south-west of the existing runways and is a portion of the former Lockheed Plant B-5**.** In the 1940s, the site was owned by the federal government and various aircraft-related companies. In 1947, Lockheed purchased the entire southwest quadrant. In 1978, the property was purchased by the Burbank-Pasadena-Glendale Airport Authority. Lockheed Plant B-5 was formerly used for aircraft manufacturing, washing, and a flight school. Aircraft manufacturing activities included spray paint booths, metal bonding (electroplating) and cleaning aircraft parts. Chemicals used at the site included paints, solvents, fuel oils and gasoline, acids, caustics, electroplating solutions and cleaners.

In the area west of former Plant B-5, two burn pits, the Civil Air Patrol Fire Pit and the Bunker-Simulated Gasoline Fire Pit, have been used in the past for firefighting training. Burn pits were typically doused with gasoline or other flammable materials and set on fire. Firefighters would extinguish the fires for training purposes. It is not known if the burn pits were previously used for combustion of trash. Currently, these areas are paved and used for general aviation aircraft parking. These burn pits are not located on either the Southwest Quadrant Full-Size Terminal Option or the Southwest Quadrant Same-Size Terminal Option.

Within the former Lockheed Plant B-5, Pit-60 Wash Rack has been used in the past for washing of aircraft. Solvents may have been used in the cleanup of equipment in this area. Oil and grime washed from the machinery may have also contained PCBs.

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[24] Ardent, 2015. Phase I Environmental Site Assessments (ESA) performed separately for the former Lockheed Plant B-6 and Plant B-5.

[25] Underground storage tank requirements are listed in California Health and Safety Code Division 20, Chapter 6.7, Section 25298, California Code of Regulations Title 23, Division 3, Chapter 16, Sections 2670 through 2672, and the Los Angeles County Code.

[26] Ardent, 2015. Phase I Environmental Site Assessments (ESA) performed separately for the former Lockheed Plant B-6 and Plant B-5.

3.9.2.2 Existing Conditions

Current uses of the Adjacent Property Full-Size Terminal Option site include airport passenger and employee automobile parking, movie equipment staging, and truck/recreational vehicle storage. The Southwest Quadrant Full-Size Terminal Option and Southwest Quadrant Same-Size Terminal Option site is currently used for general aviation hangars and aircraft ramps, FAA maintenance and communication facilities, rental car storage, air freighter airlines (FedEx and UPS), and a cargo building for commercial passenger air carriers. There are currently two USTs in the southwest quadrant owned and operated by Hertz and Avis.

In the northeast quadrant there are existing jet fuel storage tanks that are used to fuel aircraft at the Airport. No changes to these existing storage tanks are proposed as part of the Adjacent Property Full-Size Terminal Option, Southwest Quadrant Full-Size Terminal Option, or Southwest Quadrant Same-Size Terminal Option.

The existing Aircraft Rescue and Fire Fighting (ARFF) Station is located in the northwest quadrant of the Airport. The fire station is responsible for providing emergency response during emergencies at the airport. The fire station currently stores chemicals used for maintenance of vehicles and firefighting as well as pressurized gas cylinders. As discussed below, the fire station will be relocated to the northeast quadrant of the airport as part of the Adjacent Property Full-Size Terminal Option and Southwest Quadrant Full-Size Terminal Option.

As discussed above, all three development options have been used for various aircraft manufacturing and maintenance purposes which would have involved chemicals and materials usage and/or storage. Due to the use of various chemicals and hazardous materials, the Airport was investigated for potential groundwater and soil contamination under the WIP as part of the San Fernando Valley Groundwater Basin Superfund Site.

The San Fernando Valley Groundwater Basin Superfund Site is broken up into four separate areas: Burbank & North Hollywood; Glendale/Crystal Springs; Verdugo; and Pollock/Los Angeles. The Airport is located within Area 1 (Burbank & North Hollywood). As Area 1 is large, sites are broken up to make cleanup easier and more manageable in the form of Operable Units (OU). Area 1 is currently comprised of the North Hollywood Operable Unit and the Burbank Operable Unit. The Adjacent Property and northeast quadrant lie within the Burbank Operable Unit. The southwest quadrant lies within the North Hollywood Operable Unit.

As part of the soils investigation for the Phase I ESAs, 19 AOCs were identified at the former Plants for hexavalent chromium and 8 sites were to be investigated for VOCs. At the former Plant B-6, a total of 30 soil borings were performed out of which 10 had detected hexavalent chromium. Some of these borings were performed on the Adjacent Property Full-Size Terminal Option site. Under certain conditions, hexavalent chromium can be reduced to the less toxic trivalent chromium in soils. Leachability and attenuation capacity (natural transformation of hexavalent chromium into trivalent chromium was evaluated at all AOCs as Available Hexavalent Chromium Attenuation Capacity (AHCAC). Leachability was measured using a modified Synthetic Precipitation Leaching Procedure (SPLP) to determine potential future mobility of residual hexavalent chromium mass detected in the vadose zone. No AOCs were located on the Southwest Quadrant Full-Size Terminal Option and Southwest Quadrant Same-Size Terminal Option site. However, one monitoring well on the southwest quadrant detected hexavalent chromium.[27]

The Phase I ESAs prepared for Plant B-5 and B-6 were completed in the 1990s. Due to the age of the Phase I ESAs, vapor encroachment was not addressed. A more recent Phase I ESA prepared for the portion of the Lockheed Plant B-6, commonly referred to as the Trust Property, contained a Vapor Encroachment Study which will be used to represent conditions at the northeast and southwest quadrants. A Vapor Encroachment Condition (VEC) study was performed for Parcel 1 using Tier 1 criteria as recommended by ASTM E 2600-10. The Tier 1 screening identifies surrounding facilities of possible vapor intrusion to the site. Soil vapor samples collected in the mid-1990s have shown elevated concentrations of PCE. As part of the soils investigation for hexavalent chromium, the RWQCB requested that certain areas be analyzed for VOCs. As a result, additional investigation was performed for specific AOCs to identify VOC contamination. At AOC 2, 4 through 9, and 11, VOCs were measured using photo-ionization detector (PID) headspace readings in sampling wells. No soil samples at any of the AOCs exhibited readings greater than the field screening criteria of 50 parts per million (ppm).[28]

As discussed in section 3.07 Geology and Soils, historical high groundwater beneath the Airport is mapped at a depth of approximately 75 feet. Groundwater was not encountered in subsurface borings to a depth of 100.7 feet at the time of drilling. The former Plant B-6 currently contains 3 groundwater monitoring wells which are sampled on an annual basis.[29] Based on these wells, groundwater in the area has been measured at a depth of approximately 220 feet below ground surface and flows in a southeasterly direction.

EXISTING SCHOOL SITES

Some project construction activities, specifically demolition of the replacement terminal, are located within one quarter mile of an existing school, Providencia Elementary School, to the southeast. Construction of the replacement terminal under all three development options would take place further than one quarter mile from any school. As the existing terminal contains ACMs, additional analysis was performed to determine impacts on the nearby school. Other schools located near the Adjacent Property Full-Size Terminal Option, Glenwood Elementary School located approximately 0.6 miles to the northeast, George Washington Elementary School located approximately 0.7 miles to the east across the Golden State Freeway (Interstate 5), and Roscoe Elementary School located approximately 0.8 miles northwest on the other side of the Airport.

HAZARDOUS MATERIALS DATABASE SITE LISTINGS

As part of the Phase I ESAs, environmental agency databases that log known hazardous site conditions were reviewed to ascertain whether the Project Sites or any properties generally located within 0.25 mile of the

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27 Tetra Tech, 2014. Revised Additional Site Investigation Work Plan, Former Lockheed Martin Plants A-1 North, B-1, B-6 and C-1, Burbank California.

28 Ibid.

29 Ninyo & Moore, 2010. Geotechnical Evaluation Design Phase Regional Intermodal Transportation Center, Bob Hope Airport, Burbank California, E09-11.

Airport were listed on such federal, state, local, or other databases. These databases list properties by location and provide information regarding past use and presence of hazardous conditions. The databases and relevant findings are discussed below for the Airport and adjacent properties.

Due to the age of the Phase I ESAs, for Plant B-5 and B-6, the database listings in those documents may not be up to date. However, a Phase I ESA was recently prepared for Plant B-6 (Parcel 1), which is adjacent to the northeast quadrant. In the Phase I prepared Parcel 1, a computerized environmental information database search was performed on November 4, 2015. A review of hazardous materials database listings was performed in this Phase I and was used to identify sites which have released hazardous substances with potentially adverse environmental effects.

A complete listing of the databases that were searched for the Plant B-6 (Parcel 1) Phase I ESA is provided in **Appendix I**.

AIRPORT PROPERTY

As mentioned previously, the Airport is located within both the Burbank Operable Unit and the North Hollywood Operable Unit of the San Fernando Valley Groundwater Basin Superfund Site. A Cleanup and Abatement Order was issued in 1987 to the responsible parties of the site, including Lockheed. The Cleanup and Abatement Order was issued by the RWQCB on behalf of the EPA to cleanup and abate VOC contamination of soil and groundwater at the Airport. Since that time, remediation has been performed at the Airport and the RWQCB has issued closure letters to acknowledge completion of cleanup activities. The Airport is not listed in any federal databases. However, the San Fernando Valley Groundwater Basin on which the Airport is located, is listed on several federal databases.[30]

Plant B-6 is listed on the State's Calsites Database (Calsites) for groundwater contamination. Two thirds of the properties have been classified as NFA by the DTSC with the remaining properties in various stages of review and remediation. The remaining thirteen facilities were determined to not be an environmental concern. The Airport was also listed in the Historical Hazardous Waste and Substances Sites List (HIST CORTESE).

PROPERTIES ADJACENT TO THE AIRPORT

Several adjacent sites and those within 0.5 to 1 mile of the Airport were listed in various databases. As indicated in the Phase I ESA, based on the nature and extent of a given release, the distance of the reported release, the position of a reported release with respect to the regional groundwater flow direction, current regulatory status, and/or the absence of reported releases, the majority of these sites are not considered to represent a recognized environmental condition that would adversely affect the Airport, including potential Vapor Encroachment Conditions due to the release of vapors from contaminated soil or groundwater.[31] As discussed previously, a complete listing of databases searched and adjacent parcels is provided in **Appendix I**.

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[30] Ardent, 2015. Phase I Environmental Site Assessments (ESA) performed separately for the former Lockheed Plant B-6 and Plant B-5.

[31] Ibid.

OTHER POTENTIALLY HAZARDOUS MATERIALS AT THE AIRPORT

Asbestos Containing Materials

Asbestos is a naturally-occurring mineral made up of microscopic fibers that has been widely used in the building industry for a variety of uses. Such uses include acoustic and thermal insulation and fireproofing. It is often found in ceiling and floor tiles, linoleum, and pipes, as well as on structural beams and asphalt. However, asbestos can become a hazard when the fibers separate and become airborne. Asbestos has been linked with lung diseases caused by inhalation of airborne asbestos fibers, and its use in building was banned by 1978.

Asbestos testing was performed at various locations of the existing terminal between 1998 and 2015. It was determined that asbestos is currently present in various offices of Terminal A, Terminal B, Building 9, and Building 10 in the form of wallboard/joint compound, plaster, spray-applied acoustical ceiling material, acoustical ceiling panels, resilient floor tile, resilient sheet flooring, flooring mastics, cove base, and mastic. All ACMs found at the existing terminal appear to be in good to fair condition or encapsulated. A copy of the asbestos surveys and reports are provided as **Appendix I**.

Lead-Based Paint (LBP)

Lead is a naturally occurring element and heavy metal that was widely used as a major ingredient in most interior and exterior oil-based paints prior to 1950. Lead compounds continued to be used as corrosion inhibitors, pigments, and drying agents from the early 1950s to 1972, when the Consumer Products Safety Commission specified limits on lead content in such products. LBP is of concern both as a source of exposure and as a major contributor to lead in interior dust and exterior soil.

In 2011, sampling for LBP was performed for areas of the airport suspected of containing lead. Paint chip bulk sampling was performed at the “Bird Cage” room, Hangar 34, Building 10 and yellow traffic paint throughout the existing Airport. Bulk samples were collected from wall and ceiling plaster, metal doors and/or frames, wood walls, concrete floors, and walls, wood doors and/or frames, metal HVAC components, metal hand railings, steel beams, and traffic paint. LBP was found in Building 34 drywall, metal hangar frame, walls, and pipes. LBP paint was also found in yellow traffic striping paint. LBP was not observed in other locations surveyed. A copy of the lead surveys performed for the Airport are provided in **Appendix I**.

Polychlorinated Biphenyls

PCBs are hazardous materials that were formerly used in such applications as electrical equipment, hydraulic fluids, fluorescent light ballasts, plasticizers, adhesives, and fire retardants. In 1976 the U.S. EPA banned the manufacture and sale of electrical transformers containing PCBs. By 1985 the U.S. EPA required that commercial property owners with electrical transformers containing more than 500 parts per million PCBs must register the transformer with the local fire department, provide exterior labeling, and remove combustible materials within 16 feet.[32]

[32] 40 Code of Federal Regulations Title 40 Part 761, 2015.

The Phase I ESAs prepared for both the northeast and southwest quadrants identified transformers and transformer yards on-site potentially containing PCBs. However, since the ESAs were prepared, these transformers were removed and are no longer on-site. Surveys of the southwest quadrant also identified a number of transformers and transformer yards throughout the quadrant. However, these transformers were also removed and are no longer on-site.

Another potential source of PCBs is the ballast contained within fluorescent lights. The use of PCBs in fluorescent light ballasts manufactured after 1979 is prohibited by the U.S. EPA. Fluorescent light fixtures present throughout the existing terminal were observed to be in good conditions without any signs of leakage. It is possible that some PCB-containing ballasts are present. In general, any ballast not specifically labeled as "No PCBs" is presumed to contain them and requires special disposal practices when discarded.

3.9.3 Environmental Impacts

3.9.3.1 Project Design Features

The following Project Design Features (PDFs) would result in a reduction in hazards and would be included for all three development options. The PDFs contained in **Section 3.4** would also result in a reduction in hazards.

PDF-HAZ-1 The proposed project would implement fugitive dust control measures consistent with SCAQMD rules and regulations. The dust control measures would consist of various elements including: proper maintenance and watering of internal haul roads; water spraying of soil excavated and placed for cover or soil reconsolidation; applying water on intermediate soil cover areas; and seeding/planting vegetation on the completed protective cap. Water used for this purpose would most likely be recycled water. In addition, to water, other approved fugitive dust control measures could be used, such as Soil-Sement® or foam. This project design feature is consistent with SCAQMD Rule 403 requirements (see also **Section 3.4**).

PDF-HAZ-2 The proposed project would comply with applicable SCAQMD rules that govern the control of air pollutant emissions from the Airport, including SCAQMD Rule 1166 – Volatile Organic Compound Emissions from Decontamination of Soil. This would include the following:

- Submit a Mitigation Plan to minimize VOC emissions during excavation, grading, handling and treatment of VOC contaminated soil in accordance with Attachment A of SCAQMD Rule 1166, and obtain approval from the SCAQMD. A copy of the approved plan must be on-site during the entire excavation period. Then plan specifies what to do if contaminated soils are encountered. If vapors are encountered during excavation, then soils would be monitored for VOC contaminated soils by recording concentrations every 15 minutes. If contaminated, soils would be segregated from non-contaminated soils. Contaminated soils would be sprayed with water and/or approved vapor suppressant and covered with plastic sheeting for all periods of inactivity lasting more than an hour. Daily inspections of contaminated soil would occur until soils are treated or removed. If treating soil onsite, a permit to construct and operate the treatment equipment would be obtained. Treatment options could include; an underground VOC collection and disposal system prior to excavation, or a collection and disposal of the VOC from the excavated soil using approved equipment. If transporting the soil off-site for disposal, trucks must be tarped and the exterior of the truck, trailer and tires would be cleaned off prior to the truck leaving the site.

- Monitor for the presence of VOC, and implement the approved mitigation plan when VOC-contaminated soil, as defined in Rule 1166, is detected.
- If required, obtain a SCAQMD Permit for Project activities, and provide a copy of said Permit to the DTSC.

PDF-HAZ-3 Prior to leaving the Airport, each haul truck, and other delivery trucks that come in contact with Airport waste, would be inspected and put through procedures as necessary to remove loose debris from tire wells and on the truck exterior. Haul truck operators (drivers) would be required to have the proper training and registration by the State and as applicable to the material they would be hauling. Trucks transporting hazardous waste are required to maintain a hazardous waste manifest that describes the content of the materials.

PDF-HAZ-4 The final design of the replacement passenger terminal shall include necessary consideration of vapor intrusion strategies and/or technologies, as warranted, based upon a refined review of existing soil gas survey data and relevant data collected during construction in accordance with SCAQMD Rule 1166 (PDF-HAZ-2) and PDF-HYDRO-2.

PDF-HYDRO-2 Soil Management Plan. The Project applicant would prepare a Soil Management Plan (SMP) and obtain RWQCB approval prior to the initiation of construction activities. The SMP would outline the framework for soils assessment, remediation, and removal confirmation actions to be undertaken if contaminated soils are uncovered during construction activities. As grading, excavation and trenching were performed, exposed soil would be monitored for stained or discolored soil, wet or saturated soils, or odors. If impacted soil is encountered, the soil would be analyzed to identify and characterize the impact and determine if soil remediation is required. Based on visual monitoring, “grab” soil samples would be collected at selected locations for headspace screening for volatile organic compounds using a calibrated Photoionization Detector (PID). Headspace PID readings that are elevated above those of non-impacted grab soil samples would be considered potentially contaminated. Soil impacted by highly elevated concentrations of hexavalent chromium and/or total chromium may appear to be stained a yellow color, dissimilar to surrounding non-impacted soil. At a minimum, at least one soil sample would be collected for chemical analysis at or near the center of the suspected impact, ideally representative of the “worst case” condition. Soil samples would be analyzed by an appropriate State-certified laboratory using appropriate methods based on the parameters to be analyzed. When a new impact has been identified it would be characterized to assess its lateral and vertical extent. Likely excavation of impacted soil would be followed by segregated stockpiling or direct-loading, waste profiling, and off-site disposal or recycling which would be performed

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in accordance with applicable federal, state, and local regulations. Compliance with the SMP would be protective of water quality and worker.

3.9.3.2 ADJACENT PROPERTY FULL-SIZE TERMINAL OPTION

Project Impacts

IMPACT ADJ PROP FULL-HAZ-1: Impacts Related to Transport, Use, or Disposal of Hazardous Materials

The Adjacent Property Full-Size Terminal Option would potentially involve the transport, use, and disposal of hazardous materials. However, implementation of the proposed PDFs, implementation of identified mitigation measures, and compliance with applicable regulatory requirements would result in no exposure of persons to substantial risk resulting from the release of hazardous materials or exposure to health hazards in excess of regulatory standards associated with USTs, groundwater, asbestos, lead-containing materials, PCBs, or vapor encroachment. Therefore, impacts associated with the transport, use, or disposal of hazardous materials would be less than significant.

CONSTRUCTION

Asbestos Containing Materials and Lead-Based Paint

During demolition activities, workers may encounter ACMs and LBP in older buildings, which would be a potentially significant impact. As mentioned previously, an asbestos survey discovered ACMs in Terminals A and B, which will be demolished as part of the Adjacent Property Full-Size Terminal Option. Asbestos was detected in various offices of Terminal A and B, Building 9 and 10 in various building components including drywall, acoustical ceiling, flooring and mastic.

LBP was detected in Hangar 34 and yellow traffic striping paint. Prior to any demolition inside of Hangar 34 or removal of traffic striping paint, a waste characterization test would be performed to confirm that demolition building debris would not be classified as California hazardous non-RCRA lead waste.

Hazardous Materials

Under the Adjacent Property Full-Size Terminal Option, both Taxiway A and Taxiway C would be extended and Taxiway G would be realigned to maximize safety and efficiency of aircraft movements on the ground. In addition, the Adjacent Property Full-Size Terminal Option includes construction of the replacement terminal, parking facilities, aircraft ramp, and other buildings to support airport functions, Construction of proposed Project would involve hazardous materials typical to construction, including gasoline, motor oils, and other similar materials. All potentially hazardous construction materials would be used and stored in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. Any risk associated with transport, use, or disposal of these materials would be minimized to less than significant levels through compliance with these standards and regulations.

Groundwater and Soil

The Adjacent Property Full-Size Terminal Option would be built upon a portion of the northeast quadrant that encompasses AOC 12, 13 and 16. Results of the investigation indicated AOC 12 and 16 had no detections of hexavalent chromium, but AOC 13 had three soil samples which detected hexavalent chromium at depths of approximately 20 feet below ground surface. Monitoring wells B-6-CW10 and B-6-CW17 located on the northeast quadrant also detected hexavalent chromium at depths of approximately 220 feet below ground surface. However, results of the AHCAC and SPLP for these sites determined that hexavalent chromium at AOC 13 would not likely migrate to the water table or off-site. AOCs and monitoring wells located adjacent to the northeast quadrant which detected levels of hexavalent chromium were also determined to not likely result in migration of contamination due to the no detectable to very low detectable concentrations found in soil samples analyzed for the site and surrounding properties[33]. However, during excavation activities, workers may encounter contaminated soil or groundwater.

Construction workers may potentially be exposed during soil handling activities including excavation, grading and paving activities at the site. However, ground-disturbing activities would be conducted in accordance with applicable federal, state and local regulations. Best Management Practices (BMPs) will also be used during excavation activities in order to prevent exposure to hexavalent chromium. Included in these BMPs will be the requirement to only use driven piling without pre-drilling for foundations that are deeper than 20 feet, to avoid bring contaminated soils to the surface. Additionally, a site-specific Health and Safety Plan that incorporates OSHA and CalOSHA regulations, as well as FAA and airport health and safety requirements in order to minimize the risk of injury to site workers. The project Applicant would also prepare a Soil Management Plan with RWQCB approval, PDF HYDRO-2, which would outline the framework for contaminated soils assessment and identification, including hexavalent chromium, remediation, removal and disposal actions in accordance with applicable regulations, In the event that Project-related excavation unexpectedly encounters VOC-contaminated soil, the continuation of such excavation would be carried out in accordance with SCAQMD Rule 1166. Compliance with PDF HYDRO-2 and other applicable rules and regulations would ensure that construction would not result in an unauthorized release of hazardous materials through the use or transport of these materials that would create a hazard to the public or the environment. In the absence of any other known hazardous materials within the existing soil as well as with other existing regulatory requirements described above, no significant impacts related to hazards and hazardous materials would occur.

Depth of groundwater historically is below 75 feet below ground surface with groundwater encountered most recently at depths of approximately 220 feet below ground surface. Based on these depths, construction of the Adjacent Property Full-Size Terminal Option would not encounter contaminated groundwater. As discussed in **Section 3.10**, construction dewatering is not anticipated to be required. But if dewatering is needed, the project would apply for coverage under the National Pollution Discharge Elimination System Permit and adhere to monitoring requirements set forth by the RWQCB. If dewatering is required, groundwater that was found to be contaminated would be properly treated prior to being discharged in accordance with the NPDES permit. Uncontaminated groundwater may be treated and

33 Ardent, 2015. Phase I Environmental Site Assessment and Document Review, Portions of Former Lockheed Plant B6 Burbank, California.

pumped to the storm drain system or used for on-site dust control purposes. Compliance with regulatory requirements would ensure that dewatering during construction would not expose workers or off-site sensitive populations to substantial risk resulting from the project's handling of impacted groundwater. Therefore, impacts associated with encountering contaminated groundwater would be less than significant.

Underground Storage Tanks

During excavation and demolition activities, workers may encounter underground storage tanks. As discussed previously, all known underground storage tanks, sumps and clarifiers have been removed from the site or abandoned in place. It is not expected that construction activities will encounter the abandoned in place USTs, however, if they do, they would be removed. Since they have already been properly abandoned there would be no impacts associated with removal. There are two active USTs in the southwest quadrant which are used by Hertz and Avis. These tanks would not be disturbed by the replacement terminal project. Therefore, the project would result in a less-than-significant impact with regard to USTs.

Vapor Encroachment

As stated above, the site is located within the Burbank Operable Unit of the San Fernando Valley Superfund Area 1 which is contaminated with VOCs such as tetrachloroethene (PCE) and trichloroethene (TCE). As part of the soils investigation for Plant B-6, the RWQCB requested that VOC sampling be performed in addition to sampling for hexavalent chromium. As discussed previously, the Adjacent Property Full-Size Terminal Option will utilize a portion of the former Plant B-6. Based on previous investigations at the site, the RWQCB determined that VOC sampling was not required for portions of former Plant B-6 located on the Adjacent Property Full-Size Terminal Option site as hexavalent chrome soil contamination was not a threat to groundwater due to no detectable or low concentrations detected. Nonetheless, VOC sampling was performed at the Plant B-6 AOC 2, 4 through 9, and 11 which are outside of the Adjacent Property Full-Size Terminal Option site. The Adjacent Property Full-Size Terminal Option site is on AOC 12 and adjacent to AOC 13, and 16, which is part of the Overton Moore Property and wasn't included in the VOC sampling investigation.

Sampling performed at other AOCs on and adjacent to the site used a photo-ionization detector (PID) to determine if soil samples exceeded the 50 parts per million (ppm) VOC field screening criteria. No soil samples collected at other AOCs exceeded the screening criteria. Therefore, soils on the Adjacent Property Full-Size Terminal Option site likely won't be contaminated past the VOC field screening criteria. Nonetheless, in the event that VOC-contaminated soil is encountered during project excavation, activities would be carried out in accordance with SCAQMD Rule 1166. Based on the results of the soils investigation, soil vapors and contaminated soil that may be encountered would be below the action levels and would not pose a threat to workers. Therefore impacts would be less than significant.

Polychlorinated Biphenyls (PCBs)

During demolition, a potential source of PCBs is ballast contained within the fluorescent lights. If the fluorescent light ballast not specifically labeled as "No PCBs" is found, removal and disposal would be performed by a licensed PCB removal contractor prior to demolition. Compliance with regulatory requirements would ensure that impacts associated with PCBs would be less than significant.

OPERATIONS

The Adjacent Property Full-Size Terminal Option would accommodate the same types of aircraft and routine maintenance activities that are currently occurring at various places throughout the Airport. As with current operations, maintenance workers would continue to comply with all applicable regulations. For instance, exposure of maintenance workers to contaminated materials would be minimized by implementing the measures required by federal, state, and local laws and regulations. As discussed above, these include OSHA and CalOSHA standards, which establish exposure limits for workers; require protective equipment or other protective measures, when warranted; and require employers to provide a written health and safety program, worker training, emergency response training, and medical surveillance. Therefore, the proposed project would result in less-than-significant impacts with respect to maintenance worker exposure to hazardous materials.

The Adjacent Property Full-Size Terminal Option would include typical airport uses and would use and produce typical hazardous materials and wastes such as fuel, paints, commercial cleansers, herbicides, and pesticides, solvents, and lubricants. These hazardous materials are regulated by applicable federal, state, and local regulations. Compliance with these requirements would serve to minimize health and safety risks to people or structures associated with routine use, transport, and disposal as well as accidental release of or exposure to hazardous materials. Therefore, operational impacts associated with the Adjacent Property Full-Size Terminal Option related to use, transport, or disposal of hazardous materials would be less than significant.

Maintenance activities would occur within the boundaries of the Project site where no remediation efforts are currently taking place. Operation of the Adjacent Property Full-Size Terminal Option would not result in impacts to current groundwater remediation efforts in the vicinity. Therefore, impacts would be less than significant.

Mitigation Measure ADJ PROP FULL-HAZ-1A

The removal of ACMs would be subject to SCAQMD and Cal-OSHA requirements to ensure proper handling, notification, and disposal and would be performed by a licensed asbestos abatement contractor Prior to any interior demolition or renovation within the buildings containing ACMs, an Asbestos Operations and Management Plan (Asbestos O&M Plan) would be implemented to manage in place any ACMs during demolition activities. The Asbestos O&M Plan would address building cleaning, maintenance, renovation, and general operation procedures to minimize exposure to asbestos. An asbestos survey would be performed prior to demolition. The survey would include the inspection, identification and quantification of all friable and Class I and Class II non-friable asbestos containing materials and physical samplings. Removal procedures could include; HEPA filtration, glovebag, adequate wetting, dry removal or another approved alternative. All ACWM would be collected and placed in transparent, leak-tight containers or wrapping. All ACWM would be contained in leak tight containers, labeled appropriately, transported and disposed of in accordance with applicable rules and regulations.

Mitigation Measure ADJ PROP FULL-HAZ-1B

Prior to demolition activities involving any areas known to contain lead-based paint, the Project applicant would follow all procedural requirements and regulations for its proper removal and disposal. The removal of LBP would be subject to Cal-OSHA requirements to ensure proper handling, notification, and monitoring and would be performed by a licensed LBP abatement contractor. All trucks transporting lead-based waste would be covered or enclosed. All lead-based waste material would be contained properly, labeled appropriately, transported and disposed of in accordance with applicable rules and regulations.

Significance after Mitigation: Implementation of Mitigation Measures ADJ PROP FULL-HAZ-1A and 1B would reduce the impact related to the transport, use, or disposal of hazardous materials to a less-than-significant level.

IMPACT ADJ PROP FULL-HAZ-2: Impacts from Release of Hazardous Materials Through Foreseeable Upset or Accident Conditions

CONSTRUCTION

Construction of the Adjacent Property Full-Size Terminal Option would involve hazardous material typical to construction, including gasoline, motor oils, paints, solvents, and other miscellaneous materials (e.g., engine oil, etc.). All potentially hazardous materials would be used and stored in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. Any risk associated with transport, use, or disposal of these materials would be minimized to less than significant levels through compliance with these standards and regulations. A site-specific Health and Safety plan would be developed which would include at a minimum, "identification/description of the following: site description and features; site map; site history; waste types encountered; waste characteristics; hazards of concern; disposal methods and practices; hazardous material summary; hazard evaluation; required protective equipment; decontamination procedures; emergency contacts; hospital map and contingency plan." Construction workers would be properly trained for and prepared to deal with these hazardous materials and wastes. If an accidental release (spill) occurs, the lead agencies with jurisdiction would be notified and immediate actions to ensure the health and safety of the public and workers and to protect the environment would be taken. The handling of any hazardous materials, substances and wastes during construction would be controlled through regulatory requirements and the Health and Safety Plan to avoid any significant hazards to the public or the environment. Therefore, construction impacts related to transportation, use, or disposal of hazardous materials would be less than significant.

Heavy-duty equipment, such as excavators and dump trucks, do contain hazardous materials such as diesel fuel. Diesel fuel may be delivered in bulk, stored on-site in aboveground storage tanks (AST) or brought on-site by a mobile re-fueler, and dispensed as needed into individual pieces of equipment. A mobile maintenance vendor may be called on-site for routine maintenance, but equipment would be taken off-site if significant maintenance or repair were required. The drivers/operators of the bulk delivery trucks or mobile re-fuelers are trained and equipped to respond to a fuel spill, should one occur. Operators of heavy-duty equipment are trained to remain alert and nearby during fueling of equipment, and spills, should they occur, should not reach the offsite environment. Failure of the AST is possible. However, with controls, such as secondary containment, even a complete de-inventory of the diesel fuel from the AST is not expected to reach the offsite environment. Any spill of diesel fuel upon the site would be remediated and treated in accordance with applicable regulations. Therefore, an accidental release scenario involving the spill of fuel from a mobile re-fueler or from the AST does not warrant further evaluation. The site-specific health and safety plan would include measures to appropriately handle an onsite accidental release of fuel or other material from the equipment, resulting in a less-than-significant impact to accident or upset conditions.

As discussed previously, the removal (demolition and excavation) of impacted building materials and soils would be performed in compliance with BMPs and regulatory requirements. Based on NFA letters issued by the RWQCB for the project site, it is unlikely that excavation activities would encounter contaminated soil. Demolition debris and soil transported off-site may contain hazardous materials in small quantities. For haul trucks, the probability of an accident involving a collision is estimated to be 2 per 1,000,000 miles travelled.[34] However, not all collisions would result in a breach of the container and release to the environment. The probability of a release of a solid hazardous cargo is approximately 9.1 percent for solid materials.[35] As discussed in **Section 3.4**, the Adjacent Property full-Size Terminal Option would generate approximately 111,500 cubic yards (CY) of demolition debris. However, a small portion of this amount would contain ACMs. The exact amount of ACMs contained in demolition debris is not yet know, but as a conservative assumption, it was assumed that all demolition debris may contain ACMs. However, in reality ACM and LBP would most likely be removed and disposed of by licensed abatement contractors prior to demolition. The transport of demolition material would require approximately 22,300 roundtrips. The assumed trip-length of haul trucks removing demolition debris is 20 miles, which equates to approximately 446,000 total vehicle miles traveled (VMT) to transport the 111,500 CY. Based on the rate of 2 collisions per 1,000,000 miles travelled, this poses a mathematical collision chance of 0.89, where 1 means it is likely to occur once during the lifetime of the project. With a release rate of 0.08 percent of accidents, the probability of a release of AHM in transport to off-site receiver landfills is 0.01, using very conservative assumptions in that all of the 111,500 CY contains AHMs. Therefore, a collision involving a truck transporting this material resulting in a release is unlikely to occur as the probability is less than one over the project's lifetime. Drivers of waste hauling trucks are required to be trained to respond to and contain releases, and appropriate controls are in place. Therefore, short-term impacts related to accident or upset conditions would be less than significant and no mitigation measures are required.

OPERATIONS

The Adjacent Property Full-Size Option Terminal would not result in new operational activities in comparison to the existing site. Major aircraft maintenance activities are not currently performed at the Airport and would not likely be performed at the replacement passenger terminal. Aircraft parked at the terminal would have minor maintenance checks performed. However, aircraft parking at the replacement passenger terminal would continue to perform refueling activities in the same manner as existing activities. During refueling activities, trucks would typically deliver fuel to the aircraft parked at the terminal, and jet fuel may potentially be spilled or released accidentally.

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[34] Argonne National Laboratory, 1996. Environmental Assessment Division, Risk Assessment for the Transportation of Hazardous Waste and Hazardous Waste Components of Low-Level Mixed Waste and Transuranic Waste for the U.S. Department of Energy Waste Management Programmatic Environmental Impact Statement.

[35] Ibid.

Current refueling activities are typically performed by airlines that store fuel at the Airport at existing tanks located in the northeast quadrant. The location or use of the fuel tanks will not change from existing conditions as a result of the Adjacent Property Full-Size Terminal Option. Although the replacement passenger terminal would have the same number of gates as the existing terminal, the forecasts assumes additional flights by 2025, which would result in more refueling activities compared to existing uses. This would occur with or without the Adjacent Property Full-Size Terminal Option.

Existing fuel usage at the site was estimated from SCAQMD permits for jet fueling activities. A Facility Information Detail (FIND) database search was performed for jet refueling contractors at the airport. Based on this search, it was determined that the fuel storage capacity of jet refueling contractors in the vicinity of the airport is approximately 250,000 gallons of fuel with a throughput of approximately 11 million gallons per month.[36] Jet fueling activities (storage, transport, loading and unloading) would be performed compliant with SCAQMD and CARB permitting requirements regarding vapor recovery and control. However, small amounts of vapor may be released during handling of jet fuel through volatilization.

In order to identify potential impacts resulting from volatilization of jet fuel, emissions resulting from the additional fuel handling was calculated based on U.S. EPA AP-42 emission factors for jet fuel handling.[37] With an expected increase of approximately one million passengers by 2025, the amount of jet fuel handled was also assumed to increase (the fleet mix for future operations is expected to increase the number of passengers per aircraft, which would reduce the number of flights in proportion to the increase in passengers). Currently the Airport emits about 29 pounds per day of VOCs. The increase in VOC emissions in 2025 resulting from the additional fuel handling was calculated to be 34 pounds per day, with a net increase of VOC emissions of 5 pounds per day. With regards to air quality analyses and permit applications, the SCAQMD has set a threshold of 55 lbs/day VOC. The increase in VOC emissions resulting from additional fuel handling would represent a fraction of this threshold. VOC emissions would not exceed SCAQMD thresholds, therefore impacts resulting from volatilization of jet fuel would be less than significant.

The increase in fuel truck trips and amount of fuel stored near the Airport would also represent an increase in risk of potential accidental release. However, the aircraft refueling contractors would be required to abide by FAA standards for Aircraft Fuel Servicing and Fuel Safety. These standard specify safety requirements such as emergency fuel shutoff systems, fire safety and fire extinguishers, storage and transport safety.[38] Although the amount of jet fuel handled would increase, compliance with safety standards should prevent any accidental releases of jet fuel. The increase in jet fuel would happen with or without the proposed project. Therefore, the Adjacent Property Full-Size Terminal would result in a less-than-significant impact with regard to accidental release.

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36 South Coast Air Quality Management District, 2016. Facility Information Detail database search for Jet Refueling Contractors.

37 United States Environmental Protection Agency, 2006. AP-42 Compilation of Air Pollutant Emission Factors

38 Federal Aviation Administration, 2013. Standards for Aircraft Fuel Servicing and Fuel Safety Training.

Mitigation Measure ADJ PROP FULL-HAZ-2

No mitigation is warranted.

IMPACT ADJ PROP FULL-HAZ-3: Impacts Related to Hazardous Emissions Near a School

CONSTRUCTION

Demolition of the existing passenger terminal will take place within one quarter mile of the Providencia Elementary School. Based on the asbestos and LBP surveys performed for the existing passenger terminal, small quantities of asbestos and LBP were detected. During asbestos and LBP removal activities, workers would comply with SCAQMD Rule 1403 regulations, the Operations and Maintenance Program of the Airport, and Mitigation Measures ADJ PROP FULL-HAZ-1A and 1B, to prevent asbestos and LBP from being released into the environment.

Trucks hauling demolition debris would likely use North Hollywood Way to Interstate 5, which would avoid passing by any schools. As discussed in Chapter 3.18, solid waste generated in the city was primarily hauled to eight landfills: Chiquita Canyon Sanitary Landfill, Sunshine Canyon City/County Landfill, Simi Valley Landfill and Recycling Center, Puente Hills Landfill, Lancaster Landfill and Recycling Center, Olinda Alpha Sanitary Landfill, and Azusa Land Reclamation Co. Landfill. Access to these landfills would require access to the Interstate 5 freeway. Trucks carrying demolition debris from the Airport would be decontaminated and inspected before being allowed to leave per regulatory compliance. Implementation of the PDFs and Mitigation Measures ADJ PROP FULL-HAZ-1A and 1B would ensure that impacts on school staff, attendees and visitors from emissions related to handling site materials would be less than significant.

OPERATIONS

Once demolition of the existing terminal is complete, operational activities would not occur within one quarter mile of a school. Therefore, the Adjacent Property Full-Size Terminal Option would not emit or handle hazardous materials within one quarter mile of a school, resulting in a less-than-significant impact.

Mitigation Measure ADJ PROP FULL-HAZ-3

No mitigation is warranted.

IMPACT ADJ PROP FULL-HAZ-4: Impacts Related to Location on a Site on the Cortese List

CONSTRUCTION

The Adjacent Property Full-Size Terminal Option would be constructed on a site that is included on the Cortese List pursuant to Government Code Section 65962.5 as Lockheed Plant B-6. However, only a portion of the Adjacent Property Full-Size Terminal Option would be located on the former Plant B-6 site. The existing passenger terminal is not listed on the Cortese List. Construction workers may potentially be exposed during soil handling activities including excavation, grading and paving activities at the site. However, ground-disturbing activities would be conducted in accordance with applicable federal, state and local regulations. Numerous soils investigations for the former Plant B-6 indicate that contamination at the northeast quadrant would not likely expose the public or the environment to hazardous materials. In addition, the RWQCB has issued No Further Action (NFA) letters for the soils investigations performed at the site indicating that the site requires no further remediation activities. Additionally, a site-specific Health and Safety Plan that incorporates OSHA and CalOSHA regulations, as well as FAA and airport health and safety requirements in order to minimize the risk of injury to site workers. The project Applicant would also prepare a Soil Management Plan with RWQCB approval, PDF HYDRO-2, which would outline the framework for contaminated soils assessment and identification, including hexavalent chromium, remediation, removal and disposal actions in accordance with applicable regulations. In the event that Project-related excavation unexpectedly encounters VOC-contaminated soil, the continuation of such excavation would be carried out in accordance with SCAQMD Rule 1166. Compliance with PDF HAZ-1, PDF HAZ-2, and PDF HYDRO-2 and other applicable rules and regulations would ensure that impacts related to location on a site on the Cortese list would be less than significant.

OPERATIONS

A conceptual exposure model (CEM) was prepared to assess impacts on workers during operational (long-term) activities. The CEM identifies the potential sources of exposure (soil and groundwater), and the potential pathway to human exposure. Potential pathways include ingestion of contaminated groundwater, inhalation of volatiles from sub-surface volatilization of contaminants, and inhalation or direct dermal contact with contaminated soil.

Direct exposure (ingestion) to chemicals in groundwater was considered an incomplete pathway, meaning that the exposure path from the source to the human was not complete, and was not further evaluated because groundwater in the area is not being used as a potable or municipal water source, nor is future use planned. Thus, the drinking water potential exposure pathway is incomplete because there is no current or anticipated future exposure to groundwater through ingestion. In addition, groundwater levels are deeper than 75 feet below ground surface and long-term operational activities would not likely reach this depth. The RWQCB has also issued NFA letters for wells located on the northeast quadrant, indicating that groundwater would not pose a threat to human health.

Exposure due to volatilization of sub-surface contaminants is also an incomplete pathway. Extensive soil testing performed during the Additional Site Investigation Report indicated that VOC concentrations are well below field screening criteria.[39] As VOC concentrations are below the screening threshold, the potential to expose sensitive receptors to VOCs is not likely. Therefore, this pathway is considered incomplete and no further analysis is necessary.

With regard to exposure due to inhalation or dermal contact with soil, the soils investigation indicated one location (AOC 13) detected hexavalent chromium in soil samples at a depth of approximately 20 feet. However, the calculated AHCAC values indicate that the contamination is unlikely to migrate to the water table and would not represent a significant source of hexavalent chromium in soil or to groundwater.[40] Long-term operation of the site would not likely expose sensitive receptors to soil contamination because maintenance activities would not disturb soils to a depth that soil contamination would be expected. Soil

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[39] Tetra Tech, 2014. Revised Additional Site Investigation Work Plan, Former Lockheed Martin Plants A-1 North, B-1, B-6 and C-1, Burbank California

[40] Ibid.

cleanup activities performed at the site would also minimize the possibility of exposure to workers. Since the Authority would implement PDFs as discussed previously to minimize hazards or hazardous materials impacts on the public or environment. As the CEM demonstrates, all exposure pathways are incomplete, meaning there is not a direct connection from the contamination to human exposure. Therefore, impacts on on-site workers would be less than significant.

As discussed previously, operational activities at the site would not expose individuals to hazardous materials or substances. Therefore, impacts associated with hazardous materials during operational activities would be less than significant.

Mitigation Measure ADJ PROP FULL-HAZ-4
No mitigation is warranted.

IMPACT ADJ PROP FULL-HAZ-5: Impacts Related to Safety Hazard for People in Airport Vicinity

CONSTRUCTION

The project is located within the Burbank Airport Planning Boundary and Airport Influence Area. The planning boundaries delineate areas subject to safety hazard such as height restrictions and runway protection zones (RPZ). As part of the project, Taxiways A and C would be extended and Taxiway G would be realigned. All construction activities near the airfield would require filing Form 7460-1 (Notice of Proposed Construction or Alteration) with the FAA and approval from the FAA prior to construction. With FAA approval, construction impacts related to airport obstruction hazards would be less than significant.

Construction debris and materials would be comprised of dirt, concrete and other materials and would not be a large bird attractant. In addition, food waste from construction workers would be disposed of in sealed containers so as not to attract birds. Therefore, construction impacts related to wildlife hazards would be less than significant.

Construction lighting, glare and reflection would be properly managed to ensure impacts to aircraft would not occur. Construction lighting would be shielded to prevent glare or light spillover from reaching aviation and aircraft operations. Reflective or mirroring building materials are not allowed as primary building materials and their use would be minimal during construction. Materials on the project site during construction would not create reflective hazards. Therefore, construction impacts related to lighting and glare hazards would be less than significant.

OPERATIONS

Operation hazards would be created if a proposed project were to construct an object high enough to interfere with a flight path, cause distracting light or glare that could interfere with a pilot's ability to control the flight of the aircraft, or create an attraction to wildlife, especially birds, that would pose hazards to aircraft all of which could result in risks of death or injury to people in the airplane or on the ground. Federal Aviation Regulations Part 77, Objects Affecting Navigable Airspace, establishes minimum standards to ensure air safety by regulating the construction or alteration of buildings or structures that may affect airport operations. The FAA requires that Form 7460-1 be filed with the FAA regional office prior to construction for buildings that are 200 feet or greater in height from the grading terrain. In addition, generally any structure that exceeds an overall height of 200 feet AGL should be marked and/or lighted. However, the determination is made by FAA and depends on terrain features, weather patterns, geographic location, number of structures, and overall design layout. The Project applicant will file Form 7460 with the FAA for the entire terminal project. The finished height of the replacement terminal would be less than 200 feet AGL and would not result in a significant impact. The Adjacent Property Full-Size Terminal Option would not result in any distracting light or glare that could interfere with a pilot's ability to fly as it will comply with all FAA regulations and guidelines. It may have ramp lighting fixtures that would not comply with Part 77 regulations and if that's the case, they would have red obstruction lights. This variance would have to be approved by the FAA. The project would comply with applicable BMPs specified in Advisory Circular No: 150/5200-33B which provides specific guidance on wildlife hazards. Adhering to these guidelines will reduce the potential for wildlife to be attracted to the northeast quadrant, which reduces the chance for wildlife hazards. As a result, compliance with FAA guidelines would result in hazard impacts associated with operations to a less-than-significant impact.

Mitigation Measure ADJ PROP FULL-HAZ-5

No mitigation is warranted.

IMPACT ADJ PROP FULL-HAZ-6: Impacts Related to Emergency Response or Evacuation Plans

CONSTRUCTION

A lack of adequate access could impair the implementation of adopted emergency response plans by impeding the movement of emergency vehicles. During construction activities, lanes may be closed in order to facilitate utility tie-ins on Hollywood Way, and off-site construction required within the city right-of-way. However, if lane closures are needed for demolition or excavation activities, it would be done in accordance with City of Burbank permits and requirements. During construction, roadway access would be maintained by construction detours and diversions which would minimize disruptions to traffic flow and emergency vehicle access. Construction activities may require temporary street closures for storm drain improvements along Winona and Hollywood Way. However, these would occur at night and most likely one lane will be kept open in both directions for access by emergency vehicles. These activities would also not interfere or block evacuation routes specified in the Burbank General Plan Safety Element. Therefore, impacts relating to interference with an adopted emergency response or evacuation plan during construction activities would be less than significant.

OPERATIONS

The Authority currently has an FAA-approved Airport Emergency Plan which establishes actions that responsible agencies should take to respond promptly to emergencies. It is expected that the same plan would apply to the replacement terminal. The existing ARFF station currently located in the northwest quadrant of the airport would remain operational until the new building on the northeast quadrant is ready. The relocated ARFF station would operate in the same capacity as the existing station and continue to be responsible for responding to emergencies at the airport. However, the Burbank Fire Department has ultimate responsibility for all incidents in the City.

The Airport is not located along a local evacuation route as indicated in the General Plan Safety Element, the nearest such route is located along North San Fernando Valley Boulevard. Operation of the Adjacent Property Full-Size Terminal Option would not require activities that would interfere with the evacuation route. Temporary street closures at night, might be required, but they would leave one lane open in either direction for emergency access.

Safety hazards associated with an airport are generally related to construction of tall structures that could interfere with airplane flight paths, or with increasing the number of people working or residing in areas subject to crash hazards. The Airport Emergency Plan establishes actions that responsible agencies should take to respond promptly to emergencies, minimizing the possibility and extent of personal injury and property damage around the airport. The Los Angeles County Airport Land Use Commission has adopted an Airport Influence Area for the Bob Hope Airport. The Airport Influence Area is the area in which noise, overflight, safety, or airspace protection factors may affect land uses or necessitate restrictions on those uses. The Los Angeles County Airport Land Use Plan identifies two safety zones within the planning boundaries of the airport: the Approach Surface and the Runway Protection Zone. The Los Angeles County Fire Department (LACFD) Health Hazardous Materials Division is the Certified Unified Program Agency (CUPA) for the City of Burbank, with the Burbank Fire Department authorized as a participating agency. The LACFD and the Burbank Fire Department work together to implement the City's Multi Hazard Functional Plan that addresses Burbank's planned response to emergencies. The Adjacent Property Full-Size Terminal Option would comply with the Burbank 2035 Safety Elements Policy 1.1 which requires regular updates of all disaster preparedness and emergency response plans and Policy 1.2 which requires coordination of disaster preparedness and emergency response with appropriate agencies, including the Burbank Police Department, Burbank Fire Department, and Burbank-Glendale-Pasadena Airport Authority.

The Authority would work closely with the Burbank Fire Department to ensure that Safety Element Policies 1.1 and 1.2 of the Burbank 2035 General Plan is implemented and updated as a result of the Adjacent Property Full-Size Terminal Option. The Adjacent Property Full-Size Terminal Option would not interfere with emergency access or evacuation routes. Therefore, impacts during operation relating to interference with an adopted emergency response or evacuation plan would be less than significant.

Mitigation Measure ADJ PROP FULL-HAZ-6

No mitigation is warranted.

IMPACT ADJ PROP FULL-HAZ-7: Impacts Related to Wildland Fires

No wildlands are present at the Airport or in the surrounding area. Furthermore, the Airport is not designated as a Mountain Fire Zone area by the City of Burbank. Therefore, the Adjacent Property Full-Size Terminal Option would not expose people or structures to a significant risk involving wildland fires. Impacts associated with exposing people or structures to wildland fires would be less than significant.

Mitigation Measure ADJ PROP FULL-HAZ-7

No mitigation measures are required.

Cumulative Impacts

IMPACT ADJ PROP FULL-HAZ-8: Cumulative Impacts Related to Hazards and Hazardous Materials

CONSTRUCTION

The other projects in the vicinity of the Airport are presented in **Section 3.1.** The cumulative context for hazards and hazardous materials is generally site-specific rather than regional. All developments under construction in the Airport vicinity would routinely use, transport and dispose of hazardous materials which could expose workers or the public to hazardous materials through either routine use or accidental release. In addition, workers could be exposed to contaminated soil and/or groundwater during excavation and grading activities or other hazardous materials such as ACM, PCBs or LBP during demolition. Existing federal, state and local regulations regarding the storage and handling of hazardous wastes; including, but not limited to, ACM, PCBs, LBP, contaminated soil or groundwater, gasolines, fuels, lubricating oils, pesticides, etc., cleanup and remediation of leaking contaminants, hazardous wastes, and hazardous substances limit the public health and safety impacts from the accidental release of and exposure to hazardous substances. Compliance with existing federal, state, regional, and local regulations would reduce risks of accidents associated with the transport, use, or disposal of hazardous materials from the Adjacent Property Full-Size Terminal Option and other related projects to a less than significant cumulative impact. If project construction would require temporary street closures or traffic diversions, the project applicants would have to file permits with the City for approval. The permit process would ensure that traffic and emergency vehicles would still have access. Compliance with City permits would ensure that construction of projects would interference with adopted emergency response or evacuation plans and cumulative impacts would be less than significant.

OPERATIONS

The other projects in the vicinity of the Airport are presented in **Section 3.1**. The cumulative context for hazards and hazardous materials is generally site-specific rather than regional. All developments in the Airport vicinity would routinely use, transport and dispose of hazardous materials which could expose workers or the public to hazardous materials through either routine use or accidental release. The Adjacent Property Full-Size Terminal Option and related projects would be required to work with the CUPA to implement the City's Multi-Hazard Functional Plan to respond to emergencies that could potentially occur onsite. The Burbank 2035 General Plan Safety Element requires projects to provide regular updates to of all disaster preparedness and emergency response plans per Policy 1.1 and requires coordination of disaster preparedness and emergency response with appropriate agencies, neighboring cities and the Burbank-Glendale-Pasadena Airport Authority per Policy 1.2. In addition, the related developments would have to ensure that emergency vehicle access and the emergency evacuation routes are not restricted. Existing federal, state and local regulations regarding the use, storage and handling of hazardous wastes limit the public health and safety impacts from the accidental release of and exposure to hazardous substances. Preparation of emergency response plans and coordination with the City would ensure that emergency access and evacuation routes are not compromised. Therefore, compliance with existing federal, state, regional, and local regulations would reduce risks of accidents associated with the transport, use, or disposal of hazardous materials and reduce interference with adopted emergency response or evacuation plans from operation of the Adjacent Property Full-Size Terminal Option and other related projects to a less than significant cumulative impact.

3.9.3.3 SOUTHWEST QUADRANT FULL-SIZE TERMINAL OPTION

Project Impacts

IMPACT SW QUAD FULL-HAZ-1: Impacts Related to Transport, Use, or Disposal of Hazardous Materials

The Southwest Quadrant Full-Size Terminal Option would potentially involve the transport, use, and disposal of hazardous materials. However, implementation of the proposed PDFs, identified mitigation measures, and compliance with applicable regulatory requirements would result in no exposure of persons to substantial risk resulting from the release of hazardous materials or exposure to health hazards in excess of regulatory standards associated with USTs, groundwater, asbestos, lead-containing materials, PCBs, or vapor encroachment. Therefore, impacts associated with the transport, use, or disposal of hazardous materials would be less than significant.

CONSTRUCTION

Asbestos Containing Materials and Lead-Based Paint

During demolition activities, workers may encounter ACMs and LBP in older buildings, which would be a potentially significant impact. As mentioned previously, an asbestos survey discovered ACMs in Terminals A and B, which will be demolished as part of the Southwest Quadrant Full-Size Terminal Option. Asbestos was detected in various offices of Terminal A and B, Building 9 and 10 in various building components including drywall, acoustical ceiling, flooring and mastic. ACMs have not yet been identified in the other buildings to be demolished or relocated on the southwest quadrant. A survey will be done prior to demolition to see if they contain ACMs.

LBP was detected in Building 34 and yellow traffic striping paint, which is a potentially significant impact. Prior to any demolition of Building 34 or removal of traffic striping paint, a waste characterization test would be performed to confirm that demolition building debris would not be classified as California hazardous non-RCRA lead waste.

Hazardous Materials

Under the Southwest Quadrant Full-Size Terminal Option, both Taxiway A and Taxiway C would be extended and Taxiway G would be realigned to maximize safety and efficiency of aircraft movements on the ground. In addition, the Southwest Quadrant Full-Size Terminal Option includes construction of the replacement terminal, parking facilities, aircraft ramp, and other buildings to support airport functions, Construction of proposed Project would involve hazardous materials typical to construction, including gasoline, motor oils, and other similar materials. All potentially hazardous construction materials would be used and stored in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. Any risk associated with transport, use, or disposal of these materials would be minimized to less than significant levels through compliance with these standards and regulations.

Groundwater and Soil

The site for the Southwest Quadrant Full-Size Terminal Option would be located southwest of the existing runways and is a portion of the former Lockheed Plant B-5**.** A Phase 1 Site Characterization, soil sampling, was performed at the former Lockheed Plant B-5 in 1990. Results of the Phase 1 Site Characterization determined that no significant soil contamination was found onsite[41]. However, during excavation activities, workers may encounter contaminated soil. Construction workers may potentially be exposed during soil handling activities including excavation, grading and paving activities at the site. However, ground-disturbing activities would be conducted in accordance with applicable federal, state and local regulations. Additionally, a site-specific Health and Safety Plan that incorporates OSHA and CalOSHA regulations, as well as FAA and airport health and safety requirements in order to minimize the risk of injury to site workers. In the event that Project-related excavation unexpectedly encounters VOC-contaminated soil, the continuation of such excavation would be carried out in accordance with SCAQMD Rule 1166. Compliance with applicable rules and regulations would ensure that construction would not result in an unauthorized release of hazardous materials through the use or transport of these materials that would create a hazard to the public or the environment. In the absence of any other known hazardous materials within the existing soil as well as with other existing regulatory requirements described above, no significant impacts related to hazards and hazardous materials would occur.

Depth of groundwater historically is below 75 feet below ground surface with groundwater encountered most recently at depths of approximately 220 feet below ground surface. Based on these depths, construction of the Southwest Quadrant Full-Size Terminal Option would not encounter contaminated groundwater. As discussed in **Section 3.10**, construction dewatering is not anticipated to be required. But if dewatering is needed, the project would apply for coverage under the National Pollution Discharge Elimination System Permit and adhere to monitoring requirements set forth by the RWQCB. If dewatering is required, groundwater that was found to be contaminated would be properly treated prior to being discharged in accordance with the NPDES permit. Uncontaminated groundwater may be treated and pumped to the storm drain system or used for on-site dust control purposes. Compliance with regulatory requirements would ensure that dewatering during construction would not expose workers or off-site sensitive populations to substantial risk resulting from the project's handling of impacted groundwater. Therefore, impacts associated with encountering contaminated groundwater would be less than significant.

Underground Storage Tanks

During excavation and demolition activities, workers may encounter underground storage tanks. As discussed previously, all historic underground storage tanks, sumps and clarifiers have been removed from the site or abandoned in place. It is not expected that construction activities will encounter the abandoned in place USTs. The southwest quadrant currently has two active USTs that are owned by Hertz and Avis. As part of the Southwest Quadrant Full-Size Terminal Option, the rental car storage area, including the USTs, would be moved to the northeast quadrant. Removal and installation of the USTs for Hertz and Avis would be conducted by a licensed UST contractor who also possesses a Hazardous Substance Certification. Removal and installation would be done in accordance with rules and regulations regarding USTs from the

[41] A.L. Burke Engineers, Inc., 1990. Final Report on Site Characterization Phase 1: Soil Sampling Burbank-Glendale-Pasadena Airport Authority, Burbank California.

State Water Resources Control Board with oversight form the local CUSP. Compliance with regulatory requirements would ensure that impacts form the removal and installation of the USTs would be less-than-significant.

Polychlorinated Biphenyls (PCBs)

During demolition, a potential source of PCBs is ballast contained within the fluorescent lights. If fluorescent light ballast not specifically labeled as "No PCBs" is found, removal and disposal would be performed by a licensed PCB removal contractor prior to demolition. Compliance with regulatory requirements would ensure that impacts associated with PCBs would be less than significant.

OPERATIONS

The Southwest Quadrant Full-Size Terminal Option would accommodate the same types of aircraft and routine maintenance activities that are currently occurring at various places throughout the Airport. As with current operations, maintenance workers would continue to comply with all applicable regulations. For instance, exposure of maintenance workers to contaminated materials would be minimized by implementing the measures required by federal, state, and local laws and regulations. As discussed above, these include OSHA and CalOSHA standards, which establish exposure limits for workers; require protective equipment or other protective measures, when warranted; and require employers to provide a written health and safety program, worker training, emergency response training, and medical surveillance. Therefore, the proposed project would result in less-than-significant impacts with respect to maintenance worker exposure to hazardous materials.

The Southwest Quadrant Full-Size Terminal Option would include typical airport uses and would use and produce typical hazardous materials and wastes such as fuel, paints, commercial cleansers, herbicides, and pesticides, solvents, and lubricants. These hazardous materials are regulated by applicable federal, state, and local regulations. Compliance with these requirements would serve to minimize health and safety risks to people or structures associated with routine use, transport, and disposal as well as accidental release of or exposure to hazardous materials. Therefore, operational impacts associated with the Adjacent Property Southwest Quadrant Full-Size Terminal Option related to use, transport, or disposal of hazardous materials would be less than significant.

As stated above, the site is located within the Burbank Operable Unit of the San Fernando Valley Superfund Area 1 which is contaminated by VOCs such as PCE and TCE. There are ongoing groundwater remediation efforts in the vicinity of the site. Operational maintenance activities associated with the Southwest Quadrant Full-Size Terminal Option would occur within the boundaries of the Project site where no remediation efforts are currently taking place. Operation of the Southwest Quadrant Full-Size Terminal Option would not result in impacts to current groundwater remediation efforts in the vicinity. Therefore, impacts would be less than significant.

Mitigation Measure SW QUAD FULL-HAZ-1A

The removal of ACMs would be subject to SCAQMD and Cal-OSHA requirements to ensure proper handling, notification, and disposal and would be performed by a licensed asbestos abatement contractor Prior to any interior demolition or renovation within the buildings containing ACMs, an Asbestos Operations and

Management Plan (Asbestos O&M Plan) would be implemented to manage in place any ACMs during demolition activities. The Asbestos O&M Plan would address building cleaning, maintenance, renovation, and general operation procedures to minimize exposure to asbestos. An asbestos survey would be performed prior to demolition. The survey would include the inspection, identification and quantification of all friable and Class I and Class II non-friable asbestos containing materials and physical samplings. Removal procedures could include; HEPA filtration, glovebag, adequate wetting, dry removal or another approved alternative. All ACWM would be collected and placed in transparent, leak-tight containers or wrapping. All ACWM would be contained in leak tight containers, labeled appropriately, transported and disposed of in accordance with applicable rules and regulations.

Mitigation Measure SW QUAD FULL-HAZ-1B

Prior to demolition activities involving any areas known to contain lead-based paint, the Project applicant would follow all procedural requirements and regulations for its proper removal and disposal. The removal of LBP would be subject to Cal-OSHA requirements to ensure proper handling, notification, and monitoring and would be performed by a licensed LBP abatement contractor. All trucks transporting lead-based waste would be covered or enclosed. All lead-based waste material would be contained properly, labeled appropriately, transported and disposed of in accordance with applicable rules and regulations.

Significance after Mitigation: Implementation of Mitigation Measures SW QUAD FULL-HAZ-1A and 1B would reduce the impact related to the transport, use, or disposal of hazardous materials to a less-than-significant level.

IMPACT SW QUAD FULL-HAZ-2: Impacts Release of Hazardous Materials Through Foreseeable Upset or Accident Conditions

CONSTRUCTION

Construction of the Southwest Quadrant Full-Size Terminal Option would involve hazardous material typical to construction, including gasoline, motor oils, paints, solvents, and other miscellaneous materials (e.g., engine oil, etc.). All potentially hazardous materials would be used and stored in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. Any risk associated with transport, use, or disposal of these materials would be minimized to less than significant levels through compliance with these standards and regulations. A site-specific Health and Safety plan would be developed which would include at a minimum, "identification/description of the following: site description and features; site map; site history; waste types encountered; waste characteristics; hazards of concern; disposal methods and practices; hazardous material summary; hazard evaluation; required protective equipment; decontamination procedures; emergency contacts; hospital map and contingency plan." Construction workers would be properly trained for and prepared to deal with these hazardous materials and wastes. If an accidental release (spill) occurs, the lead agencies with jurisdiction would be notified and immediate actions to ensure the health and safety of the public and workers and to protect the environment would be taken. The handling of any hazardous materials, substances and wastes during construction would be controlled through regulatory requirements and the Health and Safety Plan to avoid any significant hazards to the public or the environment. Therefore, construction impacts related to transportation, use, or disposal of hazardous materials would be less than significant.

Heavy-duty equipment, such as excavators and dump trucks, do contain hazardous materials such as diesel fuel. Diesel fuel may be delivered in bulk, stored on-site in aboveground storage tanks (AST) or brought on-site by a mobile re-fueler, and dispensed as needed into individual pieces of equipment. A mobile maintenance vendor may be called on-site for routine maintenance, but equipment would be taken off-site if significant maintenance or repair were required. The drivers/operators of the bulk delivery trucks or mobile re-fuelers are trained and equipped to respond to a fuel spill, should one occur. Operators of heavy-duty equipment are trained to remain alert and nearby during fueling of equipment, and spills, should they occur, should not reach the offsite environment. Failure of the AST is possible. However, with controls, such as secondary containment, even a complete de-inventory of the diesel fuel from the AST is not expected to reach the offsite environment. Any spill of diesel fuel upon the Site would be remediated and treated in accordance with applicable regulations. Therefore, an accidental release scenario involving the spill of fuel from a mobile re-fueler or from the AST does not warrant further evaluation. The site-specific health and safety plan would include measures to appropriately handle an onsite accidental release of fuel or other material from the equipment, resulting in a less-than-significant impact to accident or upset conditions..

As discussed previously, the removal (demolition and excavation) of impacted building materials and soils would be performed in compliance with BMPs and regulatory requirements. Based on NFA letters issued by the RWQCB for the project site, it is unlikely that excavation activities would encounter contaminated soil. Demolition debris and soil transported off-site may contain hazardous materials in small quantities. For haul trucks, the probability of an accident involving a collision is estimated to be 2 per 1,000,000 miles travelled.[42] However, not all collisions would result in a breach of the container and release to the environment. The probability of a release of a solid hazardous cargo is approximately 9.1 percent for solid materials.[43] As discussed in **Section 3.4**, the Southwest Quadrant Full-Size Terminal Option would generate approximately 111,500 cubic yards (CY) of demolition debris. However, a small portion of this amount would contain ACMs. The exact amount of ACMs contained in demolition debris is not yet know, but as a conservative assumption, it was assumed that all demolition debris may contain ACMs. The transport of demolition material would require approximately 22,300 roundtrips. The assumed trip-length of haul trucks removing demolition debris is 20 miles, which equates to approximately 446,000 total vehicle miles traveled (VMT) to transport the 111,500 CY. Based on the rate of 2 collisions per 1,000,000 miles travelled, this poses a mathematical collision chance of 0.89, where 1 means it is likely to occur once during the lifetime of the project. With a release rate of 0.08 percent of accidents, the probability of a release of AHM in transport to off-site receiver landfills is 0.01, using very conservative assumptions in that all of the 111,500 CY contains AHMs. Therefore, a collision involving a truck transporting this material resulting in a release is unlikely to occur as the probability is less than one over the project's lifetime. Drivers of waste hauling trucks are required to be trained to respond to and contain releases, and appropriate controls are in place. Therefore, short-term impacts related to accident or upset conditions would be less than significant and no mitigation measures are required.

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42 Argonne National Laboratory, 1996. Environmental Assessment Division, Risk Assessment for the Transportation of Hazardous Waste and Hazardous Waste Components of Low-Level Mixed Waste and Transuranic Waste for the U.S. Department of Energy Waste Management Programmatic Environmental Impact Statement.

43 Ibid.

OPERATIONS

The Southwest Quadrant Full-Size Option Terminal would not result in new operational activities in comparison to the existing site. Major maintenance activities are not currently performed at the Airport and would not likely be performed at the replacement passenger terminal. Aircraft parked at the terminal would have minor maintenance checks performed. However, aircraft parking at the replacement passenger terminal would continue to perform refueling activities in the same manner as existing activities. During refueling activities, trucks would typically deliver fuel to the aircraft parked at the terminal, and jet fuel may potentially be spilled or released accidentally. New stationary fuel storage tanks are not anticipated as part of the Southwest Quadrant Full-Size Terminal Option.

Currently refueling activities are typically performed by contractors which may store fuel at the Airport at existing tanks located in the northeast quadrant. Fuel trucks would travel along a newly constructed service road on the airport to the aircraft parking ramp. Although the replacement passenger terminal would have the same number of gates as the existing terminal, the forecasts assume additional flights by 2025, which would result in more refueling activities compared to existing uses. This would occur with or without the Southwest Quadrant Full-Size Terminal Option.

Existing fuel usage at the site was estimated from SCAQMD permits for jet fueling activities. A Facility Information Detail (FIND) database search was performed for jet refueling contractors at the airport. Based on this search, it was determined that the fuel storage capacity of jet refueling contractors in the vicinity of the airport is approximately 250,000 gallons of fuel with a throughput of approximately 11 million gallons per month.[44] Jet fueling activities (storage, transport, loading and unloading) would be performed compliant with SCAQMD and CARB permitting requirements regarding vapor recovery and control. However, small amounts of vapor may be released during handling of jet fuel through volatilization.

In order to identify potential impacts resulting from volatilization of jet fuel, emissions resulting from the additional fuel handling were calculated based on U.S. EPA AP-42 emission factors for jet fuel handling.[45] With an expected increase of approximately one million passengers by 2025, the amount of jet fuel handled was also assumed to increase (the fleet mix for future operations is expected to increase the number of passengers per aircraft, which would reduce the number of flights in proportion to the increase in passengers). Existing VOC emissions are 29 pounds per day. With the increase in passengers in 2025, VOC emissions are estimated to be 39 pounds per day. The net increase in VOC emissions resulting from the additional fuel handling was calculated to be 10 pounds per day. With regards to air quality analyses and permit applications, the SCAQMD has set a threshold of 55 lbs/day VOC. The increase in VOC emissions resulting from additional fuel handling would represent a fraction of this threshold. VOC emissions would not exceed SCAQMD thresholds, therefore impacts resulting from volatilization of jet fuel would be less than significant.

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44 South Coast Air Quality Management District, 2016. Facility Information Detail Database Search for Jet Refueling Contractors.

45 United States Environmental Protection Agency, 2006. AP-42 Compilation of Air Pollutant Emission Factors

The increase in fuel truck trips, the increased distance they travel to the aircraft, and amount of fuel stored near the Airport would also represent an increase in risk of potential accidental release. However, the aircraft refueling contractors would be required to abide by FAA standards for Aircraft Fuel Servicing and Fuel Safety. These standard specify safety requirements such as emergency fuel shutoff systems, fire safety and fire extinguishers, storage and transport safety.[46] Although the amount of jet fuel handled would increase, compliance with safety standards should prevent any accidental releases of jet fuel. The increase in jet fuel would happen with or without the proposed project. Therefore, the Southwest Quadrant Full-Size Terminal Option would result in a less-than-significant impact with regard to accidental release.

Mitigation Measure SW QUAD FULL-HAZ-2

No mitigation is warranted.

IMPACT SW QUAD FULL-HAZ-3: Impacts Related to Hazardous Emissions Near a School

CONSTRUCTION

Demolition of the existing passenger terminal will take place within one quarter mile of the Providencia Elementary School. Based on the asbestos and lead surveys performed for the existing passenger terminal, small quantities of asbestos and LBP were detected. During demolition and asbestos and LBP removal activities, workers would comply with SCAQMD Rule 1403 regulations, the Operations and Maintenance Program of the Airport, and Mitigation Measures SW QUAD FULL-HAZ-1A and 1B to prevent asbestos and LBP from being released into the environment.

Trucks hauling demolition debris would likely use North Hollywood Way to Interstate 5, which would avoid passing by any schools. Trucks carrying demolition debris from the Airport would be decontaminated and inspected before being allowed to leave per regulatory compliance. Implementation of the PDFs and Mitigation Measures SW QUAD FULL-HAZ-1A and 1B would ensure that impacts on school staff, attendees and visitors from emissions related to handling site materials would be less than significant.

OPERATIONS

Once demolition of the existing terminal is complete, operational activities would not occur within one quarter mile of a school. Therefore, the Southwest Quadrant Full-Size Terminal Option would not emit or handle hazardous materials within one quarter mile of a school, resulting in a less-than-significant impact.

Mitigation Measure SW QUAD FULL-HAZ-3

No mitigation is warranted.

IMPACT SW QUAD FULL-HAZ-4: Impacts Related to Location on a Site on the Cortese List

CONSTRUCTION

The Southwest Quadrant Full-Size Terminal Option would be constructed on a site that is included on the Cortese List pursuant to Government Code Section 65962.5 as Lockheed Plant B-5. However, only a portion

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46 Federal Aviation Administration, 2013. Standards for Aircraft Fuel Servicing and Fuel Safety Training.

of the general aviation development would be located on the former Plant B-5 site. The existing passenger terminal is not listed on the Cortese List. Construction workers may potentially be exposed during soil handling activities including excavation, grading and paving activities at the site. However, ground-disturbing activities would be conducted in accordance with applicable federal, state and local regulations. A soils investigations for the former Plant B-5 indicates that contamination at the southwest quadrant would not likely expose the public or the environment to hazardous materials. In addition, the RWQCB has issued NFA letters for the soils investigations performed at the site indicating that the site requires no further remediation activities. Additionally, a site-specific Health and Safety Plan that incorporates OSHA and CalOSHA regulations, as well as FAA and airport health and safety requirements in order to minimize the risk of injury to site workers. In the event that Project-related excavation unexpectedly encounters VOC-contaminated soil, the continuation of such excavation would be carried out in accordance with SCAQMD Rule 1166. Compliance with PDF HAZ-1, PDF HAZ-2, and other applicable rules and regulations would ensure that impacts related to location on a site on the Cortese list would be less than significant.

OPERATIONS

A conceptual exposure model (CEM) was prepared to assess impacts on workers during operational (long-term) activities. The CEM identifies the potential sources of exposure (soil and groundwater), and the potential pathway to human exposure. Potential pathways include ingestion of contaminated groundwater, inhalation of volatiles from sub-surface volatilization of contaminants, and inhalation or direct dermal contact with contaminated soil.

Direct exposure (ingestion) to chemicals in groundwater was considered an incomplete pathway, meaning that the exposure path from the source to the human through ingestion was not complete, and was not further evaluated. This pathway was considered incomplete because groundwater in the area is not being used as a potable or municipal water source, nor is future use planned. Thus, the drinking water potential exposure pathway is incomplete because there is no current or anticipated future exposure to groundwater through ingestion. In addition, groundwater levels are deeper than 75 feet below ground surface and long-term operational activities would not likely reach this depth. The RWQCB has also issued NFA letters for wells located on the northeast quadrant, indicating that groundwater would not pose a threat to human health.

Exposure due to volatilization of sub-surface contaminants is also an incomplete pathway. Soil testing performed during the Phase 1 Site Characterization indicated that VOC concentrations are well below field screening criteria.[47] As VOC concentrations are below the screening threshold, the potential to expose sensitive receptors to VOCs is not likely. Therefore, this pathway is considered incomplete and no further analysis is necessary.

With regard to exposure due to inhalation or dermal contact with soil, the soils investigation indicated that no significant soil contamination was found.[48] Therefore, long-term operation of the site would not likely

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47 A.L. Burke Engineers, Inc., 1990. Site Characterization Phase I: Soil Sampling Burbank-Glendale-Pasadena Airport Authority

48 Ibid.

expose sensitive receptors to soil contamination. Soil cleanup activities performed at the site would also minimize the possibility of exposure to workers. The Authority would implement PDFs as discussed previously to minimize hazards or hazardous materials impacts on the public or environment. As the CEM demonstrates that all exposure pathways are incomplete, meaning there is not a direct connection from the contamination to human exposure, therefore, impacts on on-site workers would be less than significant.

As discussed previously, operational activities at the site would not expose individuals to hazardous materials or substances. Therefore, impacts associated with hazardous materials during operational activities would be less than significant.

Mitigation Measure SW QUAD FULL-HAZ-4

No mitigation is warranted.

IMPACT SW QUAD FULL-HAZ-5: Impacts Related to Safety Hazard for People in Airport Vicinity

CONSTRUCTION

The project is located within the Burbank Airport Planning Boundary and Airport Influence Area. The planning boundaries delineate areas subject to safety hazard such as height restrictions and runway protection zones (RPZ). Building construction activities for the replacement terminal would not occur within runway protection zones. The removal of Parking Lot B would further the protections in the RPZ. Demolition activities would occur near the Airport's southern RPZ. However, as required under the airport land use plan, the RPZ is required to be kept free of all obstructions and no structure or people are permitted to congregate in this zone. During demolition and construction activities, workers would exercise caution to avoid entering the RPZ. As part of the project, Taxiways A and C would be extended and Taxiway G would be realigned. All construction activities near the airfield would require filing Form 7460-1, Notice of Proposed Construction or Alteration with the FAA and approval from the FAA prior to construction. With FAA approval, construction impacts related to airport obstruction hazards would be less than significant.

Construction debris and materials would be comprised of dirt, concrete and other materials and would not be a large bird attractant. In addition, food waste from construction workers would be disposed of in sealed containers so as not to attract birds. Therefore, construction impacts related to wildlife hazards would be less than significant.

Construction lighting, glare and reflection would be properly managed to ensure impacts to aircraft would not occur. Construction lighting would be shielded to prevent glare or light spillover from reaching aviation and aircraft operations. Reflective or mirroring building materials are not allowed as primary building materials and their use would be minimal during construction. Materials on the project site during construction would not create reflective hazards. Therefore, construction impacts related to lighting and glare hazards would be less than significant.

OPERATIONS

Operation hazards would be created if a proposed project were to construct an object high enough to interfere with a flight path, cause distracting light or glare that could interfere with a pilot's ability to control the flight of the aircraft, or create an attraction to wildlife, especially birds, that would pose hazards to aircraft all of which could result in risks of death or injury to people in the airplane or on the ground. Federal Aviation Regulations Part 77, Objects Affecting Navigable Airspace, establishes minimum standards to ensure air safety by regulating the construction or alteration of buildings or structures that may affect airport operations. The FAA requires that Form 7460-1, Notice of Proposed Construction or Alteration be filed with the FAA regional office prior to construction for buildings that are 200 feet or greater in height from the grading terrain. In addition, generally any structure that exceeds an overall height of 200 feet AGL should be marked and/or lighted. However, the determination is made by FAA and depends on terrain features, weather patterns, geographic location, number of structures, and overall design layout. The finished height of the replacement terminal would be less than 200 feet AGL and would not result in a significant impact. However, due to the configuration of the replacement terminal on the southwest quadrant, the aircraft parking line of 500 feet will be complied with, but the tails of the aircraft will penetrate Part 77 surface, as is currently the case with Fedex A300s parked in their southwest quadrant leasehold. This variance would have to be approved by the FAA. The Southwest Quadrant Full-Size Terminal Option would not result in any distracting light or glare that could interfere with a pilot's ability to fly as it will comply with all FAA regulations and guidelines. The project would comply with applicable BMPs specified in Advisory Circular No: 150/5200-33B which provides specific guidance on wildlife hazards. Adhering to these guidelines will reduce the potential for wildlife to be attracted to the southwest quadrant, which reduces the chance for wildlife hazards. As a result, compliance with FAA guidelines would result in less than significant hazards impacts associated with operations.

Mitigation Measure SW QUAD FULL-HAZ-5

No mitigation is warranted.

IMPACT SW QUAD FULL-HAZ-6: Impacts Related to Emergency Response or Evacuation Plans

CONSTRUCTION

A lack of adequate access could impair the implementation of adopted emergency response plans by impeding the movement of emergency vehicles. During construction activities, lanes or right-of-ways may be closed in order to facilitate excavation in Empire Avenue for modification to utility tie-ins and traffic signal installation on Empire Avenues, However, if lane closures are needed for demolition or excavation activities, it would be done in accordance with City of Burbank permits and requirements. A Construction Traffic Management Plan would minimize disruptions to traffic flow and emergency vehicle access. During construction, roadway access would be maintained by construction detours and diversions which would minimize disruptions to traffic flow and emergency vehicle access. Construction activities are not expected to require street closures as activities would most likely occur within the right-of-ways. Therefore, impacts relating to interference with an adopted emergency response or evacuation plan during construction activities would be less than significant.

OPERATIONS

The Authority currently has an FAA-approved Airport Emergency Plan which establishes actions that responsible agencies should take to respond promptly to emergencies. It is expected that the same plan would apply to the replacement terminal. The existing ARFF station currently located in the northwest quadrant of the airport would remain there as part of the Southwest Quadrant Full-Size Terminal Option. The ARFF station would operate in the same capacity and continue to be responsible for responding to emergencies at the airport. However, the Burbank Fire Department has ultimate responsibility for all incidents in the City.

The Airport is not located along a local evacuation route as indicated in the General Plan Safety Element, the nearest such route is located along North San Fernando Valley Boulevard. Operation of the Southwest Quadrant Full-Size Terminal Option would not require street closures or activities that would interfere with the evacuation route.

Safety hazards associated with an airport are generally related to construction of tall structures that could interfere with airplane flight paths, or with increasing the number of people working or residing in areas subject to crash hazards. The Airport Emergency Plan establishes actions that responsible agencies should take to respond promptly to emergencies, minimizing the possibility and extent of personal injury and property damage around the airport. The Los Angeles County Airport Land Use Commission has adopted an Airport Influence Area for the Bob Hope Airport. The Airport Influence Area is the area in which noise, overflight, safety, or airspace protection factors may affect land uses or necessitate restrictions on those uses. The Los Angeles County Airport Land Use Plan identifies two safety zones within the planning boundaries of the airport: the Approach Surface and the Runway Protection Zone. The Los Angeles County Fire Department (LACFD) Health Hazardous Materials Division is the CUPA for the City of Burbank, with the Burbank Fire Department authorized as a participating agency. The LACFD and the Burbank Fire Department work together to implement the City's Multi Hazard Functional Plan that addresses Burbank's planned response to emergencies. The Southwest Quadrant Full-Size Terminal Option would comply with the Burbank 2035 Safety Elements Policy 1.1 which requires regular updates of all disaster preparedness and emergency response plans and Policy 1.2 which requires coordination of disaster preparedness and emergency response with appropriate agencies, including the Burbank Police Department, Burbank Fire Department, and Burbank-Glendale-Pasadena Airport Authority. Therefore, impacts relating to interference with an adopted emergency response or evacuation plan during operations would be less than significant.

Mitigation Measure SW QUAD FULL-HAZ-6

No mitigation is warranted.

IMPACT SW QUAD FULL-HAZ-7: Impacts Related to Wildland Fires

No wildlands are present at the Airport or in the surrounding area. Furthermore, the Airport is not designated as a Mountain Fire Zone area by the City of Burbank. Therefore, the Southwest Quadrant Full-Size Terminal Option would not expose people or structures to a significant risk involving wildland fires. Impacts associated with exposing people or structures to wildland fires would be less than significant.

Mitigation Measure SW QUAD FULL-HAZ-7

No mitigation measures are required.

Cumulative Impacts

IMPACT SW QUAD FULL-HAZ-8: Cumulative Impacts Related to Hazards and Hazardous Materials

The other projects in the vicinity of the Airport are presented in **Section 3.1.** The cumulative context for hazards and hazardous materials is generally site-specific rather than regional. All developments under construction in the Airport vicinity would routinely use, transport and dispose of hazardous materials which could expose workers or the public to hazardous materials through either routine use or accidental release. In addition, workers could be exposed to contaminated soil and/or groundwater during excavation and grading activities or other hazardous materials such as ACM, PCBs or LBP during demolition. Existing federal, state and local regulations regarding the storage and handling of hazardous wastes; including, but not limited to, ACM, PCBs, LBP, contaminated soil or groundwater, gasolines, fuels, lubricating oils, pesticides, etc., cleanup and remediation of leaking contaminants, hazardous wastes, and hazardous substances limit the public health and safety impacts from the accidental release of and exposure to hazardous substances. Compliance with existing federal, state, regional, and local regulations would reduce risks of accidents associated with the transport, use, or disposal of hazardous materials from the Southwest Quadrant Full-Size Terminal Option and other related projects to a less than significant cumulative impact.

OPERATIONS

The other projects in the vicinity of the Airport are presented in **Section 3.1**. The cumulative context for hazards and hazardous materials is generally site-specific rather than regional. All developments in the Airport vicinity would routinely use, transport and dispose of hazardous materials which could expose workers or the public to hazardous materials through either routine use or accidental release. The Southwest Quadrant Full-Size Terminal Option and related projects would be required to work with the CUPA to implement the City's Multi-Hazard Functional Plan to respond to emergencies that could potentially occur onsite. The Burbank 2035 General Plan Safety Element requires projects to provide regular updates to of all disaster preparedness and emergency response plans per Policy 1.1 and requires coordination of disaster preparedness and emergency response with appropriate agencies, neighboring cities and the Burbank-Glendale-Pasadena Airport Authority per Policy 1.2. In addition, the related developments would have to ensure that emergency vehicle access and the emergency evacuation routes are not restricted. Existing federal, state and local regulations regarding the use, storage and handling of hazardous wastes limit the public health and safety impacts from the accidental release of and exposure to hazardous substances. Preparation of emergency response plans and coordination with the City would ensure that emergency access and evacuation routes are not compromised. Therefore, compliance with existing federal, state, regional, and local regulations would reduce risks of accidents associated with the transport, use, or disposal of hazardous materials and reduce interference with adopted emergency response or evacuation plans from operation of the Southwest Quadrant Full-Size Terminal Option and other related projects to a less than significant cumulative impact.

3.9.3.4 SOUTHWEST QUADRANT SAME-SIZE TERMINAL OPTION

Project Impacts

IMPACT SW QUADP SAME-HAZ-1: Impacts Related to Transport, Use, or Disposal of Hazardous Materials

The Southwest Quadrant Same-Size Terminal Option would potentially involve the transport, use, and disposal of hazardous materials. However, implementation of the proposed PDFs, identified mitigation measures, and compliance with applicable regulatory requirements would result in no exposure of persons to substantial risk resulting from the release of hazardous materials or exposure to health hazards in excess of regulatory standards associated with USTs, groundwater, asbestos, lead-containing materials, PCBs, or vapor encroachment. Therefore, impacts associated with the transport, use, or disposal of hazardous materials would be less than significant.

CONSTRUCTION

Asbestos Containing Materials and Lead-Based Paint

During demolition activities, workers may encounter ACMs and LBP in older buildings, which would be a potentially significant impact. As mentioned previously, an asbestos survey discovered ACMs in Terminals A and B, which will be demolished as part of the Southwest Quadrant Same-Size Terminal Option. Asbestos was detected in various offices of Terminal A and B, Building 9 and 10 in various building components including drywall, acoustical ceiling, flooring and mastic. ACMs have not yet been identified in the other buildings to be demolished or relocated on the southwest quadrant. A survey will be done prior to demolition to see if they contain ACMs.

LBP was detected in Building 34 and yellow traffic striping paint which is a potentially significant impact. Prior to any demolition of Building 34 or removal of traffic striping paint, a waste characterization test would be performed to confirm that demolition building debris would not be classified as California hazardous non-RCRA lead waste.

Hazardous Materials

Under the Southwest Quadrant Same-Size Terminal Option, both Taxiway A and Taxiway C would be extended and Taxiway G would be realigned to maximize safety and efficiency of aircraft movements on the ground. In addition, the Southwest Quadrant Same-Size Terminal Option includes construction of the replacement terminal, parking facilities, aircraft ramp, and other buildings to support airport functions, Construction of proposed Project would involve hazardous materials typical to construction, including gasoline, motor oils, and other similar materials. All potentially hazardous construction materials would be used and stored in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. Any risk associated with transport, use, or disposal of these materials would be minimized to less than significant levels through compliance with these standards and regulations.

Groundwater and Soil

The site for the Southwest Quadrant Same-Size Terminal Option would be located southwest of the existing runways and is a portion of the former Lockheed Plant B-5**.** A Phase 1 Site Characterization, soil sampling, was performed at the former Lockheed Plant B-5 in 1990. Results of the Phase 1 Site Characterization determined that no significant soil contamination was found onsite[49]. However, during excavation activities, workers may encounter contaminated soil. Construction workers may potentially be exposed during soil handling activities including excavation, grading and paving activities at the site. However, ground-disturbing activities would be conducted in accordance with applicable federal, state and local regulations. Additionally, a site-specific Health and Safety Plan that incorporates OSHA and CalOSHA regulations, as well as FAA and airport health and safety requirements in order to minimize the risk of injury to site workers. In the event that Project-related excavation unexpectedly encounters VOC-contaminated soil, the continuation of such excavation would be carried out in accordance with SCAQMD Rule 1166. Compliance with applicable rules and regulations would ensure that construction would not result in an unauthorized release of hazardous materials through the use or transport of these materials that would create a hazard to the public or the environment. In the absence of any other known hazardous materials within the existing soil as well as with other existing regulatory requirements described above, no significant impacts related to hazards and hazardous materials would occur.

Depth of groundwater historically is below 75 feet below ground surface with groundwater encountered most recently at depths of approximately 220 feet below ground surface. Based on these depths, construction of the Southwest Quadrant Same-Size Terminal Option would not encounter contaminated groundwater. As discussed in **Section 3.10**, construction dewatering is not anticipated to be required. But if dewatering is needed, the project would apply for coverage under the National Pollution Discharge Elimination System Permit and adhere to monitoring requirements set forth by the RWQCB. If dewatering is required, groundwater that was found to be contaminated would be properly treated prior to being discharged in accordance with the NPDES permit. Uncontaminated groundwater may be treated and pumped to the storm drain system or used for on-site dust control purposes. Compliance with regulatory requirements would ensure that dewatering during construction would not expose workers or off-site sensitive populations to substantial risk resulting from the project's handling of impacted groundwater. Therefore, impacts associated with encountering contaminated groundwater would be less than significant.

Underground Storage Tanks

During excavation and demolition activities, workers may encounter underground storage tanks. As discussed previously, all historic underground storage tanks, sumps and clarifiers have been removed from the site or abandoned in place. It is not expected that construction activities will encounter the abandoned in place USTs. The southwest quadrant currently has two active USTs that are owned by Hertz and Avis. As part of the Southwest Quadrant Same-Size Terminal Option, the rental car storage area, including the USTs, would be moved to the northeast quadrant. Removal and installation of the USTs for Hertz and Avis would be conducted by a licensed UST contractor who also possesses a Hazardous Substance Certification. Removal and installation would be done in accordance with rules and regulations regarding USTs from the

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49 A.L. Burke Engineers, Inc., 1990. Final Report on Site Characterization Phase 1: Soil Sampling Burbank-Glendale-Pasadena Airport Authority, Burbank California.

State Water Resources Control Board with oversight form the local CUSP. Compliance with regulatory requirements would ensure that impacts form the removal and installation of the USTs would be less-than-significant.

Polychlorinated Biphenyls (PCBs)

During demolition, a potential source of PCBs is ballast contained within the fluorescent lights. If fluorescent light ballast not specifically labeled as "No PCBs" is found, removal and disposal would be performed by a licensed PCB removal contractor prior to demolition. Compliance with regulatory requirements would ensure that impacts associated with PCBs would be less than significant.

OPERATIONS

The Southwest Quadrant Same-Size Terminal Option would accommodate the same types of aircraft and routine maintenance activities that are currently occurring at various places throughout the Airport. As with current operations, maintenance workers would continue to comply with all applicable regulations. For instance, exposure of maintenance workers to contaminated materials would be minimized by implementing the measures required by federal, state, and local laws and regulations. As discussed above, these include OSHA and CalOSHA standards, which establish exposure limits for workers; require protective equipment or other protective measures, when warranted; and require employers to provide a written health and safety program, worker training, emergency response training, and medical surveillance. Therefore, the proposed project would result in less-than-significant impacts with respect to maintenance worker exposure to hazardous materials.

The Southwest Quadrant Same-Size Terminal Option would include typical airport uses and would use and produce typical hazardous materials and wastes such as fuel, paints, commercial cleansers, herbicides, and pesticides, solvents, and lubricants. These hazardous materials are regulated by applicable federal, state, and local regulations. Compliance with these requirements would serve to minimize health and safety risks to people or structures associated with routine use, transport, and disposal as well as accidental release of or exposure to hazardous materials. Therefore, operational impacts associated with the Adjacent Property Southwest Quadrant Same-Size Terminal Option related to use, transport, or disposal of hazardous materials would be less than significant.

As stated above, the site is located within the Burbank Operable Unit of the San Fernando Valley Superfund Area 1 which is contaminated by VOCs such as PCE and TCE. There are ongoing groundwater remediation efforts in the vicinity of the site. Operational maintenance activities associated with the Southwest Quadrant Same-Size Terminal Option would occur within the boundaries of the Project site where no remediation efforts are currently taking place. Operation of the Southwest Quadrant Same-Size Terminal Option would not result in impacts to current groundwater remediation efforts in the vicinity. Therefore, impacts would be less than significant.

Mitigation Measure SW QUAD SAME-HAZ-1A

The removal of ACMs would be subject to SCAQMD and Cal-OSHA requirements to ensure proper handling, notification, and disposal and would be performed by a licensed asbestos abatement contractor Prior to any interior demolition or renovation within the buildings containing ACMs, an Asbestos Operations and

Management Plan (Asbestos O&M Plan) would be implemented to manage in place any ACMs during demolition activities. The Asbestos O&M Plan would address building cleaning, maintenance, renovation, and general operation procedures to minimize exposure to asbestos. An asbestos survey would be performed prior to demolition. The survey would include the inspection, identification and quantification of all friable and Class I and Class II non-friable asbestos containing materials and physical samplings. Removal procedures could include; HEPA filtration, glovebag, adequate wetting, dry removal or another approved alternative. All ACWM would be collected and placed in transparent, leak-tight containers or wrapping. All ACWM would be contained in leak tight containers, labeled appropriately, transported and disposed of in accordance with applicable rules and regulations.

Mitigation Measure SW QUAD SAME-HAZ-1B

Prior to demolition activities involving any areas known to contain lead-based paint, the Project applicant would follow all procedural requirements and regulations for its proper removal and disposal. The removal of LBP would be subject to Cal-OSHA requirements to ensure proper handling, notification, and monitoring and would be performed by a licensed LBP abatement contractor. All trucks transporting lead-based waste would be covered or enclosed. All lead-based waste material would be contained properly, labeled appropriately, transported and disposed of in accordance with applicable rules and regulations.

Significance after Mitigation: Implementation of Mitigation Measures SW QUAD SAME-HAZ-1A and 1B would reduce the impact related to the transport, use, or disposal of hazardous materials to a less-than-significant level.

IMPACT SW QUAD SAME-HAZ-2: Impacts Release of Hazardous Materials Through Forseeable Upset or Accident Conditions

CONSTRUCTION

Construction of the Southwest Quadrant Same-Size Terminal Option would involve hazardous material typical to construction, including gasoline, motor oils, paints, solvents, and other miscellaneous materials (e.g., engine oil, etc.). All potentially hazardous materials would be used and stored in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. Any risk associated with transport, use, or disposal of these materials would be minimized to less than significant levels through compliance with these standards and regulations. A site-specific Health and Safety plan would be developed which would include at a minimum, "identification/description of the following: site description and features; site map; site history; waste types encountered; waste characteristics; hazards of concern; disposal methods and practices; hazardous material summary; hazard evaluation; required protective equipment; decontamination procedures; emergency contacts; hospital map and contingency plan." Construction workers would be properly trained for and prepared to deal with these hazardous materials and wastes. If an accidental release (spill) occurs, the lead agencies with jurisdiction would be notified and immediate actions to ensure the health and safety of the public and workers and to protect the environment would be taken. The handling of any hazardous materials, substances and wastes during construction would be controlled through regulatory requirements and the Health and Safety Plan to avoid any significant hazards to the public or the environment. Therefore, construction impacts related to transportation, use, or disposal of hazardous materials would be less than significant.

Heavy-duty equipment, such as excavators and dump trucks, do contain hazardous materials such as diesel fuel. Diesel fuel may be delivered in bulk, stored on-site in aboveground storage tanks (AST) or brought on-site by a mobile re-fueler, and dispensed as needed into individual pieces of equipment. A mobile maintenance vendor may be called on-site for routine maintenance, but equipment would be taken off-site if significant maintenance or repair were required. The drivers/operators of the bulk delivery trucks or mobile re-fuelers are trained and equipped to respond to a fuel spill, should one occur. Operators of heavy-duty equipment are trained to remain alert and nearby during fueling of equipment, and spills, should they occur, should not reach the offsite environment. Failure of the AST is possible. However, with controls, such as secondary containment, even a complete de-inventory of the diesel fuel from the AST is not expected to reach the offsite environment. Any spill of diesel fuel upon the Site would be remediated and treated in accordance with applicable regulations. Therefore, an accidental release scenario involving the spill of fuel from a mobile re-fueler or from the AST does not warrant further evaluation. The site-specific health and safety plan would include measures to appropriately handle an onsite accidental release of fuel or other material from the equipment, resulting in a less-than-significant impact.

As discussed previously, the removal (demolition and excavation) of impacted building materials and soils would be performed in compliance with BMPs and regulatory requirements. Based on NFA letters issued by the RWQCB for the project site, it is unlikely that excavation activities would encounter contaminated soil. Demolition debris and soil transported off-site may contain hazardous materials in small quantities. For haul trucks, the probability of an accident involving a collision is estimated to be 2 per 1,000,000 miles travelled.[50] However, not all collisions would result in a breach of the container and release to the environment. The probability of a release of a solid hazardous cargo is approximately 9.1 percent for solid materials.[51] As discussed in **Section 3.4**, the Southwest Quadrant Same-Size Terminal Option would generate approximately 111,500 cubic yards (CY) of demolition debris. However, a small portion of this amount would contain ACMs. The exact amount of ACMs contained in demolition debris is not yet know, but as a conservative assumption, it was assumed that all demolition debris may contain ACMs. The transport of demolition material would require approximately 22,300 roundtrips. The assumed trip-length of haul trucks removing demolition debris is 20 miles, which equates to approximately 446,000 total vehicle miles traveled (VMT) to transport the 111,500 CY. Based on the rate of 2 collisions per 1,000,000 miles travelled, this poses a mathematical collision chance of 0.89, where 1 means it is likely to occur once during the lifetime of the project. With a release rate of 0.08 percent of accidents, the probability of a release of AHM in transport to off-site receiver landfills is 0.01, using very conservative assumptions in that all of the 111,500 CY contains AHMs. Therefore, a collision involving a truck transporting this material resulting in a release is unlikely to occur as the probability is less than one over the project's lifetime. Drivers of waste hauling trucks are required to be trained to respond to and contain releases, and appropriate controls are in place. Therefore, short-term impacts related to accident or upset conditions would be less than significant and no mitigation measures are required.

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50 Argonne National Laboratory, 1996. Environmental Assessment Division, Risk Assessment for the Transportation of Hazardous Waste and Hazardous Waste Components of Low-Level Mixed Waste and Transuranic Waste for the U.S. Department of Energy Waste Management Programmatic Environmental Impact Statement

51 Ibid.

OPERATIONS

The Southwest Quadrant Same-Size Option Terminal would not result in new operational activities in comparison to the existing site. Major maintenance activities are not currently performed at the Airport and would not likely be performed at the replacement passenger terminal. Aircraft parked at the terminal would have minor maintenance checks performed. However, aircraft parking at the replacement passenger terminal would continue to perform refueling activities in the same manner as existing activities. During refueling activities, trucks would typically deliver fuel to the aircraft parked at the terminal, and jet fuel may potentially be spilled or released accidentally.

Currently refueling activities are typically performed by contractors which may store fuel at the Airport at existing tanks located in the northeast quadrant. Fuel trucks would travel along a newly constructed service road on the airport to the aircraft parking ramp. Although the replacement passenger terminal would have the same number of gates as the existing terminal, the forecasts assume additional flights by 2025, which would result in more refueling activities compared to existing uses. This would occur with or without the Southwest Quadrant Same-Size Terminal Option.

Existing fuel usage at the site was estimated from SCAQMD permits for jet fueling activities. A Facility Information Detail (FIND) database search was performed for jet refueling contractors at the airport. Based on this search, it was determined that the fuel storage capacity of jet refueling contractors in the vicinity of the airport is approximately 250,000 gallons of fuel with a throughput of approximately 11 million gallons per month.[52] Jet fueling activities (storage, transport, loading and unloading) would be performed compliant with SCAQMD and CARB permitting requirements regarding vapor recovery and control. However, small amounts of vapor may be released during handling of jet fuel through volatilization.

In order to identify potential impacts resulting from volatilization of jet fuel, emissions resulting from the additional fuel handling was calculated based on U.S. EPA AP-42 emission factors for jet fuel handling.[53] With an expected increase of approximately one million passengers by 2025, the amount of jet fuel handled was also assumed to increase (the fleet mix for future operation is expected to increase the number of passengers per aircraft, which would reduce the number of flights in proportion to the increase in passengers). Existing VOC emissions are 29 pounds per day. With the increase in passengers in 2025, VOC emissions are estimated to be 39 pounds per day. The net increase in VOC emissions resulting from the additional fuel handling is 10 pounds per day. With regards to air quality analyses and permit applications, the SCAQMD has set a threshold of 55 lbs/day VOC. The increase in VOC emissions resulting from additional fuel handling would represent a fraction of this threshold. VOC emissions would not exceed SCAQMD thresholds, therefore impacts resulting from volatilization of jet fuel would be less than significant.

The increase in fuel truck trips, the increased distance they travel to the aircraft, and amount of fuel stored near the Airport would also represent an increase in risk of potential accidental release. However, the aircraft refueling contractors would be required to abide by FAA standards for Aircraft Fuel Servicing and Fuel

52 South Coast Air Quality Management District, 2016. Facility Information Detail Database Search for Jet Refueling Contractors.

53 United States Environmental Protection Agency, 2006. AP-42 Compilation of Air Pollutant Emission Factors

Safety. These standards specify safety requirements such as emergency fuel shutoff systems, fire safety and fire extinguishers, storage and transport safety.[54] Although the number of jet fuel handled as a result of the project would increase, compliance with safety standards should prevent any accidental releases of jet fuel. The increase in jet fuel would happen with or without the proposed project. Therefore, the project would result in a less-than-significant impact with regard to accidental release.

Mitigation Measure SW QUAD SAME-HAZ-2
No mitigation is warranted.

IMPACT SW QUAD SAME-HAZ-3: Impacts Related to Hazardous Emissions Near a School

CONSTRUCTION
Demolition of the existing passenger terminal will take place within one quarter mile of the Providencia Elementary School. Based on the asbestos survey performed for the existing passenger terminal, small quantities of asbestos were detected. During demolition and asbestos and LBP removal activities, workers would comply with SCAQMD Rule 1403 regulations, the Operations and Maintenance Program of the Airport, and Mitigation Measures SW QUAD SAME-HAZ-1A and 1B to prevent asbestos and LBP from being released into the environment.

Trucks hauling demolition debris would likely use North Hollywood Way to Interstate 5, which would avoid passing by any schools. Trucks carrying demolition debris from the Airport would be decontaminated and inspected before being allowed to leave. Implementation of the PDFs and Mitigation Measures SW QUAD SAME-HAZ-1A and 1B would ensure that impacts on school staff, attendees and visitors from emissions related to handling site materials would be less than significant.

OPERATIONS
Once demolition of the existing terminal is complete, operational activities would not occur within one quarter mile of a school. Therefore, the Southwest Quadrant Same-Size Terminal Option would not emit or handle hazardous materials within one quarter mile of a school, resulting in a less-than-significant impact.

Mitigation Measure SW QUAD SAME-HAZ-3
No mitigation is warranted.

IMPACT SW QUAD SAME-HAZ-4: Impacts Related to Location on a Site on the Cortese List

CONSTRUCTION
The Southwest Quadrant Same-Size Terminal Option would be constructed on a site that is included on the Cortese List pursuant to Government Code Section 65962.5 as Lockheed Plant B-5. However, only a portion of the general aviation development would be located on the former Plant B-5 site. The existing passenger terminal is not listed on the Cortese List. Construction workers may potentially be exposed during soil handling activities including excavation, grading and paving activities at the site. However, ground-

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54 Federal Aviation Administration, 2013. Standards for Aircraft Fuel Servicing and Fuel Safety Training.

disturbing activities would be conducted in accordance with applicable federal, state and local regulations. A soils investigations for the former Plant B-5 indicates that contamination at the southwest quadrant would not likely expose the public or the environment to hazardous materials. In addition, the RWQCB has issued NFA letters for the soils investigations performed at the site indicating that the site requires no further remediation activities. Additionally, a site-specific Health and Safety Plan that incorporates OSHA and CalOSHA regulations, as well as FAA and airport health and safety requirements in order to minimize the risk of injury to site workers. In the event that Project-related excavation unexpectedly encounters VOC-contaminated soil, the continuation of such excavation would be carried out in accordance with SCAQMD Rule 1166. Compliance with PDF HAZ-1, PDF HAZ-2, and other applicable rules and regulations would ensure that impacts related to location on a site on the Cortese list would be less than significant.

OPERATIONS

A conceptual exposure model (CEM) was prepared to assess impacts on workers during operational (long-term) activities. The CEM identifies the potential sources of exposure (soil and groundwater), and the potential pathway to human exposure. Potential pathways include ingestion of contaminated groundwater, inhalation of volatiles from sub-surface volatilization of contaminants, and inhalation or direct dermal contact with contaminated soil.

Direct exposure (ingestion) to chemicals in groundwater was considered an incomplete pathway, meaning that the exposure path from the source to the human through ingestion was not complete, and was not further evaluated. This pathway was considered incomplete because groundwater in the area is not being used as a potable or municipal water source. nor is future use planned. Thus, the drinking water potential exposure pathway is incomplete because there is no current or anticipated future exposure to groundwater through ingestion. In addition, groundwater levels are deeper than 75 feet below ground surface and long-term operational activities would not likely reach this depth. The RWQCB has also issued NFA letters for wells located on the northeast quadrant, indicating that groundwater would not pose a threat to human health.

Exposure due to volatilization of sub-surface contaminants is also an incomplete pathway. Soil testing performed during the Phase 1 Site Characterization indicated that VOC concentrations are well below field screening criteria[55]. As VOC concentrations are below the screening threshold, the potential to expose sensitive receptors to VOCs is not likely. Therefore, this pathway is considered incomplete and no further analysis is necessary.

With regard to exposure due to inhalation or dermal contact with soil, the soils investigation indicated that no significant soil contamination was found[56]. Therefore, long-term operation of the site would not likely expose sensitive receptors to soil contamination. Soil cleanup activities performed at the site would also minimize the possibility of exposure to workers The Project applicant would implement PDFs as discussed previously to minimize hazards or hazardous materials impacts on the public or environment. As the CEM

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55 A.L. Burke Engineers, Inc., 1990. Site Characterization Phase I: Soil Sampling Burbank-Glendale-Pasadena Airport Authority

56 Ibid.

demonstrates that all exposure pathways are incomplete, meaning there is not a direct connection from the contamination to human exposure, therefore, impacts on on-site workers would be less than significant.

As discussed previously, operational activities at the site would not expose individuals to hazardous materials or substances. Therefore, impacts associated with hazardous materials during operational activities would be less than significant.

Mitigation Measure SW QUAD SAME-HAZ-4
No mitigation is warranted.

IMPACT SW QUAD SAME-HAZ-5: Impacts Related to Safety Hazard for People in Airport Vicinity

CONSTRUCTION

The project is located within the Burbank Airport Planning Boundary and Airport Influence Area. The planning boundaries delineate areas subject to safety hazard such as height restrictions and runway protection zones (RPZ). Building construction activities for the replacement terminal would not occur within runway protection zones. The removal of Parking Lot B would further the protections in the RPZ. Demolition activities would occur near the Airport's southern RPZ. However, as required under the airport land use plan, the RPZ is required to be kept free of all obstructions and no structure or people are permitted to congregate in this zone. During demolition and construction activities, workers would exercise caution to avoid entering the RPZ. As part of the project, Taxiways A and C would be extended and Taxiway G would be realigned. All construction activities that would interfere with the airfield would require filing Form 7460-1, Notice of Proposed Construction or Alteration with the FAA and approval from the FAA prior to construction. With FAA approval, construction impacts related to airport obstruction hazards would be less than significant.

Construction debris and materials would be comprised of dirt, concrete and other materials and would not be a large bird attractant. In addition, food waste from construction workers would be disposed of in sealed containers so as not to attract birds. Therefore, construction impacts related to wildlife hazards would be less than significant.

Construction lighting, glare and reflection would be properly managed to ensure impacts to aircraft would not occur. Construction lighting would be shielded to prevent glare or light spillover from reaching aviation and aircraft operations. Reflective or mirroring building materials are not allowed as primary building materials and their use would be minimal during construction. Materials on the project site during construction would not create reflective hazards. Therefore, construction impacts related to lighting and glare hazards would be less than significant.

OPERATIONS

Operation hazards would be created if a proposed project were to construct an object high enough to interfere with a flight path, cause distracting light or glare that could interfere with a pilot's ability to control the flight of the aircraft, or create an attraction to wildlife, especially birds, that would pose hazards to aircraft all of which could result in risks of death or injury to people in the airplane or on the ground. Federal

Aviation Regulations Part 77, Objects Affecting Navigable Airspace, establishes minimum standards to ensure air safety by regulating the construction or alteration of buildings or structures that may affect airport operations. The FAA requires that Form 7460-1, Notice of Proposed Construction or Alteration be filed with the FAA regional office prior to construction for buildings that are 200 feet or greater in height from the grading terrain. In addition, generally any structure that exceeds an overall height of 200 feet AGL should be marked and/or lighted. However, the determination is made by FAA and depends on terrain features, weather patterns, geographic location, number of structures, and overall design layout. The finished height of the replacement terminal would be less than 200 feet AGL and would not result in a significant impact. However, due to the configuration of the replacement terminal on the southwest quadrant, the aircraft parking line of 500 feet will be complied with, but the tails of the aircraft will penetrate Part 77 surface, as is currently the case with Fedex A300's parked in their southwest quadrant leasehold. This variance would have to be approved by the FAA. The Southwest Quadrant Same-Size Terminal Option would not result in any distracting light or glare that could interfere with a pilot's ability to fly as it will comply with all FAA regulations and guidelines. The project would comply with applicable BMPs specified in Advisory Circular No: 150/5200-33B which provides specific guidance on wildlife hazards Adhering to these guidelines will reduce the potential for wildlife to be attracted to the southwest quadrant, which reduces the chance for wildlife hazards. As a result, compliance with FAA guidelines would result in a less-than-significant hazard impacts associated with operations.

Mitigation Measure SW QUAD SAME-HAZ-5

No mitigation is warranted.

IMPACT SW QUAD SAME-HAZ-6: Impacts Related to Emergency Response or Evacuation Plans

CONSTRUCTION

A lack of adequate access could impair the implementation of adopted emergency response plans by impeding the movement of emergency vehicles. During construction activities, lanes or right-of-ways may be closed in order to facilitate excavation in Empire Avenue for modification to utility tie-ins and traffic signal installation on Empire Avenues, However, if lane closures are needed for demolition or excavation activities, it would be done in accordance with City of Burbank permits and requirements. A Construction Traffic Management Plan would minimize disruptions to traffic flow and emergency vehicle access. During cconstruction, roadway access would be maintained by construction detours and diversions which would minimize disruptions to traffic flow and emergency vehicle access. Construction activities are not expected to require street closures as activities would most likely occur within the right-of-ways. Therefore, impacts relating to interference with an adopted emergency response or evacuation plan during construction activities would be less than significant.

OPERATIONS

The Authority currently has an FAA-approved Airport Emergency Plan which establishes actions that responsible agencies should take to respond promptly to emergencies. It is expected that the same plan would apply to the replacement terminal. The existing ARFF station currently located in the northwest quadrant of the airport would remain there as part of the Southwest Quadrant Same-Size Terminal Option. The ARFF station would operate in the same capacity and continue to be responsible for responding to emergencies at the airport. However, the Burbank Fire Department has ultimate responsibility for all incidents in the City.

The Airport is not located along a local evacuation route as indicated in the General Plan Safety Element, the nearest such route is located along North San Fernando Valley Boulevard. Operation of the Southwest Quadrant Same-Size Terminal Option would not require street closures or activities that would interfere with the evacuation route.

Safety hazards associated with an airport are generally related to construction of tall structures that could interfere with airplane flight paths, or with increasing the number of people working or residing in areas subject to crash hazards. The Airport Emergency Plan establishes actions that responsible agencies should take to respond promptly to emergencies, minimizing the possibility and extent of personal injury and property damage around the airport. The Los Angeles County Airport Land Use Commission has adopted an Airport Influence Area for the Bob Hope Airport. The Airport Influence Area is the area in which noise, overflight, safety, or airspace protection factors may affect land uses or necessitate restrictions on those uses. The Los Angeles County Airport Land Use Plan identifies two safety zones within the planning boundaries of the airport: the Approach Surface and the Runway Protection Zone. The Los Angeles County Fire Department (LACFD) Health Hazardous Materials Division is the CUPA for the City of Burbank, with the Burbank Fire Department authorized as a participating agency. The LACFD and the Burbank Fire Department work together to implement the City's Multi Hazard Functional Plan that addresses Burbank's planned response to emergencies. The Southwest Quadrant Same-Size Terminal Option would comply with the Burbank 2035 Safety Elements Policy 1.1 which requires regular updates of all disaster preparedness and emergency response plans and Policy 1.2 which requires coordination of disaster preparedness and emergency response with appropriate agencies, including the Burbank Police Department, Burbank Fire Department, and Burbank-Glendale-Pasadena Airport Authority. Therefore, impacts relating to interference with an adopted emergency response or evacuation plan during operations would be less than significant.

Mitigation Measure SW QUAD SAME-HAZ-6

No mitigation is warranted.

IMPACT SW QUAD SAME-HAZ-7: Impacts Related to Wildland Fires

No wildlands are present at the Airport or in the surrounding area. Furthermore, the Airport is not designated as a Mountain Fire Zone area by the City of Burbank. Therefore, the Southwest Quadrant Same-Size Terminal Option would not expose people or structures to a significant risk involving wildland fires. Impacts associated with exposing people or structures to wildland fires would be less than significant.

Mitigation Measure SW QUAD SAME-HAZ-7

No mitigation measures are required.

Cumulative Impacts

IMPACT SW QUAD SAME-HAZ-8: Cumulative Impacts Related to Hazards and Hazardous Materials

CONSTRUCTION

The other projects in the vicinity of the Airport are presented in **Section 3.1.** The cumulative context for hazards and hazardous materials is generally site-specific rather than regional. All developments under construction in the Airport vicinity would routinely use, transport and dispose of hazardous materials which could expose workers or the public to hazardous materials through either routine use or accidental release. In addition, workers could be exposed to contaminated soil and/or groundwater during excavation and grading activities or other hazardous materials such as ACM, PCBs or LBP during demolition. Existing federal, state and local regulations regarding the storage and handling of hazardous wastes; including, but not limited to, ACM, PCBs, LBP, contaminated soil or groundwater, gasolines, fuels, lubricating oils, pesticides, etc., cleanup and remediation of leaking contaminants, hazardous wastes, and hazardous substances limit the public health and safety impacts from the accidental release of and exposure to hazardous substances. Compliance with existing federal, state, regional, and local regulations would reduce risks of accidents associated with the transport, use, or disposal of hazardous materials from the Southwest Quadrant Same-Size Terminal Option and other related projects to a less than significant cumulative impact.

OPERATIONS

The other projects in the vicinity of the Airport are presented in **Section 3.1**. The cumulative context for hazards and hazardous materials is generally site-specific rather than regional. All developments in the Airport vicinity would routinely use, transport and dispose of hazardous materials which could expose workers or the public to hazardous materials through either routine use or accidental release. The Southwest Quadrant Same-Size Terminal Option and related projects would be required to work with the CUPA to implement the City's Multi-Hazard Functional Plan to respond to emergencies that could potentially occur onsite. The Burbank 2035 General Plan Safety Element requires projects to provide regular updates to of all disaster preparedness and emergency response plans per Policy 1.1 and requires coordination of disaster preparedness and emergency response with appropriate agencies, neighboring cities and the Burbank-Glendale-Pasadena Airport Authority per Policy 1.2. In addition, the related developments would have to ensure that emergency vehicle access and the emergency evacuation routes are not restricted. Existing federal, state and local regulations regarding the use, storage and handling of hazardous wastes limit the public health and safety impacts from the accidental release of and exposure to hazardous substances. Preparation of emergency response plans and coordination with the City would ensure that emergency access and evacuation routes are not compromised. Therefore, compliance with existing federal, state, regional, and local regulations would reduce risks of accidents associated with the transport, use, or disposal of hazardous materials and reduce interference with adopted emergency response or evacuation plans from operation of the Southwest Quadrant Same-Size Terminal Option and other related projects to a less than significant cumulative impact.

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3.10 HYDROLOGY AND WATER QUALITY

3.10.1 Background and Methodology

The purpose of this section is to determine whether implementation of the proposed project would result in significant environmental impacts on hydrology and water quality resources.

3.10.1.1 Regulatory Context

FEDERAL

Clean Water Act

The 1972 Clean Water Act (CWA) is the primary federal law that governs and authorizes the U.S. Environmental Protection Agency (EPA) and the states to implement activities to control water quality[1] (United States Code, Title 33, sec. 1251 et seq., 1972). Section 303 of the Clean Water Act requires states to adopt water quality standards approved by the EPA for all surface waters of the United States including lakes, rivers, and coastal wetlands. It is based on the principle that all discharges into the nation's waters are unlawful unless specifically authorized by a permit. Permit review is the CWA's primary regulatory tool. As defined by the CWA, water quality standards consist of the designated beneficial uses of the water body in question (e.g. wildlife habitat, agricultural supply, fishing etc.) and criteria that protect the designated uses. Water quality criteria are prescribed concentrations, or levels, of constituents – such as lead, suspended sediment, and fecal coliform bacteria – or narrative statements which represent the quality of water that support a particular use.

As part of the CWA, when monitoring data indicate that a concentration level for a pollutant has been exceeded, the receiving water is classified as impaired and placed on the CWA Section 303(d) List of Water Quality–Limited Segments Requiring Total Maximum Daily Loads (TMDLs), which is then developed for the pollutant(s) that caused the impairment. A TMDL is an estimate of the total load of pollutants from point, non-point, and natural sources that a water body may receive without exceeding applicable water quality standards (plus a "margin of safety"). The purpose of the TMDL is to limit the volume of pollutants discharged into the receiving water from all sources (i.e., storm water runoff, wastewater, agriculture).

The EPA has delegated implementation and enforcement of the CWA in California to the State of California.

National Pollution Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) was established per 1972 amendments to the Federal Water Pollution Control Act to control discharges of pollutants from point sources[2] [3]. The 1987 amendments to the CWA created a section devoted to storm water permitting (Section 402[p]), with individual states designated for administration and enforcement of the provisions of the CWA and the

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1 United States Code, Title 33, sec. 1251 et seq., 1972.

2 Point sources are discrete water conveyances such as pipes or man-made ditches.

3 United States Code, Title 33, Section 402, 1972.

NPDES permit program. The State Water Resources Control Board (SWRCB) issues both Construction General Permits and Individual Permits under this program.

Projects that will disturb more than one acre of land during construction are required to file a Notice of Intent (NOI) with the SWRCB to be covered under the NPDES Construction General Permit for discharges of storm water associated with construction activity. The project proponent must develop measures that are consistent with the Construction General Permit. Furthermore, a Storm Water Pollution Prevention Plan (SWPPP) must be developed and implemented for each site covered under the Construction General Permit. The SWPPP describes the best management practices (BMPs) the discharger will use to protect storm water runoff and reduce potential impacts on surface water quality through the construction period. The SWPPP must contain the following:

- a visual monitoring program;
- a chemical monitoring program for nonvisible pollutants (to be implemented if a BMP failure occurs); and
- a sediment monitoring plan if the site discharges directly to a water body on the 303(d) list for sediment.

National Flood Insurance Program

The National Flood Insurance Act of 1968 established the National Flood Insurance Program, which is based on the minimal requirements for floodplain management and is designed to minimize flood damage within Special Flood Hazard Areas[4]. The Federal Emergency Management Agency (FEMA) is the agency that administers the National Flood Insurance Program. FEMA provides subsidized flood insurance to communities that comply with FEMA regulations that limit development in floodplains. FEMA also issues Flood Insurance Rate Maps (FIRM) that identify areas of flood hazards within a community. Special Flood Hazard Areas are defined as areas that have a 1-percent chance of flooding within a given year, also referred to as the 100-year flood. The northeast quadrant is located in Zone X, which is defined as an area that is outside the 500-year floodplain area. The southwest quadrant is partially located inside an existing 100-year floodplain shown on the FIRM panel 1328F, dated September 26, 2008.

Federal Aviation Administration Advisory Circular 150/5200-33B

The Federal Aviation Administration (FAA) issued an Advisory Circular titled Hazardous Wildlife Attractants on or Near Airports, which provides guidance on certain land uses and development projects that have the potential to attract hazardous wildlife on or near public-use airports. The standards and practices contained within the Advisory Circular are recommended for public-use airport operators and are required for airports that have received Federal grant-in-aid assistance. Additionally, the standards, practices, and recommendations of the Advisory Circular comply with the wildlife hazard management requirements of the Airport Operating Certificates issued under Title 14, Code of Federal Regulations, Part 139, Certification of Airports, Subpart D.

Wildlife-aircraft strikes have resulted in the loss of hundreds of lives worldwide as well as billions of dollars in aircraft damage. Most public-use airports have large tracts of open, undeveloped land that provide added

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[4] United States Code, Title 42, sec 4001 et seq., 1968 and 1973

margins of safety and noise mitigation. This undeveloped land can present potential hazards to aviation if it encourages wildlife to enter an airport's approach or departure airspace or air operations area. Also constructed or natural areas—such as poorly drained locations, detention/retention ponds, roosting habitats on buildings, landscaping, or wetlands—can encourage wildlife with ideal locations for feeding, loafing, reproduction, and escape.

Section 2-3 of Advisory Circular No. 150/5200-33B discusses the land use practices relating to water management facilities on or near all public-use airports. Drinking water intake and treatment facilities, storm water and wastewater treatment facilities, associated retention and settling ponds, ponds built for recreational use, and ponds that result from mining activities often attract large numbers of potentially hazardous wildlife. To prevent these hazards the Advisory Circular provides the following guidance for new and existing storm water management facilities:

- All vegetation in or around detention basins that provide food or cover for hazardous wildlife should be eliminated.
- If soil conditions and other requirements allow, the use of underground storm water infiltration systems, such as French drains or buried rock fields, are preferred because they are less attractive to wildlife.
- Avoid or remove retention ponds and detention ponds featuring dead storage to eliminate standing water.
- Storm water detention ponds should be designed, at an off-site area if possible, engineered, constructed/modified, and maintained for a maximum 48–hour detention period after the design storm and remain completely dry between storms.
- Water detention basins should be steep-sided, rip-rap lined, narrow, linearly shaped, with all vegetation eliminated that could provide food or cover for hazardous wildlife. Where constant flow of water is anticipated through the basin, or where any portion of the basin bottom may remain wet, the detention facility should include a concrete or paved pad and/or ditch/swale in the bottom to prevent vegetation that may provide nesting habitat.
- When it is not possible to drain a large detention pond completely, airport operators may use physical barriers, such as bird balls, wire grids, pillows, or netting, to deter birds and other hazardous wildlife.

STATE

Porter Cologne Water Quality Control Act

California's Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act) established the SWRCB and divided the state into nine regional basins, each with a Regional Water Quality Control Board (RWQCB). The Airport is located within the jurisdiction of the Los Angeles RWQCB. The SWRCB is the primary state agency with responsibility to protect surface water and groundwater quality. The Porter-Cologne Act authorizes the SWRCB to draft policies regarding water quality in accordance with CWA Section 303. In addition, the Porter-Cologne Act authorizes the SWRCB to issue waste discharge requirements for projects that would discharge to state waters. These requirements regulate discharges of waste to surface and groundwater, regulate waste disposal sites, and require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

The Porter-Cologne Act requires the SWRCB or the RWQCBs to adopt water quality control plans (basin plans) and policies for the protection of water quality. The Basin Plan must conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its State Water Policy. The Basin Plan must:

- Identify beneficial uses for the water to be protected,
- Establish water quality objectives for the reasonable protection of the beneficial uses, and
- Establish an implementation program for achieving the water quality objectives.

Basin plans also provide the technical basis for determining waste discharge requirements, taking enforcement actions, and evaluating clean water grant proposals. Basin plans are updated and reviewed every 3 years in accordance with Article 3 of Porter-Cologne Act and Clean Water Act Section 303(c).

California Toxics Rule

The California Toxics Rule is an EPA-issued federal regulation that provides water quality criteria for potentially toxic constituents in California surface waters with designated uses related to human health or aquatic life[5]. The rule fills a gap in California water quality standards that was created in 1994 when a State court overturned the State's water quality control plans containing water quality criteria for priority toxic pollutants. These federal criteria are legally applicable in the State of California for inland surface waters, enclosed bays, and estuaries for all purposes and programs under the CWA. The California Toxics Rule establishes two types of aquatic life criteria:

- acute criteria represent the highest concentration of a pollutant to which aquatic life can be exposed for a short period of time[6] without harmful effects, and
- chronic criteria equal the highest concentration to which aquatic life can be exposed for an extended period of time (4 days) without deleterious effects.

Due to the intermittent nature of storm water runoff (especially in southern California), the acute criteria are considered to be more applicable to storm water conditions than chronic criteria.

State Antidegradation Policy

Under the State's Antidegradation Policy (SWRCB Resolution No. 68-16, 1968), whenever the existing quality of waters is better than what is needed to protect present and future beneficial uses, such existing quality must be maintained. This State policy has been adopted as a water quality objective in all the State's Basin Plans. The State policy establishes a two-step process to determine if discharges with the potential to degrade the water quality of surface or groundwater will be allowed.

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5 Code of Federal Regulations Title 40, Section 131.38, 2000

6 The rule does not specify timeframe for "acute". Standard practice would likely imply that any condition that is permanent or semi-permanent is chronic—all else would be short-term.

The first step requires that, where a discharge would degrade high-quality water, the discharge may be allowed only if any change in water quality would:

- be consistent with the maximum benefit to the people of the State;
- not reasonably affect present and anticipated beneficial uses of such water; and
- result in water quality that is not less than that which is prescribed in State policies (i.e., Basin Plans).

The second step states that any activity resulting in discharge to high-quality waters is required to use the best practicable treatment or control of the discharge necessary in order to avoid the occurrence of pollution or nuisance and to maintain the "highest water quality consistent with the maximum benefit to the people of the state". The State policy applies to both surface and groundwater, as well as to both existing and potential beneficial uses of the applicable waters.

In 1999, the SWRCB issued and subsequently amended the General Construction Storm Water Permit which governs discharges from construction sites that disturb 1-acre or more of surface area (SWRCB Water Quality Order 99-08 DWQ, 1999). Again, on September 2, 2009, the SWRCB adopted a new General Construction Permit that substantially alters the approach taken to regulate construction discharges through (1) requiring the determination of risk levels posed by a project's construction discharges to water quality and (2) establishing numerical water quality thresholds that trigger permit violations. These new permit regulations took effect on July 1, 2010.

California Building Code

The California Building Code (CBC) contains requirements for constructing structures in flood hazard zones[7]. These requirements are consistent with FEMA requirements for non-residential development in a 100-year flood plain. Section 1612 of the CBC outlines the requirements of new or replacement mechanical and electrical systems proposed within flood hazard zones. Appendix G only allows the placement of mechanical and electrical systems below the base flood elevation if properly protected to prevent water from entering or accumulating within the system components. Appendix G of the CBC outlines the building requirements of structures within the FEMA-designated A Zones. Such requirements are that all floors below the base flood elevation must be constructed and engineered to be flood-resistant, or the floor must only be used for storage, parking, access, or foyers.

LOCAL

Water Quality Control Plan – Los Angeles Basin

The City of Burbank is within the jurisdiction of the Los Angeles RWQCB (Region 4), which is responsible for the preparation and implementation of the Basin Plan for the Los Angeles Region in accordance with the requirements of the Porter-Cologne Act. The Los Angeles RWQCB's Basin Plan is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Specifically, the Basin Plan:

- designates beneficial uses for surface and ground waters;

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[7] California Building Code, Title 24, Part 2, and Appendix G, 2013.

- sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's antidegradation policy; and
- describes implementation programs to protect all waters in the Region.

Specific criteria are provided for the larger, designated water bodies within the region as well as general criteria or guidelines for ocean waters, bays and estuaries, inland surface waters, and groundwater. Waters not specifically listed (generally smaller tributaries) are assumed to have the same beneficial uses as the streams, lakes, or reservoirs to which they are tributary. In general, the narrative criteria require that degradation of water quality does not occur due to increases in pollutant loads that will adversely impact the designated beneficial uses of a water body.

In addition, the Basin Plan incorporates (by reference) all applicable State and Regional Board plans and policies and other pertinent water quality policies and regulations. The Porter-Cologne Act also allows a RWQCB to include water discharge prohibitions within the Basin Plan applicable to particular conditions, areas, or types of waste.

Waterbodies with a municipal and domestic supply designated beneficial use (MUN) shall not have concentrations that exceed maximum contaminant levels (MCL). MCLs for total dissolved solids (TDS) are discussed in this section because this information is relevant for the groundwater quality impacts assessment. Federal MCLs are established by the EPA and California MCLs are established by the California Department of Public Health. The MCLs consist of primary MCLs, which are enforceable standards for contaminants that present a risk to human health, and secondary MCLs, which are non-mandatory standards established to assist public water systems in managing drinking water for aesthetic considerations, such as taste, color, and odor, but do not relate to a health risk. Impacts related to elevated TDS concentrations include water taste and potential corrosion (which may impart a metallic taste to the water and reduce water flow due to pipe corrosion), staining of household fixtures, scaling (pipes, boilers and heat exchangers), and sedimentation (deposits in the water distribution system)[8]. The EPA sets the secondary MCL for TDS at 500 milligrams per liter (mg/L). The California Department of Public Health sets a recommended MCL of 500 mg/L, and upper concentration of 1,000 mg/L and a short-term upper limit of 1,500 mg/L.

City of Burbank Low Impact Development Standards Manual

The 2015 Low Impact Development (LID) Standards Manual complies with the requirements of the NPDES Municipal Separate Storm Sewer System (MS4) Permit for storm water and non-storm water discharges from the MS4 within the coastal watersheds of Los Angeles County. This manual provides guidance for the implementation of storm water quality control measures in new development and redevelopment projects in the City of Burbank with the intention of improving water quality and mitigating potential water quality impacts from storm water and non-storm water discharges.

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8 United States Environmental Protection Agency, *Secondary Drinking Water Regulations: Guidance for Nuisance Chemicals,* 2013.

The Los Angeles RWQCB's 2012 MS4 Permit named 84 incorporated cities, the County, and the Los Angeles County Flood Control District as permittees. The MS4 Permit, which became effective December 28, 2012 and runs through December 17, 2017, imposes a number of basic programs, called Minimum Control Measures, on all permittees in order to maintain a level of acceptable runoff conditions through the implementation of practices, devices, or designs generally referred to as BMPs, that mitigate storm water quality problems. As an example, a development's construction program requires the implementation of temporary BMPs during a project's construction phase to protect water resources by preventing erosion, controlling runoff, protecting natural slopes and channels, storing fluids safely, managing spills quickly, and conserving natural areas.

The MS4 Permit also includes design requirements for new development and significant redevelopment. New Development/Redevelopment Project Performance Criteria apply to all projects which create or replace more than 5,000 square feet of impervious cover that have not been deemed complete prior to February 8, 2013. Where redevelopment results in an alteration to more than 50 percent of impervious surfaces of a previously existing development and the existing development was not subject to post-construction storm water quality control requirements, the entire project must be mitigated. Projects that trigger the Project Performance Criteria are required to retain on site (by either infiltrating or storing for reuse) the volume of runoff that is generated from the 3/4-inch storm or the 85th percentile, 24-hour storm, whichever is greater. Alternative compliance measures can be implemented if the project can demonstrate that retaining the water from a design storm is technically infeasible. Projects that use alternative compliance measures must still implement flow-through BMPs to treat (but not retain) on-site storm water. Flow-through BMPs must be sized to treat 0.2 inches per hour or the one-year, one-hour rainfall intensity, whichever is greater.

Under the MS4 Permit, new development requires implementation of a Standard Urban Storm water Mitigation Plan (SUSMP) and compliance with LID. In the past, land development projects were designed to direct storm water into the storm water conveyance system and move it off the site as quickly and efficiently as possible. LID is designed to capture and retain storm water runoff for on-site treatment (typically using natural vegetated systems) and/or reuse, while also reducing downstream peak flows and runoff volumes. LID often also include infiltration components where feasible. The SUSMP contains a list of minimum BMPs that must be employed to infiltrate or treat storm water runoff, control peak flow discharge, and reduce the post-project discharge of pollutants from storm water conveyance systems. The SUSMP defines the types of practices that must be included and issues that must be addressed as appropriate to the development type and size based on land use type.

LID is a decentralized approach to storm water management that works to mimic the natural hydrology of the site by retaining precipitation on-site to the maximum extent practicable. Storm water quality control measures that incorporate LID principles are placed throughout the site in small, discrete units and distributed near the source of impacts. LID strategies are designed to protect surface and groundwater quality, maintain the integrity of ecosystems, and preserve the physical integrity of receiving waters by managing storm water runoff at or close to the source. The purpose of LID is to reduce the peak discharge rate, volume, and duration of flow through the use of site design and storm water quality control measures.

The benefits of reduced storm water runoff volume include reduced pollutant loadings and increased groundwater recharge and evapotranspiration rates. The LID Standards Manual addresses the following objectives:

- Lessen the adverse impacts of storm water runoff from development and urban runoff on natural drainage systems, receiving waters, and other water bodies;
- Minimize pollutant loadings from impervious surfaces by requiring development projects to incorporate properly-designed, technically-appropriate BMPs and other LID strategies; and
- Minimize erosion and other hydrologic impacts on natural drainage systems by requiring development projects to incorporate properly-designed, technically appropriate hydromodification control development principles and technologies.

All projects must retain 100-percent of the Storm Water Quality Design volume on-site through infiltration, evapotranspiration, storm water runoff harvest and use, or a combination thereof unless it is demonstrated that it is technically infeasible to do so. LID strategies include use of bioretention/infiltration landscape areas, disconnected hydrologic flow paths, reduced impervious areas, functional landscaping, and grading to maintain natural hydrologic functions that existed prior to development, such as interception, shallow surface storage, infiltration, evapotranspiration, and groundwater recharge. By implementing LID strategies, a project site can be designed to be an integral part of the environment by maintaining undeveloped hydrologic functions through the careful use of storm water quality control measures.

City of Burbank Municipal Code

The Burbank Municipal Code (BMC) describes the requirements for sediment and erosion control BMPs and SWPPPs. Title 9, Chapter 1 establishes flood hazard areas, defines the duties and responsibilities of the floodplain administrator, and sets requirements and performance standards for construction within flood zones. Title 9, Chapter 3, Article 4 describes Standard Urban Storm water and Urban Runoff Management Programs. Title 8, Chapter 2 contains the City's Sustainable Water Use Ordinance, which describes required practices such as outdoor water use restrictions, outdoor vehicle washing requirements, irrigation overspray elimination, etc., as well as the Water Conserving Fixtures and Fittings Ordinance. Title 8, Chapter 1 contains Storm Water and Runoff Pollution Control, which describes discharges that are primarily prohibited into the local storm drain system, with a few conditionally-allowed non-storm water discharges.

Burbank Urban Water Management Plan

The Burbank Urban Water Management Plan (UWMP) describes the community approach used in the City of Burbank to protect and/or extend its water resources. The UWMP was developed in accordance with the requirements of the California Urban Water Management Planning Act, which requires urban water suppliers to prepare an UWMP every five years in order to assess the reliability of their water sources over a 20-year period. The most recent Burbank UWMP was prepared by Burbank Water and Power staff in 2010. The Plan includes the following five elements:

- Assessment of past and future water supplies and demands
- Evaluation of the future reliability of the City's water supplies
- Information on water conservation and management activities

- Description of water recycling activities
- Contingency planning in case of water shortages

In addition to quantifying current and future usage of water, the UWMP describes the various sources of water used by the City, including surface water and groundwater, and describes the City's evaluation of storm water mitigation methods to increase storm water infiltration and recharge through low-impact development projects. The UWMP also describes measures put into place to manage water demand in the City, including the Sustainable Water Use Ordinance which seeks to prohibit wasteful use of potable water, a Retrofit ordinance requiring upgrading of toilets and other indoor fixtures, and other programs to increase water use efficiency.

Burbank2035 General Plan

The Burbank2035 General Plan is a state-required policy document that provides guidance to decision-makers in determining the City's future development, both in terms of physical form and character. The General Plan contains vision statements that cover a broad range of aspects of the City's development, some of which will guide the City's approach to management of its water resources, including the following:

- The Air Quality and Climate Change Element, which promotes water conservation and recycling as a means to reduce greenhouse gas emissions and discusses management of water supply in the face of climate change.
- The Land Use element, which promotes new building designs, retrofits, and development projects to seek to minimize water consumption as well as decrease storm water runoff.
- The Open Space and Conservation Element, which discusses goals and policies to protect the City's water resources by reducing water usage, increasing conservation efforts, and improving water quality.
- The Safety Element, which discusses measures to protect water-related infrastructure, including the City's flood control system.

The Burbank2035 General Plan states that the City is currently developing a Storm Water Master Plan, which will promote a LID approach to balance the needs of storm water management with the needs of land development. BMPs mentioned include vegetated swales, biofilters, and constructed wetlands.

3.10.1.2 Significance Thresholds

For purposes of this analysis, the proposed project would cause a significant impact related to hydrology and water quality if it resulted in:

- HYDRO-1: A violation of any water quality standards or waste discharge requirements.
- HYDRO-2: The substantial depletion of groundwater supplies or substantial interference with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.
- HYDRO-3: The substantial alteration of the existing drainage pattern of the site or area.

- HYDRO-4: The substantial increase in the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.
- HYDRO-5: The creation or contribution of runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.
- HYDRO-6: The substantial degradation of water quality.
- HYDRO-7: The placement of structures within a 100-year flood plain as mapped on federal Flood Hazard Boundary or Flood Insurance Rate Maps or other flood hazard delineation maps that would impede or redirect flood flows.
- HYDRO-8: The exposure of people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.
- HYDRO-9: A substantial contribution to cumulative impacts to hydrology or water quality.

3.10.1.3 Methodologies

HYDROLOGY

Hydrology calculations for the 2-year, 5-year, 10-year, 25-year and 50-year storm events for each of the sites were performed in accordance with the LID Standards Manual. The required components of a hydrology analysis as stated in the LID manual are determining the time of concentration (tc), the runoff coefficients (C), and the Storm Water Quality Design volume. The Storm Water Quality Design volume is defined as either 0.75 inches, 24 hour rain event or 85th percentile, 24 hour rain event per the Los Angeles County isoheytal map (map with lines of equal rainfall), whichever is greater. The intent of this analysis is to reduce and/or eliminate any increase in runoff due to development. To assist in determining these components, Los Angeles County has developed the HydroCalc program. This program utilizes the Modified Rational Method to determine the peak flow rates and volumes for storm water. HydroCalc was used for all analyses. All sub-basin areas studied are under the 40-acre maximum denoted in the LID manual. As the 50-year was the most demanding of the analysis performed, the results refer to the values associated with the 50-year storm. The calculations for each of the design years can be found in **Appendix J**.

WATER QUALITY

Per the BMC, the scale of this project falls into the Designated Project requirements as it meets the “redevelopment” criteria within the code. If more than 50% of the site will be redeveloped, the entire development site must meet the LID requirements. If less than 50% of the site is to be redeveloped, then only the new portion must be brought up to current LID standards. A site assessment must be completed to identify design considerations and determine the feasibility of site-specific storm water quality control measures. Additionally, site-specific source control measures are required.

The slopes and flow paths for existing conditions were determined based on a topographic LiDAR survey performed on December 24, 2015. The slopes and flow paths for the final condition were based upon FAA design criteria for pavements and engineering judgment based on the existing topography. The water quality BMPs were outlined in the BMC.

The SWPPP and the *Preliminary Geotechnical Evaluation Replacement Terminal Environmental Impact Project Bob Hope Airport Burbank, California,* dated January 18th, 2016, were provided by the Authority. The SWPPP contained a drainage map of the existing systems of the Airport, which was used to determine the existing basins at the Airport. The existing hydrology data was obtained from Los Angeles County Department of Public Works (LACDPW) online database. Lastly, the FIRM panel information was obtained from FEMA's online web portal. Both the Drainage Map and the effective FIRM panel can be found in **Appendix J**.

FLOODPLAINS

Floodplains are established by FEMA and are reported on FIRM panels. Since portions of the Airport property are located within the City of Burbank and other portions are not, floodplains are managed in part by both Los Angeles County and the City of Burbank. The LID Manual requires that site development must make an effort to minimize land disturbance, and preserve the hydrologic conditions of the site as much as practical. This includes locating buildings and impervious surfaces away from floodplains. The City of Burbank Land Development limits the impact in Zones A1-30 and AE areas to an increase no greater than 1-foot to the base flood elevation anywhere in the City[9]. The FIRM panel for the Airport is Panel 1328F, dated September 26, 2008. Neither of the options will have development that occurs in the 100-year floodplain.

3.10.2 Existing Conditions / Environmental Setting

3.10.2.1 Northeast Quadrant

HYDROLOGY

The Airport is located in the Los Angeles River Watershed. All drainage systems on the northeast quadrant drain offsite to the Lockheed Drainage Channel located on the southern edge of the Airport. The Lockheed Channel discharges to Burbank Western Channel.

The site for the Adjacent Property Full-Size Terminal Option is located in the northeast quadrant and is approximately 49.2 acres. The northeast quadrant area is currently used for parking lots, construction staging activity for various projects at the airport, and the Air Traffic Control Tower, which is the only building located on this site.

According to Bob Hope Airport SWPPP, there are currently 2 drainage systems serving this area. The drainage map showing these systems is shown on **Figure 3.10-1**. The first system is an open sheet flow system serving the Desmond parking lots on the northern portion of the site, designated as Drainage Area 1. The second is the Parking Lot A storm drain system which collects Drainage Area 2. These 2 systems have separate exit points which have been denoted as different points of interest (POI). The location of these POIs is shown on **Figure 3.10-1**.

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9 Burbank City Code Title 9, Article 1 Division 1, Section G103.9.2, 2014

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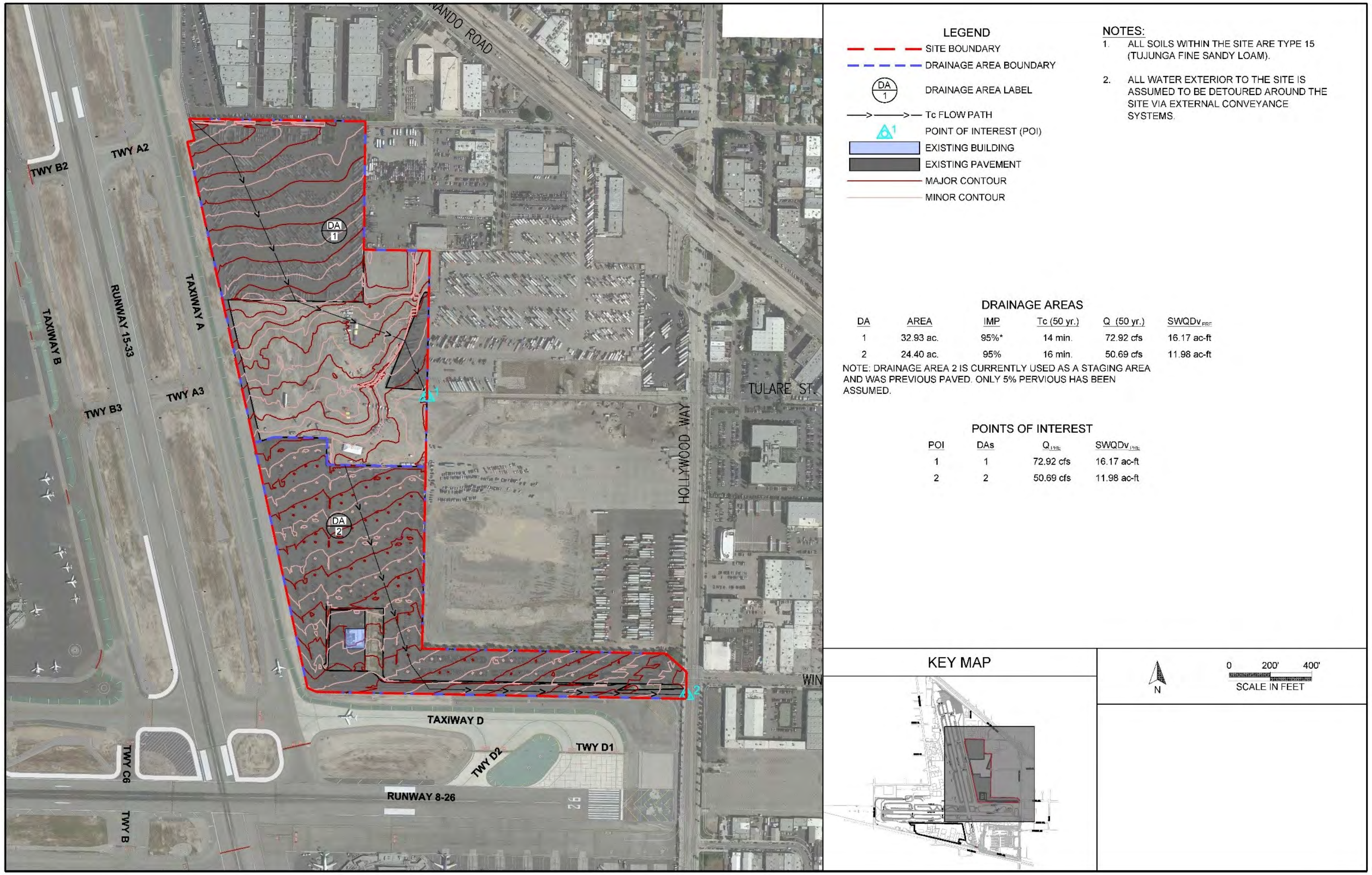
Figure 3.10-1

Northeast Quadrant Pre-Development Drainage Map



NOTES:

1. ALL SOILS WITHIN THE SITE ARE TYPE 15 (TUJUNGA FINE SANDY LOAM).
2. ALL WATER EXTERIOR TO THE SITE IS ASSUMED TO BE DETOURED AROUND THE SITE VIA EXTERNAL CONVEYANCE SYSTEMS.

DRAINAGE AREAS

DA	AREA	IMP	Tc (50 yr.)	Q (50 yr.)	$SWQDv_{PRE}$
1	32.93 ac.	95%*	14 min.	72.92 cfs	16.17 ac-ft
2	24.40 ac.	95%	16 min.	50.69 cfs	11.98 ac-ft

NOTE: DRAINAGE AREA 2 IS CURRENTLY USED AS A STAGING AREA AND WAS PREVIOUS PAVED. ONLY 5% PERVIOUS HAS BEEN ASSUMED.

POINTS OF INTEREST

POI	DAs	Q_{PRE}	$SWQDv_{PRE}$
1	1	72.92 cfs	16.17 ac-ft
2	2	50.69 cfs	11.98 ac-ft

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This site was divided into two drainage areas. Drainage Area 1 is 52.6-percent parking lot and 47.4-percent open staging area. Historical data shows portions of this staging area were previously paved. Due to compaction of subgrade from the previously paved surface as well as compaction of soil from heavy equipment that regularly work in this area, the current non-paved, pervious surfaces of this site are expected to infiltrate very little, if any, storm water runoff. Therefore, only 5-percent pervious has been assumed for the open staging area. This assumption results in Drainage Area 1 being 95-percent impervious cover.

Drainage Area 2 is also 95-percent impervious with the only pervious area being the landscaping elements around the current ATCT. Using the HydroCalc program, the discharge at each of the POI's was determined. The results of the 50-year storm calculations can be found in **Table 3.10-1**. These values served as the baseline peak flows, or existing conditions, for the analysis. The complete results of the HydroCalc analysis for all design storm frequencies can be found in **Appendix J**.

Table 3.10-1
Northeast Quadrant Site Pre-Development Runoff Calculations

Point of Interest	Q_{2yr}	Q_{5yr}	Q_{10yr}	Q_{25yr}	Q_{50yr}
POI 1	20.42 cfs	30.61 cfs	45.95 cfs	61.82 cfs	72.77 cfs
POI 2	14.40 cfs	24.18 cfs	31.64 cfs	41.99 cfs	50.05 cfs

cfs – cubic feet per second

Source: RS&H, 2016

WATER QUALITY

Existing storm water flows over pavements and infield areas prior to entering the storm drain systems. There are no detention/retention facilities for any of the runoff in the northeast quadrant and no treatment of storm water runoff.

Under Section 303(d) of the CWA, states, territories, and authorized tribes are required to develop a list of waters where required pollution controls are not sufficient to attain or maintain applicable water quality standards. While the Lockheed Channel is not 303(d) listed for any pollutants, the Burbank Western Channel is 303(d) listed as impaired for pollutants including copper, cyanide, indicator bacteria, lead, selenium, and trash. The Los Angeles River reaches near the Airport are identified as 303(d) listed as impaired for pollutants including ammonia, copper, lead, nutrients, coliform bacteria, and trash.

TMDLs are developed for contaminants in 303(d)-listed water bodies. The RWQCB has established a number of TMDLs for the Los Angeles River Watershed, including bacteria, metals, trash, and nutrients. Because the Lockheed Channel and Burbank Western Channel are part of the Los Angeles River Watershed, runoff from the Airport is subject to these TMDLs. Compliance with TMDLs can be achieved through an array of BMPs required by the NPDES permit. BMPs are categorized as end-of-pipe full capture structural controls, partial capture control systems, and institutional controls.

Due to the urban setting, storm water runoff from the Airport would be expected to contain pollutants commonly found in runoff from commercial and industrial sites including sediments, nutrients, trace metals, pathogens, petroleum hydrocarbons, pesticides, and trash and debris.

FLOODPLAINS

The FIRM panel that includes the Airport indicates that the northeast quadrant is located entirely in Zone X, which is defined as an area that is outside the 500-year floodplain area. As a result, it is not considered a sensitive area and no special considerations are required.

GROUNDWATER

The northeast quadrant is located within the San Fernando Valley Groundwater Basin (Basin 4-12), which covers 226 square miles. Groundwater monitoring well data from the SWRCB's GeoTracker website were reviewed for wells in the vicinity of northeast quadrant. The data from wells located on off-site properties adjacent to the northeast quadrant indicate a depth to groundwater around 250 below ground surface. Historical high groundwater beneath the site is mapped at depths approximately 70 to 100 feet below ground surface. Historic groundwater monitoring well data from the Los Angeles County Department of Public Works Historical Well Measurement Data website were reviewed for wells located on adjacent properties. Based on groundwater measurements from 1957 to 2008 in a well approximately 0.6 miles southwest of the Airport, groundwater levels ranged from 168 to 248 feet below ground surface.

Burbank Water and Power supplies water to the Airport. The water supply for Burbank Water and Power comes from a combination of local groundwater (46-percent), the State Water Project (9-percent), the Metropolitan Water District of Southern California (34-percent) and recycled water (11-percent) (Burbank Water and Power, 2015).

3.10.2.2 Southwest Quadrant

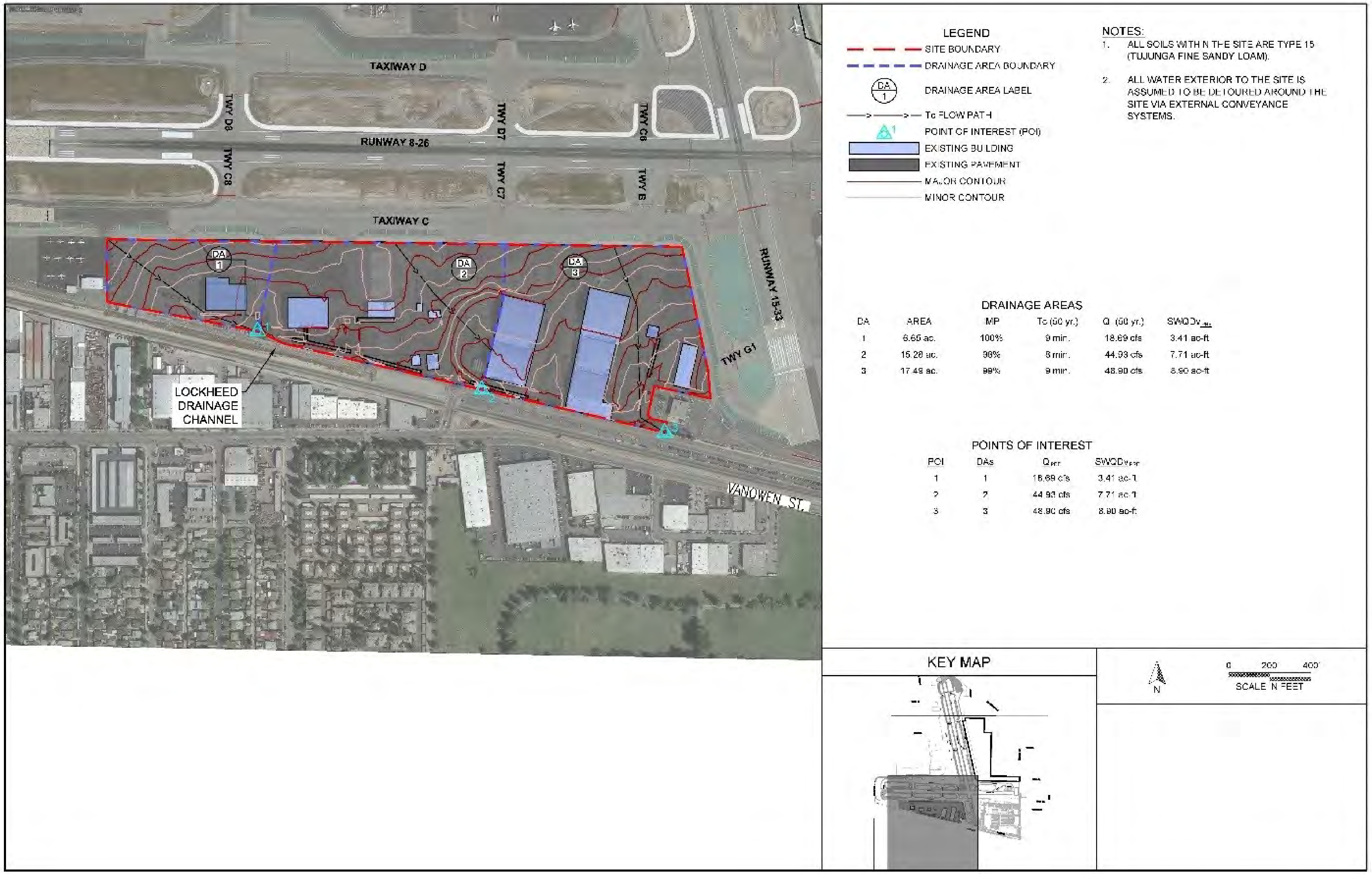
HYDROLOGY

The southwest quadrant is about 43.2 acres and is currently occupied by several cargo tenants as shown on **Figure 3.10-2**. One overall drainage system currently serves this site according to the latest SWPPP. The drainage system consists of overland sheet flow, open channels, and subsurface piping networks. Three primary outfalls are located along Empire Avenue and the Lockheed Drainage Channel which have been designated as the 3 POIs for this site. The location of these outfalls is shown on **Figure 3.10-2**.

Drainage Area 1 is predominately apron pavement with one cargo hangar located within the limits and is 100 percent impervious. Immediate capture was assumed for the storm water and the slope of the surface. HydroCalc has been adjusted to reflect this rate of capture and set the time of concentration to the minimum. Drainage Area 2 is also covered predominantly by apron pavements. There are six buildings including offices and hangars throughout the area. Landscape features are limited to the parking areas

Figure 3.10-2

Southwest Quadrant Pre-Development Drainage Map



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adjacent to the offices which result in only a small area of pervious conditions. Drainage Area 2 is 98 percent impervious. Drainage Area 3 has been calculated to be 99 percent impervious, with the only pervious areas being the several landscape islands along Empire Avenue. The remaining portion of the area is covered with apron pavements and large hangars. The pre-development peak flow at each of these outfalls was determined using the HydroCalc program. These flows are shown in **Table 3.10-2**.

Table 3.10-2

Southwest Quadrant Pre-Development Runoff Calculations

Point of Interest	Q_{2yr}	Q_{5yr}	Q_{10yr}	Q_{25yr}	Q_{50yr}
POI 1	5.36 cfs	9.18 cfs	12.14 cfs	16.41 cfs	18.69 cfs
POI 2	12.84 cfs	22.49 cfs	28.80 cfs	39.41 cfs	44.93 cfs
POI 3	13.61 cfs	23.15 cfs	30.45 cfs	40.83 cfs	48.90 cfs

cfs – cubic feet per second

Source: RS&H, 2016

WATER QUALITY

Based on the SWPPP documentation, there does not appear to be any storm water quality measures currently installed at this site. Aerial imagery does not show any retention basins and drainage swales do not include vegetative cover (grass).

The Section 303(d) List for the southwest quadrant is the same as that described for the northeast quadrant because both the quadrants use the same drainage channel.

FLOODPLAINS

A portion of the southwest quadrant is partially located inside an existing 100-year floodplain shown on the FIRM panel 1328F, dated September 26, 2008. This floodplain includes the Lockheed Drainage Channel, as well as a portion of Empire Avenue adjacent to the channel. However, there are no proposed changes to this area.

GROUNDWATER

The groundwater for the southwest quadrant is identical to that described for the northeast quadrant.

3.10.2.3 Southeast Quadrant

HYDROLOGY

The area of the southeast quadrant is approximately 39.9 acres and includes the existing passenger terminal, surface parking lots, parking structures, and the Terminal Loop Road (see **Figure 3.10-3).** While the southeast quadrant does include minor vegetative coverings along the perimeter of the parking structure, the effective site is 100-percent impervious. The southeast quadrant has been divided into four drainage areas. Drainage Area 1 includes the northern terminal apron and is approximately 12.3 acres. As this is all concrete and asphalt pavement, this entire area is impervious. Drainage Area 2 includes the western terminal apron and is approximately 9.76 acres and also is completely impervious. Drainage Area 3 includes the southwest portion of the existing terminal, the valet surface lot and the Regional Intermodal Transportation Center. This area is 100-percent impervious cover. Drainage Area 4 includes the northeastern portion of the terminal, the parking structure, and parking lots E, G, and D. Drainage Area 4 is 100-percent impervious. The SWPPP does not show any existing subsurface drainage systems for the existing terminal and Terminal Loop Road. The various parking lots and structures in this area are served by a combination of overland sheet flow and several subsurface systems that exit the southeast quadrant at various points. The pre-development peak flow at each of these outfalls was determined using the HydroCalc program as shown in **Table 3.10-3**.

Table 3.10-3

Southeast Quadrant Pre-Development Runoff Calculations

Point of Interest	Q_{2yr}	Q_{5yr}	Q_{10yr}	Q_{25yr}	Q_{50yr}
POI 1	7.58 cfs	13.23 cfs	16.92 cfs	22.46 cfs	26.32 cfs
POI 2	6.49 cfs	11.15 cfs	14.78 cfs	19.35 cfs	22.82 cfs
POI 3	10.87 cfs	18.58 cfs	24.25 cfs	32.19 cfs	37.73 cfs
POI 4	20.54 cfs	35.68 cfs	45.84 cfs	61.42 cfs	72.25cfs

cfs – cubic feet per second

Source: RS&H, 2016

WATER QUALITY

Drainage Area 1 and 2 have hydrodynamic separators located at their respective POIs. These systems are intended to capture pollutants that may enter the storm water system due to the operations performed on the aircraft apron. There does not appear to be any storm water retention for either of these areas. Drainage Areas 3 and 4 do not have any existing water quality measures.

Figure 3.10-3

Southeast Quadrant Pre-Development Drainage Map

LEGEND

- SITE BOUNDARY
- DRAINAGE AREA BOUNDARY
- DRAINAGE AREA LABEL
- Tc FLOW PATH
- POINT OF INTEREST (POI)
- EXISTING BUILDING
- EXISTING PAVEMENT
- MAJOR CONTOUR
- MINOR CONTOUR

NOTES:

1. ALL SOILS WITHIN THE SITE ARE TYPE 15 (TUJUNGA FINE SANDY LOAM).
2. ALL WATER EXTERIOR TO THE SITE IS ASSUMED TO BE DETOURED AROUND THE SITE VIA EXTERNAL CONVEYANCE SYSTEMS.

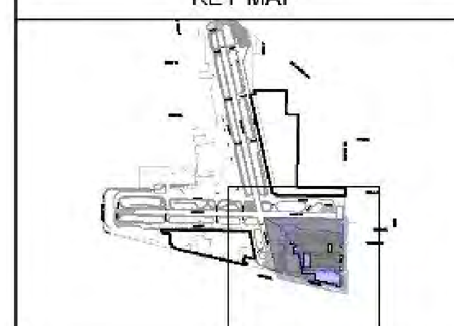
DRAINAGE AREAS

DA	AREA	IMP	Tc (50 yr.)	Q (50 yr.)	SWQDv (50 yr.)
1	12.27 ac.	100%	16 min.	26.32 cfs	6.30 ac-ft
2	9.65 ac.	100%	13 min.	22.82 cfs	4.95 ac-ft
3	17.59 ac.	100%	16 min.	37.73 cfs	9.03 ac-ft
4	31.64 ac.	100%	14 min.	72.25 cfs	16.24 ac-ft

POINTS OF INTEREST

POI	DAs	Q_{PRE}	$SWQDv_{PRE}$
1	1	26.32 cfs	6.30 ac-ft
2	2	22.82 cfs	4.95 ac-ft
3	3	37.73 cfs	9.03 ac-ft
4	4	72.25 cfs	16.24 ac-ft

KEY MAP



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The Section 303(d) List for the southeast quadrant is the same as that described for the northeast quadrant because both the quadrants use the same drainage channel.

FLOODPLAINS

A portion of the northeast quadrant is partially located inside an existing 100-year floodplain shown on the FIRM panel 1328F, dated September 26, 2008. However, there are no proposed changes to this area.

GROUNDWATER

The groundwater for the southeast quadrant is identical to that described for the northeast quadrant.

3.10.3 Environmental Impacts and Mitigation Measures

3.10.3.1 PROJECT DESIGN FEATURES

The following Project Design Features (PDFs) would result in a reduction of potential storm water runoff and polluted storm water runoff impacts and are proposed as part of the Bob Hope Airport Replacement Terminal Project. The PDFs will be required elements of the proposed Project, and memorialized in any project. In addition, the Project would comply with all applicable requirements, and other rules and regulations, such as development and implementation of a Water Quality Management Plan, Storm water Pollution Prevention Plan (SWPPP), and implementation of Best Management Practices (BMPs) to reduce or eliminate impacts related to hydrology and water quality.

PROJECT DESIGN FEATURE-HYDRO-1: Low Impact Development Plan

Prior to final design of the Adjacent Property Full-Size Terminal Option, Southwest Quadrant Full-Size Terminal Option, or Southwest Quadrant Same-Size Terminal Option, a Low Impact Development Plan would be developed by the Authority and submitted to the City of Burbank Community Development Director for approval. The LID Plan is required because the replacement terminal project is classified as a "Planning Priority Project" per the BMC and must comply with requirements of Section 9-3-413. The adjacent property and southwest quadrant sites will result in an alteration to 50-percent or more of the impervious surfaces of a previously existing development which was not subject to post-construction storm water quality control requirements. Therefore, all storm water runoff generated at these two locations must be treated. At the northeast quadrant site, less than 50-percent of the impervious surfaces of a previous development not subject to post-construction storm water quality control requirements will be altered. Therefore, only the area that is altered must be treated.

The LID Plan would be designed to control pollutants, pollutant loads, and runoff volumes to the maximum extent feasible by minimizing impervious surface areas and controlling runoff from impervious surfaces through infiltration, evapotranspiration, bioretention and/or rainfall harvest and use. The LID plan will detail how the project will comply with retaining storm water runoff onsite for the storm water quality design volume (SWQDv) and minimizing hydromodification impacts to the natural drainage systems. If 100-percent onsite retention of the SWQDv is technically infeasible, partially or fully, the infeasibility will be demonstrated in the LID Plan submitted for approval. Technically infeasible reasons could include; brownfield development sites or other locations where pollutant mobilization is a document concern, smart growth and infill or redevelopment locations where the density and/or nature of the project would create significant difficulty for compliance with the on-site volume retention requirements. If partial or complete onsite retention is technically infeasible, the project site may biofiltrtre 1.5 times the portion of the remaining SWQDv that is not reliably retained onsite or alternatively off-site infiltration may be available. The remaining SWQDv that cannot be retained or biofiltered on- or off-site must be treated onsite to reduce pollutant loading. BMPs must be selected and designed to meet pollutant-specific benchmarks as required by the NPDES Permit. Flow-through BMPs may be used to treat the remaining SWQDv and must be sized appropriately based on either a rainfall intensity of 0.2 inchers per hour or the one year, one-hour rainfall intensity as determined by the most recent Los Angeles County isohyetal map, whichever is greater.

The LID Plan will identify permanent site design, source-control, and treatment-control BMPs that would be implemented as part of the project, including pollutant removal and protection of downstream water resources. The LID manual[10] presents several alternatives for storm water quality control measures; retention based, biofiltration, vegetation based and treatment based. Potential retention/detention based options include constructed wetlands and wet ponds, which would feature standing water which is not a suitable application for airports due to the risk of creating wildlife attractants per FAA AC 150/5200-33B. Additionally, a majority of the retention based, biofiltration, and vegetation measures are not feasible according to the LID manual as the drainage areas in the adjacent property, southwest quadrant and northeast quadrant are larger than 10 acres. The four remaining storm water quality control measures include sand filters, extended detention basin, permeable pavement with an underdrain system, and proprietary devices. The majority of the replacement terminal sites are occupied by pavement and structures so a sand filter is likely not feasible due to sizing restrictions. While apron pavement would not be able to be of permeable construction due to FAA pavement design requirements, sections of the surface parking lots could be made permeable; however the majority of the parking facilities in the proposed developments are parking structures. The project sites lie above the Burbank and North Hollywood Operable Units, which are known to have groundwater pollution, therefore, infiltration basins should be avoided because it can mobilize groundwater contamination[11]. So, an underground extended detention basin is the only storm water quality control measure left. Any proprietary devices would need to be investigated further as the drainage basins are finalized and the final flow paths are determined. Therefore, the proposed storm water quality control measure is an underground detention basin where the water will be treated by going through synthetic treatment chambers prior to being hydraulically released into the storm drains when volume permits. The synthetic treatment chambers may contain, baffle boxes, modular wetlands, hydrocarbon bricks, CDS unit, etc. The final design will be specified in the LID Plan. The underground detention basis would reduce the amount of runoff enough to mitigate the increase in SWQDv flowrate as a result of implementation of the Adjacent Property Full-Size Terminal Option., Southwest Quadrant Full-Size Terminal Option, and Southwest Quadrant Same Size Terminal Option to a less than significant impact.

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[10] County of Los Angeles Department of Public Works, 2014. *Low Impact Development Manual Standards Manual,* is applicable because the City of Burbank Code adopted the LA County SUSMP in 2000 and the SUSMP was subsequently replaced by the LID manual in 2014.

[11] County of Los Angeles Department of Public Works, 2014. *Low Impact Development Manual Standards Manual.*

Table 3.10-4, *LID Source Control Measures*, identifies source control measures taken from the County LID Manual. Of these 11 measures, storm drainage message and signage, outdoor trash storage, outdoor loading/unloading dock area, fuel-maintenance area and landscape irrigation are anticipated to be required due to the proposed operations. Storm drain message and signage requires that signs and messages be posted that discourage illegal dumping. Outdoor trash requirements include isolating the storm water impacted by the storage area and ensuring the waste is contained onsite via grading and screens until the materials can be disposed of properly. Outdoor loading and unloading include similar requirements such as isolating the bays from the surround drainage systems and covering the area to prevent any leakage of pollutants. Lastly, landscape requirements include design criteria to limit excessive runoff generated by the landscaping and minimize fertilize, pesticides, and herbicide uses. The LID Plan will include a detailed list of components and features that will be incorporated into the final project design. Implementation of these source control measures would reduce impacts at the Adjacent Property Full-Size Terminal Option., Southwest Quadrant Full-Size Terminal Option, and Southwest Quadrant Same Size Terminal Option to a less than significant level.

Table 3.10-4

LID Source Control Measures

Source Control Measures	
S-1 – Storm Drain Message and Signage	S-6 – Outdoor Vehicle/Equipment/Accessory Wash Area
S-2 – Outdoor Material Storage Area	S-7 – Fuel & Maintenance Area
S-3 – Outdoor Trash Storage/Waste Handling Area	S-8 – Landscape Irrigation Areas
S-4 – Outdoor Loading/Unloading Dock Area	S-9 – Building Materials
S-5 – Outdoor Vehicle/Equipment Repair/ Maintenance Area	S-10 – Animal Care and Handling Facilities
	S-11 – Outdoor Horticulture Areas

Source: LA County Low Impact Design Manual(2014) – Section 5, 2016

PROJECT DESIGN FEATURE-HYDRO-2: Soil Management Plan

The Adjacent Property Full-Size Terminal Option, Southwest Quadrant Full-Size Terminal Option, and Southwest Quadrant Same-Size Terminal Option are located in an area which has been used for various aircraft manufacturing and maintenance purposes. These purposes involved the use and storage of various chemicals and hazardous materials. As a result of these past uses, the Airport was investigated for potential groundwater and soil contamination under the Well Investigation Program as part of the San Fernando Valley Groundwater Basin Superfund Site. The San Fernando Valley Groundwater Basin Superfund Site is broken up into four separate areas: Burbank & North Hollywood; Glendale/Crystal Springs; Verdugo; and

Pollock/Los Angeles. The Airport is located within Area 1 (Burbank & North Hollywood). As Area 1 is large, the site was broken up to make cleanup easier and more manageable in the form of Operable Units. Area 1 is currently comprised of the North Hollywood Operable Unit and the Burbank Operable Unit. The Adjacent Property and northeast quadrant lie within the Burbank Operable Unit. The southwest quadrant lies within the North Hollywood Operable Unit. Therefore, there is a potential that construction activities could uncover previously contaminated soils.

The Authority would prepare a Soil Management Plan (SMP) and obtain RWQCB approval prior to the initiation of construction activities. The SMP would outline the framework for soils assessment, remediation, and removal confirmation actions to be undertaken if contaminated soils are uncovered during construction activities. As grading, excavation and trenching were performed, exposed soil would be monitored for stained or discolored soil, wet or saturated soils, or odors. If impacted soil is encountered, the soil would be analyzed to identify and characterize the impact and determine if soil remediation is required. Based on visual monitoring, "grab" soil samples would be collected at selected locations for headspace screening for volatile organic compounds using a calibrated Photoionization Detector (PID). Headspace PID readings that are elevated above those of non-impacted grab soil samples would be considered potentially contaminated. Soil impacted by highly elevated concentrations of hexavalent chromium and/or total chromium may appear to be stained a yellow color, dissimilar to surrounding non-impacted soil. At a minimum, at least one soil sample would be collected for chemical analysis at or near the center of the suspected impact, ideally representative of the "worst case" condition. Soil samples would be analyzed by an appropriate State-certified laboratory using appropriate methods based on the parameters to be analyzed. When a new impact has been identified it would be characterized to assess its lateral and vertical extent. Likely excavation of impacted soil would be followed by segregated stockpiling or direct-loading, waste profiling, and off-site disposal or recycling which would be performed in accordance with applicable federal, state, and local regulations. Compliance with the SMP would be protective of water quality and would reduce potentially significant impacts to a less than significant level.

3.10.3.2 ADJACENT PROPERTY FULL-SIZE TERMINAL OPTION

Project Impacts

The Adjacent Property Full-Size Terminal Option would be built in the northeast quadrant with modification to the existing Airport in the southeast quadrant.

IMPACT ADJ PROP FULL-HYDRO-1: Violation of Water Quality Standards

Implementation of the Adjacent Property Full-Size Terminal Option could violate water quality standards or waste discharge requirements. However, compliance with the Construction General Permit, SWPPP, NPDES requirements, MS4 Permit, PROJECT DESIGN FEATURES HYDRO-1 AND HYDRO-2, and other local regulations that require BMPs and source control measures are considered protective of water quality and would prevent a substantial violation of water quality standards, including TMDL limits applicable to the Lockheed Channel and the Burbank Western Channel, and regulate waste discharge requirements minimizing the potential for contributing additional sources of polluted runoff. Therefore, compliance with applicable regulatory requirements, including the implementation of the facility's SWPPP, would reduce potentially significant impacts to a less-than-significant level.

CONSTRUCTION

The Adjacent Property Full-Size Terminal Option includes construction of the replacement terminal and taxiway improvements and demolition of the existing terminal. Construction activities would include the use of heavy equipment and construction-related chemicals, such as fuels, oils, grease, solvents and paints that would be stored in limited quantities on-site. In the absence of proper controls, these construction activities could result in accidental spills or disposal of potentially harmful materials used during construction that could wash into and pollute surface waters or groundwater. During construction, the project sites would be subject to ground-disturbing activities (e.g., removal of the existing structures and pavement, excavation and grading, foundation and infrastructure construction, the installation of utilities). These activities would expose soils for a limited time, allowing for possible erosion and sediments to enter into sheet flow runoff, which would enter the existing storm drain system. Therefore, surface water quality could be temporarily affected by construction activities.

However, the proposed project would be subject to existing regulations associated with the protection of water quality. The Adjacent Property Full-Size Terminal Option would be required to obtain and comply with a Construction General Permit from the SWRCB. The Construction General Permit and associated NPDES requirements include development and implementation of a SWPPP, with associated monitoring and reporting requirements. Storm water BMPs are required to limit erosion, minimize sedimentation, and control storm water runoff water quality during construction activities. BMPs could include, but are not limited to, the use of or implementation of water bars, silt fences, staked straw bales, and avoidance of water bodies during construction. Additional source-control BMPs might also be required to prevent runoff contamination by potentially hazardous materials and eliminate non-storm water discharges. These existing regulations, programs, and policies would ensure that runoff from construction activities would not violate waste discharge requirements or degrade the surface water quality of receiving waters to levels below standards considered acceptable by the Los Angeles RWQCB and/or other regulatory agencies or affect the beneficial uses of receiving waters, resulting in less than significant impacts.

The Adjacent Property Full-Size Terminal Option is located on a portion of the former Lockheed B-6 Plant which has been used for various aircraft manufacturing and maintenance purposes which involved the storage and use of chemicals and hazardous materials. This site is located in the Burbank Operable Unit of the San Fernando Valley Superfund Site which is undergoing remediation activities. Construction activities could uncover previously contaminated soils. Adherence with PROJECT DESIGN FEATURE HYDRO-2, Soil Management Plan, which outlines what to do if contaminated soil is encountered, would be protective of water quality and would reduce potentially significant impacts to a less than significant level.

Positive surface drainage should be accommodated at the project sites to allow surface runoff to flow away from improvements or areas susceptible to erosion. To reduce wind-related erosion, wetting of soil surfaces and/or covering exposed round areas and soil stockpiles would be used during construction operations, as appropriate. The use of soil tackifiers may also be considered to reduce the potential for wind-related soil erosion. Implementation of BMPs would ensure that water- and wind-related erosion would be confined to the construction area and not transported off-site. In addition, the topographic gradients at the Adjacent Property Full-Size Terminal Option Site are relatively gentle. Therefore, potential soil erosion and sedimentation runoff during construction would not exceed water quality standards and impacts would be less than significant.

As stated above, groundwater levels have ranged from approximately 70 feet (historical high groundwater) to greater than 250 feet below ground surface. Based on the depths to groundwater within the site for the Adjacent Property Full-Size Terminal Option, construction dewatering is not anticipated to be required. However, should shallow groundwater be encountered that would require dewatering, the proposed project would apply for coverage and adhere to the monitoring and reporting program under RWQCB Order No. R8-2009-0003. If dewatering is required, groundwater that was found to be contaminated would be properly treated prior to being discharged in accordance with the NPDES permit. Uncontaminated groundwater may be treated and pumped to the storm drain system or used for on-site dust control purposes. Compliance with regulatory requirements would ensure that dewatering activities would not result in the exceedance of water quality standards during construction, including TMDL limits applicable to the Lockheed Channel and Burbank Western Channel, resulting in less than significant impacts.

During construction of the Adjacent Property Full-Size Terminal Option, materials such as fuels or solvents would be stored on-site. The potential for a spill or release of construction related chemicals during construction would be generally small because of the localized, short-term nature of the releases. Airport personnel are trained and equipped to respond to a fuel spill, should one occur, it should not reach the offsite environment. Furthermore, the NPDES Construction General Permit and SWPPP require measures regarding the handling of these types of materials and action protocols if a spill or release does occur. In addition, the site-specific health and safety plan would include measures to appropriately handle an onsite accidental release of fuel or other material from the equipment, resulting in a less than significant impact.

Compliance with the Construction General Permit, SWPPP, NPDES and PROJECT DESIGN FEATURE HYDRO-2 requirements, and local regulations that require construction phase BMPs are considered protective of water quality and would prevent a substantial violation of water quality standards, including TMDL limits applicable to the Lockheed Channel and the Burbank Western Channel, and regulate waste discharge requirements minimizing the potential for contributing additional sources of polluted runoff during construction. Therefore, compliance with applicable regulatory requirements would reduce potentially significant impacts to a less-than-significant level.

OPERATION

Storm water discharge is generated by rainfall that runs off the land and impervious surfaces such as paved streets, parking lots, and rooftops. Storm water discharge may include pollutants of concern, which are expected to be generated by the Adjacent Property Full-Size Terminal Option that could affect storm water. During operation of the replacement passenger terminal, pollutants of concern within runoff may include, but are not limited to, pollutants such as sediment, hydrocarbons, oil, grease, heavy metals, nutrients, herbicides, pesticides, fecal coliform bacteria, and trash. This runoff can flow directly into storm drains and continue untreated into the Lockheed Channel and eventually the Burbank Western Channel. Untreated storm water runoff degrades water quality in surface waters and groundwater and can affect drinking water, human health, and plant and animal habitats. Due to the nature of the apron operations and the potential for hydrocarbon pollutants, a hydrodynamic separator would be required at all apron storm water exit points to capture pollutants, such as jet fuel, before they enter and contaminate other drainage systems. These would be similar to the current apron conditions at the Airport. These would need to be connected to either the trench drain or drainage channel that is used for the entire apron area and must be located upstream of any treatment system.

Implementation of PROJECT DESIGN FEATURE HYDRO-1 for the Adjacent Property Full-Size Terminal Option would satisfy MS4 permit requirements and would ensure compliance with water quality standards for storm water runoff. Therefore, implementation of these programs and regulatory requirements would reduce storm water pollutants that could affect water quality from the Adjacent Property Full-Size Terminal Option site, thus reducing impacts related to storm water pollution and water quality to less-than significant levels. In addition, compliance with the MS4-permit would ensure that operation of the Adjacent Property Full-Size Terminal Option would reduce potential violation of waste discharge requirements to a less-than-significant level.

The Adjacent Property Full-Size Terminal Option would require fueling operations. Aircraft refueling contractors would be required to abide by FAA standards for Aircraft Fuel Servicing and Fuel Safety. These standards specify safety requirements such as emergency fuel shutoff systems, fire safety and fire extinguishers, storage and transport safety. The amount of jet fuel handled as a result of the Adjacent Property Full-Size Terminal is anticipated to increase in the future as the population increases and more people use the airport. The increase in aircraft operations would occur with or without the replacement terminal. Compliance with safety standards should prevent any accidental releases of jet fuel that could have the potential to degrade water quality. Airport personnel are trained and equipped to respond to a fuel spill; should one occur, it should not reach the offsite environment. Furthermore, the NPDES Construction General Permit and SWPPP require measures regarding the handling of these types of materials and action protocols if a spill or release does occur. In addition, the site-specific health and safety plan would include measures to appropriately handle an onsite accidental release of fuel or other material from the equipment. Adherence to permit requirements and FAA standards should ensure that any accidental release of jet fuel would not degrade water quality. Therefore, water quality impacts from accidental releases of jet fuel would be less than significant.

Mitigation Measure ADJ PROP FULL-HYDRO-1

No mitigation is warranted with adherence to PROJECT DESIGN FEATURES HYDRO-1 and HYDRO-2.

IMPACT ADJ PROP FULL-HYDRO-2: Groundwater Impacts

Implementation of the Adjacent Property Full-Size Terminal Option would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. Project water usage would use groundwater resources but would not substantially deplete these resources and water usage would not substantially increase over current usage as a result of the terminal replacement. Additionally, the amount of impervious surfaces would remain about the same as current conditions with implementation of the Adjacent Property Full-Size Terminal Option. Since impervious surfaces for the replacement terminal are similar to existing conditions, the rate of infiltration needed to support groundwater recharge would not be substantially decreased. In addition, groundwater recharge does not occur in this area as it has been previously contaminated and is undergoing remediation. Furthermore, compliance with applicable regulatory requirements would reduce potentially significant impacts to a less-than-significant level. For a more thorough discussion of groundwater supplies and impacts, please refer to **Section 3.18**.

CONSTRUCTION

The Adjacent Property Full-Size Terminal Option includes construction of the replacement terminal and taxiway improvements and demolition of the existing terminal. Construction activities are not expected to have excavation activities below the normal or historic high groundwater levels, which is 70 to 250 feet below ground surface. However, if seepage is encountered during construction, which is unlikely, dewatering may be necessary. Any seepage encountered during construction would be mitigated per the SWPPP, as needed, by constructing small drainage swales from the base of the excavations to temporary sump pits or storm water/LID features on-site. If dewatering is required, groundwater that was found to be contaminated would be properly treated prior to being discharged in accordance with the NPDES permit. Uncontaminated groundwater may be treated and pumped to the storm drain system or used for on-site dust control purposes. If seepage is encountered, it would not substantially deplete groundwater supplies and would not result in a net deficit in aquifer volume, or lower the groundwater table. Therefore, impacts to groundwater would be less than significant.

Any discharges of groundwater during construction would be in compliance with applicable NPDES permit requirements. The Adjacent Property Full-Size Terminal Option would also comply with all applicable federal, state, and local requirements concerning the handling, storage, and disposal of hazardous materials to reduce the potential for a release of contaminants into the groundwater as a result of project construction. Construction activities could uncover previously contaminated soils. PROJECT DESIGN FEATURE HYDRO-2 outlines what to do if contaminated soil is encountered so it would not contaminate groundwater, therefore, the Adjacent Property Full-Size Terminal Option would not degrade groundwater quality. Water use may temporarily increase for a limited extent during the construction phase for general site activities including cleaning of tools and equipment, wet trades, and dust suppression. However, this increase would be temporary and is not expected to deplete groundwater resources. Therefore, construction-phase impacts relating to depletion of groundwater supplies or groundwater recharge would be less than significant.

OPERATION

The Adjacent Property Full-Size Terminal Option would obtain water for operations from Burbank Water and Power, which utilizes local groundwater sources as part of its water supply. The Adjacent Property Full-Size Terminal Option would have the same number of aircraft gates as the existing passenger terminal and would serve the same number of enplanements as would be accommodated at the existing passenger terminal. Although the replacement terminal would most likely increase indoor water demand slightly compared to the existing terminal, due to increased usage as the population grows, which would occur with or without the project, it has been accounted for in the City of Burbank's 2035 General Plan and the 2010 UWMP. The UWMP states that City has sufficient groundwater supplies through 2035. Additionally, indoor fixtures would comply with applicable municipal code requirements related to reducing indoor water consumption through maximum flow rates for indoor water fixtures. These requirements would limit potential increases in indoor water usage. The Adjacent Property Full-Size Terminal Option would be consistent with growth plans in the region; the 2035 General Plan and UWMP which included the existing Airport in their projections. The replacement terminal would not substantially deplete groundwater supplies, lower the groundwater table, or result in a net deficit in aquifer volume. Therefore, depletion of groundwater impacts would be less than significant.

The Adjacent Property Full-Size Terminal Option would not involve groundwater extraction or other activities that could result in direct withdrawal or depletion of groundwater supplies. As noted above, a portion of the water supply is provided by groundwater from local aquifers. However, the Adjacent Property Full-Size Terminal Option would not result in adverse impacts to the local water supplies, including groundwater resources, as the proposed development has been accounted for in the City's most recently adopted UWMP (as the existing Airport) which states that supply is available through 2035. As the Adjacent Property Full-Size Terminal Option would not directly affect groundwater resources, and indirect demands on local groundwater supplies would not exceed available supplies, impacts to groundwater resources would be less than significant.

The Airport is highly developed with very little pervious surfaces. The northeast quadrant currently has 95-percent impervious surfaces in both drainage areas. The southeast quadrant currently has 100-percent impervious surface in 4 drainage areas. The Adjacent Property Full-Size Terminal Option would not substantially increase the impervious surfaces at the site. Impervious surfaces in Drainage Areas 1 and 2 of the southeast quadrant will decrease to 47- and 60-percent, respectively. Therefore, infiltration at the site is expected to remain relatively the same or increase based on the amount of impervious area and the incorporation of PROJECT DESIGN FEATURE HYDRO-1. Both groundwater usage and infiltration will be to the San Fernando Valley Groundwater Basin. Operation of the Adjacent Property Full-Size Terminal Option would not interfere with groundwater recharge and impacts would be less than significant.

Mitigation Measure ADJ PROP FULL-HYDRO-2

No mitigation is warranted with adherence to PROJECT DESIGN FEATURES HYDRO-1 and HYDRO-2.

IMPACT ADJ PROP FULL-HYDRO-3: Impacts to Drainage Patterns

Implementation of the Adjacent Property Full-Size Terminal Option would not substantially alter the existing drainage pattern at the Airport nor would it alter the course of a stream or river. Compliance with the Construction General Permit, SWPPP, NPDES requirements, MS4 Permit, PROJECT DESIGN FEATURE HYDRO-1 and other local regulations that require BMPs and source control measures would restrict substantially altering the drainage pattern and require measures to control erosion or siltation. Therefore, compliance with applicable regulatory requirements would reduce potentially significant impacts to a less-than-significant level.

CONSTRUCTION

The Adjacent Property Full-Size Terminal Option includes construction of the replacement terminal and taxiway improvements and demolition of the existing terminal. Grading and excavation would be required for building foundations, which could affect drainage on the Adjacent Property Full-Size Terminal Option site. However, careful design would prevent substantial alterations to drainage patterns and/or erosion on- or off-site. As the site is currently fully developed with 95-percent or more impervious surfaces, the Adjacent Property Full-Size Terminal Option would not substantially alter the existing drainage pattern of the site or result in substantial erosion or siltation. Standard construction phase BMPs, required as part of the permitting process, would decrease the potential for significant erosion or sedimentation from soil disturbance associated with construction of the project. In addition, there are no stream or rivers nearby whose course that would be altered by the Adjacent Property Full-Size Terminal Option.

Potential impacts on water quality arising from erosion and sedimentation are expected to be localized and temporary (i.e. during construction). The project applicant would implement measures to minimize and contain erosion and sedimentation and be required to submit a grading plan for approval prior to the commencement of construction activities. In addition, because the project would disturb more than 1 acre, the project proponent would be required to obtain and comply with the NPDES Construction General Permit. As required by this permit, a SWPPP would be developed which would comply with regional requirements to meet state water quality objectives. As the Adjacent Property Full-Size Terminal Option would comply with these regulations, project construction would not substantially alter drainage patterns or result in substantial erosion or siltation occurring on- or off-site. Therefore, impacts are less than significant.

OPERATION

Implementation of PROJECT DESIGN FEATURE HYDRO-1 would ensure that operation of the Adjacent Property Full-Size Terminal Option would not substantially alter drainage patterns across the site, thereby reducing the potential for erosion or siltation on- or off-site. In addition, because there are no rivers or streams in the vicinity, the Adjacent Property Full-Size Terminal Option would not alter a river or stream. Therefore, long-term impacts on drainage patterns across the Adjacent Property Full-Size Terminal Option site that could result in substantial erosion and situation on- or off-site would be less than significant.

Mitigation Measure ADJ PROP FULL-HYDRO-3

No mitigation is warranted with adherence to PROJECT DESIGN FEATURE HYDRO-1.

IMPACT ADJ PROP FULL-HYDRO-4: Change in Runoff / Flooding

The rate and amount of surface runoff is determined by multiple factors, including topography, the amount and intensity of precipitation, the amount of evaporation that occurs in the watershed, and the amount of precipitation and water that infiltrates to the groundwater. The Adjacent Property Full-Size Terminal Option would not alter the amount or intensity of precipitation, nor would it alter the course of any streams or rivers located on or around the Adjacent Property Full-Size Terminal Option site. Neither the topography nor surface drainage pattern would be substantially altered as a result of project implementation, nor would the amount of pervious surfaces be significantly reduced. Since the Adjacent Property Full-Size Terminal Option would not significantly increase the rate of surface runoff or result in flooding on- or off-site impacts would be less than significant.

CONSTRUCTION

The Adjacent Property Full-Size Terminal Option includes construction of the replacement terminal and taxiway improvements and demolition of the existing terminal. Although grading would occur throughout the site, the resultant ground disturbance would be spread over the site and would not significantly alter the overall topography nor cause there to be a flooding on- or off-site. Grading for the site is dictated by the existing runway geometry, including vertical elevations, and the taxiways and aircraft parking ramps must be graded to tie in to the runway geometry, which is not being changed. As previously described, the northeast quadrant site is completely developed. Water would be used during the temporary construction phases of the project (e.g., for dust suppression). However, this water would be mechanically and precisely applied and would, in general, infiltrate, or evaporate. Therefore, the Adjacent Property Full-Size Terminal Option would not result in a substantial increase in the rate or amount of surface runoff or cause flooding on- or off-site and impacts would be less than significant.

OPERATION

The Adjacent Property Full-Size Terminal Option would not substantially alter the existing drainage pattern of the site, area, or receiving waters, or result in on- or off-site flooding. The Adjacent Property Full-Size Terminal Option would have approximately 95-percent impervious surfaces, similar to current conditions at the site. Since on- and off-site flooding does not currently occur under typical 50-year storm events, it would not be a concern for the Adjacent Property Full-Size Terminal Option site either. The Adjacent Property Full-Size Terminal Option would route runoff to POI 1 and 2 through roof drain capture systems from the buildings, sheet flow across roadway pavements and runoff to curb inlets. The apron area, which is the area where aircraft are parked for loading or unloading of passengers or cargo, refueling, or maintenance, is assumed to be captured via a trench drain system along the center of the apron pavement which would tie into the existing drainage system. Hydrologic boundaries will closely match the existing conditions. Furthermore, the Adjacent Property Full-Size Terminal Option will require compliance with PROJECT DESIGN FEATURES HYDRO-1, which would ensure that the increased storm water runoff would be managed on-site. Therefore, impacts with regard to on- or off-site flooding would be less than significant.

Mitigation Measure ADJ PROP FULL-HYDRO-4:
No mitigation is warranted with adherence to PROJECT DESIGN FEATURE HYDRO-1.

IMPACT ADJ PROP FULL-HYDRO-5: Impacts to Drainage System Capacity

Implementation of the Adjacent Property Full-Size Terminal Option could create potentially polluted runoff water that could exceed the capacity of existing or planned storm water drainage systems. Compliance with the Construction General Permit, SWPPP, NPDES requirements, MS4 Permit, PROJECT DESIGN FEATURES HYDRO-1 and HYDRO-2, and other local regulations that require BMPs and source control measures would restrict storm water runoff and polluted runoff. Therefore, compliance with applicable regulatory requirements would reduce potentially significant impacts to a less-than-significant level.

CONSTRUCTION

The Adjacent Property Full-Size Terminal Option includes construction of the replacement terminal and taxiway improvements and demolition of the existing terminal. Water would be used during the temporary construction phases of the project (e.g., for dust suppression). However, this water would be mechanically and precisely applied and would, in general, infiltrate or evaporate. Therefore, the Adjacent Property Full-Size Terminal Option would not result in a substantial increase in the rate or amount of surface runoff and would not exceed the capacity of existing or planned storm water drainage systems and impacts would be less than significant.

Construction activities could uncover previously contaminated soils. PROJECT DESIGN FEATURE HYDRO-2 outlines what to do if contaminated soil is encountered so it would not contaminate storm water runoff, In addition, because the project would disturb more than 1 acre, the project proponent would be required to obtain and comply with the NPDES Construction General Permit. As required by this permit, a SWPPP would be developed which would comply with regional requirements to meet state water quality objectives. As the Adjacent Property Full-Size Terminal Option would comply with these regulations, project construction would not result in substantial additional sources of polluted runoff. Therefore, impacts are less than significant.

OPERATION

A site assessment was conducted and it was determined that drainage Areas 1 and 2 on the southeast quadrant have hydrodynamic separators located at their respective POIs. These systems are intended to capture pollutants that may enter the storm water system due to the operations performed on the aircraft apron. There does not appear to be any storm water retention for either of these areas. Drainage Areas 3 and 4 do not appear to have any existing water quality measures. No pre-existing storm water quality control measures exist for the northeast quadrant.

The proposed modifications to the southeast quadrant include the removal of the existing terminal, the parking structure, surface parking lots, apron pavements, and some terminal roadway pavements. The ultimate future condition also includes the construction of extensions to Taxiways A and C. The majority of the parking facilities located in the southeast quadrant would remain. As shown in **Figure 3.10-4**, the existing drainage basins would be maintained to the extent possible. Drainage Area 1 would increase in size slightly to accommodate the proposed Taxiway C extension. A large portion of this area would convert to pervious cover with the final site condition being 47-percent impervious. Drainage Area 2 would also increase in size as a result of the Taxiway A extension. Similar to Area 1, pervious cover areas would be added resulting in a final condition of 60-percent impervious cover. Drainage Area 3 and 4 would reduce in size and the remaining areas are unaffected by the development resulting in 100-percent impervious cover.

Runoff from Drainage Area 1 will discharge to subsurface drainage structures that outfall at POI 1. The infield areas along Taxiway C would be captured via area inlets located between the paving areas. Drainage Area 2 would function in a similar manner. The Taxiway A extension infield areas would be captured using area inlets then carried through subsurface drainage pipes to POI 2. The drainage patterns for Area 3 and 4 would remain unchanged and the runoff generated in each of these areas would exit the site via POI 3 and 4, respectively. The results from the post-development 50-year storm peak flow as determined by HydroCalc are shown in **Table 3.10-5**.

Table 3.10-5
Southeast Quadrant Post-Development Anticipated Runoff Flows

Point of Interest	Pre-Development Peak Flow	Post-Development Peak Flow	Difference in Peak Flow
POI 1	26.32 cfs	43.99 cfs	17.67 cfs
POI 2	22.82 cfs	25.96 cfs	3.14 cfs
POI 3	37.73 cfs	32.41 cfs	-5.32 cfs
POI 4	72.25 cfs	59.15 cfs	-13.10 cfs

cfs – cubic feet per second

Source: RS&H, 2016

The increases in the peak flows in Drainage Areas 1 and 2 are potentially significant because they could exceed the capacity of the existing storm water drainage systems and would require storm water pollution control measures, identified in PROJECT DESIGN FEATURE HYDRO-1, to reduce the runoff flow volume.

The Storm Water Quality Design volume (SWQDv) of Drainage Area 1 for the post-development condition was determined to be 10.53 acre-feet. The post-development SWQDv for Drainage Area 2 is 5.64 acre-feet. These additional volumes are potentially significant as they could exceed the capacity of existing storm water drainage systems and will require treatment prior to exiting the site as outlined in PROJECT DESIGN FEATURE HYDRO-1. The pre-development SWQDv for Drainage Area 3 was determined to be 9.03 acre-feet while the post-development Storm SWQDv was found to be 7.52 acre-feet; resulting in a decrease of 1.51 acre-feet due to the smaller surface area of Drainage Area 3, post-development. Drainage Area 4 was determined to have a pre-development condition of 16.24 acre –feet. The post-development condition was determined to be 12.83 acre-feet, also due to the smaller surface area post-development. The overall change for this area is a reduction of 3.41 acre-feet. The increase to the SWQDv in Areas 1 and 2 is potentially significant as they could exceed the capacity of existing storm water drainage systems and will require treatment as outlined in PROJECT DESIGN FEATURE HYDRO-1; however, as Areas 3 and 4 will not be redeveloped by more than 50-percent and the SWQDv decreases for these areas, they do not require additional treatment. It should be noted that the removal of the apron pavements in Areas 1 and 2 would decrease the amount of pollutants in the storm water runoff by removing the refueling operations from the drainage basin. This would improve the runoff water quality for both areas.

The Adjacent Property Full-Size Terminal Option development includes changes to the northeast quadrant that include a replacement passenger terminal and other ancillary facilities. As shown in **Figure 3.10-5**, storm water runoff from the Adjacent Property Full-Size Terminal Option would be routed to existing outfalls via overland sheet flow and subsurface drainage systems. It is anticipated that two drainage areas would be established. Drainage Area 1 includes the replacement passenger terminal and parking garages. Due to a majority of this area being covered by buildings, immediate capture was assumed and the time of concentration was set to the minimum value in runoff calculations as a worst case scenario. The slope of the surface in HydroCalc has been adjusted to reflect this rate of capture. Drainage Area 2 includes the existing air traffic control tower location and proposed roadway as well as apron area serving the replacement passenger terminal. This area is only slightly modified with changes to the proposed entrance roads; therefore, much of the hydrologic conditions remain the same.

Drainage Area 1 is assumed to exit the site via POI 1, as this is the nearest outfall from the site. The buildings located in this area would each have their own independent roof drain capture systems, which would deliver runoff to this outfall. Drainage Area 2 is assumed to route runoff to curb inlets and sheet flow across roadway pavements. The apron area is assumed to be captured via a trench drain system along the center of the apron pavement. This drainage system would tie into the existing system in the existing Parking Lot A and exit the site at POI 2. The post-development 50-year storm peak flow was determined using the HydroCalc program. As shown in **Table 3.10-6**, the net change of runoff as compared to pre-development peak flows is an increase of 18.28 cubic feet per second (cfs), which is potentially significant as it could exceed the capacity of existing storm water drainage systems and will require storm water pollution control measures, identified in PROJECT DESIGN FEATURE HYDRO-1, to reduce the runoff flow volume.

Figure 3.10-4
Southeast Quadrant Post-Development Drainage Map

LEGEND
SITE BOUNDARY
DRAINAGE AREA BOUNDARY
DRAINAGE AREA LABEL
Tc FLOW PATH
POINT OF INTEREST (POI)
EXISTING BUILDING
EXISTING PAVEMENT
MAJOR CONTOUR
MINOR CONTOUR

NOTES:
1. ALL SOILS WITHIN THE SITE ARE TYPE 15 (TUJUNGA FINE SANDY LOAM).
2. ALL WATER EXTERIOR TO THE SITE IS ASSUMED TO BE DETOURED AROUND THE SITE VIA EXTERNAL CONVEYANCE SYSTEMS.

DRAINAGE AREAS

DA	AREA	IMP	Tc (50 yr.)	Q (50 yr.)	SWQDv (50 yr.)
1	20.51 ac.	47%	18 min.	43.99 cfs	10.53 ac-ft
2	10.96 ac.	60%	13 min.	25.96 cfs	5.64 ac-ft
3	14.66 ac.	100%	15 min.	32.41 cfs	7.52 ac-ft
4	25.00 ac.	100%	13 min.	59.15 cfs	12.83 ac-ft

POINTS OF INTEREST

POI	DA	Q_{POST}	ΔQ	$SWQDv_{POST}$	ΔSWQDv
1	1	43.99 cfs	17.87 cfs	10.53 ac-ft	4.23 ac-ft
2	2	25.96 cfs	3.14 cfs	5.64 ac-ft	0.69 ac-ft
3	3	32.41 cfs	(-5.32 cfs)	7.52 ac-ft	(-1.51 ac-ft)
4	4	59.15 cfs	(-13.1 cfs)	12.83 ac-ft	(-3.41 ac-ft)
		TOTAL Δ	2.39 cfs	TOTAL Δ	0.00 ac-ft

KEY MAP

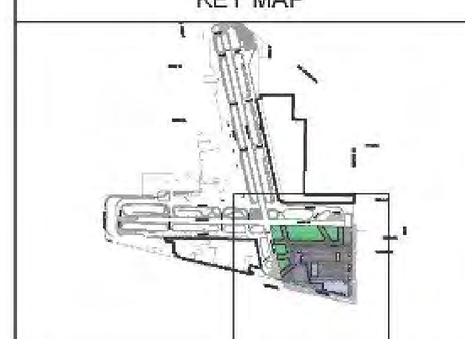

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Figure 3.10-5

Adjacent Property Full-Size Terminal Option Post-Development Drainage Map

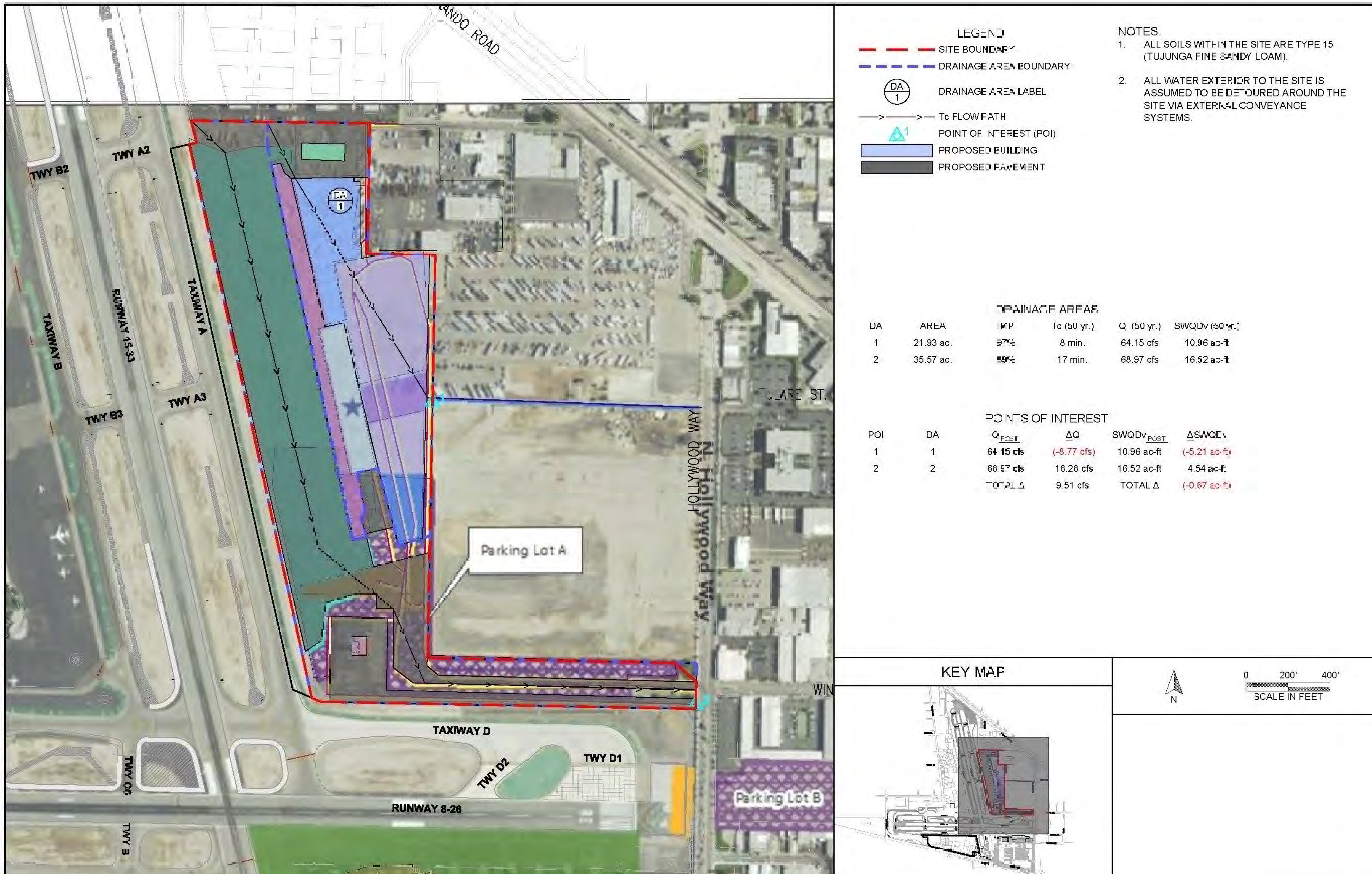

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Table 3.10-6
Adjacent Property Site Post-Development Runoff Calculations

Point of Interest	Pre-Development Peak Flow	Post-Development Peak Flow	Difference in Peak Flow
POI 1	72.92 cfs	64.15 cfs	-8.77 cfs
POI 2	50.69 cfs	68.97 cfs	18.28 cfs

cfs – cubic feet per second

Source: RS&H, 2016

Post-development SWQDv flowrates for the Adjacent Property were determined to be 10.95 acre-feet for Drainage Area 1 and 16.52 acre-feet for Drainage Area 2, which are potentially significant as they could exceed the capacity of existing storm water drainage systems. The Adjacent Property Full-Size Terminal Option calls for more than 50 percent of this site to be redeveloped; therefore, all the storm water runoff generated on site must be controlled and treated as outlined in PROJECT DESIGN FEATURE HYDRO-1.

As shown above in **Tables 3.10-5** and **3.10-6**, peak flow rates exceed the design flow rate resulting in potentially significant impacts to the existing storm water drainage systems. The Adjacent Property Full-Size Terminal Option will comply with PROJECT DESIGN FEATURE HYDRO-1 to ensure that increased peak flow and SWQDv flow would be managed and treated onsite. For the southeast quadrant, based on the current site development layout, only one source control measure is required. The changes to the southeast quadrant only include the addition of airfield taxiways, which would require storm drain message and signage on all new drainage structures that are constructed as part of the development. Drainage Areas 1 and 2 would require treatment for their SWQDv generated as a result of the development, which can be captured by open channels and conveyed to existing storm water systems. In order to treat the larger volume in Drainage Area 1, an underground detention basin with a hydrodynamic separator would be installed to capture and provide treatment to the necessary volume. Drainage Areas 3 and 4 do not require source control as there is not more than 50-percent redevelopment in these areas.

For the Adjacent Property, in addition to the source control measures required, treatment would be required for the post-development SWQDv of 27.47 acre-feet. An underground detention basin would be the recommended control but smaller storm water quality control measures such as vegetative swales or sand filters could also be used around the development to decrease the detention basin size. Dedicated dry wells for each of the buildings could be utilized to treat the runoff generated by the buildings. Final storm water control design would be described in the LID Plan. In addition to the measures outlined above, due to the nature of the apron operations and the potential for hydrocarbon pollutants, a hydrodynamic separator would be required at all apron storm water exit points to capture pollutants, such as jet fuel, before they enter and contaminate other drainage systems.

Provided that the Adjacent Property Full-Size Terminal Option implements PROJECT DESIGN FEATURE HYDRO-1 to ensure that increased peak flow and SWQDv flow will be managed and treated onsite, storm water runoff would not exceed the capacity of existing or planned storm water drainage systems and additional sources of polluted runoff would not occur. Therefore, the storm water control and treatment features outlined in PROJECT DESIGN FEATURE HYDRO-1 will reduce impacts to existing or planned storm water drainage systems and additional sources of polluted runoff to a less than significant level.

Mitigation Measure ADJ PROP FULL-HYDRO-5

No mitigation is warranted with adherence to PROJECT DESIGN FEATURES HYDRO-1 and HYDRO-2.

IMPACT ADJ PROP FULL-HYDRO-6: Water Quality Impacts

Implementation of the Adjacent Property Full-Size Terminal Option could degrade water quality. However, compliance with the Construction General Permit, SWPPP, NPDES requirements, MS4 Permit, PROJECT DESIGN FEATURES HYDRO-1 and HYDRO-2 and other local regulations that require BMPs and source control measures are considered protective of water quality and would prevent a substantial degradation of water quality. Therefore, compliance with applicable regulatory requirements would reduce potentially significant impacts to a less-than-significant level.

CONSTRUCTION

IMPACT ADJ PROP FULL-HYDRO-1 through IMPACT ADJ PROP FULL-HYDRO-5 discuss potential impacts associated with the degradation of water quality during construction. The Adjacent Property Full-Size Terminal Option would be required to adhere to the NPDES Construction General Permit, LID Plan (PROJECT DESIGN FEATURE HYDRO-1) and SMP Plan (PROJECT DESIGN FEATURE HYDRO-2) to control storm water flow requirements, discharges and protect water quality. Therefore, the Adjacent Property Full-Size Terminal Option would not substantially degrade water quality as a result of construction; therefore, water degradation impacts are less than significant.

OPERATION

IMPACT ADJ PROP FULL-HYDRO-1 through ADJ PROP FULL-HYDRO-5 discuss potential impacts associated with the degradation of water quality during operation. The Adjacent Property Full-Size Terminal Option would be required to adhere to the NPDES Construction General Permit, LID Plan (PROJECT DESIGN FEATURE HYDRO-1) and SMP Plan (PROJECT DESIGN FEATURE HYDRO-2) to control storm water flow requirements, discharges and protect water quality. Therefore, the Adjacent Property Full-Size Terminal Option would not substantially degrade water quality as a result of operation, therefore, water degradation impacts are less than significant.

Mitigation Measure ADJ PROP FULL-HYDRO-6

No mitigation is warranted with adherence to PROJECT DESIGN FEATURES HYDRO-1 and HYDRO-2.

IMPACT ADJ PROP FULL-HYDRO-7: Impacts Related to Placement of Structures in a Floodplain

The Adjacent Property Full-Size Terminal Option would not place structures or taxiways within a 100-year floodplain. Therefore, no impact to existing floodplains would occur.

CONSTRUCTION and OPERATION

The Adjacent Property Full-Size Terminal Option would not conduct construction or demolition activities nor place structures or taxiways within a 100-year floodplain as mapped on federal Flood Hazard Boundary or FIRM or other flood hazard delineation maps. In addition, the project site is located in Zone X on the FIRM panel, which indicates that it is outside the 500-year floodplain area. The Adjacent Property full-Size Terminal Option would not alter the site in a way to change this condition. Therefore, no impact to existing floodplains would occur as a result of implementation of the Adjacent Property Full-Size Terminal Option.

Mitigation Measure ADJ PROP FULL-HYDRO-7

No mitigation is warranted.

IMPACT ADJ PROP FULL-HYDRO-8: Exposure of People or Structures to Flooding

The Adjacent Property Full-Size Terminal Option would not expose people or structures to flooding. Therefore, no impact to existing floodplains would occur.

CONSTRUCTION and OPERATION

The Adjacent Property Full-Size Terminal Option would not conduct construction or demolition activities nor place structures or taxiways within a 100-year floodplain, nor is located near a levee or dam. The Adjacent Property Full-Size Terminal Option would not expose people or structures to a significant risk of loss, injury or death involving flooding or flooding as a result of a levee or dam failure. Therefore, since the development associated with the Adjacent Property Full-Size Terminal Option would not expose people or structures to flooding no significant impacts are expected.

Mitigation Measure ADJ PROP FULL-HYDRO-8

No mitigation is warranted.

Cumulative Impacts

IMPACT ADJ PROP FULL-HYDRO-9: Cumulative Impacts Related to Hydrology and Water Quality

The other projects in the vicinity of the Airport are presented in **Section 3.1**. The geographic scope for cumulative impacts related to water quality and hydrology encompasses the Adjacent Property Full-Size Terminal Option and the land uses within a 1-mile radius of the project site. Other projects in the general vicinity of the Adjacent Property Full-Size Terminal Option include a variety of residential, industrial, and commercial. All of these projects have the potential to result in construction-period water quality impacts, which could result in cumulatively significant impacts.

Construction would not result in a violation of water quality standards or waste discharge requirements, would not provide substantial additional sources of polluted runoff, and would not substantially degrade water quality because every project is require to comply with the Construction General Permit, SWPPP, NPDES requirements, and local regulations that require construction phase BMPs would ensure that construction activities would not degrade the surface water quality of receiving waters to levels below standards considered acceptable by the Los Angeles RWQCB or other regulatory agencies or impair the beneficial uses of the receiving waters. Compliance with construction phase permits and standard construction phase BMPs would decrease the potential for significant erosion or sedimentation from soil disturbance associated with construction of the projects. Therefore, the cumulative effects would be less than significant.

Projects would have comply with City storm water pollution control measures as well as state and local regulations that require post-construction BMPs which would ensure that the operation of related projects would not degrade the surface water quality of receiving waters to levels below standards considered acceptable by the Los Angeles RWQCB or other regulatory agencies or impair the beneficial uses of the receiving waters. The Adjacent Property Full-Size Terminal Option would also be required to comply with all applicable federal, state, and local requirements concerning handling, storage, and disposal of hazardous materials to reduce the potential for the release of contaminants into groundwater as a result of project construction or operation. Therefore, construction and operation activities would not degrade groundwater quality or interfere with recharge and the cumulative effects would be less than significant.

Mitigation Measure ADJ PROP FULL-HYDRO-9
No mitigation is warranted with adherence to PROJECT DESIGN FEATURES HYDRO-1 and HYDRO-2.

3.10.3.3 SOUTHWEST QUADRANT FULL-SIZE TERMINAL OPTION

Project Impacts

The Southwest Quadrant Full-Size Terminal Option would be built in the southwest quadrant with some modification of the existing Airport in southeast quadrant to facilitate project components.

IMPACT SW QUAD FULL-HYDRO-1: Violation of Water Quality Standards

Implementation of the Southwest Quadrant Full-Size Terminal Option could violate water quality standards or waste discharge requirements. However, compliance with the Construction General Permit, SWPPP, NPDES requirements, MS4 Permit, PROJECT DESIGN FEATURES HYDRO-1 AND HYDRO-2, and other local regulations that require BMPs and source control measures are considered protective of water quality and would prevent a substantial violation of water quality standards, including TMDL limits applicable to the Lockheed Channel and the Burbank Western Channel, and regulate waste discharge requirements minimizing the potential for contributing additional sources of polluted runoff. Therefore, compliance with applicable regulatory requirements would reduce potentially significant impacts to a less-than-significant level.

CONSTRUCTION

The Southwest Quadrant Full-Size Terminal Option includes construction of the replacement terminal and taxi-way improvements and demolition of the existing terminal. Construction activities would include the use of heavy equipment and construction-related chemicals, such as fuels, oils, grease, solvents and paints that would be stored in limited quantities on-site. In the absence of proper controls, these construction activities could result in accidental spills or disposal of potentially harmful materials used during construction that could wash into and pollute surface waters or groundwater. During construction, the project sites would be subject to ground-disturbing activities (e.g., removal of the existing structures and pavement, excavation and grading, foundation and infrastructure construction, the installation of utilities). These activities would expose soils for a limited time, allowing for possible erosion and sediments to enter into sheet flow runoff, which would enter the existing storm drain system. Therefore, surface water quality could be temporarily affected by construction activities.

However, the proposed project would be subject to existing regulations associated with the protection of water quality. The Southwest Quadrant Full-Size Terminal Option would be required to obtain and comply with a Construction General Permit from the SWRCB. The Construction General Permit and associated NPDES requirements include development and implementation of a SWPPP, with associated monitoring and reporting requirements. Storm water BMPs are required to limit erosion, minimize sedimentation, and control storm water runoff water quality during construction activities. BMPs could include, but are not limited to, the use of or implementation of water bars, silt fences, staked straw bales, and avoidance of water bodies during construction. Additional source-control BMPs might also be required to prevent runoff contamination by potentially hazardous materials and eliminate non-storm water discharges. These existing regulations, programs, and policies would ensure that runoff from construction activities would not violate waste discharge requirements or degrade the surface water quality of receiving waters to levels below standards considered acceptable by the Los Angeles RWQCB and/or other regulatory agencies or affect the beneficial uses of receiving waters, resulting in less than significant impacts.

The Southwest Quadrant Full-Size Terminal Option is located on a portion of the former Lockheed B-5 Plant which has been used for various aircraft manufacturing and maintenance purposes. These purposes involved the use and storage of various chemicals and hazardous materials. The southwest quadrant is located in the North Hollywood Operable Unit and the northeast quadrant is located in the Burbank Operable Unit of the San Fernando Valley Superfund Site which is undergoing remediation activities. Construction activities could uncover previously contaminated soils. Adherence with PROJECT DESIGN FEATURE HYDRO-2, Soil Management Plan, which outlines what to do if contaminated soil is encountered, would be protective of water quality and would reduce potentially significant impacts to a less than significant level.

Positive surface drainage should be accommodated at the project sites to allow surface runoff to flow away from improvements or areas susceptible to erosion. To reduce wind-related erosion, wetting of soil surfaces and/or covering exposed round areas and soil stockpiles would be used during construction operations, as appropriate. The use of soil tackifiers may also be considered to reduce the potential for wind-related soil erosion. Implementation of BMPs would ensure that water- and wind-related erosion would be confined to the construction area and not transported off-site. In addition, the topographic gradients at the Southwest Quadrant Full-Size Terminal Option Site are relatively gentle. Therefore, potential soil erosion and sedimentation runoff during construction would not exceed water quality standards and impacts would be less than significant.

As stated above, groundwater levels have ranged from approximately 70 feet (historical high groundwater) to greater than 250 feet below ground surface. Based on the depths to groundwater within the site for the Southwest Quadrant Full-Size Terminal Option, construction dewatering is not anticipated to be required. However, should shallow groundwater be encountered that would require dewatering, the proposed project would apply for coverage and adhere to the monitoring and reporting program under RWQCB Order No. R8-2009-0003. If dewatering is required, groundwater that was found to be contaminated would be properly treated prior to being discharged in accordance with the NPDES permit. Uncontaminated groundwater may be treated and pumped to the storm drain system or used for on-site dust control purposes. Compliance with regulatory requirements would ensure that dewatering activities would not result in the exceedance of water quality standards during construction, including TMDL limits applicable to the Lockheed Channel and Burbank Western Channel, resulting in less than significant impacts.

During construction of the Southwest Quadrant Full-Size Terminal Option, materials such as fuels or solvents would be stored on-site. The potential for a spill or release of construction related chemicals during construction would be generally small because of the localized, short-term nature of the releases. Airport personnel are trained and equipped to respond to a fuel spill, should one occur, it should not reach the offsite environment. Furthermore, the NPDES Construction General Permit and SWPPP require measures regarding the handling of these types of materials and action protocols if a spill or release does occur. In addition, the site-specific health and safety plan would include measures to appropriately handle an onsite accidental release of fuel or other material from the equipment, resulting in a less than significant impact.

Compliance with the Construction General Permit, SWPPP, NPDES requirements, PROJECT DESIGN FEATURES HYDRO-2 requirements, and local regulations that require construction phase BMPs are considered protective of water quality and would prevent a substantial violation of water quality standards, including TMDL limits applicable to the Lockheed Channel and the Burbank Western Channel, and regulate waste discharge requirements minimizing the potential for contributing additional sources of polluted runoff during construction. Therefore, compliance with applicable regulatory requirements would reduce potentially significant impacts to a less-than-significant level.

OPERATION

Storm water discharge is generated by rainfall that runs off the land and impervious surfaces such as paved streets, parking lots, and rooftops. Storm water discharge may include pollutants of concern, which are expected to be generated by the Southwest Quadrant Full-Size Terminal Option that could affect storm water. During operation of the replacement passenger terminal, pollutants of concern within runoff may include, but are not limited to, pollutants such as sediment, hydrocarbons, oil, grease, heavy metals, nutrients, herbicides, pesticides, fecal coliform bacteria, and trash. This runoff can flow directly into storm drains and continue untreated into the Lockheed Channel and eventually the Burbank Western Channel. Untreated storm water runoff degrades water quality in surface waters and groundwater and can affect drinking water, human health, and plant and animal habitats.

Implementation of PROJECT DESIGN FEATURES HYDRO-1 for the Southwest Quadrant Full-Size Terminal Option would satisfy NPDES MS4 permit requirements and would ensure compliance with water quality standards for storm water runoff. Therefore, implementation of these programs and regulatory requirements would reduce storm water pollutants that could affect water quality from the Southwest Quadrant Full-Size Terminal Option site, thus reducing impacts related to storm water pollution and water quality to less-than significant levels. In addition, compliance with the MS4-permit would ensure that operation of the Southwest Quadrant Full-Size Terminal Option would reduce potential violation of waste discharge requirements to a less-than-significant level.

The Southwest Quadrant Full-Size Terminal Option would require fueling operations. Aircraft refueling contractors would be required to abide by FAA standards for Aircraft Fuel Servicing and Fuel Safety. These standards specify safety requirements such as emergency fuel shutoff systems, fire safety and fire extinguishers, storage and transport safety. The amount of jet fuel handled as a result of the Southwest Quadrant Full-Size Terminal is anticipated to increase in the future as the population increases and more people use the airport. The increase in aircraft operation would occur with or without the replacement terminal project. Compliance with safety standards should prevent accidental releases of jet fuel that could have the potential to degrade water quality. Airport personnel are trained and equipped to respond to a fuel spill; should one occur, it should not reach the offsite environment. Furthermore, the NPDES Construction General Permit and SWPPP require measures regarding the handling of these types of materials and action protocols if a spill or release does occur. In addition, the site-specific health and safety plan would include measures to appropriately handle an onsite accidental release of fuel or other material from the equipment. Adherence to permit requirements and FAA standards should ensure that an accidental release of jet fuel would not degrade water quality. Therefore, water quality impacts from accidental releases of jet fuel would be less than significant.

Mitigation Measure SW QUAD FULL-HYDRO-1

No mitigation is warranted with adherence to PROJECT DESIGN FEATURES HYDRO-1 and HYDRO-2.

IMPACT SW QUAD FULL-HYDRO-2: Groundwater Impacts

Implementation of the Southwest Quadrant Full-Size Terminal Option would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. Project water usage would use groundwater resources but would not substantially deplete these resources and water usage would not substantially increase over current usage as a result of the terminal replacement. Impervious surfaces would actually increase slightly as a result of the Southwest Quadrant Full-Size Terminal Option and therefore, since conditions are similar to existing, the rate of infiltration needed to support groundwater recharge would not be decreased. Additionally, groundwater recharge does not occur in this area as it has been previously contaminated and is undergoing remediation. Furthermore, compliance with applicable regulatory requirements would reduce potentially significant impacts to a less-than-significant level. For a more thorough discussion of groundwater supplies and impacts, please refer to Section 3.18, Utilities and Service Systems, of this Draft EIR.

CONSTRUCTION

The Southwest Quadrant Full-Size Terminal Option includes construction of the replacement terminal and taxi-way improvements and demolition of the existing terminal. Construction activities are not expected to have excavation activities below the normal or historic high groundwater levels, which is 70 to 250 feet below ground surface. Seepage encountered during construction would be mitigated per the SWPPP, as needed, by constructing small drainage swales from the base of the excavations to temporary sump pits or storm water/LID features on-site. If dewatering is required, groundwater that was found to be contaminated would be properly treated prior to being discharged in accordance with the NPDES permit. Uncontaminated groundwater may be treated and pumped to the storm drain system or used for on-site dust control purposes. If seepage is encountered, it would not substantially deplete groundwater supplies and would not result in a net deficit in aquifer volume, or lower the groundwater table. Therefore, impacts to groundwater would be less than significant.

Discharges of groundwater during construction would be in compliance with applicable NPDES permit requirements. The Southwest Quadrant Full-Size Terminal Option would also comply with all applicable federal, state, and local requirements concerning the handling, storage, and disposal of hazardous materials to reduce the potential for a release of contaminants into the groundwater as a result of project construction. Construction activities could uncover previously contaminated soils. PROJECT DESIGN FEATURE HYDRO-2 outlines what to do if contaminated soil is encountered so it would not contaminate groundwater, therefore, the Adjacent Property Full-Size Terminal Option would not degrade groundwater quality. Water use may temporarily increase for a limited extent during the construction phase for general site activities including cleaning of tools and equipment, wet trades, and dust suppression. However, the increase would be temporary and is not expected to deplete groundwater resources. Therefore, construction-phase impacts relating to depletion of groundwater supplies or groundwater recharge would be less than significant.

OPERATION

The Southwest Quadrant Full-Size Terminal Option would obtain water for operations from Burbank Water and Power, which utilizes local groundwater sources as part of its water supply. The Southwest Quadrant Full-Size Terminal Option would have the same number of aircraft gates as the existing passenger terminal and would serve the same number of enplanements as would be accommodated at the existing passenger terminal. Although the replacement terminal would most likely increase indoor water demand slightly compared to the existing terminal, due to increased usage as the population grows, which would occur with or without the project, it has been accounted for in the City of Burbank's 2035 General Plan and the 2010 UWMP. The UWMP states that City has sufficient groundwater supplies through 2035. Additionally, indoor fixtures would comply with applicable municipal code requirements related to reducing indoor water consumption through maximum flow rates for indoor water fixtures. These requirements would limit potential increases in indoor water usage. The Southwest Quadrant Full-Size Terminal Option would be consistent with growth plans in the region; the 2035 General Plan and UWMP which included the existing Airport in their projections. The replacement terminal would not substantially deplete groundwater supplies, lower the groundwater table, or result in a net deficit in aquifer volume. Therefore, depletion of groundwater impacts would be less than significant.

The Southwest Quadrant Full-Size Terminal Option would not involve groundwater extraction or other activities that could result in direct withdrawal or depletion of groundwater supplies. As noted above, a portion of the Airports water supply is provided by groundwater from local aquifers. However, the Southwest Quadrant Full-Size Terminal would not result in adverse impacts to local water supplies, including groundwater resources, as the proposed development has been accounted for in the City's most recently adopted UWMP, as the existing airport, which states that supply is available through 2035. As the Southwest Quadrant Full-Size Terminal Option would not directly affect groundwater resources, and indirect demands on local groundwater supplies would not exceed available supplies, impacts to groundwater resources would be less than significant.

The Airport is highly developed with very little pervious surfaces. The southwest quadrant site currently has three drainage areas. Drainage Area 1 is 100-percent impervious, Drainage Area 2 is 98-percent impervious and Drainage Area 3 is 99-percent impervious. The southeast quadrant currently has 100-percent impervious surface in 4 drainage areas. The Southwest Quadrant Full-Size Terminal Option has 4 drainage areas post-development and would not substantially increase the impervious surfaces at the site. Impervious surfaces in Drainage Areas 1, 2, and 4 would be 100-percent and Drainage Area 3 would be 91-percent. Therefore, infiltration at the site is expected to remain relatively the same based on the amount of impervious area and the incorporation of PROJECT DESIGN FEATURE HYDRO-1. Both groundwater usage and infiltration will be to the San Fernando Valley Groundwater Basin. Operation of the Southwest Quadrant Full-Size Terminal Option would not interfere substantially with groundwater recharge and impacts would be less than significant.

Mitigation Measure SW QUAD FULL-HYDRO-2

No mitigation is warranted with adherence to PROJECT DESIGN FEATURES HYDRO-1 and HYDRO-2.

IMPACT SW QUAD FULL-HYDRO-3: Impacts to Drainage Patterns

Implementation of the Southwest Quadrant Full-Size Terminal Option would not substantially alter the existing drainage pattern at the Airport nor would it alter the course of a stream or river. Compliance with the Construction General Permit, SWPPP, NPDES requirements, MS4 Permit, PROJECT DESIGN FEATURE HYDRO-1, and other local regulations that require BMPs and source control measures would restrict substantially altering the drainage pattern and require measures to control erosion or siltation. Therefore, compliance with applicable regulatory requirements would reduce potentially significant impacts to a less-than-significant level.

CONSTRUCTION

The Southwest Quadrant Full-Size Terminal Option includes construction of the replacement terminal and taxi-way improvements and demolition of the existing terminal. Grading and excavation would be required for building foundations, which could affect drainage on the Southwest Quadrant Full-Size Terminal Option site. However, careful design would prevent substantial alterations to drainage patterns and/or erosion on- or off-site. As the site is currently fully developed with 95-percent or more impervious surfaces, the Southwest Quadrant Full-Size Terminal Option would not substantially alter the existing drainage pattern of the site or result in substantial erosion or siltation. Standard construction phase BMPs, required as part of the permitting process, would decrease the potential for significant erosion or sedimentation from soil disturbance associated with construction of the project. In addition, there are no stream or rivers nearby whose course would be altered by the Southwest Quadrant Full-Size Terminal Option.

Potential impacts on water quality arising from erosion and sedimentation are expected to be localized and temporary (i.e. during construction). The project applicant would implement measures to minimize and contain erosion and sedimentation and be required to submit a grading plan for approval prior to the commencement of construction activities. In addition, because the project would disturb more than 1 acre, the project proponent would be required to obtain and comply with the NPDES Construction General Permit. As required by this permit, a SWPPP would be developed which would comply with regional requirements to meet state water quality objectives. As the Southwest Quadrant Full-Size Terminal Option would comply with these regulations, project construction would not substantially alter drainage patterns or result in substantial erosion or siltation occurring on- or off-site. Therefore, impacts are less than significant.

OPERATION

Implementation of PROJECT DESIGN FEATURE HYDRO-1 would ensure that operation of the Southwest Quadrant Full-Size Terminal Option would not substantially alter drainage patterns across the site, thereby reducing the potential for erosion or siltation on- or off-site. In addition, because there are no rivers or streams in the vicinity, the Southwest Quadrant Full-Size Terminal Option would not alter a river or stream. Therefore, long-term impacts on drainage patterns across the Southwest Quadrant Full-Size Terminal Option site that could result in substantial erosion and situation on- or off-site would be less than significant.

Mitigation Measure SW QUAD FULL-HYDRO-3

No mitigation is warranted with adherence to PROJECT DESIGN FEATURE HYDRO-1.

IMPACT SW QUAD FULL-HYDRO-4: Change in Runoff / Flooding

The rate and amount of surface runoff is determined by multiple factors, including topography, the amount and intensity of precipitation, the amount of evaporation that occurs in the watershed, and the amount of precipitation and water that infiltrates to the groundwater. The Southwest Quadrant Full-Size Terminal Option would not alter the amount or intensity of precipitation, nor would it alter the course of any streams or rivers located on or around the Southwest Quadrant Full-Size Terminal Option site. Neither the topography nor surface drainage pattern would be substantially altered as a result of project implementation, nor would the amount of pervious surfaces be significantly reduced. Since the Southwest Quadrant Full-Size Terminal Option would not significantly increase the rate of surface runoff or result in flooding on- or off-site impacts would be less than significant.

CONSTRUCTION

The Southwest Quadrant Full-Size Terminal Option includes construction of the replacement terminal and taxi-way improvements and demolition of the existing terminal. Although grading would occur throughout the site, the resultant ground disturbance would be spread over the site and would not alter the overall topography. Grading for the site is dictated by the existing runway geometry, including vertical elevations, and the taxiways and aircraft parking ramps must be graded to tie in to the runway geometry, which is not being changed. As previously described, the southwest quadrant is completely developed. Water would be used during the temporary construction phases of the project (e.g., for dust suppression). However, this water would be mechanically and precisely applied and would in general, infiltrate, or evaporate. Therefore, the Southwest Quadrant Full-Size Terminal Option would not result in a substantial increase in the rate or amount of surface runoff or flooding on- or off-site and impacts would be less than significant.

OPERATION

The Southwest Quadrant Full-Size Terminal Option would not substantially alter the existing drainage pattern of the site, area, or receiving waters, or result in on- or off-site flooding. The Southwest Quadrant Full-Size Terminal Option would have approximately 95-percent impervious surfaces, similar to current conditions at the existing Airport. Since on- and off-site flooding does not currently occur under typical 50-year storm events, it would not be a concern for the Southwest Quadrant Full-Size Terminal Option site either. The Southwest Quadrant Full-Size Terminal Option would route runoff to POIs 1 through 3 through independent capture systems from the buildings that collect in a main line, sheet flows over a majority of the site some of which will enter a storm water drainage system which will be routed to the existing system, or channeled flows via curbs and gutters to the POI. Hydrologic boundaries will closely match the existing conditions. Furthermore, the Southwest Quadrant Full-Size Terminal Option will require compliance with PROJECT DESIGN FEATURE HYDRO-1 for storm water management which would ensure that increased storm water runoff would be managed on-site. Therefore, impacts with regard to on- or off-site flooding would be less than significant.

Mitigation Measure SW QUAD FULL-HYDRO-4:
No mitigation is warranted with adherence to PROJECT DESIGN FEATURE HYDRO-1.

IMPACT SW QUAD FULL-HYDRO-5: Impacts to Drainage System Capacity

Implementation of the Southwest Quadrant Full-Size Terminal Option could create potentially polluted runoff water that could exceed the capacity of existing or planned storm water drainage systems. Compliance with the Construction General Permit, SWPPP, NPDES requirements, MS4 Permit, PROJECT DESIGN FEATURES HYDRO-1 and HYDRO-2, and other local regulations that require BMPs and source control measures would restrict storm water runoff and polluted runoff. Therefore, compliance with applicable regulatory requirements would reduce potentially significant impacts to a less-than-significant level.

CONSTRUCTION

The Southwest Quadrant Full-Size Terminal Option includes construction of the replacement terminal and taxi-way improvements and demolition of the existing terminal. Water would be used during the temporary construction phases of the project (e.g., for dust suppression). However, this water would be mechanically and precisely applied and would, in general, infiltrate or evaporate. Therefore, the Southwest Quadrant Full-Size Terminal Option would not result in a substantial increase in the rate or amount of surface runoff and would not exceed the capacity of existing or planned storm water drainage systems and impacts would be less than significant.

Construction activities could uncover previously contaminated soils. PROJECT DESIGN FEATURE HYDRO-2 outlines what to do if contaminated soil is encountered so it would not contaminate storm water runoff, In addition, because the project would disturb more than 1 acre, the project proponent would be required to obtain and comply with the NPDES Construction General Permit. As required by this permit, a SWPPP would be developed which would comply with regional requirements to meet state water quality objectives. As the Southwest Quadrant Full-Size Terminal Option would comply with these regulations, project construction would not result in substantial additional sources of polluted runoff. Therefore, impacts are less than significant.

OPERATION

Storm water runoff from the Southwest Quadrant Full-Size Terminal Option would be similar to the runoff from the existing Airport. As the site is currently fully developed with approximately 95-percent impervious surfaces, the Southwest Quadrant Full-Size Terminal Option would not substantially alter the existing drainage pattern of the sites or exceed the capacity of existing or planned storm water drainage systems.

The proposed modifications to the southeast quadrant include the removal of the existing terminal, apron pavements, and some terminal roadway pavements. The ultimate future condition also includes the construction of extensions to Taxiways A and C. The majority of the parking facilities located in the southeast quadrant of the Airport would remain. As shown in **Figure 3.10-5**, the existing drainage basins would be maintained to the extent possible. Drainage Area 1 would increase slightly to accommodate the proposed Taxiway C extension. A large portion of this area would convert to pervious cover with the final site condition being 47-percent impervious. Drainage Area 2 would increase in size as a result of the Taxiway A extension. Similar to Drainage Area 1, pervious cover areas would be added resulting in a final condition of 60-percent impervious cover. Drainage Areas 3 and 4 would reduce in size and the remaining areas are unaffected by the development resulting in 100-percent impervious cover.

Runoff from Drainage Area 1 will discharge to subsurface drainage structures that outfall at POI 1. The infield areas along Taxiway C would be captured via area inlets located between the paving areas. Drainage Area 2 would function in a similar manner. The Taxiway A extension infield areas would be captured using area inlets then carried through subsurface drainage pipes to POI 2. The drainage patterns for Area 3 and 4 would remain unchanged and the runoff generated in each of these areas would exit the site via POI 3 and 4, respectively. The results from the post-development 50-year storm peak flow as determined by HydroCalc are shown in **Table 3.10-5**. The increases in the peak flows in Drainage Areas 1 and 2 are potentially significant because they could exceed the capacity of the existing storm water drainage systems and will require storm water pollution control measures, identified in PROJECT DESIGN FEATURE HYDRO-1, to reduce the runoff flow volume.

The SWQDv of Drainage Area 1 for the post-development condition was determined to be 10.53 acre-feet. The post-development SWQDv for Drainage Area 2 is 5.64 acre-feet. These additional volumes are potentially significant as they could exceed the capacity of existing storm water drainage systems and will require treatment prior to exiting the site as outlined in PROJECT DESIGN FEATURE HYDRO-1. The pre-development SWQDv for Drainage Area 3 was determined to be 9.03 acre-feet while the post-development Storm SWQDv was found to be 7.52 acre-feet; resulting in a decrease of 1.51 acre-feet due to the smaller surface area of Drainage Area 3, post-development. Drainage Area 4 was determined to have a pre-development condition of 16.24 acre–feet. The post-development condition was determined to be 12.83 acre-feet, also due to the smaller surface area post-development. The overall change for this area is a reduction of 3.41 acre-feet. The increase to the SWQDv in Areas 1 and 2 is potentially significant as they could exceed the capacity of existing storm water drainage systems and will require treatment as outlined in PROJECT DESIGN FEATURE HYDRO-1; however, as Areas 3 and 4 will not be redeveloped by more than 50-percent and the SWQDv decreases for these areas, they do not require additional treatment. It should be noted that the removal of the apron pavements in Areas 1 and 2 would decrease the amount of pollutants in the storm water runoff by removing the refueling operations from the drainage basin. This would improve the runoff water quality for both areas.

The Southwest Quadrant Full-Size Terminal Option development includes changes to the southwest quadrant that include a replacement passenger terminal and other ancillary facilities. The existing buildings on the southwest quadrant would be removed, with the exception of the Hangar 1. The majority of the apron pavements would also be reconstructed to better accommodate the replacement passenger terminal. The existing on-Airport roadways would be replaced as well. As shown in **Figure 3.10-6**, the design attempts to offset drainage changes resulting from the proposed construction while utilizing the same outfall locations. Four drainage basins were established at the southwest quadrant based on the likely grading patterns of development, all of which drain to the three existing outfalls. Drainage Area 1 is nearly identical to the existing drainage area with the only change being a slight reduction in the size. Drainage Area 2 includes the remaining proposed buildings including the terminal and parking structures. Drainage Areas 1 and 2 are 100-percent impervious. Drainage Area 3 includes the terminal apron area as well as the replacement airline maintenance building. There is a grassy field that would be added adjacent to the maintenance hangar, resulting in a final site condition that is 91-percent impervious. The final drainage area is Area 4 which includes the roadway along the southern edge of the site. Proposed development on the southwest quadrant requires installation of storm pipes under Empire Avenue to connect to on-site storm drain systems to Lockheed Channel. Drainage from the proposed project would not sheet flow onto Empire Avenue.

Drainage Area 1 is assumed to sheet flow over a majority of the site and exit via POI 1, similar to the existing condition. As a result, the peak flow is nearly identical to the existing condition. Drainage Area 2 is assumed to discharge to POI 2. Each of the buildings would drain to an independent capture system that then collects in a main line near POI 2. Drainage Area 3 is assumed to sheet flow away from the terminal and then enter a storm water drainage system and be routed into the existing system. Once it enters this system, it would exit the site via POI 3. Drainage Area 4 is assumed to sheet flow across the pavements, then channeled flow via curbs and gutters to the low point at POI 2. The 50-year storm peak flow was determined using the HydroCalc program and the results can be found in **Table 3.10-7**.

Figure 3.10-6

Southwest Quadrant Terminal Option Post-Development Drainage Map

LEGEND

- SITE BOUNDARY
- DRAINAGE AREA BOUNDARY
- DRAINAGE AREA LABEL
- Tc FLOW PATH
- POINT OF INTEREST (POI)
- EXISTING BUILDING
- EXISTING PAVEMENT

NOTES:

1. ALL SOILS WITHIN THE SITE ARE TYPE 15 (TUJUNGA FINE SANDY LOAM).
2. ALL WATER EXTERIOR TO THE SITE IS ASSUMED TO BE DETOURED AROUND THE SITE VIA EXTERNAL CONVEYANCE SYSTEMS.

DRAINAGE AREAS

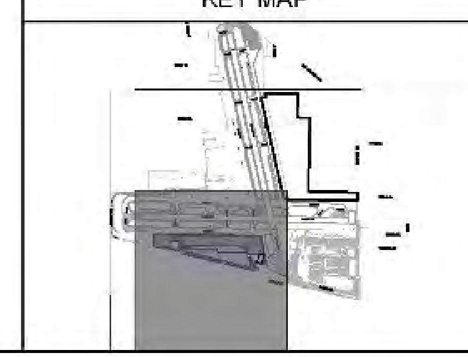
DA	AREA	IMP	Tc (50 yr.)	Q (50 yr.)	SWQDv (50 yr.)
1	6.30 ac.	100%	8 min.	18.72 cfs	3.23 ac-ft
2	13.01 ac.	100%	5 min.	46.20 cfs	6.68 ac-ft
3	18.12 ac.	91%	14 min.	39.12 cfs	8.58 ac-ft
4	2.03 ac.	100%	9 min.	5.71 cfs	1.04 ac-ft

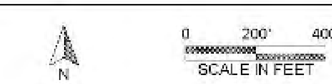
NOTE: DA 2 IS BUILDINGS. IMMEDIATE CAPTURE IS ASSUMED THEREFORE Tc HAS BEEN SET TO 5 MIN.

POINTS OF INTEREST

POI	DA	Q_{POST}	ΔQ	$SWQDv_{POST}$	ΔSWQDv
1	1	18.72 cfs	0.03 cfs	3.23 ac-ft	(-0.18 ac-ft)
2	2 + 4	53.91 cfs	8.98 cfs	7.72 ac-ft	00.01 ac-ft
3	3	39.12 cfs	(-9.78 cfs)	8.58 ac-ft	(-0.32 ac-ft)
		TOTAL Δ	(-0.77 cfs)	TOTAL Δ	(-0.49 ac-ft)

KEY MAP





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As shown in Table 3.10-7, the post development peak flow runoff calculation were determined to be negligible. The southwest quadrant is developed so similarly to that proposed for the Southwest Quadrant Full-Size Terminal Option that the overall development should not affect the runoff volumes, provided the routing of the storm water is considered in the design. In addition, compliance with PROJECT DESIGN FEATURE HYDRO-1 would decrease storm water flow from the site. There is an overall net decrease in the site peak flows as a result of the development. As POI 3 is located downstream of POI 2, the additional flow generated in Drainage Area 2 could be rerouted to exit the site via POI 3, thus balancing the site. This would require minimal effort as Drainage Area 2 is covered by buildings and the storm water collection systems on the buildings could route the water appropriately. No impacts from storm water runoff are expected from the Southwest Quadrant Full-Size Terminal Option.

Table 3.10-7

Southwest Quadrant Site Post-Development Runoff Calculations

Point of Interest	Pre-Development Peak Flow	Post-Development Peak Flow	Difference in Peak Flow
POI 1	18.69 cfs	18.72 cfs	0.03cfs
POI 2	53.91 cfs	68.97 cfs	8.98 cfs
POI 3	48.90 cfs	39.12 cfs	-9.78 cfs

cfs – cubic feet per second

Source: RS&H, 2016

The southwest quadrant site does not have any existing storm water control measures. Post-development SWQDv flowrates for the Southwest Quadrant Site were determined to be 3.23 acre-feet for Drainage Area 1 and 7.72 acre-feet for Drainage Area 2, and 8.58 acre-feet for Drainage Area 3 which are potentially significant as they could exceed the capacity of existing storm water drainage systems and will require treatment as outlined in PROJECT DESIGN FEATURE HYDRO-1. The Southwest Quadrant Full-Size Terminal Option calls for more than 50-percent of this site to be redeveloped; therefore, all the storm water runoff generated on site must be controlled and treated as detailed in PROJECT DESIGN FEATURE HYDRO-1. An underground detention basin would be the recommended control but smaller storm water quality control measures such as vegetative swales or sand filters could also be used around the development to decrease the detention basin size. Dedicated dry wells for each of the buildings could be utilized to treat the runoff generated by the buildings. Final storm water control design will be described in the LID Plan. In addition to the measures outlined above, due to the nature of the apron operations and the potential for hydrocarbon pollutants, a hydrodynamic separator would be required at all apron storm water exit points to capture pollutants, such as jet fuel, before they enter and contaminate other drainage systems.

Provided that the Southwest Quadrant Full-Size Terminal Option implements PROJECT DESIGN FEATURE HYDRO-1 to ensure that increased peak flow and SWQDv flow will be managed and treated onsite, storm water runoff would not exceed the capacity of existing or planned storm water drainage systems and additional sources of polluted runoff would not occur. Therefore, the storm water control and treatment features outlined in PROJECT DESIGN FEATURE HYDRO-1 will reduce impacts to existing or planned storm water drainage systems and additional sources of polluted runoff to a less than significant level.

Mitigation Measure SW QUAD FULL-HYDRO-5

No mitigation is warranted with adherence to PROJECT DESIGN FEATURES HYDRO-1 and HYDRO-2.

IMPACT SW QUAD FULL-HYDRO-6: Water Quality Impacts

Implementation of the Southwest Quadrant Full-Size Terminal Option could degrade water quality. However, compliance with the Construction General Permit, SWPPP, NPDES requirements, MS4 Permit, PROJECT DESIGN FEATURES HYDRO-1 and HYDRO-2, and other local regulations that require BMPs and source control measures are considered protective of water quality and would prevent a substantial degradation of water quality. Therefore, compliance with applicable regulatory requirements would reduce potentially significant impacts to a less-than-significant level.

CONSTRUCTION

IMPACT SW QUAD FULL-HYDRO-1 through IMPACT SW QUAD FULL-HYDRO-5 discuss potential impacts associated with the degradation of water quality during construction. The Southwest Quadrant Full-Size Terminal Option would be required to adhere to the NPDES Construction General Permit, LID Plan (PROJECT DESIGN FEATURE HYDRO-1) and SMP Plan (PROJECT DESIGN FEATURE HYDRO-2) to control storm water flow requirements, discharges and protect water quality. Therefore, the Southwest Quadrant Full-Size Terminal Option would not substantially degrade water quality as a result of construction; therefore, water degradation impacts are less than significant.

OPERATION

IMPACT SW QUAD FULL-HYDRO-1 through SW QUAD FULL-HYDRO-5 discuss potential impacts associated with the degradation of water quality during operation. The Southwest Quadrant Full-Size Terminal Option would be required to adhere to the NPDES Construction General Permit, LID Plan (PROJECT DESIGN FEATURE HYDRO-1) and SMP Plan (PROJECT DESIGN FEATURE HYDRO-2) to control storm water flow requirements, discharges and protect water quality. Therefore, the Southwest Quadrant Full-Size Terminal Option would not substantially degrade water quality as a result of operation, therefore, water degradation impacts are less than significant.

Mitigation Measure SW QUAD FULL-HYDRO-6

No mitigation is warranted with adherence to PROJECT DESIGN FEATURES HYDRO-1 and HYDRO-2.

IMPACT SW QUAD FULL-HYDRO-7: Impacts Related to Placement of Structures in a Floodplain

The Southwest Quadrant Full-Size Terminal Option would not place structures or taxiways within a 100-year floodplain. Therefore, no impact to existing floodplains would occur.

CONSTRUCTION and OPERATION

The Southwest Quadrant Full-Size Terminal Option would not conduct construction or demolition activities nor place structures or taxiways within a 100-year floodplain as mapped on federal Flood Hazard Boundary or FIRM or other flood hazard delineation maps. The Southwest Quadrant Full-Size Terminal Option would not alter the site in a way to change this condition. Therefore, no impact to existing floodplains would occur as a result of implementation of the Southwest Quadrant Full-Size Terminal Option.

Mitigation Measure SW QUAD FULL-HYDRO-7

No mitigation is warranted.

IMPACT SW QUAD FULL-HYDRO-8: Exposure of People or Structures to Flooding

The Southwest Quadrant Full-Size Terminal Option would not expose people or structures to flooding. Therefore, no impact to existing floodplains would occur.

CONSTRUCTION and OPERATION

The Southwest Quadrant Full-Size Terminal Option would not conduct construction or demolition activities nor place structures or taxiways within a 100-year floodplain, nor is it located near a levee or dam. The Southwest Quadrant Full-Size Terminal Option would not expose people or structures to a significant risk of loss, injury or death involving flooding or flooding as a result of a levee or dam failure. Therefore, the development associated with the Southwest Quadrant Full-Size Terminal Option would not expose people or structures to flooding and no significant impacts are expected.

Mitigation Measure SW QUAD FULL-HYDRO-8

No mitigation is warranted.

Cumulative Impacts

IMPACT SW QUAD FULL-HYDRO-9: Cumulative Impacts Related to Hydrology and Water Quality

The other projects in the vicinity of the Airport are presented in **Section 3.1**. The geographic scope for cumulative impacts related to water quality and hydrology encompasses the Southwest Quadrant Full-Size Terminal Option and the land uses within a 1-mile radius of the project site. Other projects in the general vicinity of the Southwest Quadrant Full-Size Terminal Option include a variety of residential, industrial, and commercial. All of these projects have the potential to result in construction-period water quality impacts, which could result in cumulatively significant impacts.

Construction would not result in a violation of water quality standards or waste discharge requirements, would not provide substantial additional sources of polluted runoff, and would not substantially degrade water quality because every project is required to comply with the Construction General Permit, SWPPP, NPDES requirements, and local regulations that require construction phase BMPs to ensure that construction activities would not degrade the surface water quality of receiving waters to levels below standards considered acceptable by the Los Angeles RWQCB or other regulatory agencies or impair the beneficial uses of the receiving waters. Compliance with construction phase permits and standard construction phase BMPs would decrease the potential for significant erosion or sedimentation from soil disturbance associated with construction of the projects. Therefore, the cumulative effects would be less than significant.

Projects would have to comply with City storm water pollution control measures, as well as, state and local regulations that require post-construction BMPs which would ensure that the operation of related projects would not degrade the surface water quality of receiving waters to levels below standards considered acceptable by the Los Angeles RWQCB or other regulatory agencies or impair the beneficial uses of the receiving waters. The Southwest Quadrant Full-Size Terminal Option would also be required to comply with all applicable federal, state, and local requirements concerning handling, storage, and disposal of hazardous materials to reduce the potential for the release of contaminants into groundwater as a result of project construction or operation. Therefore, construction and operation activities would not degrade groundwater quality or interfere with recharge and the cumulative effects would be less than significant.

Mitigation Measure SW QUAD FULL-HYDRO-9

No mitigation is warranted with adherence to PROJECT DESIGN FEATURES HYDRO-1 and HYDRO-2.

3.10.3.4 SOUTHWEST QUADRANT SAME-SIZE TERMINAL OPTION

Project Impacts

The Southwest Quadrant Same-Size Terminal Option would be built in the southwest quadrant with modification to the existing Airport in southeast quadrant.

IMPACT SW QUAD SAME-HYDRO-1: Violation of Water Quality Standards

Implementation of the Southwest Quadrant Same-Size Terminal Option could violate water quality standards or waste discharge requirements. However, compliance with the Construction General Permit, SWPPP, NPDES requirements, MS4 Permit, PROJECT DESIGN FEATURES HYDRO-1 AND HYDRO-2, and other local regulations that require BMPs and source control measures are considered protective of water quality and would prevent a substantial violation of water quality standards, including TMDL limits applicable to the Lockheed Channel and the Burbank Western Channel, and regulate waste discharge requirements minimizing the potential for contributing additional sources of polluted runoff. Therefore, compliance with applicable regulatory requirements would reduce potentially significant impacts to a less-than- significant level.

CONSTRUCTION

The Southwest Quadrant Same-Size Terminal Option includes construction of the replacement terminal and taxi-way improvements and demolition of the existing terminal. Construction activities would include the use of heavy equipment and construction-related chemicals, such as fuels, oils, grease, solvents and paints that would be stored in limited quantities on-site. In the absence of proper controls, these construction activities could result in accidental spills or disposal of potentially harmful materials used during construction that could wash into and pollute surface waters or groundwater. During construction, the project sites would be subject to ground-disturbing activities (e.g., removal of the existing structures and pavement, excavation and grading, foundation and infrastructure construction, the installation of utilities). These activities would expose soils for a limited time, allowing for possible erosion and sediments to enter into sheet flow runoff, which would enter the existing storm drain system. Therefore, surface water quality could be temporarily affected by construction activities.

However, the proposed project would be subject to existing regulations associated with the protection of water quality. The Southwest Quadrant Same-Size Terminal Option would be required to obtain and comply with a Construction General Permit from the SWRCB. The Construction General Permit and associated NPDES requirements include development and implementation of a SWPPP, with associated monitoring and reporting requirements. Storm water BMPs are required to limit erosion, minimize sedimentation, and control storm water runoff water quality during construction activities. BMPs could include, but are not limited to, the use of or implementation of water bars, silt fences, staked straw bales, and avoidance of water bodies during construction. Additional source-control BMPs might also be required to prevent runoff contamination by potentially hazardous materials and eliminate non-storm water discharges. These existing regulations, programs, and policies would ensure that runoff from construction activities would not violate waste discharge requirements or degrade the surface water quality of receiving waters to levels below standards considered acceptable by the Los Angeles RWQCB and/or other regulatory agencies or affect the beneficial uses of receiving waters, resulting in less than significant impacts.

The Southwest Quadrant Same-Size Terminal Option is located on a portion of the former Lockheed B-5 Plant which has been used for various aircraft manufacturing and maintenance purposes. These purposes involved the use and storage of various chemicals and hazardous materials. The southwest quadrant is located in the North Hollywood Operable Unit and the northeast quadrant is located in the Burbank Operable Unit of the San Fernando Valley Superfund Site which is undergoing remediation activities. Construction activities could uncover previously contaminated soils. Adherence with PROJECT DESIGN FEATURE HYDRO-2, Soil Management Plan, which outlines what to do if contaminated soil is encountered, would be protective of water quality and would reduce potentially significant impacts to a less than significant level.

Positive surface drainage should be accommodated at the project sites to allow surface runoff to flow away from improvements or areas susceptible to erosion. To reduce wind-related erosion, wetting of soil surfaces and/or covering exposed round areas and soil stockpiles would be used during construction operations, as appropriate. The use of soil tackifiers may also be considered to reduce the potential for wind-related soil erosion. Implementation of BMPs would ensure that water- and wind-related erosion would be confined to the construction area and not transported off-site. In addition, the topographic gradients at the Southwest Quadrant Same-Size Terminal Option Site are relatively gentle. Therefore, potential soil erosion and sedimentation runoff during construction would not exceed water quality standards and impacts would be less than significant.

As stated above, groundwater levels have ranged from approximately 70 feet (historical high groundwater) to greater than 250 feet below ground surface. Based on the depths to groundwater within the site for the Southwest Quadrant Same-Size Terminal Option, construction dewatering is not anticipated to be required. However, should shallow groundwater be encountered that would require dewatering, the proposed project would apply for coverage and adhere to the monitoring and reporting program under RWQCB Order No. R8-2009-0003. If dewatering is required, groundwater that was found to be contaminated would be properly treated prior to being discharged in accordance with the NPDES permit. Uncontaminated groundwater may be treated and pumped to the storm drain system or used for on-site dust control purposes. Compliance with regulatory requirements would ensure that dewatering activities would not result in the exceedance of water quality standards during construction, including TMDL limits applicable to the Lockheed Channel and Burbank Western Channel, resulting in less than significant impacts.

During construction of the Southwest Quadrant Same-Size Terminal Option, materials such as fuels or solvents would be stored on-site. The potential for a spill or release of construction related chemicals during construction would be generally small because of the localized, short-term nature of the releases. Authority personnel are trained and equipped to respond to a fuel spill, should one occur, it should not reach the offsite environment. Furthermore, the NPDES Construction General Permit and SWPPP require measures regarding the handling of these types of materials and action protocols if a spill or release does occur. In addition, the site-specific health and safety plan would include measures to appropriately handle an onsite accidental release of fuel or other material from the equipment, resulting in a less than significant impact.

Compliance with the Construction General Permit, SWPPP, NPDES requirements, PROJECT DESIGN FEATURES HYDRO-2 requirements, and local regulations that require construction phase BMPs are considered protective of water quality and would prevent a substantial violation of water quality standards, including TMDL limits applicable to the Lockheed Channel and the Burbank Western Channel, and regulate waste discharge requirements minimizing the potential for contributing additional sources of polluted runoff during construction. Therefore, compliance with applicable regulatory requirements would reduce potentially significant impacts to a less-than-significant level.

OPERATION

Storm water discharge is generated by rainfall that runs off the land and impervious surfaces such as paved streets, parking lots, and rooftops. Storm water discharge may include pollutants of concern, which are expected to be generated by the Southwest Quadrant Same-Size Terminal Option that could affect storm water. During operation of the replacement passenger terminal, pollutants of concern within runoff may include, but are not limited to, pollutants such as sediment, hydrocarbons, oil, grease, heavy metals, nutrients, herbicides, pesticides, fecal coliform bacteria, and trash. This runoff can flow directly into storm drains and continue untreated into the Lockheed Channel and eventually the Burbank Western Channel. Untreated storm water runoff degrades water quality in surface waters and groundwater and can affect drinking water, human health, and plant and animal habitats.

Implementation of PROJECT DESIGN FEATURES HYDRO-1 for the Southwest Quadrant Same-Size Terminal Option would satisfy NPDES MS4 permit requirements and would ensure compliance with water quality standards for storm water runoff. Therefore, implementation of these programs and regulatory requirements would reduce storm water pollutants that could affect water quality from the Southwest Quadrant Full-Size Terminal Option site, thus reducing impacts related to storm water pollution and water quality to less-than significant levels. In addition, compliance with the MS4-permit would ensure that operation of the Southwest Quadrant Same-Size Terminal Option would reduce potential violation of waste discharge requirements to a less-than-significant level.

The Southwest Quadrant Same-Size Terminal Option would require fueling operations. Aircraft refueling contractors would be required to abide by FAA standards for Aircraft Fuel Servicing and Fuel Safety. These standards specify safety requirements such as emergency fuel shutoff systems, fire safety and fire extinguishers, storage and transport safety. The amount of jet fuel handled as a result of the Southwest Quadrant Same-Size Terminal is anticipated to increase as a result of the increase in aircraft operations at the Airport. However, compliance with safety standards should prevent accidental releases of jet fuel that could have the potential to degrade water quality. Airport personnel are trained and equipped to respond to a fuel spill; should one occur, it should not reach the offsite environment. Furthermore, the NPDES Construction General Permit and SWPPP require measures regarding the handling of these types of materials and action protocols if a spill or release does occur. In addition, the site-specific health and safety plan would include measures to appropriately handle an onsite accidental release of fuel or other material from the equipment. Adherence to permit requirements and FAA standards should ensure that accidental release of jet fuel would not degrade water quality. Therefore, water quality impacts from accidental releases of jet fuel would be less than significant.

Mitigation Measure SW QUAD SAME-HYDRO-1

No mitigation is warranted with adherence to PROJECT DESIGN FEATURES HYDRO-1 and HYDRO-2.

IMPACT SW QUAD SAME-HYDRO-2: Groundwater Impacts

Implementation of the Southwest Quadrant Same-Size Terminal Option would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. Project water usage would use groundwater resources but would not substantially deplete these resources and water usage would not substantially increase over current usage as a result of the replacement terminal. Impervious surfaces would actually increase as a result of the Southwest Quadrant Same-Size Terminal Option and therefore, since conditions are similar to existing, the rate of infiltration needed to support groundwater recharge would not be decreased. Additionally, groundwater recharge does not occur in this area as it has been previously contaminated and is undergoing remediation. Furthermore, compliance with applicable regulatory requirements would reduce potentially significant impacts to a less-than-significant level. For a more thorough discussion of groundwater supplies and impacts, please refer to Section 3.18, Utilities and Service Systems, of this Draft EIR.

CONSTRUCTION

The Southwest Quadrant Same-Size Terminal Option includes construction of the replacement terminal and taxi-way improvements and demolition of the existing terminal. Construction activities are not expected to have excavation activities below the normal or historic high groundwater levels, which is 70 to 250 feet below ground surface. Seepage encountered during construction would be mitigated per the SWPPP, as needed, by constructing small drainage swales from the base of the excavations to temporary sump pits or storm water/LID features on-site. If dewatering is required, groundwater that was found to be contaminated would be properly treated prior to being discharged in accordance with the NPDES permit. Uncontaminated groundwater may be treated and pumped to the storm drain system or used for on-site dust control purposes. If seepage is encountered, it would not substantially deplete groundwater supplies, result in a net deficit in aquifer volume, or lower the groundwater table. Therefore, impacts to groundwater would be less than significant.

Discharges of groundwater during construction would be in compliance with applicable NPDES permit requirements. The Southwest Quadrant Same-Size Terminal Option would also comply with all applicable federal, state, and local requirements concerning the handling, storage, and disposal of hazardous materials to reduce the potential for a release of contaminants into the groundwater as a result of project construction. Construction activities could uncover previously contaminated soils. PROJECT DESIGN FEATURE HYDRO-2 outlines what to do if contaminated soil is encountered so it would not contaminate groundwater, therefore, the Adjacent Property Full-Size Terminal Option would not degrade groundwater quality. Water use may temporarily increase for a limited extent during the construction phase for general site activities including cleaning of tools and equipment, wet trades, and dust suppression. However, the increase would be temporary and are not expected to deplete groundwater resources. Therefore, construction-phase impacts relating to depletion of groundwater supplies or groundwater recharge would be less than significant.

OPERATION

The Southwest Quadrant Same-Size Terminal Option would get water for operations from Burbank Water and Power, which utilizes local groundwater sources as part of its water supply. The Southwest Quadrant Same-Size Terminal Option will have the same number of aircraft gates as the existing Airport and would serve the same number of enplanements as would be accommodated at the existing passenger terminal. Although the replacement terminal would most likely increase indoor water demand slightly compared to the existing terminal, due to increased usage as the population grows, which would occur with or without the project, it has been accounted for in the City of Burbank's 2035 General Plan and the 2010 UWMP. The UWMP states that City has sufficient groundwater supplies through 2035. Additionally, indoor fixtures would comply with applicable municipal code requirements related to reducing indoor water consumption through maximum flow rates for indoor water fixtures. These requirements would limit potential increases in indoor water usage. The Southwest Quadrant Same-Size Terminal Option would be consistent with growth plans in the region; the 2035 General Plan and UWMP which included the existing Airport in their projections. The replacement terminal would not substantially deplete groundwater supplies, lower the groundwater table, or result in a net deficit in aquifer volume. Therefore, depletion of groundwater impacts would be less than significant.

The Southwest Quadrant Same-Size Terminal Option would not involve groundwater extraction or other activities that could result in direct withdrawal or depletion of groundwater supplies. As noted above, a portion of the Airports water supply is provided by groundwater from local aquifers. However, the Southwest Quadrant Same-Size Terminal would indirectly increase demands on the groundwater basins. However, the Southwest Quadrant Same-Size Terminal Option would not result in adverse impacts to the local water supplies, including groundwater resources, as the proposed development has been accounted for in the City's most recently adopted UWMP, as the existing airport, which states supply is available through 2035. As the Southwest Quadrant Same-Size Terminal Option would not directly affect groundwater resources, and indirect demands on local groundwater supplies would not exceed available supplies, impacts to groundwater resources would be less than significant.

The Airport is highly developed with very little pervious surfaces. The southwest quadrant site currently has three drainage areas. Drainage Area 1 is 100-percent impervious, Drainage Area 2 is 98-percent impervious and Drainage Area 3 is 99-percent impervious. The southeast quadrant currently has 100-percent impervious surface in 4 drainage areas. The Southwest Quadrant Same-Size Terminal Option has 4 drainage areas post-development and would not substantially increase the impervious surfaces at the site. Impervious surfaces in Drainage Areas 1, 2, and 4 would be 100-percent and Drainage Area 3 would be 91-percent. Therefore, infiltration at the site is expected to remain relatively the same based on the amount of impervious area and the incorporation of PROJECT DESIGN FEATURE HYDRO-1. Both groundwater usage and infiltration would be to the San Fernando Valley Groundwater Basin. Operation of the Southwest Quadrant Same-Size Terminal Option would not interfere substantially with groundwater recharge and impacts would be less than significant.

Mitigation Measure SW QUAD SAME-HYDRO-2

No mitigation is warranted with adherence to PROJECT DESIGN FEATURES HYDRO-1 and HYDRO-2.

IMPACT SW QUAD SAME-HYDRO-3: Impacts to Drainage Patterns

Implementation of the Southwest Quadrant Same-Size Terminal Option would not substantially alter the existing drainage pattern at the Airport nor would it alter the course of a stream or river. Compliance with the Construction General Permit, SWPPP, NPDES requirements, MS4 Permit, PROJECT DESIGN FEATURE HYDRO-1, and other local regulations that require BMPs and source control measures would restrict substantially altering the drainage pattern and require measures to control erosion or siltation. Therefore, compliance with applicable regulatory requirements would reduce potentially significant impacts to a less-than-significant level.

CONSTRUCTION

The Southwest Quadrant Same-Size Terminal Option includes construction of the replacement terminal and taxi-way improvements and demolition of the existing terminal. Grading and excavation would be required for building foundations, which could affect drainage on the Southwest Quadrant Same-Size Terminal Option site. However, careful design would prevent substantial alterations to drainage patterns and/or erosion on- or off-site. As the site is currently fully developed with 95-percent or more impervious surfaces, the Southwest Quadrant Same-Size Terminal Option would not substantially alter the existing drainage pattern of the site or result in substantial erosion or siltation. Standard construction phase BMPs, required as part of the permitting process, would decrease the potential for significant erosion or sedimentation from soil disturbance associated with construction of the project. In addition, there are no stream or rivers nearby whose course would be altered by the Southwest Quadrant Same-Size Terminal Option.

Potential impacts on water quality arising from erosion and sedimentation are expected to be localized and temporary (i.e. during construction). The project applicant would implement measures to minimize and contain erosion and sedimentation and be required to submit a grading plan for approval prior to the commencement of construction activities. In addition, because the project would disturb more than 1 acre, the project proponent would be required to obtain and comply with the NPDES Construction General Permit. As required by this permit, a SWPPP would be developed which would comply with regional requirements to meet state water quality objectives. As the Southwest Quadrant Same-Size Terminal Option would comply with these regulations, project construction would not substantially alter drainage patterns or result in substantial erosion or siltation occurring on- or off-site. Therefore, impacts are less than significant.

OPERATION

Implementation of PROJECT DESIGN FEATURE HYDRO-1 would ensure that operation of the Southwest Quadrant Same-Size Terminal Option would not substantially alter drainage patterns across the site, thereby reducing the potential for erosion or siltation on- or off-site. In addition, because there are no rivers or streams in the vicinity, the Southwest Quadrant Same-Size Terminal Option would not alter a river or stream. Therefore, long-term impacts on drainage patterns across the Southwest Quadrant Same-Size Terminal Option site that could result in substantial erosion and situation on- or off-site would be less than significant.

Mitigation Measure SW QUAD SAME-HYDRO-3

No mitigation is warranted with adherence to PROJECT DESIGN FEATURE HYDRO-1.

IMPACT SW QUAD SAME-HYDRO-4: Change in Runoff / Flooding

The rate and amount of surface runoff is determined by multiple factors, including topography, the amount and intensity of precipitation, the amount of evaporation that occurs in the watershed, and the amount of precipitation and water that infiltrates to the groundwater. The Southwest Quadrant Same-Size Terminal Option would not alter the amount or intensity of precipitation, nor would it alter the course of any streams or rivers located on or around the Southwest Quadrant Same-Size Terminal Option site. Neither the topography nor surface drainage pattern would be substantially altered as a result of project implementation, nor would the amount of pervious surfaces be significantly reduced. Since the Southwest Quadrant Same-Size Terminal Option would not significantly increase the rate of surface runoff or result in flooding on- or off-site impacts would be less than significant.

CONSTRUCTION

The Southwest Quadrant Same-Size Terminal Option includes construction of the replacement terminal and taxi-way improvements and demolition of the existing terminal. Although grading would occur throughout the site, the resultant ground disturbance would be spread over the site and would not alter the overall topography. Grading for the site is dictated by the existing runway geometry, including vertical elevations, and the taxiways and aircraft parking ramps must be graded to tie in to the runway geometry, which is not being changed. As previously described, the Southwest Quadrant Same-Size Terminal Option site is completely developed. Water would be used during the temporary construction phases of the project (e.g., for dust compression). However, this water would be mechanically and precisely applied and would in general, infiltrate, or evaporate. Therefore, the Southwest Quadrant Same-Size Terminal Option would not result in a substantial increase in the rate or amount of surface runoff or flooding on- or off-site and impacts would be less than significant.

OPERATION

The Southwest Quadrant Same-Size Terminal Option would not substantially alter the existing drainage pattern of the site, area, or receiving waters, or result in on- or off-site flooding. The Southwest Quadrant Same-Size Terminal Option would have approximately 95-percent impervious surfaces, similar to current conditions at the existing Airport. Since on- and off-site flooding does not currently occur under typical 50-year storm events, it would not be a concern at the Southwest Quadrant Same-Size Terminal Option sites either. The Southwest Quadrant Same-Size Terminal Option would route runoff to POIs 1 through 3 through independent capture systems from the buildings that collect in a main line, sheet flows over a majority of the site some of which will enter a storm water drainage system which will be routed to the existing system, or channeled flows via curbs and gutters to the POI. Hydrologic boundaries will closely match the existing conditions. Furthermore, the Southwest Quadrant Same-Size Terminal Option will require compliance with PROJECT DESIGN FEATURE HYDRO-1 for storm water management which would ensure that increased storm water runoff would be managed on-site. Therefore, impacts with regard to on- or off-site flooding would be less than significant.

Mitigation Measure SW QUAD SAME-HYDRO-4:
No mitigation is warranted with adherence to PROJECT DESIGN FEATURE HYDRO-1.

IMPACT SW QUAD SAME-HYDRO-5: Impacts to Drainage System Capacity

Implementation of the Southwest Quadrant Same-Size Terminal Option could create potentially polluted runoff water that could exceed the capacity of existing or planned storm water drainage systems. Compliance with the Construction General Permit, SWPPP, NPDES requirements, MS4 Permit, PROJECT DESIGN FEATURES HYDRO-1 and HYDRO-2, and other local regulations that require BMPs and source control measures would restrict storm water runoff and polluted runoff. Therefore, compliance with applicable regulatory requirements would reduce potentially significant impacts to a less-than-significant level.

CONSTRUCTION

The Southwest Quadrant Same-Size Terminal Option includes construction of the replacement terminal and taxi-way improvements and demolition of the existing terminal. Water would be used during the temporary construction phases of the project (e.g., for dust suppression). However, this water would be mechanically and precisely applied and would, in general, infiltrate or evaporate. Therefore, the Southwest Quadrant Same-Size Terminal Option would not result in a substantial increase in the rate or amount of surface runoff and would not exceed the capacity of existing or planned storm water drainage systems and impacts would be less than significant.

Construction activities could uncover previously contaminated soils. PROJECT DESIGN FEATURE HYDRO-2 outlines what to do if contaminated soil is encountered so it would not contaminate storm water runoff, In addition, because the project would disturb more than 1 acre, the project proponent would be required to obtain and comply with the NPDES Construction General Permit. As required by this permit, a SWPPP would be developed which would comply with regional requirements to meet state water quality objectives. As the Southwest Quadrant Same-Size Terminal Option would comply with these regulations, project construction would not result in substantial additional sources of polluted runoff. Therefore, impacts are less than significant.

OPERATION

Storm water runoff from the Southwest Quadrant Same-Size Terminal Option would be similar to the runoff from the existing Airport. As the site is currently fully developed with approximately 95-percent impervious surfaces, the Southwest Quadrant Same-Size Terminal Option would not substantially alter the existing drainage pattern of the sites or exceed the capacity of existing or planned storm water drainage systems.

The proposed modifications to the southeast quadrant include the removal of the existing terminal, apron pavements, and some terminal roadway pavements. The ultimate future condition also includes the construction of extensions to Taxiways A and C. The majority of the parking facilities located in the southeast quadrant of the Airport would remain. As shown in **Figure 3.10-5**, the existing drainage basins would be maintained to the extent possible. Drainage Area 1 would increase slightly to accommodate the proposed Taxiway C extension. A large portion of this area would convert to pervious cover with the final site condition being 47-percent impervious. Drainage Area 2 would increase in size as a result of the Taxiway A extension. Similar to Drainage Area 1, pervious cover areas would be added resulting in a final condition of 60-percent impervious cover. Drainage Areas 3 and 4 would reduce in size and the remaining areas are unaffected by the development resulting in 100-percent impervious cover.

Runoff from Drainage Area 1 will discharge to subsurface drainage structures that outfall at POI 1. The infield areas along Taxiway C would be captured via area inlets located between the paving areas. Drainage Area 2 would function in a similar manner. The Taxiway A extension infield areas would be captured using area inlets then carried through subsurface drainage pipes to POI 2. The drainage patterns for Area 3 and 4 would remain unchanged and the runoff generated in each of these areas would exit the site via POI 3 and 4, respectively. The results from the post-development 50-year storm peak flow as determined by HydroCalc are shown in **Table 3.10-5**. The increases in the peak flows in Drainage Areas 1 and 2 are potentially significant because they could exceed the capacity of the existing storm water drainage systems and will require storm water pollution control measures, identified in PROJECT DESIGN FEATURE HYDRO-1, to reduce the runoff flow volume.

The SWQDv of Drainage Area 1 for the post-development condition was determined to be 10.53 acre-feet. The post-development SWQDv for Drainage Area 2 is 5.64 acre-feet. These additional volumes are potentially significant as they could exceed the capacity of existing storm water drainage systems and will require treatment prior to exiting the site as outlined in PROJECT DESIGN FEATURE HYDRO-1. The pre-development SWQDv for Drainage Area 3 was determined to be 9.03 acre-feet while the post-development Storm SWQDv was found to be 7.52 acre-feet; resulting in a decrease of 1.51 acre-feet due to the smaller surface area of Drainage Area 3, post-development. Drainage Area 4 was determined to have a pre-development condition of 16.24 acre–feet. The post-development condition was determined to be 12.83 acre-feet, also due to the smaller surface area post-development. The overall change for this area is a reduction of 3.41 acre-feet. The increase to the SWQDv in Areas 1 and 2 is potentially significant as they could exceed the capacity of existing storm water drainage systems and will require treatment as outlined in PROJECT DESIGN FEATURE HYDRO-1; however, as Areas 3 and 4 will not be redeveloped by more than 50-percent and the SWQDv decreases for these areas, they do not require additional treatment. It should be noted that the removal of the apron pavements in Areas 1 and 2 would decrease the amount of pollutants in the storm water runoff by removing the refueling operations from the drainage basin. This would improve the runoff water quality for both areas.

The Southwest Quadrant Same-Size Terminal Option development includes changes to the southwest quadrant that include a replacement passenger terminal and other ancillary facilities. The existing buildings on the southwest quadrant would be removed, with the exception of the Hangar 1. The majority of the apron pavements would also be reconstructed to better accommodate the replacement passenger terminal. The existing on-Airport roadways would be replaced as well. As shown in **Figure 3.10-6**, the design attempts to offset drainage changes resulting from the proposed construction while utilizing the same outfall locations. Four drainage basins were established at the southwest quadrant based on the likely grading patterns of development, all of which drain to the three existing outfalls. Drainage Area 1 is nearly identical to the existing drainage area with the only change being a slight reduction in the size. Drainage Area 2 includes the remaining proposed buildings including the terminal and parking structures. Drainage Areas 1 and 2 are 100-percent impervious. Drainage Area 3 includes the terminal apron area as well as the replacement airline maintenance building. There is a grassy field that would be added adjacent to the maintenance hangar, resulting in a final site condition that is 91-percent impervious. The final drainage area is Area 4 which includes the roadway along the southern edge of the site.

Drainage Area 1 is assumed to sheet flow over a majority of the site and exit via POI 1, similar to the existing condition. As a result, the peak flow is nearly identical to the existing condition. Drainage Area 2 is assumed to discharge to POI 2. Each of the buildings would drain to an independent capture system that then collects in a main line near POI 2. Drainage Area 3 is assumed to sheet flow away from the terminal and then enter a storm water drainage system and be routed into the existing system. Once it enters this system, it would exit the site via POI 3. Drainage Area 4 is assumed to sheet flow across the pavements, then channeled flow via curbs and gutters to the low point at POI 2. The 50-year storm peak flow was determined using the HydroCalc program and the results can be found in **Table 3.10-7**.

As shown in **Table 3.10-7**, the post development peak flow runoff calculation were determined to be negligible. The southwest quadrant is developed so similarly to that proposed for the Southwest Quadrant Same-Size Terminal Option that the overall development should not affect the runoff volumes, provided the routing of the storm water is considered in the design. In addition, compliance with PROJECT DESIGN FEATURE HYDRO-1 would decrease storm water flow from the site. There is an overall net decrease in the site peak flows as a result of the development. As POI 3 is located downstream of POI 2, the additional flow generated in Drainage Area 2 could be rerouted to exit the site via POI 3, thus balancing the site. This would require minimal effort as Drainage Area 2 is covered by buildings and the storm water collection systems on the buildings could route the water appropriately. No impacts from storm water runoff are expected from the Southwest Quadrant Same-Size Terminal Option.

The southwest quadrant site does not have any existing storm water control measures. Post-development SWQDv flowrates for the southwest quadrant site were determined to be 3.23 acre-feet for Drainage Area 1 and 7.72 acre-feet for Drainage Area 2, and 8.58 acre-feet for Drainage Area 3 which are potentially significant as they could exceed the capacity of existing storm water drainage systems and will require treatment as outlined in PROJECT DESIGN FEATURE HYDRO-1. The Southwest Quadrant Same-Size Terminal Option calls for more than 50-percent of this site to be redeveloped; therefore, all the storm water runoff generated on site must be controlled and treated as detailed in PROJECT DESIGN FEATURE HYDRO-1. An underground detention basin would be the recommended control but smaller storm water quality control measures such as vegetative swales or sand filters could also be used around the development to decrease the detention basin size. Dedicated dry wells for each of the buildings could be utilized to treat the runoff generated by the buildings. Final storm water control design will be described in the LID Plan. In addition to the measures outlined above, due to the nature of the apron operations and the potential for hydrocarbon pollutants, a hydrodynamic separator would be required at all apron storm water exit points to capture pollutants, such as jet fuel, before they enter and contaminate other drainage systems.

Provided that the Southwest Quadrant Same-Size Terminal Option implements PROJECT DESIGN FEATURE HYDRO-1 to ensure that increased peak flow and SWQDv flow will be managed and treated onsite, storm water runoff would not exceed the capacity of existing or planned storm water drainage systems and additional sources of polluted runoff would not occur. Therefore, the storm water control and treatment features outlined in PROJECT DESIGN FEATURE HYDRO-1 will reduce impacts to existing or planned storm water drainage systems and additional sources of polluted runoff to a less than significant level.

Mitigation Measure SW QUAD SAME-HYDRO-5

No mitigation is warranted with adherence to PROJECT DESIGN FEATURES HYDRO-1 and HYDRO-2.

IMPACT SW QUAD SAME-HYDRO-6: Water Quality Impacts

Implementation of the Southwest Quadrant Same-Size Terminal Option could degrade water quality. However, compliance with the Construction General Permit, SWPPP, NPDES requirements, MS4 Permit, PROJECT DESIGN FEATURES HYDRO-1 and HYDRO-2, and other local regulations that require BMPs and source control measures are considered protective of water quality and would prevent a substantial degradation of water quality. Therefore, compliance with applicable regulatory requirements would reduce potentially significant impacts to a less-than-significant level.

CONSTRUCTION

IMPACT SW QUAD SAME-HYDRO-1 through IMPACT SW QUAD SAME-HYDRO-5 discuss potential impacts associated with the degradation of water quality during construction. The Southwest Quadrant Same-Size Terminal Option would be required to adhere to the NPDES Construction General Permit, LID Plan (PROJECT DESIGN FEATURE HYDRO-1) and SMP Plan (PROJECT DESIGN FEATURE HYDRO-2) to control storm water flow requirements, discharges and protect water quality. Therefore, the Southwest Quadrant Same-Size Terminal Option would not substantially degrade water quality as a result of construction; therefore, water degradation impacts are less than significant.

OPERATION

IMPACT SW QUAD SAME-HYDRO-1 through SW QUAD SAME-HYDRO-5 discuss potential impacts associated with the degradation of water quality during operation. The Southwest Quadrant Same-Size Terminal Option would be required to adhere to the NPDES Construction General Permit, LID Plan (PROJECT DESIGN FEATURE HYDRO-1) and SMP Plan (PROJECT DESIGN FEATURE HYDRO-2) to control storm water flow requirements, discharges and protect water quality. Therefore, the Southwest Quadrant Same-Size Terminal Option would not substantially degrade water quality as a result of operation, therefore, water degradation impacts are less than significant.

Mitigation Measure SW QUAD SAME-HYDRO-6

No mitigation is warranted with adherence to PROJECT DESIGN FEATURES HYDRO-1 and HYDRO-2.

IMPACT SW QUAD SAME-HYDRO-7: Impacts Related to Placement of Structures in a Floodplain

The Southwest Quadrant Same-Size Terminal Option would not place structures or taxiways within a 100-year floodplain. Therefore, no impact to existing floodplains would occur.

CONSTRUCTION and OPERATION

The Southwest Quadrant Same-Size Terminal Option would not conduct construction or demolition activities nor place structures or taxiways within a 100-year floodplain as mapped on federal Flood Hazard Boundary or FIRM or other flood hazard delineation maps. The Southwest Quadrant Same-Size Terminal Option would not alter the site in a way to change this condition. Therefore, no impact to existing floodplains would occur as a result of implementation of the Southwest Quadrant Same-Size Terminal Option.

Mitigation Measure SW QUAD SAME-HYDRO-7

No mitigation is warranted.

IMPACT SW QUAD SAME-HYDRO-8: Exposure of People or Structures to Flooding

The Southwest Quadrant Same-Size Terminal Option would not expose people or structures to flooding. Therefore, no impact to existing floodplains would occur.

CONSTRUCTION and OPERATION

The Southwest Quadrant Same-Size Terminal Option would not conduct construction or demolition activities nor place structures or taxiways within a 100-year floodplain, nor is it located near a levee or dam. The Southwest Quadrant Same-Size Terminal Option would not expose people or structures to a significant risk of loss, injury or death involving flooding or flooding as a result of a levee or dam failure. Therefore, the development associated with the Southwest Quadrant Same-Size Terminal Option would not expose people or structures to flooding and no significant impacts are expected.

Mitigation Measure SW QUAD SAME-HYDRO-8

No mitigation is warranted.

Cumulative Impacts

IMPACT SW QUAD SAME-HYDRO-9: Cumulative Impacts Related to Hydrology and Water Quality

The other projects in the vicinity of the Airport are presented in **Section 3.1**. The geographic scope for cumulative impacts related to water quality and hydrology encompasses the Southwest Quadrant Same-Size Terminal Option and the land uses within a 1-mile radius of the project site. Other projects in the general vicinity of the Southwest Quadrant Same-Size Terminal Option include a variety of residential, industrial, and commercial. All of these projects have the potential to result in construction-period water quality impacts, which could result in cumulatively significant impacts.

Construction would not result in a violation of water quality standards or waste discharge requirements, would not provide substantial additional sources of polluted runoff, and would not substantially degrade water quality because every project is required to comply with the Construction General Permit, SWPPP, NPDES requirements, and local regulations that require construction phase BMPs to ensure that construction activities would not degrade the surface water quality of receiving waters to levels below standards considered acceptable by the Los Angeles RWQCB or other regulatory agencies or impair the beneficial uses of the receiving waters. Compliance with construction phase permits and standard construction phase BMPs would decrease the potential for significant erosion or sedimentation from soil disturbance associated with construction of the projects. Therefore, the cumulative effects would be less than significant.

Projects would have to comply with City storm water pollution control measures, as well as, state and local regulations that require post-construction BMPs which would ensure that the operation of related projects would not degrade the surface water quality of receiving waters to levels below standards considered acceptable by the Los Angeles RWQCB or other regulatory agencies or impair the beneficial uses of the receiving waters. The Southwest Quadrant Same-Size Terminal Option would also be required to comply with all applicable federal, state, and local requirements concerning handling, storage, and disposal of hazardous materials to reduce the potential for the release of contaminants into groundwater as a result of project construction or operation. Therefore, construction and operation activities would not degrade groundwater quality or interfere with recharge and the cumulative effects would be less than significant.

Mitigation Measure SW QUAD SAME-HYDRO-9

No mitigation is warranted with adherence to PROJECT DESIGN FEATURES HYDRO-1 and HYDRO-2.

3.11 LAND USE AND PLANNING

3.11.1 Background and Methodology

The purpose of this section is to determine whether implementation of the proposed project would result in significant land use and planning impacts at the Airport and for adjacent land uses.

3.11.1.1 Regulatory Context

The California Environmental Quality Act (CEQA) requires project sponsors to evaluate potential conflicts with existing land uses, zoning designations, or land use and planning policies. It also requires the EIR to consider potential conflicts related to the intensity and patterns of land use in order to ensure that the proposed project does not result in incompatible uses or nuisance impacts on sensitive receptors (such as residences, medical facilities, schools, churches, etc.).

California Public Utilities Code/California Department of Transportation

The State Aeronautics Act, at Section 21000 et seq. of the California Public Utilities Code, was established to protect the public interest in aeronautics and further aeronautical progress.

California Public Utilities Code section 21661.6 ("PUC Section 21661.6") states in part that "(a) Prior to the acquisition of land or any interest therein . . . by any political subdivision for the purpose of expanding or enlarging any existing publicly owned airport, the acquiring entity shall submit a plan of that expansion or enlargement to the board of supervisors of the county, or the city council of the city, in which the property proposed to be acquired is located. (b) The plan shall show in detail the airport-related uses and other uses proposed for the property to be acquired. (c) The board of supervisors or the city council, as the case may be, shall, upon notice, conduct a public hearing on the plan, and shall thereafter approve or disapprove the plan. (d) Upon approval of the plan, the proposed acquisition of property may begin. (e) The use of property so acquired shall thereafter conform to the approved plan, and any variance from that plan, or changes proposed therein, shall first be approved by the appropriate board of supervisors or city council after a public hearing on the subject of the variance or plan change."

PUC Section 21661.6 governs the acquisition and use of land for the purpose of expanding or enlarging an existing airport. The Authority's use of the Adjacent Property and the "A-1 North Property" portion of the southeast quadrant of the Airport is restricted by separate PUC Section 21661.6 land use plan approvals by the City of Burbank. As set forth in Section 3.11.3 below, the Adjacent Property Full-Size Terminal Option and the Southwest Quadrant Full-Size Terminal Option require City of Burbank approval of an amendment to the PUC Section 21661.6 land use plan, for the Adjacent Property to change the authorized uses. The Southwest Quadrant Full Size Terminal Option also requires a PUC Section 21661.6 land use plan amendment for the A-1 North Property to allow an access road modification.

It is the Authority's position that use of a portion of the former Lockheed Plant C-1 site ("C-1 Property") in the northwest quadrant of the Airport in conjunction with the Southwest Quadrant Full-Size Terminal Option and the Southwest Quadrant Same-Size Terminal Option, and in particular the development and operation of replacement air freighter facilities (FedEx/UPS) and GA hangars on the C-1 Property, does not require

PUC Section 21661.6 approval from the City of Burbank and does not involve a change of use of any Airport property that is restricted by an existing PUC Section 21661.6 land use plan. The C-1 Property is zoned for Airport use, and it is the Authority's position that no component of the Southwest Quadrant Full-Size Terminal Option or the Southwest Quadrant Same-Size Terminal Option, as it relates to the development and operation of replacement air freighter facilities (FedEx/UPS) and GA hangars on the C-1 Property, is subject to PUC Section 21661.6 land use plan approval by the City of Burbank.

The City of Burbank disagrees with the Authority as to the applicability of the PUC Section 21661.6 land use plan requirement to the C-1 Property. As discussed in Section 3.11.2 below, for purposes of avoiding litigation that would be moot if the City and Measure B voters approve the Adjacent Property Full-Size Terminal Option and the Southwest Quadrant Full-Size Terminal Option, subject to a reservation of rights the Authority will prepare a PUC Section 21661.6 land use plan application for an approximately 107,208 square foot[1] portion of the C-1 Property for relocated air freighter operations (e.g., FedEx/UPS) – including a hangar and associated vehicle parking – and GA hangars and operations. The Authority and the City would maintain their respective existing legal positions (under law and equity) in the event the City and Measure B voters do not approve the Adjacent Property Full-Size Terminal Option and the Southwest Quadrant Full-Size Terminal Option.

The California Airport Noise Standards, set forth in Title 21, California Code of Regulations, section 5000 et seq., state that no airport shall operate "with a noise impact area based on the standard of 65 dB CNEL unless the operator has applied for or received a variance" from the California Department of Transportation (CalTrans) permitting such operations.[2] The noise impact area is defined as incompatible land use within the 65 dB CNEL contour as described in Title 21 California Code of Regulations Section 5014. Since acquiring the Airport in 1978, the Authority has reduced the noise impact area from over 400 acres to currently less than six acres. The Authority is currently operating pursuant to a variance from the State and has filed a petition with CalTrans seeking to extend the variance and alternatively to be deemed in compliance with the state noise standards.

The *California Airport Land Use Planning Handbook*, published by Caltrans, establishes statewide guidelines for carrying out airport land use compatibility planning pursuant to the State Aeronautics Act.[3] The State Aeronautics Act promotes compatibility between airport operations and the land use and development surrounding California's public use airports.

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1 Comprised of 61,700 square feet of new hangar and 45,508 square feet for associated tenant automobile parking to accommodate relocation of the current Fedex and UPS operations. The existing aircraft ramp adjacent to the new improvements already provides for parking, loading and unloading of General Aviation aircraft for all classes of aircraft that use the Airport, and would be used for parking, loading and unloading of Fedex and UPS aircraft. This existing ramp would not be included in the portion of the C-1 Property covered by the PUC Section 21661.6 land use plan application.

2 California Code of Regulations Title 21, Section 5012.

3 California Department of Transportation, Aeronautics, www.dot.ca.gov/hq/planning/aeronaut/documents/alucp/AirportLandUsePlanningHandbook.pdf.

Caltrans' Division of Aeronautics—the state division responsible for airports in California—funds, licenses, and permits programs for airports and heliports.[4] As described above, the *California Airport Land Use Planning Handbook*, sets forth statewide guidance based on the State Aeronautics Act for airport land use compatibility planning.[5]

The *California Airport Land Use Planning Handbook* also serves to: (1) provide information to airport land use commissions, their staffs, airport proprietors, cities, counties, consultants, and the public; (2) identify the requirements and procedures for preparing effective compatibility planning documents; and (3) define exemptions where applicable. Additionally, the handbook, which agrees with current federal and state law regarding significance thresholds for incompatible land uses, also functions as a resource for the preparation, adoption, and amendment of airport land use compatibility plans.[6]

The *California Airport Land Use Planning Handbook* also seeks to sustain mobility while fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access for residents affected by socioeconomic, geographic, and commercial limitations.[7]

Los Angeles County Regional Planning Commission / Airport Land Use Commission

State law requires airport land use commissions to coordinate planning for the areas surrounding public use airports. The Los Angeles County Regional Planning Commission serves as the Airport Land Use Commission (ALUC) for Los Angeles County and coordinates the airport planning of public agencies within the county. The Commission sets uniform standards and policies to prohibit the development of incompatible uses, while the cities and Los Angeles County stipulate the compatible uses that are suitable within each jurisdiction.

The Commission also produces the *Los Angeles County Airport Land Use Plan* (ALUP),[8] which provides for the orderly expansion of public use airports within Los Angeles County and the areas surrounding those airports. It also establishes provisions for regulating building heights in areas near public airports as well as for adopting land use measures to decrease the public's exposure to safety hazards and excessive noise. The ALUP's exhibit for the Airport is presented as **Figure 3.11-1**.

An ALUP may be based on a master plan or on an Airport Layout Plan (ALP) that reflects an airport's anticipated growth during at least the next 20 years.[9] While an airport master plan serves as a long-range plan for airport development, an ALP provides detailed information on existing and planned runways,

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4 Los Angeles County Airport Land Use Commission, *Los Angeles County Airport Land Use Plan,* 2004.

5 California Department of Transportation, Aeronautics, "Protecting Our Airports and Our Communities" (2013) http://www.dot.ca.gov/hq/planning/aeronaut/documents/alucp/lu_p03_protecting_our_airports_and_communities.htm.

6 State of California Department of Transportation, Division of Aeronautics, *California Airport Land Use Planning Handbook,* 2011.

7 State of California Department of Transportation, Division of Aeronautics, *California Airport Land Use Planning Handbook,* 2011.

8 Los Angeles County Airport Land Use Commission, *Los Angeles County Airport Land Use Plan,* 2004.

9 California Public Utilities Code Section 21675(a).

runway protection zones, existing easements, and other airport operations. Like many airport operators, the Authority has not created a master plan.

Restated Adjacent Property Easement

The Adjacent Property currently is subject to a March 15, 2005 Amended and Restated Grant of Easements, Declaration of Use Restrictions and Agreement for Adjacent Property (the "Restated Adjacent Property Easement"). The Restated Adjacent Property Easement establishes easements and use restrictions in favor of the City of Burbank that prohibit the Adjacent Property from being used for Airport purposes or for any structure, construction or development project to expand or enlarge the Airport.

3.11.1.2 Significance Thresholds

For purposes of this analysis, implementation of the proposed project would result in a significant impact related to land use and planning if it were to:

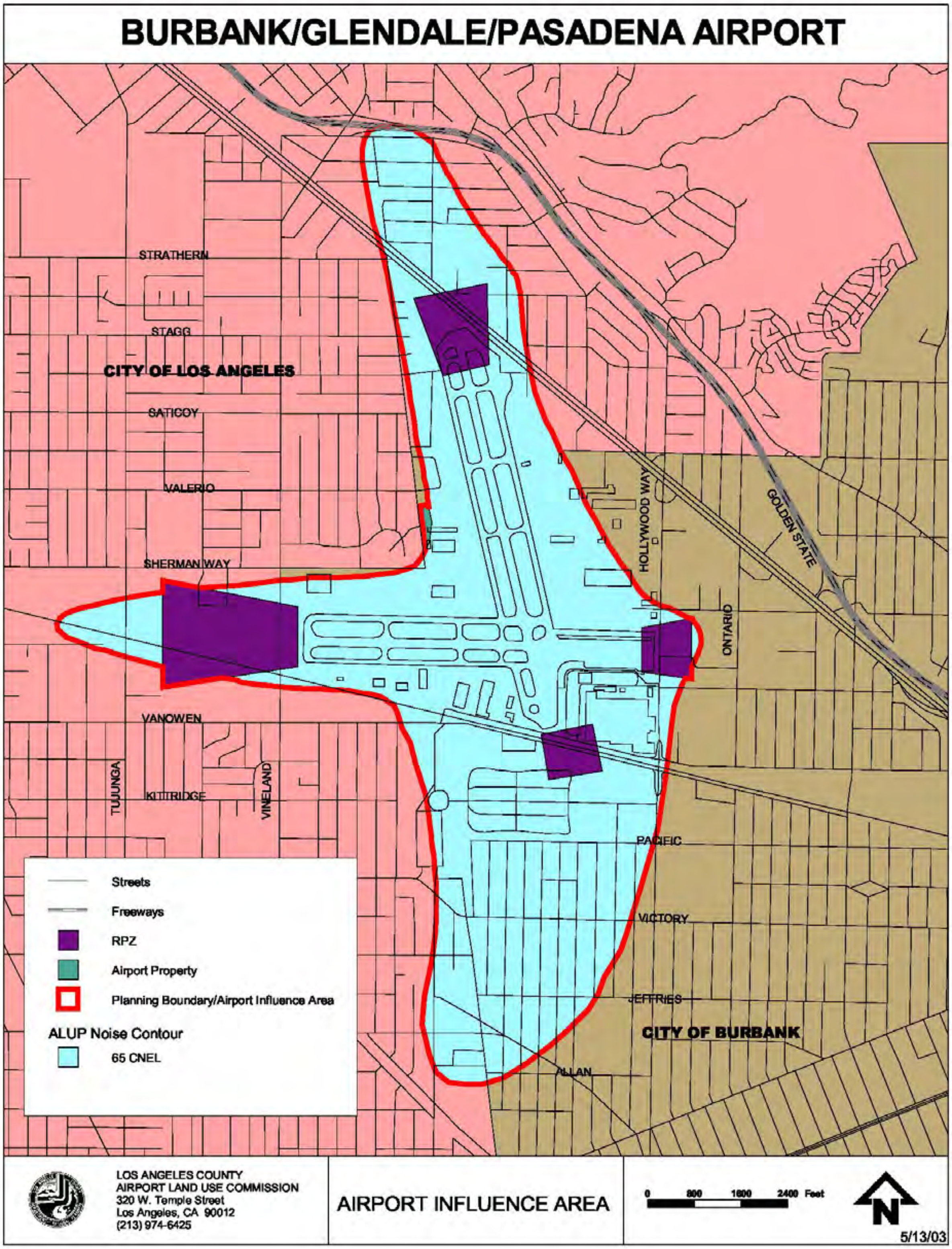
- LAND-1: Physically divide an established community.
- LAND-2: Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.
- LAND-3: A substantial contribution to cumulative impacts to dividing an established community.

3.11.1.3 Methodologies

The analysis of potential impacts related to land use and planning was performed by reviewing applicable regulations, policies, and plans (including the California Public Utilities Code, the State Aeronautics Act, SCAG's *Regional Transportation Plan/Sustainable Communities Strategy*, the Los Angeles County ALUP, and the *Burbank2035 General Plan*) to determine project consistency.

Figure 3.11-1

Los Angeles Airport Land Use Plan Exhibit of Bob Hope Airport



3.11.2 Existing Conditions / Environmental Setting

3.11.2.1 Existing and Planned Land Use

The existing Airport encompasses a variety of aviation-related land uses, including a passenger terminal, parking facilities, general aviation facilities, an air traffic control tower, the Regional Intermodal Transportation Center, fire and police stations, and navigational aids. In Burbank and Los Angeles, existing and planned land uses in the vicinity of the Airport include residential, industrial, commercial, open space, and institutional (see **Figures 3.11-2** and **3.11-3**). Land uses adjacent to the northeast quadrant of the Airport include industrial development, commercial development, and vacant land. Land use adjacent to the southeast quadrant include commercial on the east and west side of Hollywood Way (retail and hotel uses), the Metrolink railroad tracks, surface parking lots, and offices on the east side of Hollywood Way between Empire Avenue and Thornton Avenue. Land uses adjacent to the southwest quadrant include the Metrolink railroad tracks and the industrial and commercial land uses on the north side of Vanowen Street. Land uses adjacent to the northwest quadrant include commercial to the west at the corner of Sherman Way and Vineland Avenue and residential uses north of Sherman Way.

3.11.2.2 Existing Zoning

The Airport property that lies within Burbank is zoned "AP Airport," "M-2 General Industrial," and "PD Planned Development"; within Los Angeles the Airport property is zoned "Industrial." In the vicinity of the Airport within Burbank, zoning is a mix of industrial, commercial, residential, open space, and cemetery designations, and within Los Angeles zoning is industrial, commercial, and residential (see **Figures 3.11-4** and **3.11-5**).

The City of Burbank is currently processing a General Plan amendment for an 18-acre portion of B-6 Trust Property (located directly east of the Adjacent Property) to change the land use designation from Airport to Golden State Commercial/Industrial. If approved, this amendment is a precursor for the City of Burbank's anticipated rezoning of the B-6 Trust Property to Planned Development.

Figure 3.11-2
Existing Land Uses in Burbank in Airport Vicinity

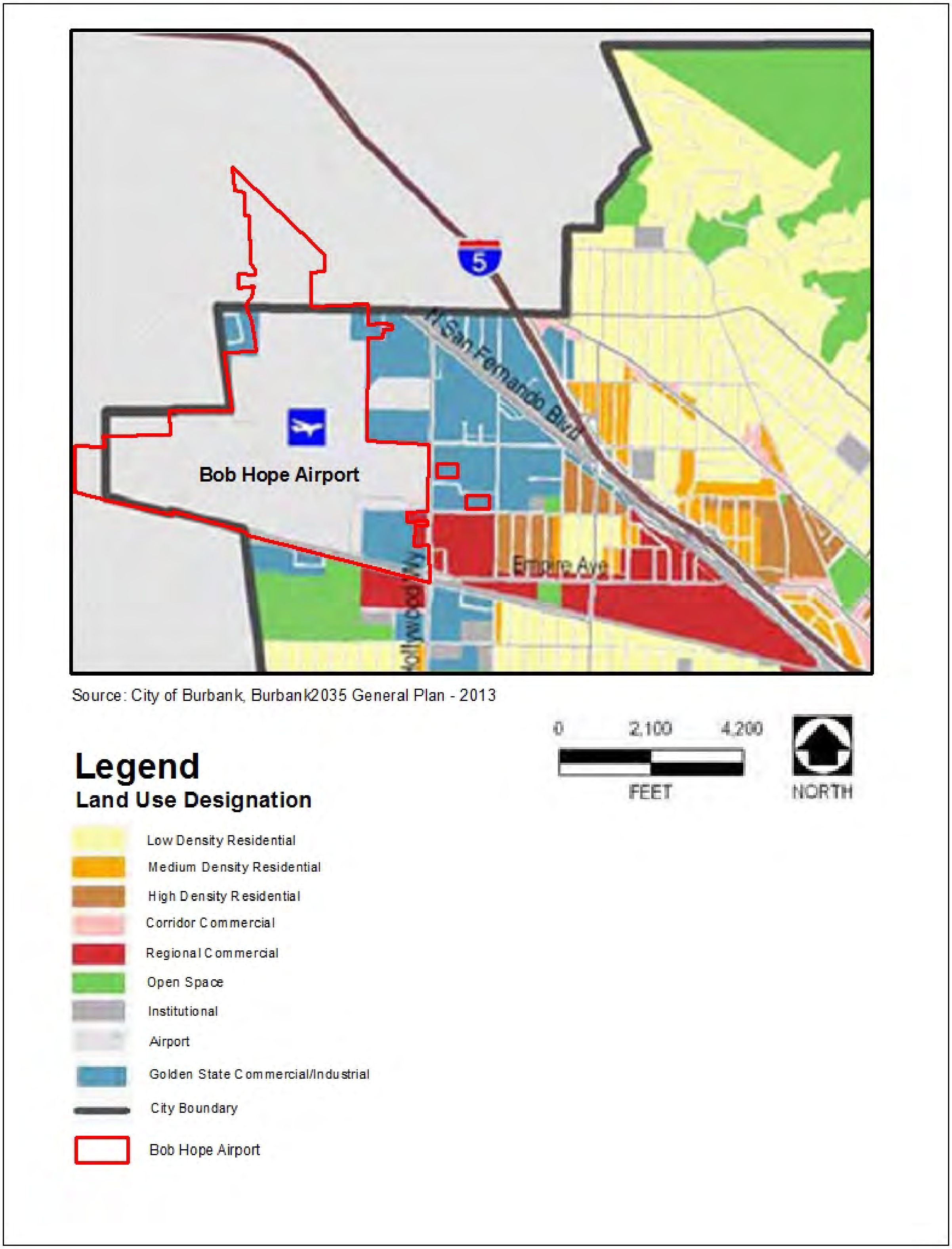
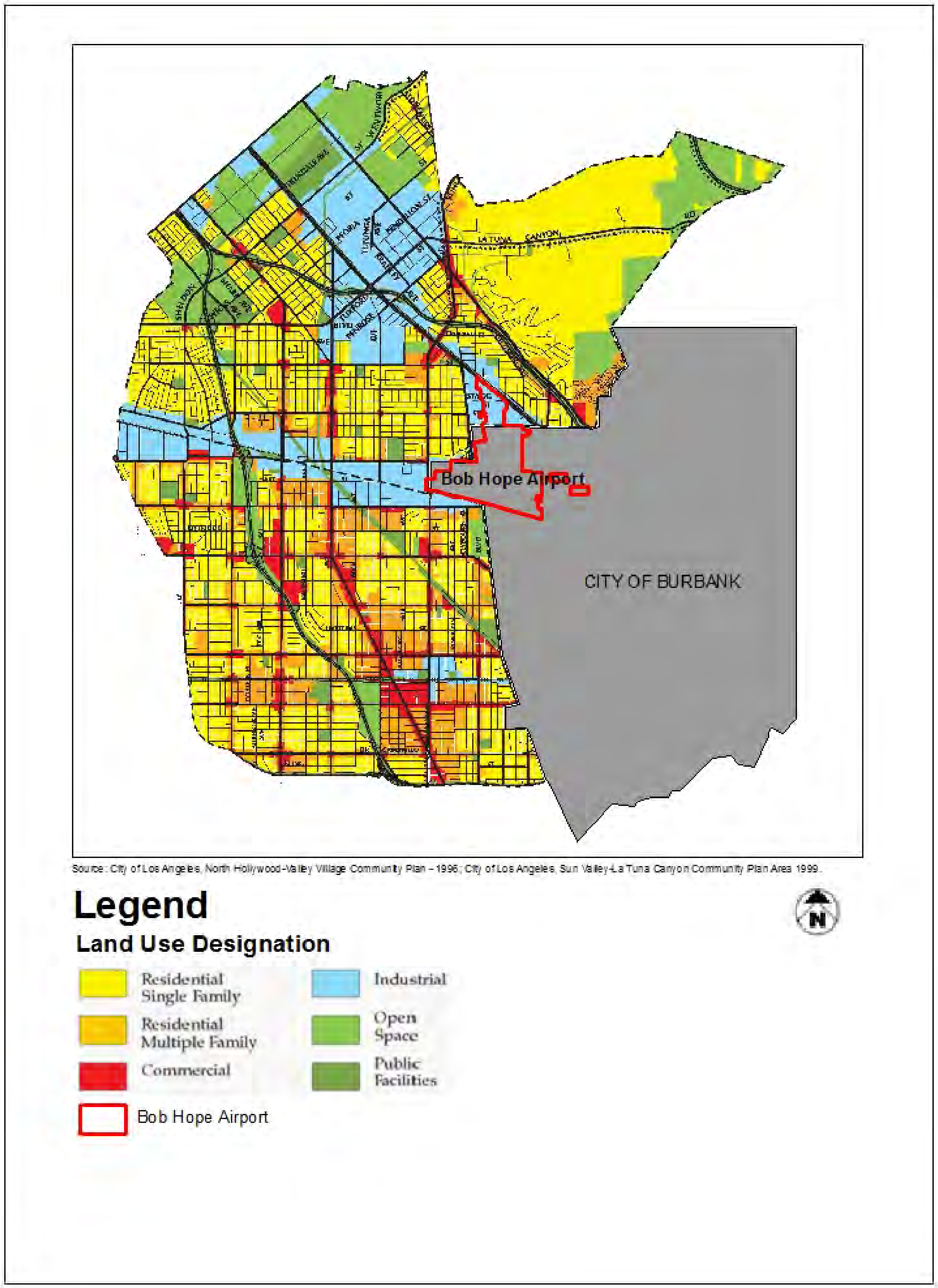


Figure 3.11-3

Existing Land Uses in Los Angeles in Airport Vicinity



Source: City of Los Angeles, North Hollywood-Valley Village Community Plan – 1996; City of Los Angeles, Sun Valley-La Tuna Canyon Community Plan Area 1999.

Figure 3.11-4

Zoning Designations in Burbank in Airport Vicinity

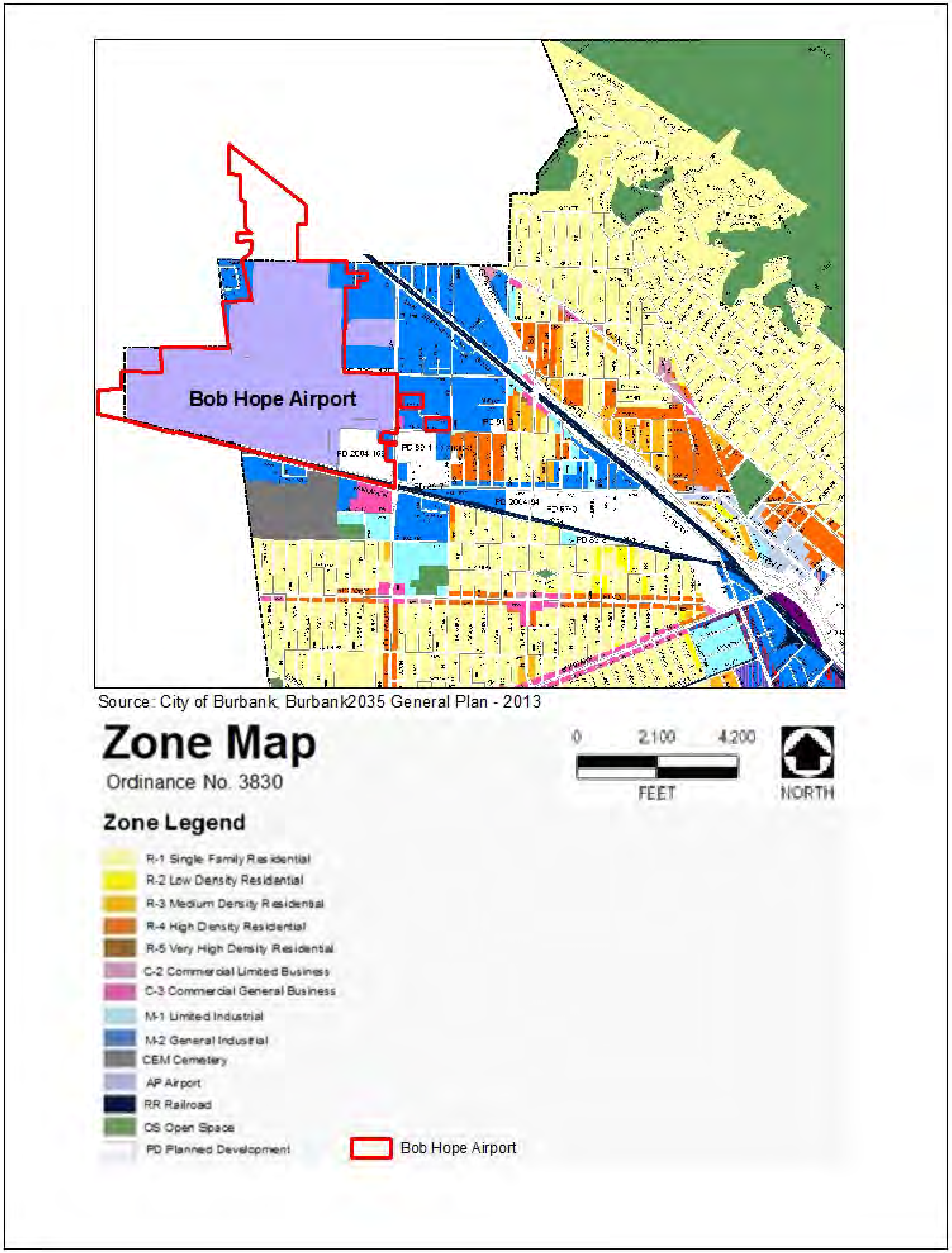
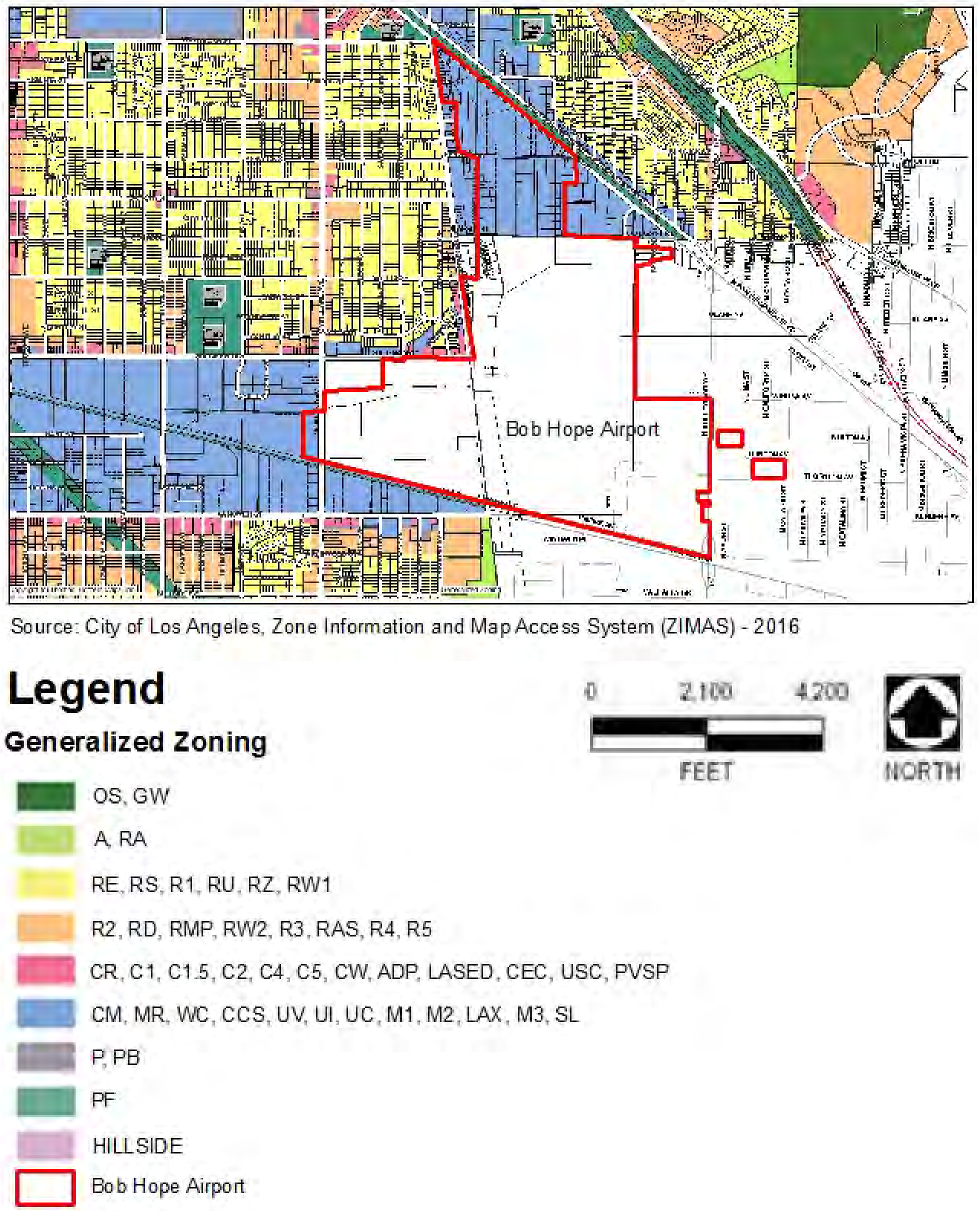


Figure 3.11-5

Zoning Designations in Los Angeles in Airport Vicinity



3.11.3 Environmental Impacts and Mitigation Measures

3.11.3.1 ADJACENT PROPERTY FULL-SIZE TERMINAL OPTION

Project Impacts

IMPACT ADJ PROP FULL-LAND-1: Division of an Established Community

The Adjacent Property Full-Size Terminal Option would be implemented entirely on Airport property. Implementation of this development option would not physically divide an established community or affect the physical arrangement of the community because all development would occur on Airport property. In addition, the Adjacent Property Full-Size Terminal Option would be compatible with adjacent land uses. In the northeast quadrant where the replacement passenger terminal and associated facilities would be developed, adjacent land uses of industrial development, commercial development, and vacant land would be compatible. In the southeast quadrant, where the demolition of the existing passenger terminal and adjacent parking structure would occur, land uses would continue to be compatible with the adjacent land uses of commercial, Metrolink railroad tracks, surface parking lots, and offices. Thus, the Adjacent Property Full-Size Terminal Option would not change any land use or development patterns in the Airport vicinity and impacts related to changes in land use would be less than significant.

Mitigation Measure ADJ PROP FULL-LAND-1

No mitigation is warranted.

IMPACT ADJ PROP FULL-LAND-2: Consistency with Existing Plans and Zoning

Because the Adjacent Property Full-Size Terminal Option would be implemented entirely on Airport property, this development option would be consistent with the land use compatibility policies set forth in the *California Airport Land Use Planning Handbook* and the Los Angeles County ALUP. In addition, as shown in **Table 3.11-1**, the Adjacent Property Full-Size Terminal Option would be consistent with the land use policies in the *Burbank2035 General Plan*.

Table 3.11-1

Adjacent Property Full-Size Terminal Option and Applicable Land Use Policies from *Burbank 2035 General Plan*

City of Burbank 2035 Relevant Land Use Policies	Policy Compliance
Goal 1 Quality of Life	
Policy 1.3: Maintain and protect Burbank's residential neighborhoods by avoiding encroachment of incompatible land uses and public facilities.	The Adjacent Property Full-Size Terminal Option would occur entirely on Airport property and would not encroach on any adjacent land uses or public facilities.
Policy 1.8: Ensure that development in Burbank is consistent with the land use designations presented in the Land Use Plan and shown on the Land Use Diagram, including individual policies applicable to each land use designation.	The land use designation for the site where the Adjacent Property Full-Size Terminal Option would be constructed is "Airport", and is consistent with the land use designations presented in the Land Use Plan.
Goal 2 Sustainability	
Policy 2.1: Consider sustainability when making discretionary land use and transportation decisions, policies, regulations, and projects.	The Adjacent Property Full-Size Terminal Option would consider sustainability as part of the design process.
Policy 2.4: Provide public facilities and services in the most equitable and efficient manner possible.	The Adjacent Property Full-Size Terminal Option would be a public facility that provides air transportation services to all residents in the most equitable and efficient manner possible.
Policy 2.6: Design new buildings to minimize the consumption of energy, water, and other natural resources. Develop incentives to retrofit existing buildings for a net reduction in energy consumption, water consumption, and stormwater runoff.	The Adjacent Property Full-Size Terminal Option will be built in an efficient manner and minimize energy consumption, water consumption, and stormwater runoff.
Policy 2.7: Make and enforce land use policy in an equitable fashion to protect all people equally from adverse environmental effects.	The EIR for the proposed project analyzes potential adverse environmental effects to the Airport's surrounding community and in alignment with land use policy ensures equal protection to all residents.
Goal 3 Community Design and Character	

Table 3.11-1

Adjacent Property Full-Size Terminal Option and Applicable Land Use Policies from *Burbank 2035 General Plan* (cont.)

Policy 3.5: Ensure that architecture and site design are high quality, creative, complementary to Burbank's character, and compatible with surrounding development and public spaces.	Architecture and site design for the proposed project represent a reputable professional standard. The design would be intended to be in alignment with Burbank's character.
Policy 3.10: Preserve historic resources, buildings, and sites, including those owned by private parties and government agencies, including the City of Burbank. Alter such resources only as necessary to meet contemporary needs and in a manner that does not affect the historic integrity of the resource.	The Adjacent Property Full-Size Terminal Option would not have any effect on known historic resources.
Goal 4 Public Spaces and Complete Streets	
Policy 4.8: Locate parking lots and structures behind buildings or underground. Do not design parking lots and structures to face streets or sidewalks at ground level. Use alternatives to surface parking lots to reduce the amount of land devoted to parking.	The public and employee parking for the Adjacent Property Full-Size Terminal Option would either be located adjacent to the replacement passenger terminal or use existing surface lots and structures at the Airport.
Policy 4.10: Require new development projects to provide adequate low-water landscaping.	As part of the design process, the Authority would incorporate low-water landscaping in appropriate locations.
Goal 13 Institutional Land Use	
Policy 13.1: Ensure that public facilities meet the needs of the community and effectively and equitably provide service.	The Adjacent Property Full-Size Terminal Option is a public facility that provides air transportation services to all residents in the most equitable and efficient manner possible.
Policy 13.2: Ensure that public facilities maintain compatibility with surrounding land uses and minimize negative effects on neighboring uses.	The Adjacent Property Full-Size Terminal Option would be located entirely on Airport property and would be compatible with adjacent land uses.

However, the Adjacent Property is subject to a PUC Section 21661.6 land use plan approved by the City of Burbank and to the Restated Adjacent Property Easement, both of which would need to be modified as part of the Adjacent Property Full-Size Terminal Option. Although this development option would require a PUC Section 21661.6 land use plan amendment (to allow terminal, ancillary development, ground access vehicle staging, and public and employee parking) and an amendment to the PD Zone No. 2004-170 (to allow for development of the Terminal Access Road and ground-access vehicle staging) implementation of this development option would be consistent with all other zoning designations in Burbank and Los Angeles.

This would be consistent because no changes in zoning would be required for the implementation of the Adjacent Property Full-Size Terminal Option. Therefore, this impact would be less than significant.

Mitigation Measure ADJ PROP FULL-LAND-2
No mitigation is warranted.

Cumulative Impacts

IMPACT ADJ PROP FULL-LAND-3: Cumulative Impacts Related to Division of an Established Community

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Because, as discussed above, the Adjacent Property Full-Size Terminal Option would have no significant effect on dividing any established community, any incremental effect in this regard would not be cumulatively considerable.

Mitigation Measure ADJ PROP FULL-LAND-3
No mitigation is warranted.

3.11.3.2 SOUTHWEST QUADRANT FULL-SIZE TERMINAL OPTION

Project Impacts

IMPACT SW QUAD FULL-LAND-1: Division of an Established Community

The Southwest Quadrant Full-Size Terminal Option would be implemented entirely on Airport property. Implementation of this development option would not physically divide an established community or affect the physical arrangement of the community because all development would occur on Airport property and would not change any land use patterns in the Airport vicinity. In the northeast quadrant where general aviation development would occur, adjacent land uses of industrial development, commercial development, and vacant land would be compatible. In the southeast quadrant, where the demolition of the existing passenger terminal and adjacent parking structure would occur, land uses would continue to be compatible with the adjacent land uses of commercial, Metrolink railroad tracks, surface parking lots, and offices. In the southwest quadrant where the replacement passenger terminal and associated facilities would be developed, the land uses of the Metrolink railroad tracks and industrial and commercial development north of Vanowen Street would be compatible. In the northwest quadrant, where air freighter facilities would be developed, the commercial land uses to the west would be compatible. The residential land uses north of Sherman Way also are considered to be compatible because the property where the air freighter facility would be developed is on Airport property that has been used for aviation-related purposes in the past. Thus, the Southwest Quadrant Full-Size Terminal Option would not change any land use or development patterns and impacts related to changes in land use would be less than significant.

Mitigation Measure SW QUAD FULL-LAND-1
No mitigation is warranted.

IMPACT SW QUAD FULL-LAND-2: Consistency with Existing Plans and Zoning

Because the Southwest Quadrant Full-Size Terminal Option would be implemented entirely on Airport property. This development option would be consistent with the land use compatibility policies set forth in the *California Airport Land Use Planning Handbook* and the Los Angeles County ALUP. In addition, as shown in **Table 3.11-2**, the Adjacent Property Full-Size Terminal Option would be consistent with the land use policies in the *Burbank2035 General Plan*.

However, the Adjacent Property is subject to a PUC Section 21661.6 land use plan approved by the City of Burbank and to the Restated Adjacent Property Easement, both of which would need to be modified as part of the Southwest Quadrant Full-Size Terminal Option. Although the Southwest Quadrant Full-Size Terminal Option would require a PUC Section 21661.6 land use plan amendment (to allow general aviation relocation, ancillary development, and vehicle storage) and an amendment to PD Zone Nos. 2004-169 and 2004-170 (to allow for vehicle storage in the northeast quadrant as well as modifications to the connections to the Regional Intermodal Transportation Center on the A-1 North Property), implementation of this development option would be consistent with all other zoning designations in Burbank and Los Angeles. This would be consistent because no changes in zoning would be required for the implementation of the Adjacent Property Full-Size Terminal Option. Therefore, this impact would be less than significant.

As for the portion of the northwest quadrant known as the C-1 Property, that would be developed for a replacement air freighter (FedEx/UPS) hangar and ramp, such use of that property is consistent with historical and current uses, and current zoning for Airport use. While the Authority and City disagree as to whether a PUC section 21661.6 plan is required for the relocation of air freighter facilities onto the C-1 Property, under this alternative, subject to a reservation of existing rights, the Authority will prepare a PUC Section 21661.6 land use plan application for an approximately 107,208 square foot[10] portion of the C-1 Property for relocated air freighter operations (e.g., FedEx/UPS) – including a hangar and associated vehicle parking – and GA hangars and operations. Although the Authority believes the land uses on the C-1 site are consistent with applicable land use regulations without the PUC 21661.6 plan approval, City approval of a PUC 21661.6 plan would further reinforce the consistency determination.

Mitigation Measure SW QUAD FULL-LAND-2
No mitigation is warranted.

10 Comprised of 61,700 square feet of new hangar and 45,508 square feet for associated tenant automobile parking to accommodate relocation of the FedEx and UPS operations. The existing aircraft ramp adjacent to the new improvements already provides for parking, loading and unloading of General Aviation aircraft for all classes of aircraft that use the airport, and would be used for parking, loading and unloading of FedEx and UPS aircraft. This existing ramp outside of the 107,208 square foot area would not be included in this PUC section 21661.6 application.

Table 3.11-2

Southwest Quadrant Full-Size Terminal Option and Applicable Land Use Policies from *Burbank 2035 General Plan*

City of Burbank 2035 Relevant Land Use Policies	Policy Compliance
Goal 1 Quality of Life	
Policy 1.3: Maintain and protect Burbank's residential neighborhoods by avoiding encroachment of incompatible land uses and public facilities.	The Southwest Quadrant Full-Size Terminal Option would occur entirely on Airport property and would not encroach on any adjacent land uses or public facilities.
Policy 1.8: Ensure that development in Burbank is consistent with the land use designations presented in the Land Use Plan and shown on the Land Use Diagram, including individual policies applicable to each land use designation.	The land use designation for the site where the Southwest Quadrant Full-Size Terminal Option would be constructed is "Airport", and is consistent with the land use designations presented in the Land Use Plan.
Goal 2 Sustainability	
Policy 2.1: Consider sustainability when making discretionary land use and transportation decisions, policies, regulations, and projects.	The Southwest Quadrant Full-Size Terminal Option would consider sustainability as part of the design process.
Policy 2.4: Provide public facilities and services in the most equitable and efficient manner possible.	The Southwest Quadrant Full-Size Terminal Option would be a public facility that provides air transportation services to all residents in the most equitable and efficient manner possible.
Policy 2.6: Design new buildings to minimize the consumption of energy, water, and other natural resources. Develop incentives to retrofit existing buildings for a net reduction in energy consumption, water consumption, and stormwater runoff.	The Southwest Quadrant Full-Size Terminal Option will be built in an efficient manner and minimize energy consumption, water consumption, and stormwater runoff.
Policy 2.7: Make and enforce land use policy in an equitable fashion to protect all people equally from adverse environmental effects.	The EIR for the proposed project analyzes potential adverse environmental effects to the Airport's surrounding community and in alignment with land use policy ensures equal protection to all residents.
Goal 3 Community Design and Character	

Table 3.11-2

Southwest Quadrant Full-Size Terminal Option and Applicable Land Use Policies from *Burbank 2035 General Plan* (cont.)

Policy 3.5: Ensure that architecture and site design are high quality, creative, complementary to Burbank's character, and compatible with surrounding development and public spaces.	Architecture and site design for the proposed project represent a reputable professional standard. The design would be intended to be in alignment with Burbank's character.
Policy 3.10: Preserve historic resources, buildings, and sites, including those owned by private parties and government agencies, including the City of Burbank. Alter such resources only as necessary to meet contemporary needs and in a manner that does not affect the historic integrity of the resource.	The Southwest Quadrant Full-Size Terminal Option would have the potential to affect two known historic resources (see **Section 3.6**). Measures have been identified to reduce this impact to a less-than-significant level.
Goal 4 Public Spaces and Complete Streets	
Policy 4.8: Locate parking lots and structures behind buildings or underground. Do not design parking lots and structures to face streets or sidewalks at ground level. Use alternatives to surface parking lots to reduce the amount of land devoted to parking.	The public and employee parking for the Southwest Quadrant Full-Size Terminal Option would either be located adjacent to the replacement passenger terminal or use existing surface lots and structures at the Airport.
Policy 4.10: Require new development projects to provide adequate low-water landscaping.	As part of the design process, the Authority would incorporate low-water landscaping in appropriate locations.
Goal 13 Institutional Land Use	
Policy 13.1: Ensure that public facilities meet the needs of the community and effectively and equitably provide service.	The Southwest Quadrant Full-Size Terminal Option is a public facility that provides air transportation services to all residents in the most equitable and efficient manner possible.
Policy 13.2: Ensure that public facilities maintain compatibility with surrounding land uses and minimize negative effects on neighboring uses.	The Southwest Quadrant Full-Size Terminal Option would be located entirely on Airport property and would be compatible with adjacent land uses.

Cumulative Impacts

IMPACT SW QUAD FULL-LAND-3: Cumulative Impacts Related to Division of an Established Community

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Because, as discussed above, the Southwest Quadrant Full-Size Terminal Option would have no significant effect on dividing any established community, any incremental effect in this regard would not be cumulatively considerable.

Mitigation Measure SW QUAD FULL-LAND-3

No mitigation is warranted.

3.11.3.3 SOUTHWEST QUADRANT SAME-SIZE TERMINAL OPTION

Project Impacts

IMPACT SW QUAD SAME-LAND-1: Division of an Established Community

The Southwest Quadrant Same-Size would be implemented entirely on Airport property. Implementation of this development option would not physically divide an established community or affect the physical arrangement of the community because all development would occur on Airport property and would not change any land use patterns in the Airport vicinity. In the southeast quadrant, where the demolition of the existing passenger terminal and adjacent parking structure would occur, land uses would continue to be compatible with the adjacent land uses of commercial, Metrolink railroad tracks, surface parking lots, and offices. In the southwest quadrant where the replacement passenger terminal and associated facilities would be developed, the land uses of the Metrolink railroad tracks and industrial and commercial development north of Vanowen Street would be compatible. In the northwest quadrant, where air freighter facilities would be developed, the commercial land uses to the west would be compatible. The residential land uses north of Sherman Way also are considered to be compatible because the property where the air freighter facility would be developed is on Airport property that has been used for aviation-related purposes in the past. Thus, the Southwest Quadrant Same-Size Terminal Option would not change any land use or development patterns and impacts related to changes in land use would be less than significant.

Mitigation Measure SW QUAD SAME-LAND-1

No mitigation is warranted.

IMPACT SW QUAD SAME-LAND-2: Consistency with Existing Plans and Zoning

The Southwest Quadrant Same-Size Terminal Option would be implemented entirely on Airport property. This development option would be consistent with the requirements set forth in the *California Airport Land Use Planning Handbook* and the Los Angeles County ALUP. In addition, as shown in **Table 3.11-3**, the Adjacent Property Full-Size Terminal Option would be consistent with the land use policies in the *Burbank2035 General Plan*.

Moreover, this development option would not be implemented on any property that is restricted by an existing PUC Section 21661.6 land use plan or that is part of a PD zone. In addition, this development option

Table 3.11-3

Southwest Quadrant Same-Size Terminal Option and Applicable Land Use Policies from *Burbank 2035 General Plan*

City of Burbank 2035 Relevant Land Use Policies	Policy Compliance
Goal 1 Quality of Life	
Policy 1.3: Maintain and protect Burbank's residential neighborhoods by avoiding encroachment of incompatible land uses and public facilities.	The Southwest Quadrant Same-Size Terminal Option would occur entirely on Airport property and would not encroach on any adjacent land uses or public facilities.
Policy 1.8: Ensure that development in Burbank is consistent with the land use designations presented in the Land Use Plan and shown on the Land Use Diagram, including individual policies applicable to each land use designation.	The land use designation for the site where the Southwest Quadrant Same-Size Terminal Option would be constructed is "Airport", and is consistent with the land use designations presented in the Land Use Plan.
Goal 2 Sustainability	
Policy 2.1: Consider sustainability when making discretionary land use and transportation decisions, policies, regulations, and projects.	The Southwest Quadrant Same-Size Terminal Option would consider sustainability as part of the design process.
Policy 2.4: Provide public facilities and services in the most equitable and efficient manner possible.	The Southwest Quadrant Same-Size Terminal Option would be a public facility that provides air transportation services to all residents in the most equitable and efficient manner possible.
Policy 2.6: Design new buildings to minimize the consumption of energy, water, and other natural resources. Develop incentives to retrofit existing buildings for a net reduction in energy consumption, water consumption, and stormwater runoff.	The Southwest Quadrant Same-Size Terminal Option will be built in an efficient manner and minimize energy consumption, water consumption, and stormwater runoff.
Policy 2.7: Make and enforce land use policy in an equitable fashion to protect all people equally from adverse environmental effects.	The EIR for the proposed project analyzes potential adverse environmental effects to the Airport's surrounding community and in alignment with land use policy ensures equal protection to all residents.
Goal 3 Community Design and Character	

Table 3.11-3

Southwest Quadrant Same-Size Terminal Option and Applicable Land Use Policies from *Burbank 2035 General Plan* (cont.)

Policy 3.5: Ensure that architecture and site design are high quality, creative, complementary to Burbank's character, and compatible with surrounding development and public spaces.	Architecture and site design for the proposed project represent a reputable professional standard. The design would be intended to be in alignment with Burbank's character.
Policy 3.10: Preserve historic resources, buildings, and sites, including those owned by private parties and government agencies, including the City of Burbank. Alter such resources only as necessary to meet contemporary needs and in a manner that does not affect the historic integrity of the resource.	The Southwest Quadrant Same-Size Terminal Option would have the potential to affect two known historic resources (see **Section 3.6**). Measures have been identified to reduce this impact to a less-than-significant level.
Goal 4 Public Spaces and Complete Streets	
Policy 4.8: Locate parking lots and structures behind buildings or underground. Do not design parking lots and structures to face streets or sidewalks at ground level. Use alternatives to surface parking lots to reduce the amount of land devoted to parking.	The public and employee parking for the Southwest Quadrant Same-Size Terminal Option would either be located adjacent to the replacement passenger terminal or use existing surface lots and structures at the Airport.
Policy 4.10: Require new development projects to provide adequate low-water landscaping.	As part of the design process, the Authority would incorporate low-water landscaping in appropriate locations.
Goal 13 Institutional Land Use	
Policy 13.1: Ensure that public facilities meet the needs of the community and effectively and equitably provide service.	The Southwest Quadrant Same-Size Terminal Option is a public facility that provides air transportation services to all residents in the most equitable and efficient manner possible.
Policy 13.2: Ensure that public facilities maintain compatibility with surrounding land uses and minimize negative effects on neighboring uses.	The Southwest Quadrant Same-Size Terminal Option would be located entirely on Airport property and would be compatible with adjacent land uses.

would be consistent with all other zoning designations in Burbank and Los Angeles. This would be consistent because no changes in zoning would be required for the implementation of the Southwest Quadrant Same-Size Terminal Option. Therefore, this impact would be less than significant.

As for the portion of the northwest quadrant known as the C-1 Property, that would be developed for a replacement air freighter (FedEx/UPS) hangar and ramp, such use of that property is consistent with historical and current uses, and current zoning for Airport use. The Authority and City disagree as to whether the PUC Section 21661.6 land use plan requirement applies to the C-1 Property. It is contemplated that under this alternative, which would be pursued only if the City/Measure B voters do not approve the Adjacent Property Full-Size Terminal Option and the Southwest Quadrant Full-Size Terminal Option, that the Authority and City would preserve their existing legal positions and that this difference of opinion would potentially be adjudicated if not otherwise resolved by the Authority and City. Nonetheless, the Authority concludes that the Southwest Quadrant Same Size Terminal Option does not and would not result in any significant environmental impacts with respect to consistency with existing plans and zoning.

Mitigation Measure SW QUAD SAME-LAND-2
No mitigation is warranted.

Cumulative Impacts

IMPACT SW QUAD SAME-LAND-3: Cumulative Impacts Related to Division of an Established Community

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Because, as discussed above, the Southwest Quadrant Same-Size Terminal Option would have no significant effect on dividing any established community, any incremental effect in this regard would not be cumulatively considerable.

Mitigation Measure SW QUAD SAME-LAND-3
No mitigation is warranted.

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3.12 MINERAL RESOURCES

3.12.1 Background and Methodology

The purpose of this section is to determine whether implementation of the proposed project would result in significant environmental impacts on mineral resources.

3.12.1.1 Regulatory Context

The California Environmental Quality Act (CEQA) requires that project sponsors evaluate the project's potential to affect mineral resources, including metals, industrial materials (aggregate, sand, and gravel), oil and gas, and geothermal resources that could be of value to the region.

The Surface Mining and Reclamation Act of 1975 (SMARA) requires the California Department of Conservation's State Mining and Geology Board to map areas throughout the state that contain regionally significant mineral resources. The primary objective of SMARA is to ensure local jurisdictions develop policies that support the conservation of important mineral resources, where feasible, that might otherwise be unavailable when needed. Once these policies are adopted, SMARA requires that local agencies make land use decisions in accordance with their mineral resource management policies. These decisions must also balance the value of the mineral resource to the market region as a whole, not just its importance to the local jurisdiction.

In accordance with SMARA, the state established the California Mineral Land Classification System to help identify and protect mineral resources in areas that are subject to urban expansion or other irreversible land uses that would preclude mineral extraction. Many areas of the state have been mapped using this classification system, which provides guidance for identifying Mineral Resource Zones (MRZs) based on these four general categories:

- <u>MRZ-1</u>. Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- <u>MRZ-2</u>. Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence.
- <u>MRZ-3</u>. Areas containing mineral deposits, the significance of which cannot be evaluated.
- <u>MRZ-4</u>. Areas where available information is inadequate for assignment to any other zone.

3.12.1.2 Significance Thresholds

For purposes of this analysis, implementation of the proposed project would cause a significant impact related to mineral resources if it resulted in:

- MINERAL-1: The loss of availability of a known mineral resource that would be of value to the region and the residents of the state; or
- MINERAL-2: The loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.
- MINERAL-3: A substantial contribution to cumulative impacts on mineral resources.

3.12.1.3 Methodologies

Impacts related to mineral resources were evaluated by identifying the locations of potentially valuable metals, industrial minerals (aggregate, sand, and gravel), oil and gas, and geothermal resources within the project vicinity. To identify potential areas of locally or regionally valuable mineral resources, this analysis relied on the following; the California Mineral Land Classification System's MRZ maps; the California Department of Conservation, Division of Oil, Gas & Geothermal Resources' Well Finder research tool; and the Office of Mine Reclamation's Mines List.

3.12.2 Existing Conditions / Environmental Setting

3.12.2.1 Mineral Resources

As shown in **Figure 3.12-1**, Burbank is located atop an area classified by the State Mining and Geology Board as MRZ-2, which indicates that mineral resources may be present. Because this entire area is urbanized, further classification of the MRZ-2 area cannot be performed. Although significant mineral resources could be located within the MRZ-2 area, mining would not be feasible.[1] Title 10-1-501 on Zoning Regulations within the Burbank Municipal Code states, "unless otherwise provided, uses not authorized shall not be carried on where not authorized, except as lawful conforming uses."[2] Therefore, without legal authorization from the City of Burbank, mineral extraction cannot be considered feasible in an Airport Zone or Manufacturing Zone.

Figure 3.12-2 identifies oil and gas wells in the Airport vicinity. Completely black dots represent buried or active oil and gas wells, while dots that are half black and half white represent plugged oil and gas wells. The closest active oil and gas well to the Airport is approximately 1.25 miles to the southwest, down-gradient of the Airport.

Figure 3.12-3 shows the open and closed mines in the Airport vicinity identified by the California Department of Conservation's Office of Mine Reclamation. The closest mine to the Airport is approximately 2.5 miles to the northwest. According to the California Department of Conservation, Division of Oil, Gas & Geothermal Resources Well Records this mine is closed, and the operator has no intent of resuming operations.

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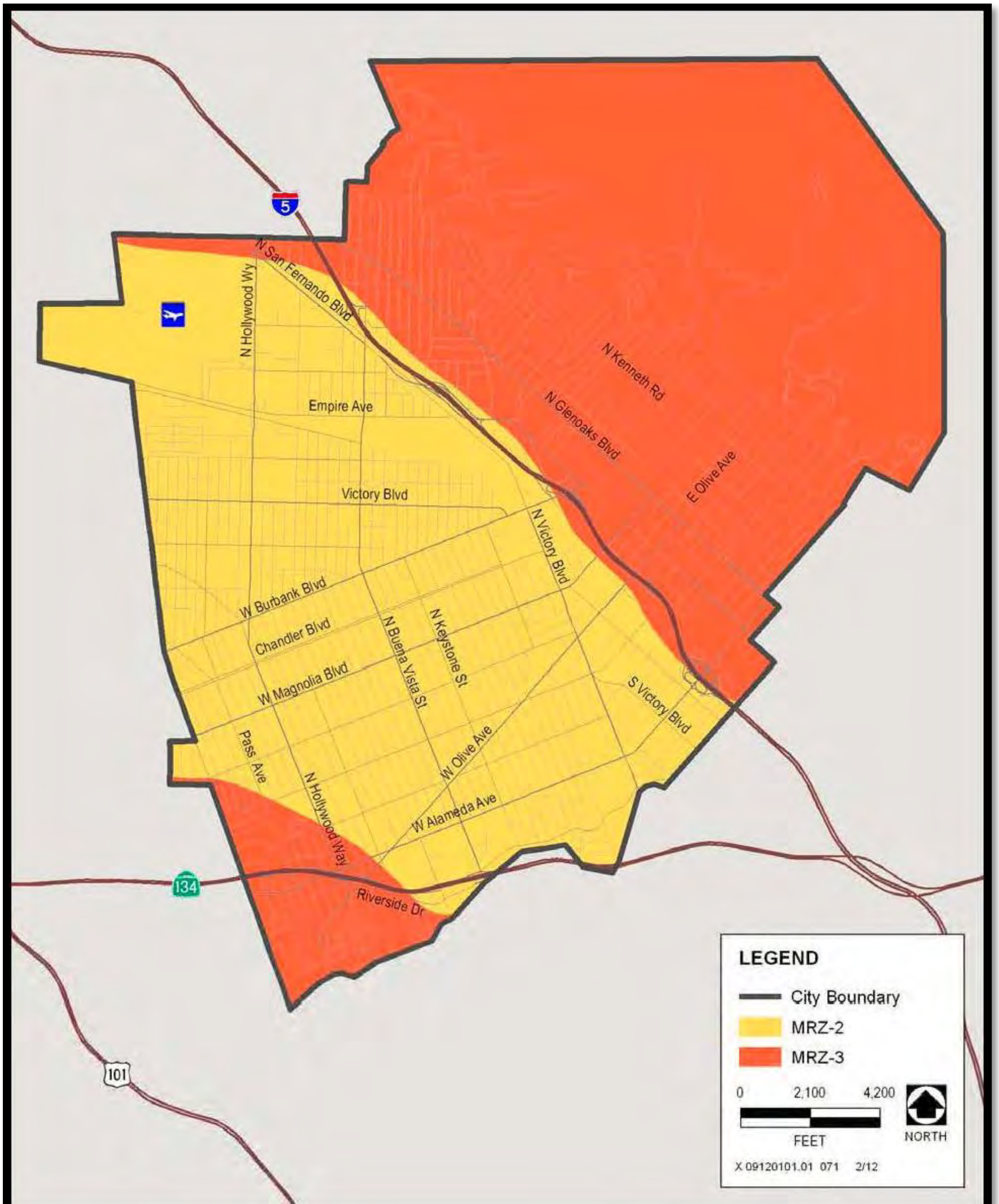
1 City of Burbank, *Burbank2035 General Plan.* Adopted on February 19, 2013. Accessed on January 22, 2016. http://www.burbankca.gov/home/showdocument?id=23448.

2 Burbank Municipal Code, Title 10 Zoning Regulations – 10-1-501. Adopted on January 26, 2016. Accessed on March 7, 2016. http://www.codepublishing.com/CA/Burbank/.

Figure 3.12-1
Mineral Resources in Burbank, California



Source: City of Burbank, Burbank2035 General Plan, 2013.
Prepared By RS&H, 2016.

Figure 3.12-2
Oil and Gas Wells in the Airport Vicinity

Source: California Department of Conservation, Division of Oil, Gas & Geothermal Resources Well Finder, 2016.
Prepared By: RS&H, 2016.

Figure 3.12-3
Mine Sites in the Airport Vicinity

Source: California Department of Conservation, The Office of Mine Reclamation – Mines List, 2016.
Prepared By: RS&H, 2016.

3.12.3 Environmental Impacts and Mitigation Measures

3.12.3.1 ADJACENT PROPERTY FULL-SIZE TERMINAL OPTION

Project Impacts

IMPACT ADJ PROP FULL-MINERAL-1: Impacts on Mineral Resources

The Airport is located in an urban area where mining would not permitted. Therefore, implementation of the Adjacent Property Full-Size Terminal Option would have no effect on mineral resources, including metals, industrial minerals (aggregate, sand, and gravel), oil and gas, or geothermal resources as mineral extraction is not permitted in an Airport Zone.

Mitigation Measure ADJ PROP FULL-MINERAL-1

No mitigation is warranted.

IMPACT ADJ PROP FULL-MINERAL-2: Impacts on Mineral Resource Recovery Site

No mineral resource recovery sites exist at the Airport or in the immediate Airport vicinity. Therefore, implementation of the Adjacent Property Full-Size Terminal Option would have no effect on any mineral resource recovery site.

Mitigation Measure ADJ PROP FULL-MINERAL-2

No mitigation is warranted.

Cumulative Impacts

IMPACT ADJ PROP FULL-MINERAL-3: Cumulative Impacts on Mineral Resources

The other projects in the vicinity of the Airport are presented in **Section 3.1**. If potential MRZ-2 mineral resources are identified and are available from other regional sources, the unavailability of mineral resources from the Airport would not result in a cumulative impact.

Mitigation Measure ADJ PROP FULL-MINERAL-3

No mitigation is warranted.

3.12.3.2 SOUTHWEST QUADRANT FULL-SIZE TERMINAL OPTION

Project Impacts

IMPACT SW QUAD FULL-MINERAL-1: Impacts on Mineral Resources

The Airport is located in an urban area where mining would not permitted. Therefore, implementation of the Southwest Quadrant Full-Size Terminal Option would have no effect on mineral resources, including metals, industrial minerals (aggregate, sand, and gravel), oil and gas, or geothermal resources.

Mitigation Measure SW QUAD FULL-MINERAL-1

No mitigation is warranted.

IMPACT SW QUAD FULL-MINERAL-2: Impacts on Mineral Resource Recovery Site

No mineral resource recovery sites exist at the Airport or in the immediate Airport vicinity. Therefore, implementation of the Southwest Quadrant Full-Size Terminal Option would have no effect on any mineral resource recovery site.

Mitigation Measure SW QUAD FULL-MINERAL-2

No mitigation is warranted.

Cumulative Impacts

IMPACT SW QUAD FULL-MINERAL-3: Cumulative Impacts on Mineral Resources

The other projects in the vicinity of the Airport are presented in **Section 3.1**. If potential MRZ-2 mineral resources are identified and are available from other regional sources, the unavailability of mineral resources from the Airport would not result in a cumulative impact.

Mitigation Measure SW QUAD FULL-MINERAL-3

No mitigation is warranted.

3.12.3.3 SOUTHWEST QUADRANT SAME-SIZE TERMINAL OPTION

IMPACT SW QUAD SAME-MINERAL-1: Impacts on Mineral Resources

The Airport is located in an urban area where mining would not permitted. Therefore, implementation of the Southwest Quadrant Same-Size Terminal Option would have no effect on mineral resources, including metals, industrial minerals (aggregate, sand, and gravel), oil and gas, or geothermal resources.

Mitigation Measure SW QUAD SAME-MINERAL-1

No mitigation is warranted.

IMPACT SW QUAD SAME-MINERAL-2: Impacts on Mineral Resource Recovery Site

No mineral resource recovery sites exist at the Airport or in the immediate Airport vicinity. Therefore, implementation of the Southwest Quadrant Full-Size Terminal Option would have no effect on any mineral resource recovery site.

Mitigation Measure SW QUAD SAME-MINERAL-2

No mitigation is warranted.

Cumulative Impacts

IMPACT SW QUAD SAME-MINERAL-3: Cumulative Impacts on Mineral Resources

The other projects in the vicinity of the Airport are presented in **Section 3.1**. If potential MRZ-2 mineral resources are identified and are available from other regional sources, the unavailability of mineral resources from the Airport would not result in a cumulative impact.

Mitigation Measure SW QUAD SAME-MINERAL-3

No mitigation is warranted.

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3.13 NOISE

The purpose of this section is to determine whether implementation of the proposed project will result in significant noise impacts in the Airport vicinity as a result of operational noise, temporary construction-related noise, or ground born vibration. The following analysis describes the background and methodology of assessing noise impacts, the existing noise environment, and the effects of implementing the alternatives under consideration.

The proposed project consists of the development of a replacement passenger terminal. The proposed project would replace the existing 14-gate passenger terminal with a replacement 14-gate passenger terminal, which would cause no changes to the number of enplanements or aircraft operations at the Airport. Indeed, the forecasted number of enplanements and aircraft operations in 2025 would be less than the peak number of enplanements and aircraft operations that occurred in the 2007 – 2008 timeframe.

Under the assumption that the proposed project would be opened under existing conditions (2015), the CNEL noise contours associated with a replacement passenger terminal would be the same as those under existing conditions. As such, this assumption does not take into account the increase in enplanements and aircraft operations that are anticipated to occur over the next ten years whether a replacement passenger terminal is constructed or not. A comparison to noise levels under existing conditions is not meaningful and is likely to be misleading because it is a scenario that cannot occur given the construction schedule, FAA approval, and funding associated with the development of a replacement passenger terminal. Nonetheless, an analysis of this assumption is included for disclosure purposes.

Given the above and as discussed in **Section 3.1**, the Authority concluded that the appropriate basis for determining project-level impacts is the comparison of the 2025 no project scenario with the 2025 three development options, rather than the existing condition plus project assumption described above. Using the 2025 no project scenario comparison with the 2025 three development options, the section concludes that there would not be a significant noise impact. This is because a comparison of the projected 65 CNEL noise contour from the three development options in 2025 shows no change from that of the 2025 no project scenario. It should also be noted that the majority of the increase in enplanements and aircraft operations is projected to occur in the time period between 2016 and the opening and operation of the replacement passenger terminal. Thus, most of the growth forecasted would occur while the existing passenger terminal is in operation.

The projected increase in the CNEL 65 contour from 2015 to 2025, which would occur whether a replacement passenger terminal is constructed or not, would be approximately 0.4 square miles (254 acres) of land. This 254 acres are located within the area that was previously within the Airport's historic CNEL 65 contour, homes within it have been or will be eligible to participate in the Airport's acoustical treatment program, and most homes within this additional acreage have already been acoustically treated.

3.13.1 Background and Methodology

With the exception of retaining the existing passenger terminal, all development options considered in this EIR would result in aircraft taxi pattern changes. Since none of the development options considered as part of this EIR would result in additional passenger or operational activity in excess of the forecast increase in passengers and operations for the existing passenger terminal, the noise analysis in this section focuses on potential noise impacts resulting from taxi pattern changes and the potential effects of construction noise and vibration on the closest noise sensitive receptors.[1]

3.13.1.1 Regulatory Context

FEDERAL

Federal Transportation Administration

The Federal Transit Authority (FTA) has developed vibration criteria based on building use. These criteria, shown in **Table 3.13-1**, are based on vibration levels expressed in VdB. Since construction activities would be temporary, but could occur on a daily basis over the duration of project implementation the threshold of significance would be 72 VdB for frequent events and 80 VdB for infrequent events.[2] The loudest piece of equipment, which would be an impact pile driver, would be considered an infrequent event.

Table 3.13-1

Federal Vibration Thresholds of Significance for Land Use

Land Use Category	Vibration Impact Level for Frequent Events (VdB)	Vibration Impact Level for Infrequent Events (VdB)
Category 1: Buildings where low ambient vibration is essential for interior operations	65	65
Category 2: Residences and buildings where people normally sleep	72	80
Category 3: Institutional land uses with primarily daytime use	75	83

Source: Federal Transit Authority, 2006.
Prepared by RS&H, 2016.

STATE

California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires that the lead agency evaluate the project's potential to result in significant noise impacts. This requirement applies to all types of project-related noise. Noise regulation of aircraft and aircraft activity is pre-empted by federal law and, therefore, State and local laws do not directly regulate aircraft noise. Notwithstanding the issue of preemption, this document discusses noise regulations imposed by State and local laws.

California Department of Transportation

The State regulates airport noise standards, unless otherwise preempted. California's State Aeronautics Act, at Division 9, titled "Regulation of Airports," provides in part that "The department [of Transportation] shall

1 A noise-sensitive receptor is defined as a location where noise can interrupt on-going activities which can result in community annoyance especially in residential areas.

2 Federal Transit Authority, 2006.

adopt noise standards governing the operation of aircraft and aircraft engines for airports operating under a valid permit issued by the department to the extent not prohibited by federal law. The standard shall be based upon the level of noise acceptable to a reasonable person residing in the vicinity of the airport."[3] In turn, the California Department of Transportation (Caltrans) Division of Aeronautics, has adopted Noise Standards at Title 21 California Code of Regulations (CCR), § 5000 et seq. Those "regulations establish to the extent not prohibited by Federal law a mandatory procedure which is applicable to all airports in California that are required to operate under a valid permit issued by the department. These regulations are applicable (to the extent not prohibited by Federal law) to all operations of aircraft and aircraft engines which produce noise."[4] The Noise Standards mandate the use of CNEL as the required noise metric, which is also accepted by the FAA for airport noise studies in California.[5] The Noise Standards set the airport noise standard at 65 CNEL, and require airports designated as "noise problem" airports such as the Airport to undertake certain reporting requirements. The regulations also state that "No airport proprietor of a noise problem airport shall operate an airport with a noise impact area based on the standard of 65 dB CNEL unless the operator has applied for or received a variance as prescribed in Article 5 of this subchapter."[6] The "Noise Impact Area" in turn is defined as "the area within the noise impact boundary [65 CNEL] that is composed of incompatible land use," and incompatible land uses, such as dwellings or schools (with certain exceptions such as if they are acoustically treated to an interior CNEL of 45 dB or less or are subject to an avigation easement) are described in the Noise Standards.[7] The Airport as of late 2015 has a small, approximately 6-acre Noise Impact Area, and has applied for and received a variance from the state.[8]

The California Department of Transportation has developed the Transportation and Construction Vibration Guidance Manual, which contains State thresholds of significance for vibration. Vibration is measured using peak particle velocity, or PPV in inches per second, which helps determine the effect vibration can have on structures. Sources of ground-borne vibration can be broken into two categories, transient sources and continuous sources. Continuous sources of vibration include traffic, vibratory compaction, and other types of activities that occur continuously. Transient sources of vibration are those that occur on a pronounced or single-event bases such as rock blasting or impact pile driving. Each type of vibration has a Caltrans threshold of significance associated with it. **Table 3.13-2** presents the Caltrans thresholds of significance associated with both types of vibration. Since construction activities associated with the proposed project would result in transient vibration, but would not include the introduction of new sources of continuous vibration sources, transient vibration resulting from construction activities is the only type of project related vibration analyzed in this EIR.

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3 Cal. Public Utilities Code § 21669.

4 21 CCR § 5005.

5 Federal Aviation Administration, Order 5050.4B, National Environmental Policy Act (NEPA) Implementing Instructions for Airport Projects. Ch.1(9)(n). Effective April 28, 2006.

6 21 CCR § 5012.

7 21 CCR § 5001(k), 5014.

8 Some of the dwellings in the current Noise Impact Area have been offered, but refused, acoustical treatment. Under the California Noise Standards, land can be deemed compatible by CalTrans if the airport proprietor has made a genuine effort to acoustically treat certain homes but the homeowner has refused. 21 CCR § 5014(a)(4). 21 CCR §§ 5001(k), 5012, 5050 et seq..

Table 3.13-2
Caltrans Structural Vibration Thresholds of Significance

	Transient Source	Continuous Source
Extremely fragile historic buildings, ruins, ancient monuments	0.12 PPV	0.08 PPV
Fragile buildings	0.2 PPV	0.1 PPV
Historic and Some Old Buildings	0.5 PPV	0.25 PPV
Older Residential Buildings	0.5 PPV	0.3 PPV
New Residential Buildings	1 PPV	0.5 PPV
Modern Industrial/Commercial Buildings	2 PPV	0.5 PPV

Source: Caltrans, 2013.
Prepared by: RS&H, 2016.

LOCAL

City of Los Angeles General Plan

The City of Los Angeles Department of City Planning has developed a Noise Element of the City of Los Angeles General Plan.[9] The Noise Element analyzes noise sources and measurement standards in an effort to guide determination of appropriate land uses in comparison with existing or anticipated ambient noise levels.[10] The CNEL standard is used to determine guidelines for whether new construction or development in a particular land use category will be acceptable. CNEL guidelines for specific land uses are classified into (1) normally acceptable, (2) conditionally acceptable, (3) normally unacceptable, and (4) clearly unacceptable.[11] The CNEL guidelines are consistent with the standards promulgated by the California Department of Health Services (see **Figure 3.13-1**).[12] A CNEL value of 65 dB is the upper limit of what is considered a "normally acceptable" noise environment for multi-family residential uses, although a CNEL up to 70 dB is considered "conditionally acceptable". A CNEL value of 60 dB is the upper limit of what is considered "normally acceptable" for single-family residential uses, and a CNEL range of 55 dB to 65 dB is considered "conditionally acceptable" for single-family residential uses (see **Figure 3.13-2**).[13]

9 Noise Element of the Los Angeles City General Plan. Adopted February 3, 1999. File No. 96-1357.

10 Noise Element of the Los Angeles City General Plan, at I-1.

11 "Normally Acceptable" means that a specified land use is satisfactory based upon the assumption that buildings involved are of normal conventional construction without special noise insulation requirements. "Conditionally Acceptable" means that new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. "Normally Unacceptable" means that new construction or development should generally be discouraged, and a detailed noise analysis must be made if new construction or development proceeds. "Clearly Unacceptable" means new construction or development should generally not be undertaken. Noise Element of the Los Angeles City General Plan, at I-I.

12 Noise Element of the Los Angeles City General Plan, at 4-5. *See* California Department of Health Services, Guidelines for the Preparation and Content of the Noise Element of the General Plan, 1999, Appendix C, pp. 244-254.

13 California Department of Health Services, Guidelines for the Preparation and Content of the Noise Element of the General Plan, 1999, Appendix C, at 250.

Figure 3.13-1

California Department of Health Services General Plan Guidelines

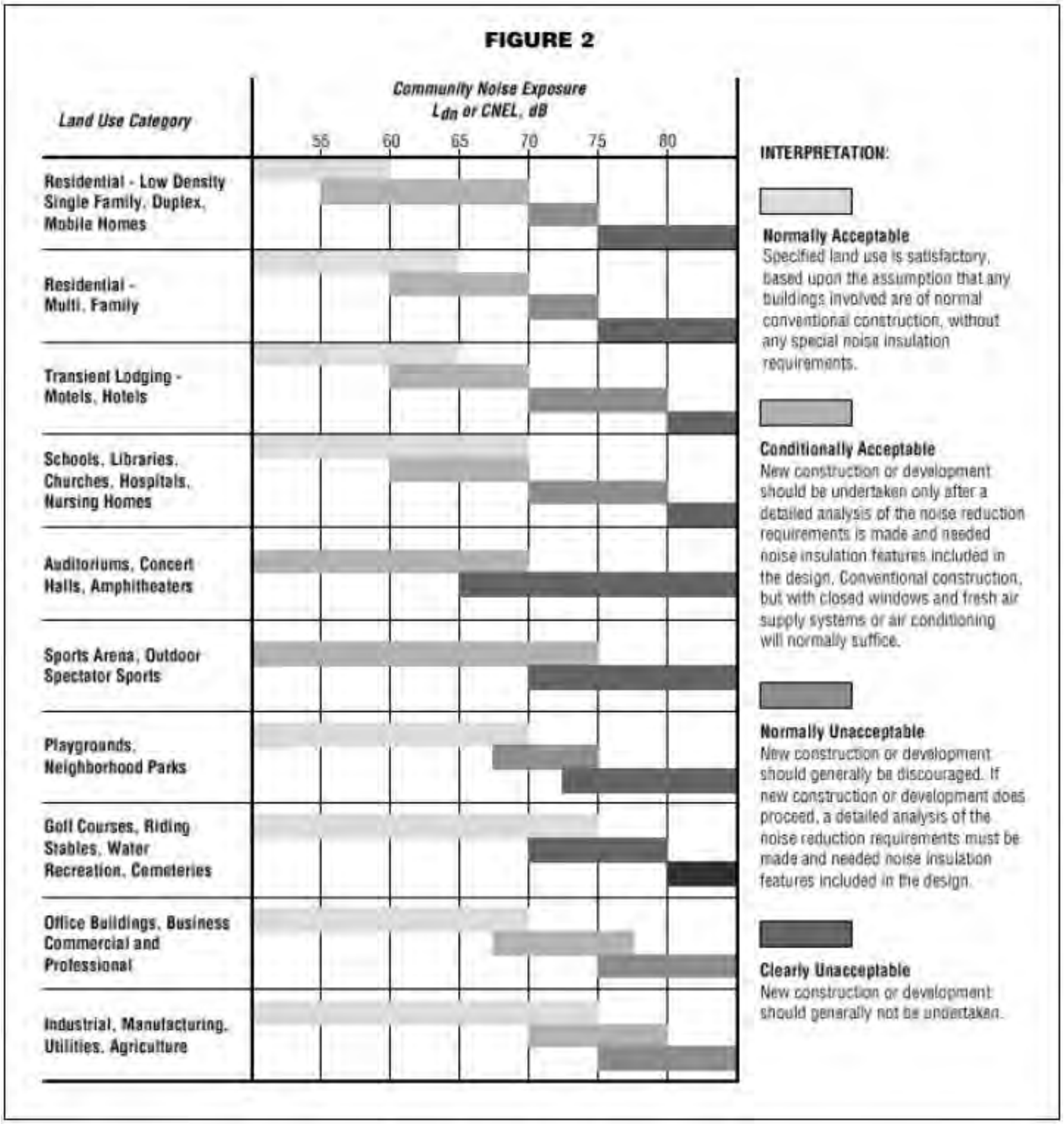

Figure 3.13-2

City of Los Angeles General Plan Noise Element, Exhibit I

Exhibit I: Guidelines for Noise Compatible Land Use

(Based on the Governor's Office of Planning and Research, "General Plan Guidelines", 1990. To help guide determination of appropriate land use and mitigation measures vis-a-vis existing or anticipated ambient noise levels)

Land Use Category	Day-Night Average Exterior Sound Level (CNEL dB)						
	50	55	60	65	70	75	80
Residential Single Family, Duplex, Mobile Home	A	C	C	C	N	U	U
Residential Multi-Family	A	A	C	C	N	U	U
Transient Lodging, Motel, Hotel	A	A	C	C	N	U	U
School, Library, Church, Hospital, Nursing Home	A	A	C	C	N	N	U
Auditorium, Concert Hall, Ampitheater	C	C	C	C/N	U	U	U
Sports Arena, Outdoor Spectator Sports	C	C	C	C	C/U	U	U
Playground, Neighborhood Park	A	A	A	A/N	N	N/U	U
Golf Course, Riding Stable, Water Recreation, Cemetery	A	A	A	A	N	A/N	U
Office Building, Business, Commercial, Professional	A	A	A	A/C	C	C/N	N
Agriculture, Industrial, Manufacturing, Utilities	A	A	A	A	A/C	C/N	N

A = Normally acceptable. Specified land use is satisfactory, based upon assumption buildings involved are conventional construction, without any special noise insulation.

C = Conditionally acceptable. New construction or development only after a detailed analysis of noise mitigation is made and needed noise insulation features are included in project design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning normally will suffice.

N = Normally unacceptable. New construction or development generally should be discouraged. A detailed analysis of noise reduction requirements must be made and noise insulation features included in the design of a project.

U = Clearly unacceptable. New construction or development generally should not be undertaken.

I-1

City of Los Angeles CEQA Thresholds of Significance

In addition to the regulations adopted in the City of Los Angeles General Plan, the City of Los Angeles published the *L.A. CEQA Thresholds Guide* in 2006 to aid in the development of noise impacts analyses prepared pursuant to CEQA. Section I.4 of the *L.A. CEQA Thresholds Guide* discusses airport noise. The *L.A. CEQA Thresholds Guide* states that a significant impact on ambient noise levels would normally occur if noise levels at a noise sensitive use[14] attributable to airport operations exceed 65 dB CNEL and the project increases ambient noise levels by 1.5 dB CNEL or greater.[15]

CITY OF BURBANK

City of Burbank General Plan Noise Element

The City of Burbank Noise Element in its 2035 General Plan establishes goals and policies that minimize the effects of noise in the community.[16] The City of Burbank 2035 General Plan's Noise Element considers major noise sources from transportation sources – including highways and freeways, primary arteries and major local streets, aircraft and airports – as well as local industrial facilities and other stationary sources.[17] Noise output from these sources is evaluated against land use compatibility standards for ambient noise levels that have been developed based on recommended parameters from the California Governor's Office of Planning and Research.[18] The Noise Element employs the CNEL and Ldn (Day-Night Noise Level[19]) metrics to calculate one set of land use compatibility standards which apply to land uses exposed to noise levels generated by transportation sources (e.g. traffic, railroad operations, aircraft), on the one hand, and another set of land use compatibility standards which apply to land uses exposed to noise levels generated by stationary sources, on the other hand.[20]

The City of Burbank 2035 General Plan's Noise Element sets forth in Table N-3 (appearing on page 5-8) the compatibility ratings which apply to noise levels generated by transportation sources (see **Table 3.13-3**). Application of the compatibility ratings setting forth maximum allowable noise exposure from transportation sources "will vary on a case-by-case basis according to location, development type, and associated noise sources."[21] The compatibility ratings employed for exterior noise levels generated by

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14 Noise sensitive uses include residences, transient lodgings, schools, libraries, churches, hospitals, nursing homes, auditoriums, concert halls, amphitheaters, playgrounds, and parks. City of Los Angeles, L.A. CEQA Thresholds Guide, 2006, at Page I.1-3.

15 City of Los Angeles, L.A. CEQA Thresholds Guide, 2006, at Page I.4-5.

16 City of Burbank 2035 General Plan, Adopted February 19, 2013, Chapter 5, at 5-2.

17 City of Burbank 2035 General Plan at 5-2.

18 City of Burbank 2035 General Plan at 5-7.

19 Ldn, or Day-Night Noise Level, is defined as the 24-hour average sound level, adjusted to include a 10-dB penalty applied during nighttime hours from 10:00 p.m. to 7:00 a.m. Ldn differs from CNEL in the following respect: CNEL imposes an additional 5-dB penalty during evening hours from 7:00 p.m. to 10:00 p.m. CNEL is typically 0.5 dB higher than Ldn when calculated from the same noise data over a 24-hour period. Burbank 2035 General Plan, at 5-6, 5-7

20 City of Burbank 2035 General Plan at 5-7, 5-9.

21 City of Burbank 2035 General Plan at 5-7.

Table 3.13-3

City of Burbank Table N-3

Table N-3

Maximum Allowable Noise Exposure—Transportation Sources

Land Use Category	Exterior Normally Acceptable[1] (dBA CNEL/L_{dn})	Exterior Possibly Acceptable[2] (dBA CNEL/L_{dn})	Exterior Normally Unacceptable[3] (dBA CNEL/L_{dn})	Interior Acceptable[4] (dBA CNEL/L_{dn} except where noted)
Residential, single-family	Up to 60	61-70	71 and higher	45
Residential, multi-family	Up to 65	66-70	71 and higher	45
Residential, multi-family mixed-use	Up to 65	66-70	71 and higher	45
Transient lodging	Up to 65	66-70	71 and higher	45
Hospitals; nursing homes	Up to 60	61-70	71 and higher	45
Theaters; auditoriums; music halls	Up to 60	61-70	71 and higher	35 dBA L_{eq}[5]
Churches; meeting halls	Up to 60	61-70	71 and higher	40 dBA L_{eq}
Playgrounds; neighborhood parks	Up to 70	71-75	75 and higher	--
Schools; libraries; museums[6]	--	--	--	45 dBA L_{eq}
Offices[7]	--	--	--	45 dBA L_{eq}
Retail/commercial[7]	--	--	--	--
Industrial	--	--	--	--

Notes:

1 Normally acceptable means that land uses may be established in areas with the stated ambient noise level, absent any unique noise circumstances.

2 Possibly acceptable means that land uses should be established in areas with the stated ambient noise level only when exterior areas are omitted from the project or noise levels in exterior areas can be mitigated to the normally acceptable level.

3 Normally unacceptable means that land uses should generally not be established in areas with the stated ambient noise level. If the benefits of the project in addressing other Burbank2035 goals and policies outweigh concerns about noise, the use should be established only where exterior areas are omitted from the project or where exterior areas are located and shielded from noise sources to mitigate noise to the maximum extent feasible.

4 Interior acceptable means that the building must be constructed so that interior noise levels do not exceed the stated maximum, regardless of the exterior noise level. Stated maximums are as determined for a typical worst-case hour during periods of use.

5 dBA L_{eq} is as determine for a typical worst-case hour during periods of use.

6 Within the Airport Influence Area, these uses are not acceptable above 65 dBA CNEL if subject to the City's discretionary review procedures.

7 Within the Airport Influence Area, these uses may be acceptable up to 75 dBA CNEL following review for additional noise attenuation; in excess of 75 dBA CNEL these uses are not acceptable.

transportation sources are: (1) normally acceptable, (2) possibly acceptable, and (3) normally unacceptable.[22] Noise exposure limits for sensitive land use designations, such as single-family residential, nursing homes, and hospitals, are generally established as 60 dB CNEL/Ldn.[23] Exterior noise levels in the range of 61-70 dB CNEL/Ldn are possibly acceptable for residential, single-family land use zones.[24] Higher exterior noise levels of 65 dB CNEL/Ldn are normally acceptable for multifamily and mixed use housing zones, and exterior noise levels of 66-70 dB CNEL/Ldn are possibly acceptable in such zones.[25]

In contrast to the compatibility ratings for exterior noise levels generated by transportation sources, the compatibility of the interior noise levels generated by transportation sources is only rated either acceptable or unacceptable.[26] The Noise Element provides that buildings for single-family, multi-family, and multi-family mixed-use land use must be constructed so that interior noise levels do not exceed a stated maximum of 45 dB CNEL/Ldn[27], and 45 dBCNEL/Ldn is the standard acceptable interior noise level for dwellings and schools.[28] For offices and retail or commercial buildings, interior noise levels of up to 75 dB CNEL/Ldn are acceptable within the Airport Influence Area (the Airport Influence Area is consistent with the airport's noise contour and is also shown in Exhibit N-3 to the Noise Element of the City of Burbank 2035 General Plan).[29]

The City of Burbank 2035 General Plan's Noise Element sets forth the compatibility ratings which apply to noise levels generated by stationary sources in Table N-4, on page 5-9 (see **Table 3.13-4**). Only exterior noise levels are considered. The maximum allowable noise exposure resulting from any noise sources during the daytime is 75 dBA Lmax (Lmax stands for maximum noise level, or the highest noise level occurring during a specified period of time) and during nighttime is 65 dBA Lmax.[30]

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22 "Normally Acceptable" means that land uses may be established in areas with the stated ambient noise level, absent any unique noise circumstances. "Possibly acceptable" means that land uses should be established in areas with the stated ambient noise level only when exterior areas are omitted from the project or noise levels in exterior areas can be mitigated to the normally acceptable level. "Normally unacceptable" means that land uses should generally not be established in areas with the stated ambient noise level, and mitigation of noise to the maximum extent feasible is required if the benefits of the project in addressing other goals and policies of the City outweigh concerns about noise. Burbank 2035 General Plan, at 5-8, Table N-3.

23 City of Burbank 2035 General Plan, at 5-7.

24 City of Burbank 2035 General Plan, at 5-8.

25 City of Burbank 2035 General Plan, at 5-8.

26 City of Burbank 2035 General Plan, at 5-8.

27 Table N-3 defines "Interior Acceptable" to mean that the "building must be constructed so that interior noise levels do not exceed the stated maximum, regardless of the exterior noise level. Stated maximums are as determined for a typical worst-case hour during periods of use." Burbank 2035 General Plan, at 5-8, Table N-3.

28 City of Burbank 2035 General Plan, at 5-8.

29 City of Burbank 2035 General Plan, at 5-8.

30 City of Burbank 2035 General Plan, at 5-9.

Table 3.13-4

City of Burbank Table N-4

Table N-4
Maximum Allowable Noise Exposure—Stationary Noise Sources

Noise Source	Noise Level Descriptor	Exterior Spaces[2]—Daytime (7 a.m. to 10 p.m.)	Exterior Spaces[2]—Nighttime (10 p.m. to 7 a.m.)
Typical	Hourly dBA L_{eq}	55[1]	45[1]
Tonal, impulsive, repetitive, or consisting primarily of speech or music	Hourly dBA L_{eq}	50[1]	40[1]
Any	dBA L_{max}	75	65

Notes:
1 The City may impose noise level standards that are more or less restrictive than those specified above based upon determination of existing low or high ambient noise levels.
2 Where the location of exterior spaces (i.e., outdoor activity areas) is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use. Where it is not practical to mitigate exterior noise levels at patio or balconies of apartment complexes, a common area such as a pool or recreation area may be designated as the exterior space.

In addition to the maximum allowable noise level compatibility standards described above, the City of Burbank 2035 General Plan's Noise Element sets forth a threshold of significance for noise impacts for the purpose of analyzing noise impacts and determining appropriate mitigation under CEQA.[31] Where the existing ambient noise level is less than 60 dB CNEL/Ldn, a project-related permanent increase in the ambient noise levels of 5 dB CNEL/Ldn or greater is assumed to be a significant noise impact. Where the existing ambient noise level is greater than 60 dB CNEL/Ldn, a project-related permanent increase in ambient noise levels of 3 dB CNEL/Ldn or greater is assumed to be a significant noise impact.[32]

City of Burbank Municipal Code

Title IX, Chapter 3 of the City of Burbank Municipal Code establishes acceptable ambient sound levels to regulate "unnecessary, excessive and annoying sounds" within specific land uses.[33] For instance, Section 208 sets acceptable noise levels for machinery at five decibels above ambient noise levels. The City of Burbank Municipal Code provides that noise levels resulting from the operation of "machinery, equipment, pump, fan, air conditioning apparatus, or similar mechanical device" may not exceed 50 dB in a residential zone at nighttime and may not exceed 60 dB in residential zones during the day.[34] Noise levels resulting from the operation of such machinery may not exceed 65 dB at any time in commercial zones and may not exceed 70 dB in all other zones.[35]

31 City of Burbank 2035 General Plan, at 5-8.
32 City of Burbank 2035 General Plan, at 5-8, 5-9.
33 City of Burbank Municipal Code, Title IX, Chapter 3, Section 201 et. seq.
34 City of Burbank Municipal Code, Title IX, Chapter 3, Section 208.
35 City of Burbank Municipal Code, Title IX, Chapter 3, Section 208.

The City of Burbank Municipal Code permits construction, and the related noise, that occurs between the hours of 7 a.m. and 7 p.m. Monday through Friday and 8 a.m. to 5 p.m. on Saturday.[36] With this regulatory exemption, the City acknowledges that construction noise is an acceptable public nuisance when conducted during the least noise-sensitive hours of the day. The City also acknowledges that construction noise could cause a substantial temporary increase in the ambient noise environment at nearby noise-sensitive receptors if construction occurs during the more noise-sensitive hours (evening, nighttime, early morning), or if construction equipment is not properly equipped with noise control devices.

SUMMARY

A summary of the factors to be considered in determining the significance of noise impacts follows. **Appendix K** provides a more detailed explanation of noise impact analysis.

3.13.1.2 Significance Thresholds

For purposes of this analysis, implementation of the proposed project may result in a significant noise impact if it resulted in:

- NOISE-1: A substantial increase in ground-borne vibration resulting in structural damage or human annoyance. For purposes of this EIR, a substantial increase is:
  - Vibrations exceeding 80 VdB (vibration decibels) on residential land uses or sustained vibrations meeting or exceeding 68VdB.
  - A transient PPV of 0.5 or a continuous PPV of 0.25 on historic structures.
  - Project construction and operation activities cause ground-borne vibration levels to exceed 0.035-inch-per-second PPV at nearby residential uses.
- NOISE 2: A substantial increase in aircraft noise. For purposes of this EIR, a substantial increase is:
  - An increase in the Noise Impact Area described under state law – e.g., an increase in incompatible land uses within the 65 decibel Community Noise Exposure Level (65 CNEL) noise contour as a result of the project.
  - A noise sensitive land use within the existing 65 CNEL (or higher) noise contour that experiences an increase of CNEL 1.5 dB as a result of the project.
  - A noise-sensitive land use outside the existing 65 CNEL that experiences an increase of CNEL 1.5 dB that results in exposure to noise of 65 CNEL (or higher).[37]
- NOISE-3: Noise from on-site project construction activities that exceeds the exterior ambient noise level by 5 dBA or more at a noise-sensitive use, as measured at the property line of any sensitive use.
- NOISE-4: Noise from off-site project construction traffic that exceeds the exterior ambient noise level by 5 dBA or more at a noise-sensitive use, as measured at the property line of any sensitive use.
- NOISE-5:Noise from project-related traffic that would cause ambient noise levels to increase by 5 dBA, CNEL or more.
- NOISE-6: A substantial contribution to cumulative noise impacts.

While the City of Burbank 2035 General Plan, at 5-7, generally sets noise exposure limits for sensitive land use designations, such as single-family residential, nursing homes, and hospitals, as 60 dB CNEL/Ldn, the

36 City of Burbank Municipal Code, Title IX, Chapter 1, Div. 1, Section 105.8.

37 FAA Order 1050.1F, Exhibit 4-1.

Authority believes that these City standards are pre-empted from the established Federal standard for compatible land use in the face of aviation noise is 65 db CNEL. The state noise standards also adopt the 65 CNEL threshold. It is useful to note however that, even under the City of Burbank's standards, to constitute a significant impact, there must be a project-related permanent increase in ambient noise levels of at least 5 dB CNEL/Ldn (where the existing ambient noise level is less than 60 dB CNEL/Ldn, such as in the area around the Airport).[38] Even under the City's standard, this project based threshold of significance is not close to being met.

38 Burbank 2035 General Plan, at 5-8 to 5-9.

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Transportation noise impacts such as those generated by aircraft operations are most often assessed using cumulative metrics that account for the noise contributions of multiple events over an extended period of time, typically a year. These cumulative metrics include the Day/Night Noise Level (DNL) adopted by the U. S. Government and the CNEL adopted by the State of California and used in CEQA documents. These metrics are similar in concept and application. **Appendix K, Noise**, describes these metrics and how they relate to environmental noise.

In addition to the CNEL analysis, this EIR includes an analysis of single-event noise from taxiing aircraft. The Sound Exposure Level (SEL) represents the noise of one operation, in this case a taxiing aircraft that accounts for both the intensity and the duration of the sound generated by that operation.[39] There is no FAA or industry established threshold of significance associated with the SEL for aircraft operations. This information is provided in the EIR as a supplemental metric for informational purposes because, compared to the No Project scenario, the development options would differ in the taxi routes that some aircraft at the Airport would use.

3.13.1.3 Methodologies

The FAA's Integrated Noise Model (INM), version 7.0d and the Aviation Environmental Design Tool (AEDT), version 2b are used to identify the aircraft noise levels associated with the existing conditions as well as the alternatives under consideration in each study year. These study years are:

- 2015, the Base Year, consists of the last quarter of 2014 and the first three quarters of 2015.
- 2023, the date at which the replacement passenger terminal would be completed.
- 2025, the date at which all Airport construction will be completed.

For purposes of determining the significance of project-level impacts, the Authority has compared the 2025 with no project scenario against the three development options as of 2025. Although not chosen as the basis for assessing project level significance (given the long lead time for the construction of any new terminal and forecasts predicting an increase in enplanements and operations between current conditions and 2023 and 2025) this EIR also discloses the change in noise levels from aircraft operations between the Base Year, the 2023 and 2025 no project scenario, and the three project alternatives in 2023 and 2025. As discussed below, the projected increase in the CNEL 65 contour between current conditions and 2023 and 2025, respectively, is forecasted to occur regardless of whether or not a replacement passenger terminal is built.

Construction noise and vibration are evaluated using industry accepted methods to determine how construction activities would affect the closest noise-sensitive land uses. The following sections summarize the analysis of operational and construction noise impacts.

39 SEL measures the total sound energy of a single sound event, how loud the noise is, and how long the noise lasts. The SEL metric is used to describe the noise exposure of a single aircraft event. The SEL metric measures the entire event and therefore, does not directly represent the sound level heard at any given time.

GROUND-BORNE VIBRATION

The analysis of noise and ground borne vibration from construction activities such as paving, excavation, pile driving, and hauling develops estimates of noise exposure at nearby noise sensitive land uses as follows.

- Identifying the most disruptive types of construction equipment used in a particular type of construction activity and calculating PPV from the operation of that equipment at the closest sensitive receptor.
- Using industry accepted databases to determine the vibration levels of each type of equipment.
- Determining the location of the vibration-sensitive land uses or receptors nearest to the construction area.

ON-SITE CONSTRUCTION NOISE

On-site construction noise impacts were evaluated by determining the noise levels generated by the different types of construction activity anticipated, calculating the construction-related noise level at nearby sensitive receptor locations, and comparing these construction-related noise levels to existing ambient noise levels (i.e., noise levels without construction noise) at those receptors. More, specifically, the following steps were undertaken to assess construction-period noise impacts.

1. Ambient noise levels at surrounding sensitive receptor locations were obtained by field measurement data;
2. Typical noise levels for each type of construction equipment were obtained from the Federal Highway Administration roadway construction noise model;
3. Distances between construction site locations (noise sources) and surrounding sensitive receptors were measured using project architectural drawings and site plans and Google Earth;
4. The construction noise level was then calculated, in terms of hourly Leq, for sensitive receptor locations based on the standard point source noise-distance attenuation factor of 6.0 dBA for each doubling of distance; and
5. Construction noise levels were then compared to the construction noise significance thresholds identified below.

OFF-SITE ROADWAY NOISE

Roadway noise impacts have been evaluated using the Caltrans TeNS methodology based on the roadway traffic volume data. This methodology allows for the definition of roadway configurations, barrier information (if any), and receiver locations.

AIRCRAFT OPERATIONS

The development options under consideration would provide the same number of gates and would not differ with respect to the number of aircraft using the Airport. In addition, according to information received from air carriers operating at the Airport, none of the locations for the replacement passenger terminal would cause airlines based at the terminal to use different runways for landing or takeoff. Nor does evaluation of the factors influencing the choice of runway for other operations suggest that those landing or takeoff patterns would change (see also **Appendix M**). For these reasons, takeoff and landing noise would not differ by development option. In contrast, the types of aircraft using the airport are likely to change somewhat over time as older aircraft are replaced with newer ones and smaller aircraft may be replaced by larger ones as passenger demand increases. **Section 3.1.2** and **Appendix E** describe the aircraft activity and mix of aircraft used to evaluate aircraft noise. In addition the types of aircraft using the Airport will change gradually during the forecast period.

The noise associated with aircraft landings and takeoffs are modeled using the INM and/or AEDT based on the following input parameters. **Appendix K, Noise** describes these parameters and how they were derived in greater detail.

- The number of arrivals (landings) and departures (takeoffs) during an annual average day. The annual average day represents the number of operations during the year divided by 365.
- The types of aircraft (or fleet mix) operating at the Airport over the course of the year.
- The distance that aircraft taking off will fly as it affects the amount of fuel carried and, therefore, the weight of the aircraft.
- The runways used for landing or takeoff.
- The flight paths or tracks the aircraft fly to or from the runway ends.
- The time of day during which each operation occurs. The CNEL noise metric adds a 4.8dB penalty to events occurring between the evening hours of 7-10pm and a 10 dB penalty to events occurring between 10:00 PM and 7:00 AM (nighttime).

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The analysis of aircraft taxi noise also uses the INM to develop the SEL generated by individual aircraft taxiing between the alternative terminal locations and the runways. This analysis shows the single event, or "noise dose," associated with a specific aircraft following a specific taxi route and relation to sensitive noise receptors.

3.13.2 Existing Conditions / Environmental Setting

EXISTING OPERATIONAL NOISE (BASELINE CONDITIONS)

The 2015 CNEL 65 contours shown in **Figure 3.13-3** encompass approximately 1.80 square miles (1,151 acres). For informational purposes, the CNEL 65 to 70 contour interval covers 1.145 square miles (733 acres), the CNEL 70 to 75 contour includes 0.460 square miles (294 acres), and the 75+ contour level encompasses 0.194 square miles (124 acres). This figure also shows 21 noise metric (NM) sites representing noise-sensitive land uses that are close enough to the airfield that they might experience changes in noise from aircraft operations. These noise metric sites were selected using a combination of previously studied sites in the Part 150 Study and additional sites directly in the approach/departure path that would experience the greatest noise-related changes. These 21 NM sites currently experience aircraft noise levels between CNEL 55.9 and 65.4 dB.

NOISE SENSITIVE RECEPTORS

The Airport is surrounded by a variety of urban land uses of varying sensitivities to noise. Typical noise-sensitive land uses include residential development, schools, and places of worship. Some land uses are considered more sensitive to noise than others due to the amount of noise exposure and the noise levels deemed tolerable at a receptor location. For the Adjacent Property Full-Size Terminal Option, noise-sensitive receptors include the following:

- Single-Family Residential Areas: Homes are located to the north and northeast of the site

For the Southwest Quadrant Full-Size Terminal Option and Southwest Quadrant Same-Size Terminal Option, noise-sensitive receptors include the following:

- Multi-Family Residential Areas: Summer Breeze Apartments and other complexes located south of the site.

All other noise-sensitive uses subject to City regulations are located at greater distances from the Airport and would be not be affected by project noise. Impacts are quantified only for the above sensitive uses.

AMBIENT NOISE LEVELS

The predominant existing noise sources in the Airport vicinity include roadway noise from Hollywood Way to the east, San Fernando Boulevard to the northeast, Empire Avenue to the south, and aircraft operation noise from the Airport. Secondary noise sources include activities related to the operation of commercial businesses in the area and include loading area/delivery truck activities, trash compaction, and refuse collection.

Short-term (15-minute) ambient noise measurements were conducted at four locations representing the residential sensitive receptors in the immediate project vicinity on Tuesday, December 15, 2015. The receptors are described below.

The ambient noise measurements were conducted using the Larson-Davis 820 Precision Integrated Sound Level Meter (SLM). The Larson-Davis 820 SLM is a Type 1 standard instrument as defined in the American National Standard Institute S1.4. All instruments were calibrated and operated according to the applicable manufacturer specification. The microphone was placed at a height of 5 feet above the local grade, at the following locations:

- Measurement Location R1: This location represents the existing noise environment of residential uses along Greg Avenue north of the Adjacent Property Full-Size Terminal Option. The sound level meter was placed along Greg Avenue in front of residential uses.
- Measurement Location R2: This location represents the existing noise environment of residential uses along Delia Avenue northeast of the Adjacent Property Full-Size Terminal Option. The sound level meter was placed along Delia Avenue in front of residential uses.
- Measurement Location R3: This location represents the existing noise environment of the multi-family residential neighborhood along Vanowen Street and Empire Avenue south of the two options located in the southwest quadrant of the Airport. The sound level meter was placed along Vanowen Street in front of the multi-family residential uses.
- Measurement Location R4: This location represents the existing noise environment of the single-family residential neighborhood along Hollywood Way. The sound level meter was placed on the northeastern corner of Hollywood Way and Cohasset Street.

A summary of noise measurement data, which is provided in **Table 3.13-4a**, shows that the existing ambient daytime and nighttime noise levels at all of the noise-sensitive residential receptors exceed the City's presumed ambient noise levels for residential areas of 50 dBA during the daytime. The ambient noise levels in the immediate Airport vicinity are representative of a noisy urban area.

Table 3.13-4a
Summary of Ambient Noise Measurements

Location, Duration, Existing Land Uses, and Date of Measurements	Measured Ambient Noise Levels, (dBA) Daytime (7 AM to 10 PM) Hourly L_{EQ}
R1: 12/15/15 11AM to 12PM	62
R2: 12/15/15 11 AM to 12 PM	62
R3: 12/15/15 10 AM to 11 AM	72
R4: 12/15/15 12PM to 1 PM	70

Source: PCR Services Corporation

EXISTING BASELINE ROADWAY NOISE LEVELS

Existing roadway noise levels were calculated along various arterial segments adjacent to the project site. Roadway noise attributable to project development was calculated using the traffic noise model previously described and was compared to baseline noise levels that would occur under the no project alternative.

Table 3.13-4b

Off-Site Traffic Noise – Existing Baseline Conditions

Roadway Segment	Existing [a] (A)
Hollywood Way	
Between I-5 Southbound Ramps and San Fernando Boulevard	71.1
Between San Fernando Boulevard and Tulare Avenue	72.1
Between Tulare Avenue and Winona Avenue	72.0
Between Winona Avenue and Airport/Thornton Avenue	71.7
Between Airport/Thornton Avenue and Airport/Avon Avenue	71.8
Between Airport/Avon Avenue and Victory Boulevard	71.2
Between Victory Boulevard and Burbank Boulevard	70.6
Between Burbank Boulevard and Magnolia Boulevard	70.2
San Fernando Road	
Between Sunland Boulevard and Arvilla Avenue	68.0
Between Arvilla Avenue and Lockheed Drive	68.6
Between Lockheed Drive and Cohasset Street	66.0
San Fernando Boulevard	
Between Hollywood Way and Winona Avenue	65.6
Between Winona Avenue and Buena Vista Street	64.2
Empire Avenue	
Between Clybourn Avenue and Airport	67.7
Between Airport and Avon Avenue	66.9
Between Avon Avenue and Ontario Street	66.0
Between Ontario Street and Buena Vista Street	65.9
Winona Avenue	
Between Hollywood Way and Ontario Street	63.2
Thornton Avenue	
Between Hollywood Way and Ontario Street	63.7
Victory Boulevard	
West of Hollywood Way	71.2
East of Hollywood Way	70.6

Source: PCR Service Incorporated, 2016.

3.13.2.1 Project Design Features

PDF-NOISE-1: The Project Authority shall provide a qualified "Noise Disturbance Coordinator." The Disturbance Coordinator shall be responsible for responding to any local complaints about construction noise. When a complaint is received, the Disturbance Coordinator shall notify the City within 24 hours of the complaint and determine the cause of the noise complaint (e.g., starting too early, malfunctioning muffler, etc.) and shall implement reasonable measures to resolve the compliant, as deemed acceptable by the Burbank Planning and Transportation Division. All signs posted at the construction site shall include the contact name and the telephone number for the Noise Disturbance Coordinator. Construction haul routes shall be designed to avoid noise sensitive uses (e.g., residences, convalescent homes, etc.), to the extent feasible, and shall be identified and approved by Building Official before grading permit issuance. During construction, stationary construction equipment shall be placed such that emitted noise is directed away from any sensitive noise receivers.

Per the Burbank2035 General Plan construction shall be limited to the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and from 8:00 a.m. to 5:00 p.m. on Saturday. No construction is permitted on Sundays or major holidays.

Due to the unique nature of the project and challenges of building at an operating airport, construction activity may occur outside of the normal construction hours, up to 24 hours a day. However, with respect to non-airfield infrastructure only, the Community Development Director reserves the right to limit construction hours down to and including the hours otherwise required by the Burbank Municipal Code in the event that the City receives noise complaints from nearby businesses or residents or construction during extended hours is otherwise shown to create problems.

Construction activities that relate to non-airfield infrastructure and that create substantially more noise than typical construction activity, including but not limited to pile driving, shall occur only during the normal construction hours specified in the Burbank Municipal Code unless the Community Development Director grants an exception based on extraordinary circumstances. At least 24 hours prior to conducting pile driving or other activities that are louder than typical construction, the applicant shall provide notice to all businesses within a 500-foot radius of the location where the work will occur.

3.13.3 Environmental Impacts and Mitigation Measures

This section summarizes the evaluation of noise impacts generated by the development options under consideration in this EIR. All of these development options would have the same operational characteristics as the others, as well as if there is no replacement passenger terminal, with the exception of the taxi routes some aircraft would use to and from the replacement passenger terminal. The tables below therefore apply to all of the development options. **Table 3.13-5** shows that the area within the CNEL contours would increase over the next 10 years as the volume of aircraft activity is forecast to increase. **Table 3.13-6** shows that this increase would be less than CNEL 1 dB at the 4 noise-sensitive locations closest to the Airport. This increase is not considered to be significant under the applicable standards.

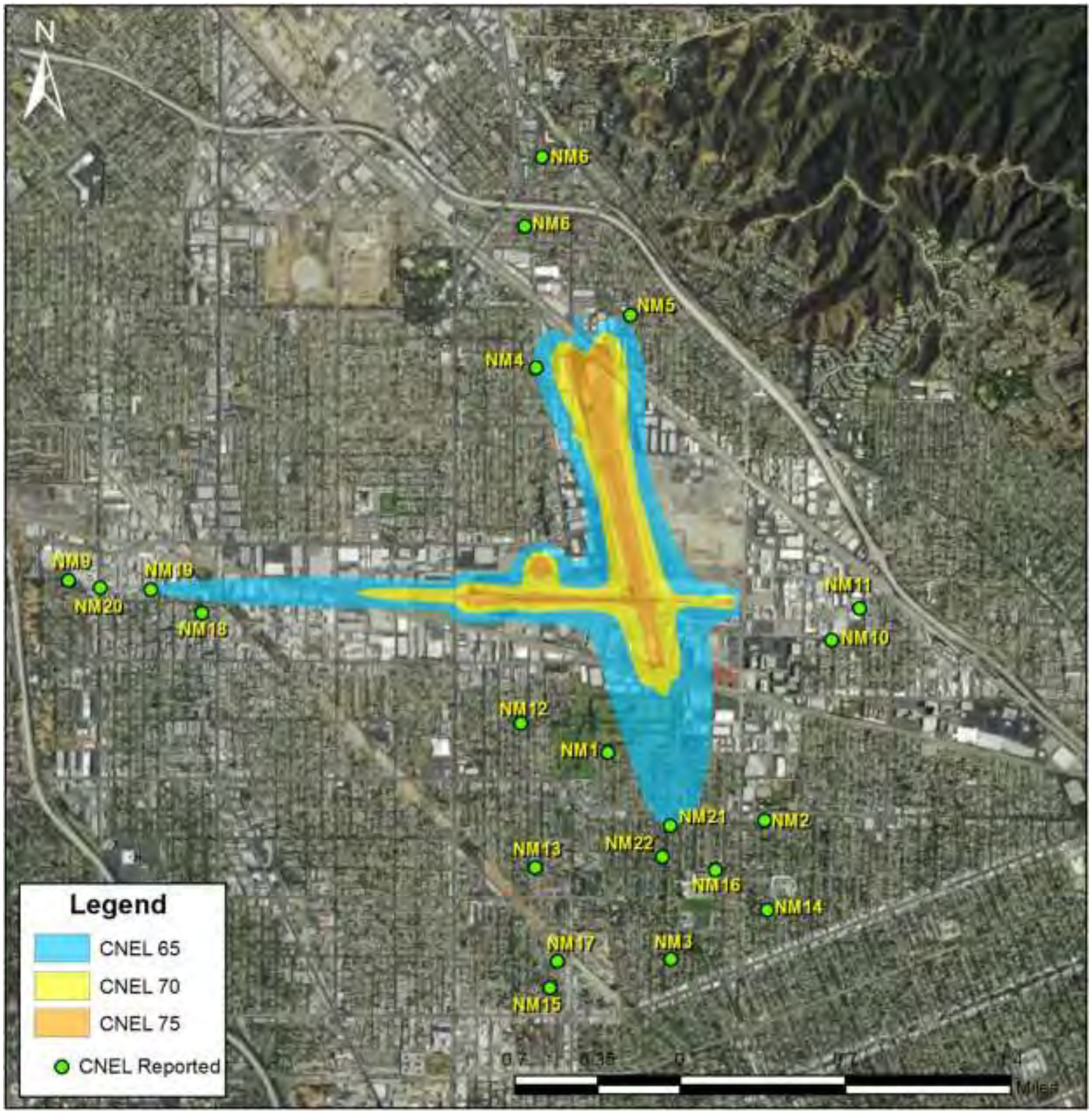
Table 3.13-5

Area of Airport Noise Contours for Existing and Future Conditions for All Development Options

Contour Interval	Areas of Contour Intervals (Square Miles / Acres)		
	Base Year (2015)	2023	2025
Total Area of Land within 65 CNEL or greater contour	**1.799 / 1,151**	**2.153 / 1,378**	**2.196 / 1,405**

Sources: Burbank Bob Hope Airport, 2016; RS&H, 2016.

Figure 3.13-3
2015 CNEL Noise Contours



Sources: Burbank Bob Hope Airport, 2016; RS&H, 2016.
NM: Location where noise metric figures were modelled.

Table 3.13-6

CNEL at Noise Sensitive Receptors for Existing and Future Conditions for All Development Options

ID	2015 Base Year	2023	Change from 2015 Base Year to 2023	2025	Change from 2015 Base Year to 2025
NM1	63.4	64.5	+1.1	64.6	+1.2
NM 2	59.2	60.4	+1.2	60.5	+1.3
NM 3	60.2	61.5	+1.3	61.6	+1.4
NM 4	65.4	66.6	+1.2	66.7	+1.3
NM 5	63.1	64.4	+1.3	64.5	+1.4
NM 6	56.4	57.3	+0.9	57.4	+1.0
NM 7	59.8	60.8	+1.0	60.9	+1.1
NM 9	63.6	64.6	+1.0	64.7	+1.1
NM 10	55.9	56.8	+0.9	56.9	+1.0
NM 11	55.9	56.7	+0.8	56.8	+0.9
NM 12	56.8	57.9	+1.1	58.0	+1.2
NM 13	58.5	59.7	+1.2	59.8	+1.3
NM 14	57.1	58.4	+1.3	58.5	+1.4
NM 15	59.6	60.7	+1.1	60.8	+1.2
NM 16	62.0	63.1	+1.1	63.2	+1.2
NM 17	60.0	61.2	+1.2	61.3	+1.3
NM 18	61.8	62.9	+1.1	63	+1.2
NM 19	65.2	66.1	+0.9	66.2	+1
NM 20	64.3	65.2	+0.9	65.3	+1
NM 21	65.1	66	+0.9	66.1	+1
NM 22	64.1	65.1	+1	65.2	+1.1

Source: Burbank Bob Hope Airport, 2016; RS&H, 2016.

3.13.4.1 ADJACENT PROPERTY FULL-SIZE TERMINAL OPTION

Project Impacts

IMPACT ADJ PROP FULL-NOISE-1: Impacts Related to Construction Vibration

Construction of the Adjacent Property Full-Size Terminal Option would temporarily increase roadway traffic and would involve the use of construction equipment on the site. The most vibration intensive noise generating activity during construction would be pile driving of deep foundations (transient vibration) and use of scrapers (continuous vibration). All of the other equipment, including jackhammering, vibratory compaction, and vibratory pile installation that would be used are routinely used at the Airport without detectable impacts on adjacent noise-sensitive receptors. **Table 3.13-7** presents the PPV, which is the metric used by Caltrans for determining significance, associated with operation of the most disruptive types of equipment at the closest structures of varying uses. Ground-related vibration can be a significant source of annoyance. The most vibration-intensive activities associated with construction of the proposed project would generate a vibration level of 104 VdB. However, since the closest residential land use from the adjacent property are located 1,400 feet from the project, vibration would attenuate to well below the 72 VdB Federal threshold of significance for residences. Therefore, no significant vibration impact is anticipated.

Table 3.13-7

Effects of Construction-Related Vibration on Closest Structures – Adjacent Property Full-Size Terminal Option

Receptor	Construction Equipment	Attenuation Distance	Estimated Vibration at Receptor	Significance Threshold	Exceed Threshold?
Closest Homes (older)	Impact Pile Driver/a/	1,400 feet	0.011 PPV/c/	0.5 PPV	NO
	Large Dozer/b/		0.002 PPV/d/	0.3 PPV	NO
Closest Structure (Modern Industrial)	Impact Pile Driver/a/	200 feet	0.098 PPV/c/	2 PPV	NO
	Large Dozer/b/	90 feet	0.021 PPV/d/	0.5 PPV	NO
Hangar 2	Impact Pile Driver/a/	3,500 feet	0.0042 PPV/c/	0.5 PPV	NO
	Large Dozer/b/		0.0009 PPV/d/	0.25 PPV	NO

/a/: Transient source of vibration.
/b/: Continuous source of vibration.
/c/: $PPV_{Impact\ Pile\ Driver} = PPV_{Ref} (25/D)^n \times (E_{equip}/E_{Ref})^{0.5}$ (in/sec).
/d/: $PPV_{Equipment} = PPV_{Ref} (25/D)^n$ (in/sec).
Source: Caltrans Construction Noise and Vibration Manual, 2013.
Prepared by: RS&H, 2016.

Mitigation Measure ADJ PROP FULL-NOISE-1

No mitigation is warranted.

IMPACT ADJ PROP FULL-NOISE-2: Impacts Related to Aircraft Noise

If the project were hypothetically completed in the present day under current conditions, there would be no difference between the CNEL 65 contours comparing the Base year scenario and the hypothetical project, especially given that CNEL contours are measured based on annual cumulative noise levels. The volume and type of aircraft operations would be the same. As stated above, given the various additional steps needed to actually complete the replacement terminal and project, this "existing conditions" vs. project scenario is not meaningful as compared to an analysis of the project and no project alternatives for 2023 and 2025.

Comparing the future year project and no project alternatives provides a meaningful assessment of the project's aircraft noise-related impacts. As described below, the forecasted 65 CNEL noise contours are projected to be the same, as is the noise impact area, except for the possibility of a small change due to the possibility that some aircraft using the terminal will undertake different taxiing patterns to and from the runway and the terminal. It is difficult to use existing noise data as a basis for forecasting any impact from this possible taxiing shift, as existing data is based on current taxiing patterns. Nor is there an established method for measuring the significance of this possible shift. Nonetheless, the Authority has created study figures showing SEL contours from these possible future taxiing events, which suggest that any noise impact would be experienced on Airport property or over compatible land uses.[40] Thus, there are no significant impacts from aircraft noise resulting from the project.

Comparing the noise experienced under this alternative in 2023 and 2025, to the Base Year noise levels with no project, there would be a noise impact due to the forecasted incremental growth in operations and resulting increase in the CNEL 65 contour (and the possible increase in acreage of incompatible land within that contour) over time.

Figures 3.13-4 and **3.13-5**, respectively, compare the 2023 and 2025 CNEL values associated with the Adjacent Property Full-Size Terminal Option to the Base Year CNEL contours shown in **Figure 3.13-3**. The forecast of aircraft activity in 2025 is about 15% higher than in the Base Year and, given the relatively minor changes in the fleet mix, a significant increase in CNEL would be unlikely.

Table 3.13-6 compares the CNEL values of the alternatives under consideration at selected locations to Base Year values. These data show that the Adjacent Property Full-Size Terminal Option would not result in an increase of CNEL 1.5 dB in aircraft noise due to flight operations compared to the Base Year.

Figures 3.13-4 and 3.13-5 compare the Base Year CNEL contours with those reflecting forecast aircraft operations for 2023 and 2025. The CNEL 65 contour would increase in size from 1.799 square miles (1,151 acres) to 2.196 square miles (1,405 acres) in 2025. These "difference contours" show the areas of increase in the CNEL 65 contour. These areas are located primarily to the west and south of the Airport and include 311 additional dwellings in the CNEL 65 contour when comparing 2015 to 2025.

All of these 311 homes are or will be eligible for acoustical treatment and approximately 75 percent have been acoustically treated. The CNEL 65 contour previously encompassed most of these homes before the 2008 recession and these homes were part of the eligibility area for the Authority's acoustical treatment program, with the exception of a few homes on the western end of the noise impact area. All of the additional homes will be eligible for acoustical treatment in the future because the Authority's latest Part 150 study eligibility boundary encompasses those homes, including those on the western end of the noise impact area. Thus, while the noise impact area (area of incompatible land under state standards) could increase between the Base Year and 2023 and 2025 (regardless of whether a terminal project is undertaken or not), those impacted dwellings are or will be eligible for acoustical treatment and thus may be deemed compatible through acoustical treatment before 2023 or 2025 and most have been acoustically treated. Moreover, the expansion of the CNEL 65 contour is due to forecasted growth and would occur regardless of whether a replacement passenger terminal is built or not, and would not be the result of implementing any terminal development option.

This expansion of the CNEL 65 contour and possible increase in the noise impact area is not a significant impact, because, comparing the forecasted 2023 and 2025 no project scenario, to this project alternative, the same growth in the CNEL 65 contour is projected to occur whether or not a new terminal is built. The only possible difference between the 2025 no project and 2025 project scenario would result from a change in taxiing patterns to and from the replacement passenger terminal compared to the taxiing patterns to

40 Those studies do not take into account any buffering from adjacent on airport and commercial buildings.

and from the existing passenger terminal. Given that the SEL contours for taxiing aircraft would be on Airport property or compatible land uses, any change in the CNEL contours attributable to changed taxi patterns would be less than 1.5 dB CNEL. See **Table 3.13-8** for the SEL events associated with the Adjacent Property Full-Size Terminal Option compared to existing conditions. The Authority does not consider the possible adjustment in taxiing patterns to represent a significant impact from the project because the SEL contours indicate that the affected areas are on Airport or compatible land uses.

Table 3.13-8

737-800 Aircraft Taxi Noise (SEL) at Nearby Noise Sensitive Uses for the Adjacent Property Full-Size Terminal Option

Site ID and Taxi Path	Existing		Adjacent Property Full-Size Terminal Option	
	Arrival	Departure	Arrival	Departure
Site 1				
Runway 8	62.6	-	64.6	-
Runway 33	83.8	66.5	82.9	65.4
Runway 26	-	65.6	-	65.6
Runway 15	58.3	82.9	63.4	82.9
Site 2				
Runway 8	65.8	-	70.6	-
Runway 33	80.7	72.1	80.4	71.8
Runway 26	-	71.5	-	71.5
Runway 15	63.1	80.4	70.4	80.4
Site 3				
Runway 8	66	-	70.9	-
Runway 33	74.2	71.4	71.3	73.9
Runway 26	-	70.3	-	70.3
Runway 15	66.9	71.3	70.7	71.3
Site 4				
Runway 8	70.5	-	72.8	-
Runway 33	72.1	73.7	65.2	80.1
Runway 26	-	71	-	71
Runway 15	76.2	65.2	73.8	65.2

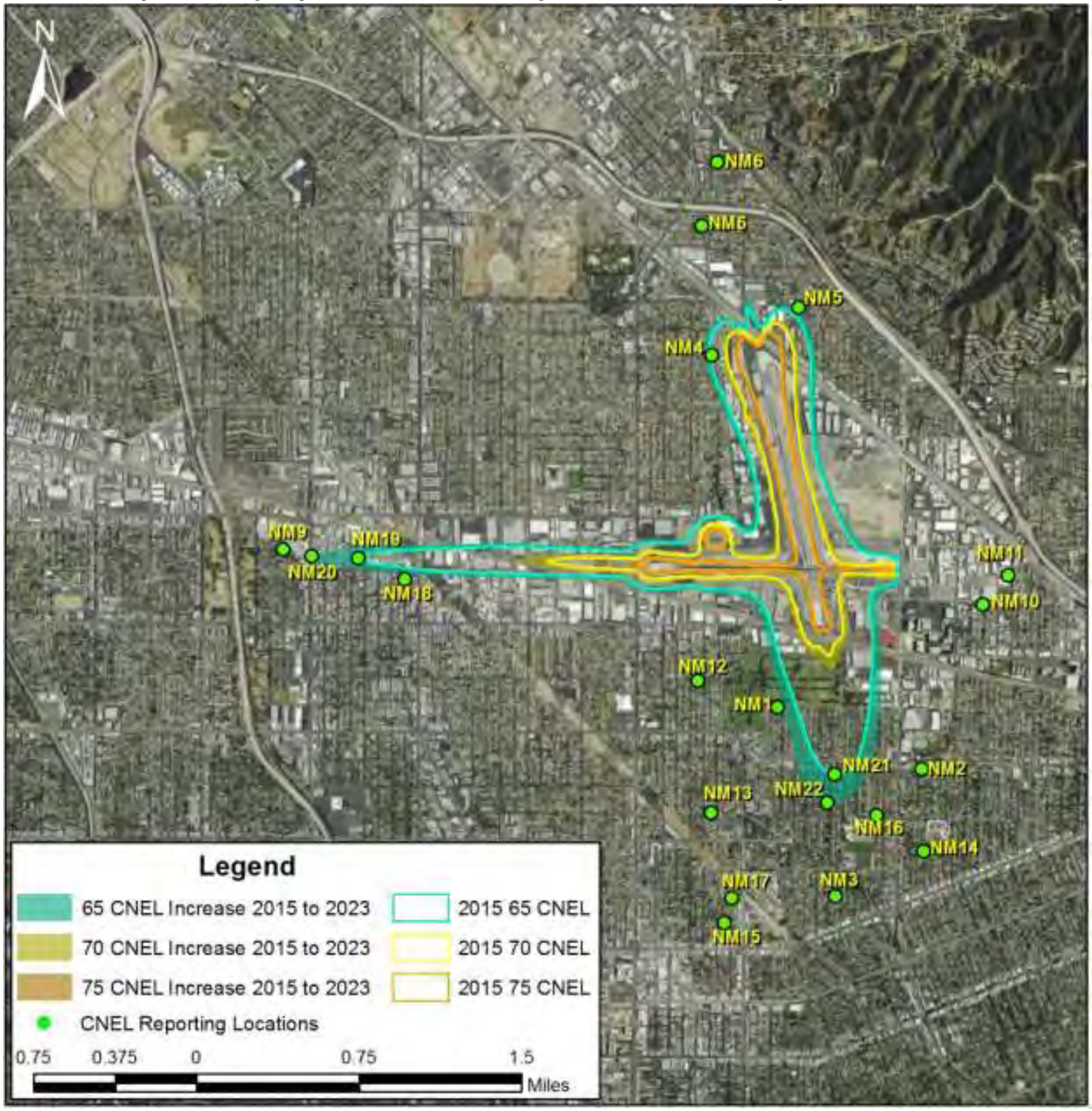
Source: RS&H, 2016

Mitigation Measure ADJ PROP FULL-NOISE-2

No mitigation is warranted. However, it should be noted that homes that have not already been acoustically treated in the existing and the 2023 and 2025 CNEL 65 contours will be eligible for participation in the Airport's existing acoustical treatment program.

Figure 3.13-4

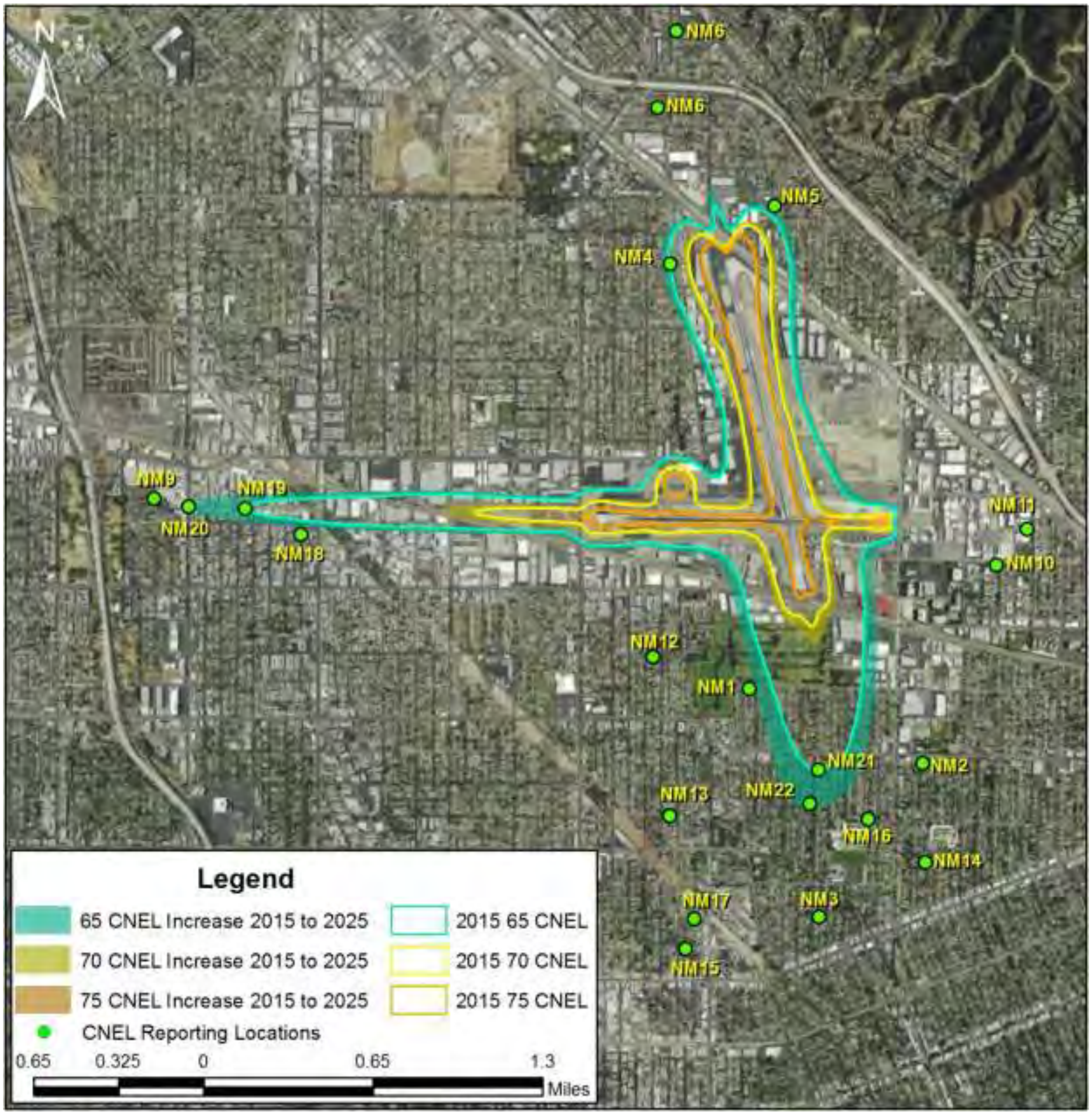
Adjacent Property Full-Size Terminal Option 2023 CNEL Compared to Base Year



Source: Burbank Bob Hope Airport, 2016; RS&H, 2016.

Figure 3.13-5

Adjacent Property Full-Size Terminal Option 2025 CNEL Compared to Base Year



Source: Burbank Bob Hope Airport, 2016; RS&H, 2016.

IMPACT ADJ PROP FULL-NOISE-3: Noise from On-Site Project Construction

Construction noise levels were estimated based on an industry standard sound attenuation rate of 6 dB per doubling of distance (from the 50-foot reference distance) for point sources (e.g., construction equipment). For purposes of analysis, all construction equipment was assumed to operate simultaneously in the location closest to potentially affected residential receptors (i.e., at the project site property line or as close as five feet for off-site work including utility trenching in the alley), and noise from different construction stages that could reasonably be expected to occur simultaneously was combined to develop a composite construction noise level. These assumptions result in a conservative noise scenario, since all construction equipment used in a given phase would not typically operate concurrently and at full power, and activities are routinely spread across the construction site, rather than concentrated close to the nearest noise-sensitive receptors.

Nighttime airfield construction would be necessary to ensure continued operation of the Airport during daytime hours. Airfield work would include similar equipment types included in the paving and demolition phase noise analysis presented for each development option in **Table 3.13-8a**. Adding the ten decibel nighttime penalty to the results of these analyses for the paving and demolition phases of the Adjacent Property Full-Size Terminal Option and Southwest Quadrant Full-Size Terminal Option construction noise analysis indicates noise levels would be below the identified thresholds of significance identified in these tables. However, the attenuation distance identified in these tables would be much greater for airfield construction activities since this phase would be restricted to specifically designated portions of the airfield that are even farther from the closest noise sensitive receptors (R1, R2, and R3) used to calculate noise impacts.

A summary of construction noise impacts at nearby sensitive receptors is provided in **Table 3.13-8a**. Detailed noise calculations for construction activities are provided in **Attachment A** of **Appendix K**. As shown in **Table 3.13-8a**, construction noise levels at the sensitive receptors are estimated to reach a maximum of 61 dBA at the residences R1 and 66 dBA at the residences R2 to the north and northeast of the Adjacent Property Full-Size Terminal Option. As such, the impacts would be less than significant and no mitigation measures are required.

Table 3.13-8a

Estimate of Construction Noise Levels (L_{eq}) at Existing Off-Site Sensitive Receiver Locations
Adjacent property full size terminal option

Noise-Sensitive Receptor	Construction Phases	Distance between Nearest Receptor and Construction Site (feet)	Estimated Construction Noise Levels at the Noise-Sensitive Receptor by Construction Phase,[a] Hourly L_{eq} (dBA)	Project's Significance Threshold [c] (dBA)	Exceeds Significance Threshold?
R1[b]	Demolition	740	52		No
Residential Uses North	Site Preparation	740	46		No
of the Adjacent Property	Grading	740	61	67	No
Full-Size Terminal	Building Construction	740	50		No
Option	Paving	740	52		No

R2[b]	Demolition	410	57		No
Residential Uses	Site Preparation	410	51		No
Northeast of the	Grading	410	66	67	No
Adjacent Property Full-	Building Construction	410	55		No
Size Terminal Option	Paving	410	57		No

[a] *Estimated construction noise levels represent the most conservative condition when noise generators are located closest to the receptors and are expected to last the entire construction duration.*
[b] *Receptors are almost fully shielded from the construction site by existing buildings; such shielding is incorporated into analysis as a 10-dBA reduction in noise levels.*
[c] *Significance Thresholds are the average measured daytime noise levels shown in Table 3.13-2 plus 5 dBA.*
Source: PCR Services Corporation, 2016

Mitigation Measure ADJ PROP FULL-NOISE-3

No mitigation is warranted.

IMPACT ADJ PROP FULL-NOISE-4: Noise from Off-Site Construction Vehicles

Haul truck trips would occur during grading phase. Trucks traveling to and from the Airport would be required to travel along the haul route approved by the City. It is anticipated that outbound traffic would travel on Hollywood Way to access northbound or southbound. Inbound traffic would take the reverse route from the Hollywood Way. An estimated maximum of approximately 60 haul truck trips would occur per day.

Detailed noise calculations for construction traffic are provided in **Appendix K** of this Draft EIR. Truck trips would generate noise levels of approximately 55 dBA, L_{eq} at 25 feet distance along Hollywood Way. Based on the existing average ambient noise level of 70 dBA, L_{eq} along Hollywood Way (R4) (as shown in **Table 3.13-4a)**, construction traffic noise levels generated by project construction truck trips would not increase traffic noise levels along Hollywood Way. The noise levels from truck trips would be 55 dBA, which is approximately 15 dBA less than the existing average ambient noise level of 70 dBA; since noise levels are quantified using a logarithmic ratio of pressures, and not measured directly, when noise levels of 55 dBA are added to 70 dBA, the resulting noise level remains at 70 dBA. Therefore, noise generated by construction truck trips would not be perceptible against the ambient noise level of 70 dBA. As the project would generate noise levels that are below (i.e., masked by) ambient noise levels, off-site construction traffic noise impacts would be less than significant and no mitigation measures are required.

Mitigation Measure ADJ PROP FULL-NOISE-4

No mitigation is warranted.

IMPACT ADJ PROP FULL-NOISE-5: Project-related Traffic on Ambient Noise Levels

Future roadway noise levels were also calculated along various arterial segments adjacent to the project site as compared to 2021 baseline traffic noise levels that would occur with implementation of the cumulative projects. Project impacts, which are presented in **Table 3.13-8b**, show that the maximum increase in project-related traffic noise levels over existing traffic noise levels would be 2.9 dBA, CNEL, which would occur Between Airport/Thornton Avenue and Airport/Avon Avenue. This increase in sound level would be well below an increase of 5.0 dBA, CNEL, and the increase in sound level would be lower at the remaining roadway segments analyzed. The project-related noise increases would be less than the threshold and therefore less than significant, and no mitigation measures would be required.

Table 3.13-8b

Off-Site Traffic Noise Impacts – Future 2025 Conditions Adjacent Property Full-Size Terminal Option

Roadway Segment	Calculated Traffic Noise Levels at 25 feet from Roadway, CNEL (dBA)			
	Existing	Future with Project [b] (B)	Project Increment (B - A)	Exceed Threshold?
Hollywood Way				
Between I-5 Southbound Ramps and San Fernando Boulevard	71.1	72.7	1.6	No
Between San Fernando Boulevard and Tulare Avenue	72.1	74.3	2.2	No
Between Tulare Avenue and Winona Avenue	72.0	74.5	2.5	No
Between Winona Avenue and Airport/Thornton Avenue	71.7	74.4	2.7	No
Between Airport/Thornton Avenue and Airport/Avon Avenue	71.8	74.7	2.9	No
Between Airport/Avon Avenue and Victory Boulevard	71.2	73.7	2.5	No
Between Victory Boulevard and Burbank Boulevard	70.6	73.1	2.5	No
Between Burbank Boulevard and Magnolia Boulevard	70.2	72.9	2.7	No
San Fernando Road				
Between Sunland Boulevard and Arvilla Avenue	68.0	70.7	2.7	No
Between Arvilla Avenue and Lockheed Drive	68.6	71.4	2.8	No
Between Lockheed Drive and Cohasset Street	66.0	68.8	2.8	No
San Fernando Boulevard				
Between Hollywood Way and Winona Avenue	65.6	66.9	1.3	No
Between Winona Avenue and Buena Vista Street	64.2	65.9	1.7	No
Empire Avenue				
Between Clybourn Avenue and Airport	67.7	68.3	0.6	No
Between Airport and Avon Avenue	66.9	67.7	0.8	No
Between Avon Avenue and Ontario Street	66.0	68.5	2.5	No
Between Ontario Street and Buena Vista Street	65.9	68.3	2.4	No
Winona Avenue				
Between Hollywood Way and Ontario Street	63.2	63.9	0.7	No
Thornton Avenue				
Between Hollywood Way and Ontario Street	63.7	64.0	0.3	No
Victory Boulevard				
West of Hollywood Way	71.2	71.8	0.6	No
East of Hollywood Way	70.6	71.2	0.6	No

[a] *Existing data is taken from Table 3.13-4.*

Source: PCR Services Corporation, 2016.

Mitigation Measure ADJ PROP FULL-NOISE-5

No mitigation is warranted.

Cumulative Impacts

IMPACT ADJ PROP FULL-NOISE-6: Cumulative Impacts on Noise

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Other development in the areas that would experience an increase in aircraft noise would need to generate noise levels comparable to those of the Airport to contribute to a potentially significant cumulative impact. The noise effects of surface transportation facilities are often the loudest noise sources in a community. The noise of such activity is typically limited to the area immediately adjacent to the project site since noise attenuates rapidly with distance. To illustrate the relatively narrow possibility of combined cumulative noise impacts, a non-Airport project would need to generate noise levels of at least CNEL 61 dB to cause a 1.5 dB increase in cumulative noise. The projects in the vicinity of the Airport listed in **Table 3.1-1** primarily consist of retail or commercial development, multi-family housing, and the construction of a Metrolink station. Given the rapid attenuation of noise from ground based sources, the area in which other projects' noise levels could result in a combined cumulative impact associated with the incremental effects of this project and other projects is very small and not readily identifiable.

When compared to existing aircraft taxiing patterns, the noise associated with aircraft taxiing under the Adjacent Property Full-Size Terminal Option would change as presented in **Table 3.13-8**. Because the changes in noise from aircraft taxiing and the changes in noise associated with the forecast growth in aircraft operations do not exceed the requisite 1.5 dB CNEL significance threshold, no cumulative impacts would occur.

Mitigation Measure ADJ PROP FULL-NOISE-6

No mitigation is warranted.

3.13.4.2 SOUTHWEST QUADRANT FULL-SIZE TERMINAL OPTION

Project Impacts

IMPACT SW QUAD FULL-NOISE-1: Impacts Related to Construction Vibration

Construction of the Southwest Quadrant Full-Size Terminal Option would temporarily increase roadway traffic and associated traffic noise levels and would involve the use of construction equipment on the site. The only significant vibration noise generating equipment used during construction would be pile driving of deep foundations. All of the other equipment, including jackhammering, vibratory compaction, and vibratory pile installation that would be used are routinely used at the Airport without detectable impacts on adjacent noise-sensitive receptors. Therefore, impacts related to construction vibration are considered to be less than significant. **Table 3.13-9** presents the PPV, which is the metric used by Caltrans for determining significance, associated with operation of the most disruptive types of equipment at the closest structures of varying uses. The most vibration-intensive activities associated with construction of the proposed project would generate a vibration level of 104 VdB. Because the closest residential land uses from the southwest quadrant site are located 450 feet from the project, vibration would attenuate below the 72 VdB Federal threshold of significance for residences. However, Hangar 1, which is considered to be a historic resource, is immediately adjacent to an area where pavement would be removed and would be subject to vibration that exceeds the significance threshold. Therefore, this is considered to be a significant impact.

Table 3.13-9

Effects of Construction-Related Vibration on Closest Structures – Southwest Quadrant Full-Size Terminal Option

Receptor	Construction Equipment	Attenuation Distance	Estimated Vibration at Receptor	Significance Threshold	Exceed Threshold?
Closest Homes (older)	Impact Pile Driver[/a/]	450 feet	0.04 PPV[/c/]	0.5 PPV	NO
	Large Dozer[/b/]		0.008 PPV[/d/]	0.3 PPV	NO
Closest Structure (Modern Industrial)	Impact Pile Driver[/a/]	170 feet	0.12 PPV[/c/]	2.0 PPV	NO
	Large Dozer[/b/]		0.011 PPV[/d/]	0.5 PPV	NO
Hangar 1[/e/]	Jackhammer[/b/]	1 foot	1.2 PPV[/d/]	0.25 PPV	YES

[/a/]: Transient source of vibration.
[/b/]: Continuous source of vibration.
[/c/]: $PPV_{Impact\ Pile\ Driver} = PPV_{Ref}\ (25/D)^n \times (E_{equip}/E_{Ref})^{0.5}$ (in/sec).
[/d/]: $PPV_{Equipment} = PPV_{Ref}\ (25/D)^n$ (in/sec).
[/e/]: Hangar 1 would be immediately adjacent to pavement removal activities.
Source: Caltrans Construction Noise and Vibration Manual, 2013.
Prepared by: RS&H, 2016.

Mitigation Measure SW QUAD FULL-NOISE-1

The Authority would require the use of less-intensive equipment for pavement removal and construction in the area near Hangar 1, such as the hand chisel and concrete saw.

Significance After Mitigation: Implementation of Mitigation Measure SW QUAD FULL-NOISE-1 would reduce the impact associated with vibration impacts on a historic resource to a less-than-significant level.

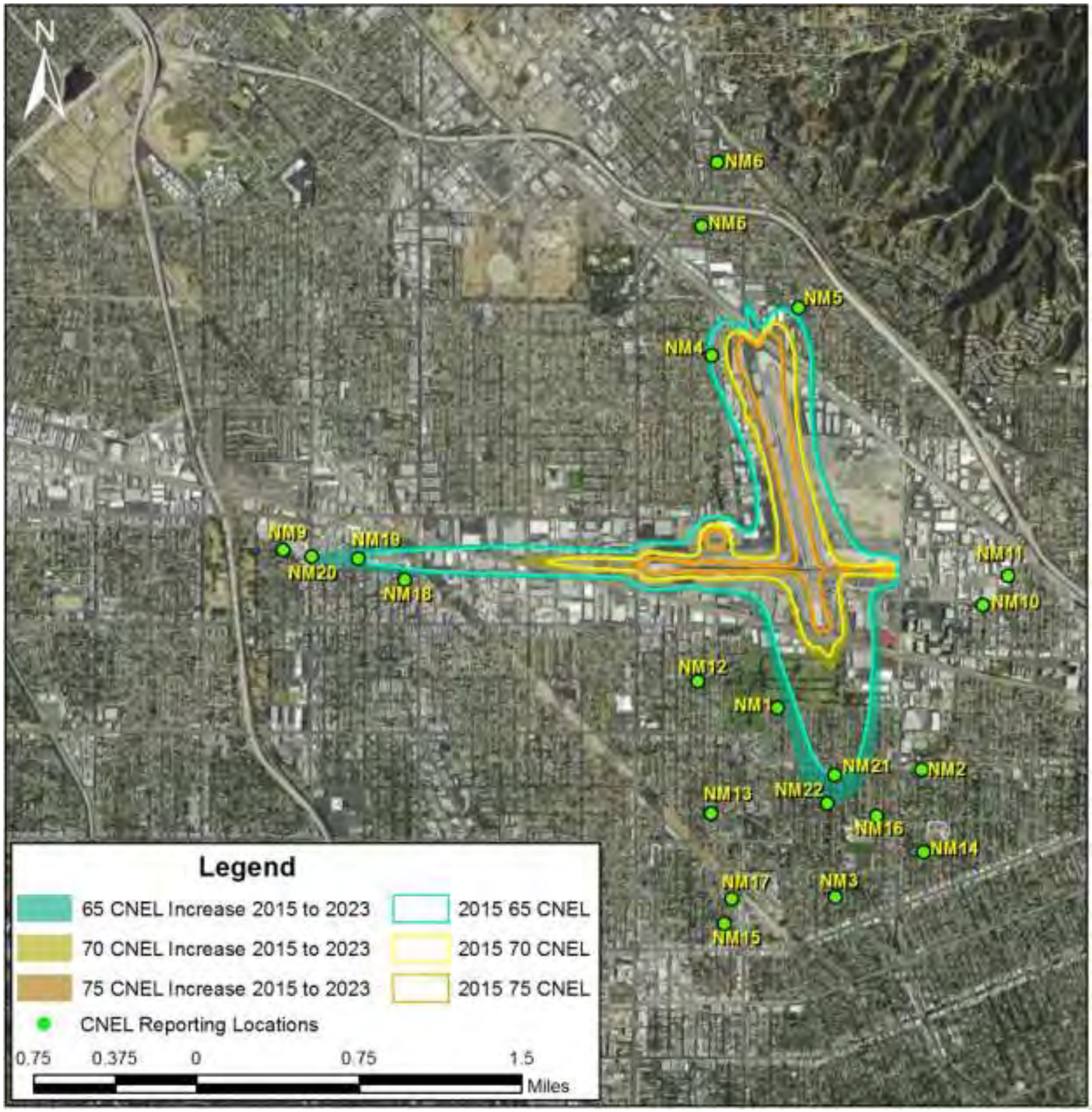
IMPACT SW QUAD FULL-NOISE-2: Impacts Related to Aircraft Noise

Figures 3.13-6 and **3.13-7**, respectively, compare the 2023 and 2025 CNEL values associated with the Southwest Quadrant Full-Size Terminal Option to the Base Year CNEL contours shown in **Figure 3.13.1**. The forecast of aircraft activity in 2025 is about 15% higher than in the Base Year and, given the relatively minor changes in the fleet mix, a significant increase in CNEL is unlikely.

Table 3.13-6 compares the CNEL values of the alternatives under consideration at selected locations to Base Year values. These data show that the Southwest Quadrant Full-Size Terminal Option would not result in a significant increase (CNEL 1.5 dB) in aircraft noise due to flight operations compared to the Base Year.

Figure 3.13-6

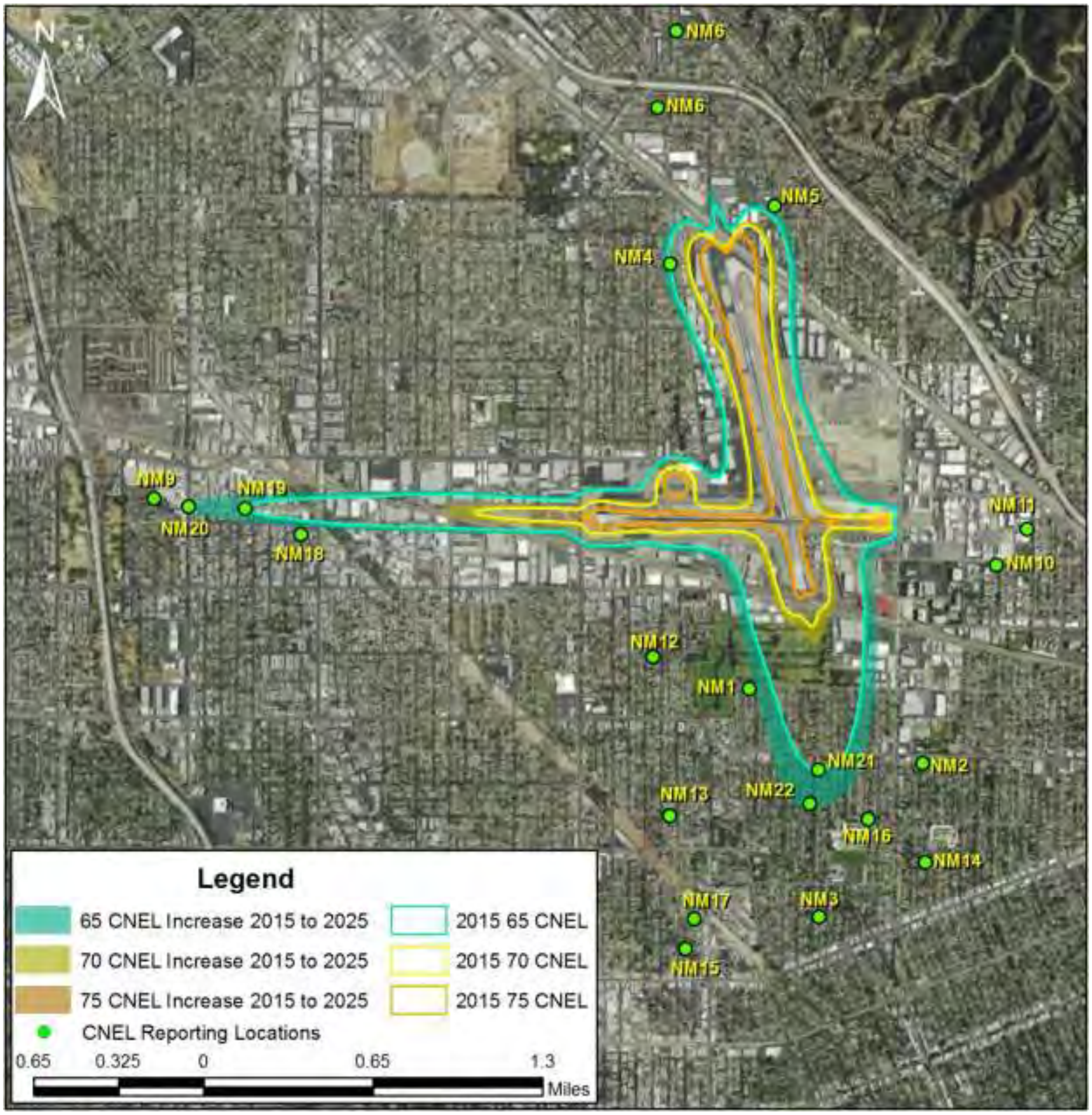
Southwest Quadrant Full-Size Terminal Option 2023 CNEL Compared to Base Year



Source: Burbank Bob Hope Airport, 2016; RS&H, 2016.

Figure 3.13-7

Southwest Quadrant Full-Size Terminal Option 2025 CNEL Compared to Base Year



Source: Burbank Bob Hope Airport, 2016; RS&H, 2016.

Figures 3.13-6 and 3.13-7 compare the Base Year CNEL contours with those reflecting forecast aircraft operations for 2023 and 2025. The CNEL 65 contour would increase in size from 1.799 square miles (1,151 acres) to 2.196 square miles (1,405 acres) in 2025. These “difference contours” show the areas of increase in the CNEL 65 contour. These areas are located primarily to the west and south of the Airport and include 311 additional dwellings in the CNEL 65 contour when comparing 2015 to 2025.

All of these 311 homes are or will be eligible for acoustical treatment and approximately 75 percent have been acoustically treated. The CNEL 65 contour previously encompassed most of these homes before the 2008 recession and these homes were part of the eligibility area for the Authority’s acoustical treatment program, with the exception of a few homes on the western end of the noise impact area. All of the additional homes will be eligible for acoustical treatment in the future because the Authority’s latest Part 150 study eligibility boundary encompasses those homes, including those on the western end of the noise impact area. Thus, while the noise impact area (area of incompatible land under state standards) could increase between the Base Year and 2023 and 2025 (regardless of whether a terminal project is undertaken or not), those impacted dwellings are or will be eligible for acoustical treatment and thus may be deemed compatible through acoustical treatment before 2023 or 2025 and most have been acoustically treated. Moreover, the expansion of the CNEL 65 contour is due to forecasted growth and would occur regardless of whether a replacement passenger terminal is built or not, and would not be the result of implementing any terminal development option.

This expansion of the CNEL 65 contour and possible increase in the noise impact area is not a significant impact, because, comparing the forecasted 2023 and 2025 no project scenario, to this project alternative, the same growth in the CNEL 65 contour is projected to occur whether or not a new terminal is built. The only possible difference between the 2025 no project and 2025 project scenario would result from a change in taxiing patterns to and from the replacement passenger terminal compared to the taxiing patterns to and from the existing passenger terminal. Given that the SEL contours for taxiing aircraft would be on Airport property or compatible land uses, any change in the CNEL contours attributable to changed taxi patterns would be less than 1.5 dB CNEL. See **Table 3.13-10** for the SEL events associated with the Southwest Quadrant Full-Size Terminal Option compared to existing conditions. The Authority does not consider the possible adjustment in taxiing patterns to represent a significant impact from the project because the SEL contours indicate that the affected areas are on Airport or compatible land uses.

Mitigation Measure SW QUAD FULL-NOISE-2

No mitigation is warranted. However, it should be noted that homes that have not already been acoustically treated in the existing and the 2023 and 2025 CNEL 65 contours will be eligible for participation in the Airport’s existing acoustical treatment program.

Table 3.13-10

737-800 Aircraft Taxi Noise (SEL) at Nearby Noise Sensitive Uses - Southwest Quadrant Full-Size Terminal Option

Site ID and Taxi Path	Existing		Southwest Quadrant Full-Size Terminal Option	
	Arrival	Depart	Arrival	Depart
Site 1				
Runway 8	62.6	-	67	-
Runway 33	83.8	66.5	82.3	86.9
Runway 26	-	65.6	-	62.5
Runway 15	58.3	82.9	86.9	82.5
Site 2				
Runway 8	65.8	-	73	-
Runway 33	80.7	72.1	81.1	82.2
Runway 26	-	71.5	-	66.7
Runway 15	63.1	80.4	82.2	81.5
Site 3				
Runway 8	66	-	83.7	-
Runway 33	74.2	71.4	75.8	70.8
Runway 26	-	70.3	-	71
Runway 15	66.9	71.3	70.8	84.2
Site 4				
Runway 8	70.5	-	87.3	-
Runway 33	72.1	73.7	81.1	61
Runway 26	-	71	-	81.7
Runway 15	76.2	65.2	61	87.3

Source: RS&H, 2016

IMPACT SW QUAD FULL-NOISE-3: Noise from On-Site Project Construction

As previously discussed, project construction would require the use of mobile heavy equipment with high noise-level characteristics. A summary of construction noise impacts at the nearby existing nearby sensitive receptors is provided in **Table 3.13-10a**. Detailed noise calculations for construction activities are provided in **Appendix K** of this Draft EIR. As shown in **Table 3.13.10a**, construction noise levels at the sensitive receptors are estimated to reach a maximum of 60 dBA at the sensitive receptors (namely R3, the Summer Breeze Apartments). As such, the impacts would be less than significant and no mitigation measures are required.

Nighttime airfield construction would be necessary to ensure continued operation of the Airport during daytime hours. Airfield work would include similar equipment types included in the paving and demolition phase noise analysis presented for Southwest Quadrant Full Size Terminal Option in **Table 3.13-10a**. Adding the ten decibel nighttime penalty to the results of the analysis for the paving and demolition phases of the Southwest Quadrant Full-Size Terminal Option construction noise analysis indicates noise levels would be below the identified thresholds of significance identified in these tables. In addition, the attenuation distance identified in **Table 3.13-10a** would be much greater for airfield construction activities since this phase would be restricted to specifically designated portions of the airfield that are even farther from the closest noise sensitive receptors (R1, R2, and R3) used to calculate noise impacts.

Table 3.13-10a

Estimate of Construction Noise Levels (L_{eq}) at Existing Off-Site Sensitive Receiver Locations
Southwest Quadrant Full Size Terminal and Same Size Terminal Options

Noise-Sensitive Receptor	Construction Phases	Distance between Nearest Receptor and Construction Site (feet)	Estimated Construction Noise Levels at the Noise-Sensitive Receptor by Construction Phase,[a] Hourly L_{eq} (dBA)	Project's Significance Threshold [c] (dBA)	Exceeds Significance Threshold?
R3[b] Residential Uses South of the Southwest Quadrant Full Size and Same Size Terminal Options	Demolition	420	60	75	No
	Site Preparation	420	54		No
	Grading	420	69		No
	Building Construction	420	58		No
	Paving	420	60		No

[a] *Estimated construction noise levels represent the most conservative condition when noise generators are located closest to the receptors and are expected to last the entire construction duration.*

[b] *Receptors are partially shielded from the construction site by existing buildings; such shielding is incorporated into analysis as a 7-dBA reduction in noise levels.*

[c] *Significance Thresholds are the average measured daytime noise levels shown in Table 3.13-2 plus 5 dBA.*

Source: PCR Services Corporation, 2016

Mitigation Measure SW QUAD FULL-NOISE-3

No mitigation warranted.

IMPACT SW QUAD FULL-NOISE-4: Noise from Off-Site Construction Vehicles

Haul truck trips would occur during grading phase. Trucks traveling to and from the project site would be required to travel along the haul route approved by the City for the project. It is anticipated that outbound traffic would travel on Hollywood Way via Empire Avenue to access the northbound or southbound Golden State Freeway (I-5). Inbound traffic would take the reverse route from the Hollywood Way. An estimated maximum of approximately 60 haul truck trips would occur per day.

Detailed noise calculations for construction traffic are provided in **Appendix K** of this Draft EIR. The project's truck trips would generate noise levels of approximately 56 dBA, L_{eq} at 25 feet distance along Empire Avenue and approximately 55 dBA, L_{eq} at 25 feet distance along Hollywood Way. Based on the existing average ambient noise level of 72 dBA, L_{eq} along Empire Avenue (R3) and 70 dBA, L_{eq} along Hollywood Way (R4) as shown in **Table 3.13-10b**, construction traffic noise levels generated by project construction truck trips would not increase traffic noise levels along Hollywood Way.

The noise levels from truck trips would be 56 dBA along Empire Avenue, which is approximately 16 dBA less than the existing average ambient noise level of 72 dBA; since noise levels are quantified using a logarithmic ratio of pressures, and not measured directly, when noise levels of 56 dBA are added to 72 dBA, the resulting noise level remains 72 dBA likewise truck trip related noise along Hollywood Way discussed above. Therefore, noise generated by construction the truck trips would not be perceptible against the ambient noise level of 72 dBA along Empire Avenue and 70 dBA along Hollywood Way.

Mitigation Measure SW QUAD FULL-NOISE 4

No mitigation warranted.

IMPACT SW QUAD FULL-NOISE -5: Project-related Traffic on Ambient Noise Levels

Existing roadway noise levels were calculated along various arterial segments adjacent to the project site. Roadway noise attributable to project development was calculated using the traffic noise model previously described and was compared to baseline noise levels that would occur under the "No Project" condition.

Project impacts are shown in **Table 3.13-10b**. As indicated in **Table 3.13-10b**, the maximum increase in project-related traffic noise levels over existing traffic noise levels would be 2.8 dBA, CNEL, which would occur Between Airport/Thornton Avenue and Airport/Avon Avenue as well as between Arvilla Avenue and Lockheed Drive. This increase in sound level would be well below an increase of 5.0 dBA, CNEL, and the increase in sound level would be lower at the remaining roadway segments analyzed. The project-related noise increases would be less than the threshold and therefore less than significant, and no mitigation measures would be required.

Table 3.13-10b

Off-Site Traffic Noise Impacts – Future 2025 Conditions
Southwest Quadrant Full-Size Terminal Option

Roadway Segment	Calculated Traffic Noise Levels at 25 feet from Roadway, CNEL (dBA)			Exceed Threshold?
	Existing Conditions	Future with Project [b] (B)	Project Increment (B - A)	
Hollywood Way				
Between I-5 Southbound Ramps and San Fernando Boulevard	71.1	72.7	1.6	No
Between San Fernando Boulevard and Tulare Avenue	72.1	74.3	2.2	No
Between Tulare Avenue and Winona Avenue	72.0	74.5	2.5	No
Between Winona Avenue and Airport/Thornton Avenue	71.7	74.2	2.5	No
Between Airport/Thornton Avenue and Airport/Avon Avenue	71.8	74.6	2.8	No
Between Airport/Avon Avenue and Victory Boulevard	71.2	73.7	2.5	No
Between Victory Boulevard and Burbank Boulevard	70.6	73.1	2.5	No
Between Burbank Boulevard and Magnolia Boulevard	70.2	72.9	2.7	No
San Fernando Road				
Between Sunland Boulevard and Arvilla Avenue	68.0	70.7	2.7	No
Between Arvilla Avenue and Lockheed Drive	68.6	71.4	2.8	No
Between Lockheed Drive and Cohasset Street	66.0	68.6	2.6	No
San Fernando Boulevard				
Between Hollywood Way and Winona Avenue	65.6	66.8	1.2	No
Between Winona Avenue and Buena Vista Street	64.2	65.7	1.5	No
Empire Avenue				
Between Clybourn Avenue and Airport	67.7	68.3	0.6	No
Between Airport and Avon Avenue	66.9	68.9	2	No
Between Avon Avenue and Ontario Street	66.0	68.6	2.6	No
Between Ontario Street and Buena Vista Street	65.9	68.6	2.7	No
Winona Avenue				
Between Hollywood Way and Ontario Street	63.2	63.9	0.7	No
Thornton Avenue				
Between Hollywood Way and Ontario Street	63.7	64.0	0.3	No
Victory Boulevard				
West of Hollywood Way	71.2	71.8	0.6	No
East of Hollywood Way	70.6	71.2	0.6	No

[a] *Existing data is taken from Table 3.13-4.*

Source: PCR Services Corporation, 2016.

Mitigation Measure SW QUAD FULL-NOISE 5

No mitigation warranted.

Cumulative Impacts

IMPACT SW QUAD FULL-NOISE-6: Cumulative Impacts on Noise

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Other development in the areas that would experience an increase in aircraft noise would need to generate noise levels comparable to those of the Airport to contribute to a potentially significant cumulative impact. The noise effects of surface transportation facilities are often the loudest noise sources in a community. The noise of such activity is typically limited to the area immediately adjacent to the project site since noise attenuates rapidly with distance. To illustrate the relatively narrow possibility of combined cumulative noise impacts, a non-Airport project would need to generate noise levels of at least CNEL 61 dB to cause a 1.5 dB increase in cumulative noise. The projects in the vicinity of the Airport listed in **Table 3.1-1** primarily consist of retail or commercial development, multi-family housing, and the construction of a Metrolink station. Given the rapid attenuation of noise from ground based sources, the area in which other projects' noise levels could result in a combined cumulative impact associated with the incremental effects of this project and other projects is very small and not readily identifiable.

When compared to existing aircraft taxiing patterns, the noise associated with aircraft taxiing under the Southwest Quadrant Full-Size Terminal Option would change as presented in **Table 3.13-10**. Because the changes in noise from aircraft taxiing and the changes in noise associated with the forecast growth in aircraft operations do not exceed the requisite 1.5 dB CNEL significance threshold, no cumulative impacts would occur.

Mitigation Measure SW QUAD FULL-NOISE-6

No mitigation is warranted.

3.13.4.3 SOUTHWEST QUADRANT SAME-SIZE TERMINAL OPTION

Project Impacts

IMPACT SW QUAD SAME-NOISE-1: Impacts Related to Construction Vibration

Construction of the Southwest Quadrant Same-Size Terminal Option would temporarily increase roadway traffic and associated traffic noise levels and would involve the use of construction equipment on the site. The only significant vibration noise generating equipment used during construction would be pile driving of deep foundations. All of the other equipment, including jackhammering, vibratory compaction, and vibratory pile installation that would be used are routinely used at the Airport without detectable impacts on adjacent noise-sensitive receptors. Therefore, impacts related to construction vibration are considered to be less than significant. **Table 3.13-11** presents the PPV, which is the metric used by Caltrans for determining significance, associated with operation of the most disruptive types of equipment at the closest structures of varying uses. The most vibration-intensive activities associated with construction of the proposed project would generate a vibration level of 104 VdB. Because the closest residential land uses from the southwest quadrant site are located 450 feet from the project, vibration would attenuate below the 72 VdB Federal threshold of significance for residences. However, Hangar 1, which is considered to be a historic resource, is immediately adjacent to an area where pavement would be removed and would be subject to vibration that exceeds the significance threshold. Therefore, this is considered to be a significant impact.

Mitigation Measure SW QUAD SAME-NOISE-1

The Authority would require the use of less-intensive equipment for pavement removal and construction in the area near Hangar 1, such as a hand chisel and concrete saw.

Table 3.13-11

Effects of Construction-Related Vibration on Closest Structures – Southwest Quadrant Same-Size Terminal Option

Receptor	Construction Equipment	Attenuation Distance	Estimated Vibration at Receptor	Significance Threshold	Exceed Threshold?
Closest Homes (older)	Impact Pile Driver[a]	450 feet	0.04 PPV[c]	0.5 PPV	NO
	Large Dozer[b]		0.008 PPV[d]	0.3 PPV	NO
Closest Structure (Modern Industrial)	Impact Pile Driver[a]	170 feet	0.12 PPV[c]	2.0 PPV	NO
	Large Dozer[b]		0.011 PPV[d]	0.5 PPV	NO
Hangar 1[e]	Jackhammer[b]	1 foot	1.2 PPV[d]	0.25 PPV	YES

/a/: Transient source of vibration.
/b/: Continuous source of vibration.
/c/: $PPV_{Impact\ Pile\ Driver} = PPV_{Ref}\ (25/D)^n \times (E_{equip}/E_{Ref})^{0.5}$ (in/sec).
/d/: $PPV_{Equipment} = PPV_{Ref}\ (25/D)^n$ (in/sec).
/e/: Hangar 1 would be immediately adjacent to pavement removal activities.
Source: Caltrans Construction Noise and Vibration Manual, 2013.
Prepared by: RS&H, 2016.

IMPACT SW QUAD SAME-NOISE-2: Impacts Related to Aircraft Noise

Figures 3.13-8 and **3.13-9**, respectively, compare the 2023 and 2025 CNEL values associated with the Southwest Quadrant Full-Size Terminal Option to the Base Year CNEL contours shown in **Figure 3.13-3**. The forecast of aircraft activity in 2025 is about 15% higher than in the Base Year and, given the relatively minor changes in the fleet mix, a significant increase in CNEL is unlikely.

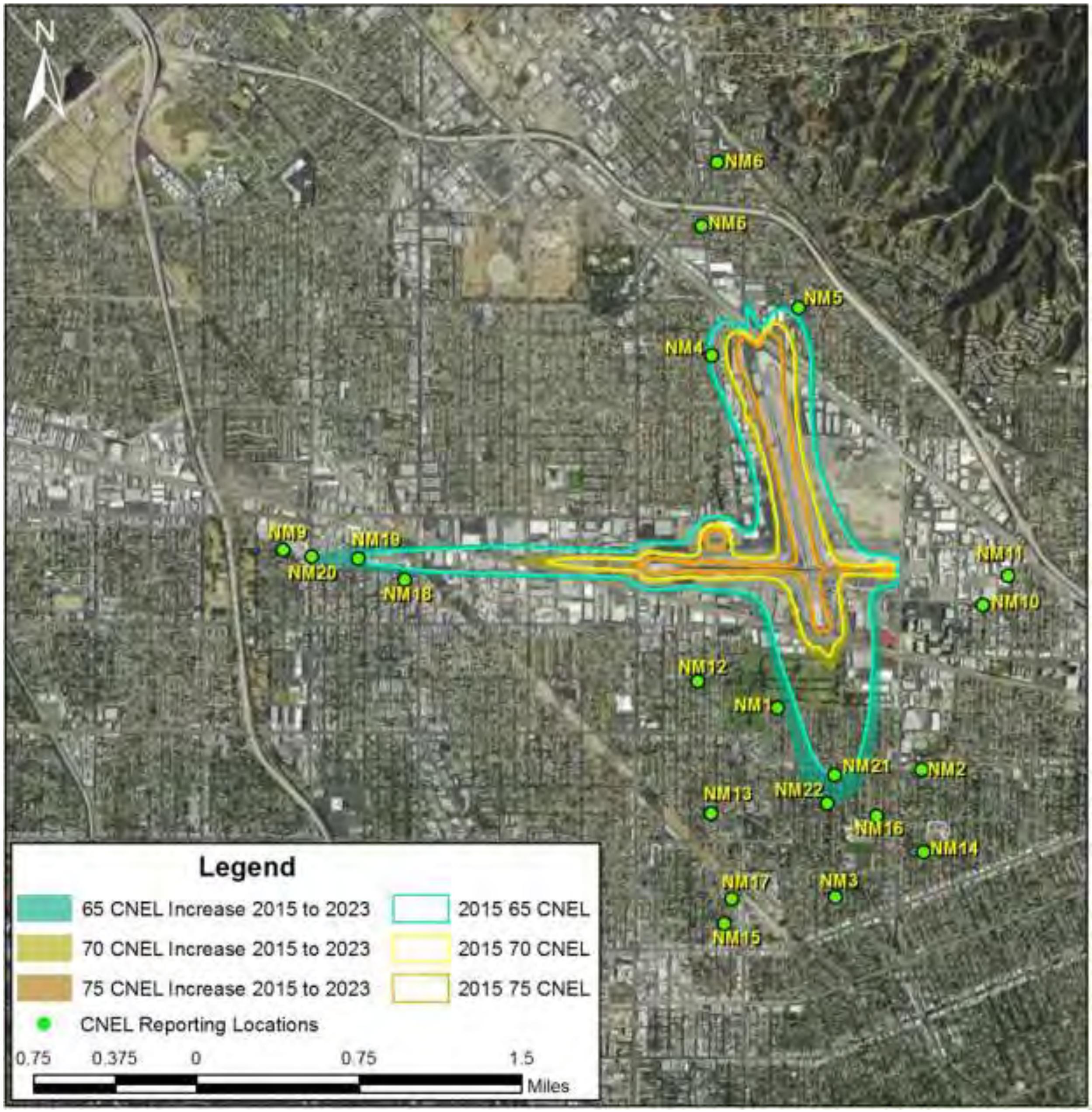
Table 3.13-6 compares the CNEL values of the alternatives under consideration at selected locations to Base Year values. These data show that the Southwest Quadrant Same-Size Terminal Option would not result in a significant increase (CNEL 1.5 dB) in aircraft noise due to flight operations compared to the Base Year.

Figures 3.13-8 and 3.13-9 compare the Base Year CNEL contours with those reflecting forecast aircraft operations for 2023 and 2025. The CNEL 65 contour would increase in size from 1.799 square miles to 2.196 square miles in 2025. These "difference contours" show the areas of increase in the CNEL 65 contour. These areas are located primarily to the west and south of the Airport and include 311 additional dwellings in the CNEL 65 contour when comparing 2015 to 2025.

All of these 311 homes are or will be eligible for acoustical treatment and approximately 75 percent have been acoustically treated. The CNEL 65 contour previously encompassed most of these homes before the 2008 recession and these homes were part of the eligibility area for the Authority's acoustical treatment program, with the exception of a few homes on the western end of the noise impact area.

Figure 3.13-8

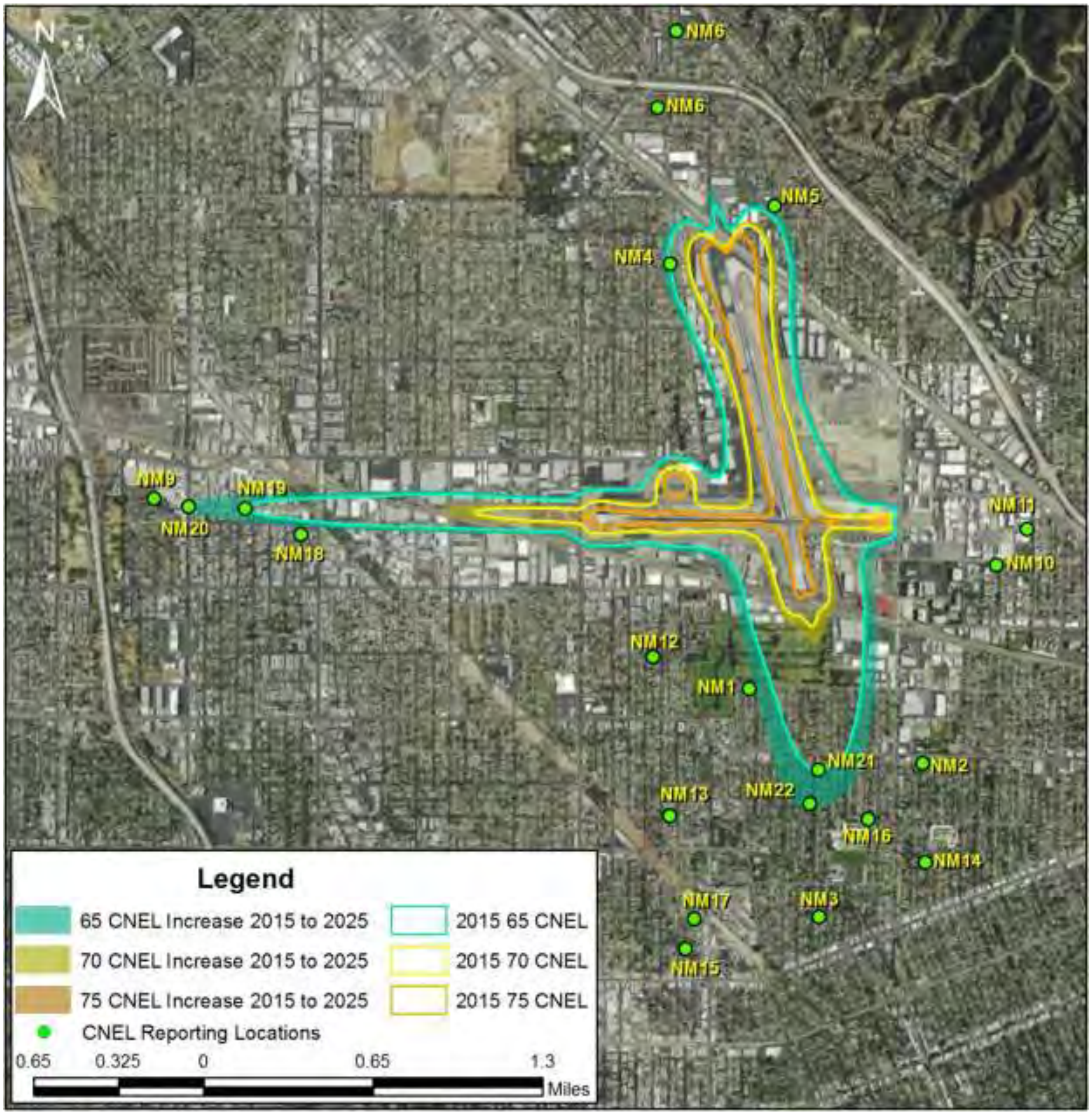
Southwest Quadrant Same-Size Terminal Option 2023 CNEL Compared to Base Year



Source: Burbank Bob Hope Airport, 2016; RS&H, 2016.

Figure 3.13-9

Southwest Quadrant Same-Size Terminal Option 2025 CNEL Compared to Base Year



Source: Burbank Bob Hope Airport, 2016; RS&H, 2016.

All of the additional homes will be eligible for acoustical treatment in the future because the Authority's latest Part 150 study eligibility boundary encompasses those homes, including those on the western end of the noise impact area. Thus, while the noise impact area (area of incompatible land under state standards) could increase between the Base Year and 2023 and 2025 (regardless of whether a terminal project is undertaken or not), those impacted dwellings are or will be eligible for acoustical treatment and thus may be deemed compatible through acoustical treatment before 2023 or 2025 and most have been acoustically treated. Moreover, the expansion of the CNEL 65 contour is due to forecasted growth and would occur regardless of whether a replacement passenger terminal is built or not, and would not be the result of implementing any terminal development option.

This expansion of the CNEL 65 contour and possible increase in the noise impact area is not a significant impact, because, comparing the forecasted 2023 and 2025 no project scenario, to this project alternative, the same growth in the CNEL 65 contour is projected to occur whether or not a new terminal is built. The only possible difference between the 2025 no project and 2025 project scenario would result from a change in taxiing patterns to and from the replacement passenger terminal compared to the taxiing patterns to and from the existing passenger terminal. Given that the SEL contours for taxiing aircraft would be on Airport property or compatible land uses, any change in the CNEL contours attributable to changed taxi patterns would be less than 1.5 dB CNEL. See **Table 3.13-12** for the SEL events associated with the Southwest Quadrant Same-Size Terminal Option compared to existing conditions. The Authority does not consider the possible adjustment in taxiing patterns to represent a significant impact from the project because the SEL contours indicate that the affected areas are on Airport or compatible land uses.

Mitigation Measure SW QUAD SAME-NOISE-2

No mitigation is warranted. However, it should be noted that homes that have not already been acoustically treated in the existing and the 2023 and 2025 CNEL 65 contours will be eligible for participation in the Airport's existing acoustical treatment program.

IMPACT SW QUAD SAME-NOISE-3: Noise from On-Site Project Construction

As previously discussed, project construction would require the use of mobile heavy equipment with high noise-level characteristics. A summary of construction noise impacts at the nearby existing nearby sensitive receptors is provided in **Table 3.13-10a**. Detailed noise calculations for construction activities are provided in **Appendix K** of this Draft EIR. As shown in Table 3.13.5, construction noise levels at the sensitive receptors are estimated to reach a maximum of 62 dBA at the sensitive receptors (namely R3, the Summer Breeze Apartments). As such, the impacts would be less than significant and no mitigation measures are required.

Nighttime airfield construction would be necessary to ensure continued operation of the Airport during daytime hours. Airfield work would include similar equipment types included in the paving and demolition phase noise analysis presented for Southwest Quadrant Same-Size Terminal Option in **Table 3.13-10a**. Adding the ten decibel nighttime penalty to the results of the analysis for the paving and demolition phases of the Southwest Quadrant Same-Size Terminal Option construction noise analysis indicates noise levels would be below the identified thresholds of significance identified in these tables. In addition, the attenuation distance identified in **Table 3.13-10a** would be much greater for airfield construction activities since this phase would be restricted to specifically designated portions of the airfield that are even farther from the closest noise sensitive receptors (R1, R2, and R3) used to calculate noise impacts.

Mitigation Measure SW QUAD SAME-NOISE-3

No mitigation warranted.

IMPACT SW QUAD SAME-NOISE-4: Noise from Off-Site Construction Vehicles

Haul truck trips would occur during grading phase. Trucks traveling to and from the project site would be required to travel along the haul route approved by the City for the project. It is anticipated that outbound traffic would travel on Hollywood Way via Empire Avenue to access the northbound or southbound Golden State Freeway (I-5). Inbound traffic would take the reverse route from the Hollywood Way. An estimated maximum of approximately 60 haul truck trips would occur per day.

Detailed noise calculations for construction traffic are provided in **Appendix K** of this Draft EIR. The project's truck trips would generate noise levels of approximately 56 dBA, L_{eq} at 25 feet distance along Empire Avenue and approximately 55 dBA, L_{eq} at 25 feet distance along Hollywood Way. Based on the existing average ambient noise level of 72 dBA, L_{eq} along Empire Avenue (R3) and 70 dBA, L_{eq} along Hollywood Way (R4) as shown in **Table 3.13-11a**, construction traffic noise levels generated by project construction truck trips would not significantly increase traffic noise levels along Hollywood Way.

The noise levels from truck trips would be 56 dBA along Empire Avenue, which is approximately 16 dBA less than the existing average ambient noise level of 72 dBA; since noise levels are quantified using a logarithmic ratio of pressures, and not measured directly, when noise levels of 56 dBA are added to 72 dBA, the resulting noise level remains 72 dBA likewise truck trip related noise along Hollywood Way discussed above. Therefore, noise generated by construction the truck trips would not be perceptible against the ambient noise level of 72 dBA along Empire Avenue and 70 dBA along Hollywood Way.

Mitigation Measure SW QUAD SAME-NOISE-4

No mitigation warranted.

IMPACT SW QUAD SAME-NOISE-5: Project-related Traffic on Ambient Noise Levels

Future roadway noise levels were also calculated along various arterial segments adjacent to the project site as compared to 2021 baseline traffic noise levels that would occur with implementation of the cumulative projects. As indicated in **Table 3.13-11a**, the maximum increase in project-related traffic noise levels over existing traffic noise levels would be 2.8 dBA, CNEL, which would occur Between Airport/Thornton Avenue and Airport/Avon Avenue as well as Between Arvilla Avenue and Lockheed Drive. This increase in sound level would be well below an increase of 5.0 dBA, CNEL, and the increase in sound level would be lower at the remaining roadway segments analyzed. The project-related noise increases would be less than the threshold and therefore less than significant, and no mitigation measures would be required.

Table 3.13-11a

Off-Site Traffic Noise Impacts – Future 2025 Conditions Southwest Quadrant Same-Size Terminal Option

Roadway Segment	Calculated Traffic Noise Levels at 25 feet from Roadway, CNEL (dBA)			Exceed Threshold?
	Future No Project [a] (A)	Future with Project [b] (B)	Project Increment (B - A)	
Hollywood Way				
Between I-5 Southbound Ramps and San Fernando Boulevard	71.1	72.7	1.6	No
Between San Fernando Boulevard and Tulare Avenue	72.1	74.3	2.2	No
Between Tulare Avenue and Winona Avenue	72.0	74.5	2.5	No
Between Winona Avenue and Airport/Thornton Avenue	71.7	74.2	2.5	No
Between Airport/Thornton Avenue and Airport/Avon Avenue	71.8	74.6	2.8	No
Between Airport/Avon Avenue and Victory Boulevard	71.2	73.7	2.5	No
Between Victory Boulevard and Burbank Boulevard	70.6	73.1	2.5	No
Between Burbank Boulevard and Magnolia Boulevard	70.2	72.9	2.7	No
San Fernando Road				
Between Sunland Boulevard and Arvilla Avenue	68.0	70.7	2.7	No
Between Arvilla Avenue and Lockheed Drive	68.6	71.4	2.8	No
Between Lockheed Drive and Cohasset Street	66.0	68.6	2.6	No
San Fernando Boulevard				
Between Hollywood Way and Winona Avenue	65.6	66.8	1.2	No
Between Winona Avenue and Buena Vista Street	64.2	65.7	1.5	No
Empire Avenue				
Between Clybourn Avenue and Airport	67.7	68.3	0.6	No
Between Airport and Avon Avenue	66.9	68.1	1.2	No
Between Avon Avenue and Ontario Street	66.0	68.0	2	No
Between Ontario Street and Buena Vista Street	65.9	68.6	2.7	No
Winona Avenue				
Between Hollywood Way and Ontario Street	63.2	63.9	0.7	No
Thornton Avenue				
Between Hollywood Way and Ontario Street	63.7	64.0	0.3	No
Victory Boulevard				
West of Hollywood Way	71.2	71.8	0.6	No
East of Hollywood Way	70.6	71.2	0.6	No

[a] *Existing data is taken from Table 3.13-4.*

Source: PCR Services Corporation, 2016.

Mitigation Measure SW QUAD SAME-NOISE-5

No mitigation warranted.

Cumulative Impacts

IMPACT SW QUAD SAME-NOISE-6: Cumulative Impacts on Noise

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Other development in the areas that would experience an increase in aircraft noise would need to generate noise levels comparable to those of the Airport to contribute to a potentially significant cumulative impact. The noise effects of surface transportation facilities are often the loudest noise sources in a community. The noise of such activity is typically limited to the area immediately adjacent to the project site since noise attenuates rapidly with distance. To illustrate the relatively narrow possibility of combined cumulative noise impacts, a non-Airport project would need to generate noise levels of at least CNEL 61 dB to cause a 1.5 dB increase in cumulative noise. The projects in the vicinity of the Airport listed in **Table 3.1-1** primarily consist of retail or commercial development, multi-family housing, and the construction of a Metrolink station. Given the rapid attenuation of noise from ground based sources, the area in which other projects' noise levels could result in a combined cumulative impact associated with the incremental effects of this project and other projects is very small and not readily identifiable.

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Table 3.13-12

737-800 Aircraft Taxi Noise (SEL) at Nearby Noise Sensitive Uses - Southwest Quadrant Same-Size Terminal Option

Site ID and Taxi Path	**Existing**		**Southwest Quadrant Same-Size Terminal Option**	
	Arrival	Depart	Arrival	Depart
Site 1				
Runway 8	62.6	-	67	-
Runway 33	83.8	66.5	82.3	86.9
Runway 26	-	65.6	-	62.5
Runway 15	58.3	82.9	86.9	82.5
Site 2				
Runway 8	65.8	-	73	-
Runway 33	80.7	72.1	81.1	82.2
Runway 26	-	71.5	-	66.7
Runway 15	63.1	80.4	82.2	81.5
Site 3				
Runway 8	66	-	83.7	-
Runway 33	74.2	71.4	75.8	70.8
Runway 26	-	70.3	-	71
Runway 15	66.9	71.3	70.8	84.2
Site 4				
Runway 8	70.5	-	87.3	-
Runway 33	72.1	73.7	81.1	61
Runway 26	-	71	-	81.7
Runway 15	76.2	65.2	61	87.3

Source: RS&H, 2016

When compared to existing aircraft taxiing patterns, the noise associated with aircraft taxiing under the Southwest Quadrant Same-Size Terminal Option would change as presented in **Table 3.13-12**. Because the changes in noise from aircraft taxiing and the changes in noise associated with the forecast growth in aircraft operations do not exceed the requisite 1.5 dB CNEL significance threshold, no cumulative impacts would occur.

Mitigation Measure SW QUAD SAME-NOISE-6

No mitigation is warranted.

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3.14 POPULATION AND HOUSING

3.14.1 Background and Methodology

The purpose of this section is to determine whether implementation of the proposed project would result in significant environmental impacts on population and housing.

3.14.1.1 Regulatory Context

The California Environmental Quality Act (CEQA) requires that project sponsors evaluate the project's potential to affect population and housing by either inducing substantial population growth or displacing substantial numbers of people or housing units.

The Planning and Zoning Law mandates that local councils of governments (or the Department of Housing and Community Development, in the absence of a local council of government) prepare a Regional Housing Needs Assessment (RHNA) for all counties and cities within state.[1] In 2012, the Southern California Association of Governments (SCAG), the local council of governments for the region in which the proposed project is located, completed the required assessment for the greater Los Angeles area for the planning cycle covering 2013 through 2021.[2] State law requires that cities and counties provide a certain amount of housing to accommodate the demands of the growing population.

3.14.1.2 Significance Thresholds

For purposes of this analysis, implementation of the proposed project would result in a significant impact related to population and housing if it were to:

- POP-1: Induce substantial population growth in the area, either directly (e.g., by increasing employment opportunities and attracting new residents to the region) or indirectly (e.g., through the extension of roads or other infrastructure); or
- POP-2: Displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere.
- POP-3: A substantial contribution to cumulative impacts on employment, population, and housing.

3.14.1.3 Methodologies

Impacts related to population and housing were evaluated by identifying the existing population and housing stock in the City of Burbank and determining whether implementation of the project would increase employment opportunities at the Airport or in the Airport vicinity, thereby stimulating population growth and housing demand in Burbank and the greater Los Angeles region (also see the discussion on growth inducement in **Chapter 5**).

1 California Government Code, Section 65584.

2 Southern California Association of Governments, *Final Regional Housing Needs Allocation Plan – Planning Period October 2013–October 2021,* 2012.

3.14.2 Existing Conditions / Environmental Setting

3.14.2.1 Population and Housing Estimates

The California Department of Finance (DOF) provides updated population and housing estimates for cities and counties in California each year. As of May 1, 2015, the DOF estimated the population of Burbank at about 106,000, about 44,500 housing units with an approximate 5.3 percent vacancy rate (42,240 occupied units and 2,234 vacant units), and an average of 2.49 persons per household.[3] According to the California Department of Housing and Community Development, a housing vacancy rate of 5 percent is considered normal; vacancy rates below 5 percent indicate a housing shortage in a community.[4] Therefore, Burbank's vacancy rate indicates a balanced housing supply. DOF population, household, and employment projections for Burbank are shown in **Table 3.14-1**. Based on historical data from the DOF, Burbank has a growth rate of 0.27 percent for population, 0.7 percent for employment, and 0.7 percent for housing.

Table 3.14-1

Department of Finance Population, Housing, and Employment Forecasts for Burbank

	2000	2005	2010	2013	2015	2020	2025	2030	2035
Population	100,316	101,830	103,340	104,300	106,084	106,510	108,117	109,748	111,405
Households	41,608	41,609	41,940	42,028	42,087	42,235	42,382	42,531	42,680
Employment	—	93,676	85,681	88,015	89,607	93,712	98,006	102,496	107,192

Sources: California Department of Finance, E-1 Population Estimates for Cities, Counties, and the State, 2015; California Employment Development Department, Labor Force and Unemployment Rate for Cities and Census Designated Places, 2009–2014, with 2012 Benchmark (2014); Department of Finance Demographic Research Unit, Historical Census Populations of California, Counties, and Incorporated Cities, 1850–2010, 2012.

SCAG also prepares population, housing, and employment projections for communities within its jurisdiction. SCAG projections for Burbank are shown in **Table 3.14-2**. These projections are based on an annual growth rate in the number of households of 0.7 percent and an annual growth rate for employment of 0.8 percent.

The *Burbank2035 General Plan* provides population, household, and employment projections for 2005 through 2035.[5] **Table 3.14-3** shows that Burbank's 2035 population capacity is an estimated 116,516 people; the dwelling capacity is 50,219 units; and employment capacity is 125,461 employees.

3 California Department of Finance, Demographic Research Unit, *Report E-1, Population Estimates for Cities, Counties, and the State, 2014 and 2015,* 2015.

4 California Department of Housing and Community Development, 2000.

5 City of Burbank, *Burbank2035 General Plan*. Adopted on February 19, 2013. Accessed on January 22, 2016. http://www.burbankca.gov/home/showdocument?id=23448.

Table 3.14-2

SCAG Population, Housing, and Employment Forecasts for the City of Burbank

	2005	2010	2013	2015	2020	2025	2030	2035
Population	106,493	112,103	114,474	116,430	120,890	125,213	129,390	133,391
Households	42,216	44,130	45,063	45,914	47,793	49,260	50,677	51,842
Employment	90,646	96,668	99,007	101,490	104,556	108,161	112,010	115,695
Jobs/Housing Ratio	2.15	2.19	2.20	2.21	2.19	2.20	2.21	2.23

Source: SCAG, Regional Transportation Plan/Growth Vision: Socio-Economic Forecast Report, 2012.

Note:
SCAG projections are based on an annual growth rate in the number of households of 0.7 percent and an annual growth rate for employment of 0.8 percent. Forecasts for 2013 and beyond were estimated by applying the applicable annual growth rate to 2010 values.

Table 3.14-3

General Plan Projections for the City of Burbank

	2005	2010	2013	2015	2020	2025	2030	2035
Population	101,828	103,340	104,723	105,739	108,193	110,705	113,274	116,516
Households	42,959	44,309	44,950	45,383	46,482	47,609	48,762	50,219
Employment	89,879	94,932	98,099	100,269	105,907	111,861	118,151	125,461
Jobs/Housing Ratio	2.09	2.14	2.18	2.21	2.28	2.35	2.42	2.5

Source: City of Burbank, Burbank2035 General Plan, 2013.

Note:
These projections are based on an annual growth rate in the number of households of 0.7 percent and an annual growth rate for employment of 0.8 percent. Forecasts for 2013 and beyond were estimated by applying the applicable annual growth rate to 2010 values.

3.14.2.2 Existing Employment at the Airport

The Airport is a major employer for residents in Burbank and surrounding communities. Employers at the Airport include on-airport support businesses such as domestic airlines, cargo airlines, rental car companies, retail outlets, food and beverage establishments, and Airport tenants that provide services to airlines. Other employers include public agencies that oversee air traffic control, airport security, and emergency services.

The Authority also acts as a landlord for numerous other tenants, including airline ground crews, fixed-base operators (FBOs), airport security services, non-commercial flight operators, aviation services, and logistics providers (e.g., FedEx and UPS). The Airport also hosts the operations of state and federal agencies such as the FAA, TSA, and Drug Enforcement Administration.

Currently, there are more than 2,700 direct (permanent) jobs at the Airport (see **Table 3.14-4**). Most employees work in transportation-related industries, which include not only airlines but also aircraft support services such as aircraft maintenance and ground support.

Table 3.14-4

Existing Employment at the Airport

Category	Employees	Percentage
Airlines (Commercial, Private Tenants, and Cargo)	740	27.3
Airport Management and Administrative	172	6.4
FBOs, Fuel Providers, Aircraft Maintenance, Ground Support	625	23.0
Public Service and Security	389	14.3
Suppliers, Tenants, Construction, Consultants, and Other Services	787	29.0
TOTAL	**2,713**	**100.0**

Source: Burbank Bob Hope Airport, 2014.

3.14.3 Environmental Impacts and Mitigation Measures

3.14.3.1 ADJACENT PROPERTY FULL-SIZE TERMINAL OPTION

Project Impacts

IMPACT ADJ PROP FULL-POP-1: Impacts Related to Population Growth

The Adjacent Property Full-Size Terminal Option would temporarily increase construction-related employment (see **Table 3.14-5**). As shown in the table, temporary employment would peak in 2022 with 404 construction employees, which is less than 0.5 percent of the total employment in Burbank. This increase in construction employment would not induce population growth in Burbank because these jobs would be temporary and because the pool of construction workers in Los Angeles is sufficiently large that construction workers are unlikely to relocate to Burbank. Therefore, the impact related to construction employment would be less than significant.

Table 3.14-5
Construction Employment Generation

Year	Employees Generated
2020	169
2021	244
2022	404
2023	251

Source: C&S Engineers, 2014.

The proposed project would result in a minimal increase in permanent Airport employees to staff the expanded concessionary functions at the replacement passenger terminal. Other employment sectors at the Airport would not change because the demand for employees is not related to the size of the replacement passenger terminal. Based on the proposed square footage for concession space, the estimated increase in permanent employment at the Airport is less than 5 percent, or about 135 additional employees. This increase, which is less than 0.2 percent of the total employment in Burbank and is within the employment projections of the DOF, SCAG, and the City's General Plan, would not be substantial enough to induce population growth; therefore, the impact related to employment during project operations would be less than significant.

In addition, the Adjacent Property Full-Size Terminal Option would not indirectly induce population growth because no extension of roads or infrastructure that would serve residential land uses would be constructed.

Mitigation Measure ADJ PROP FULL-POP-1
No mitigation is warranted.

IMPACT ADJ PROP FULL-POP-2: Impacts on Housing Demand

Implementation of the Adjacent Property Full-Size Terminal Option would not displace people or housing units. In addition, the estimated 135 additional permanent employees at the Airport could be accommodated by existing and projected housing in Burbank or in other communities throughout Los Angeles County. Because this minor increase in employment would not affect housing demand, the impact under this development option would be less than significant.

Mitigation Measure ADJ PROP FULL-POP-2
No mitigation is warranted.

Cumulative Impacts

IMPACT ADJ PROP FULL-POP-3: Cumulative Impacts on Employment, Population, and Housing

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Because the incremental effect of the Adjacent Property Full-Size Terminal Option would not be cumulatively considerable as to employment, population, and housing in Burbank and the greater Los Angeles area, it would not contribute to a significant cumulative impact in these regards.

Mitigation Measure ADJ PROP FULL-POP-3
No mitigation is warranted.

3.14.3.2 SOUTHWEST QUADRANT FULL-SIZE TERMINAL OPTION

Project Impacts

IMPACT SW QUAD FULL-POP-1: Impacts Related to Population Growth
The Southwest Quadrant Full-Size Terminal Option would temporarily increase construction-related employment (see **Table 3.14-5**). As shown in the table, temporary employment would peak in 2022 with 404 construction employees, which is less than 0.5 percent of the total employment in Burbank. This increase in construction employment would not induce population growth in Burbank because these jobs would be temporary and because the pool of construction workers in Los Angeles is sufficiently large that construction workers are unlikely to relocate to Burbank. Therefore, the impact related to construction employment would be less than significant.

The proposed project would result in a minimal increase in permanent Airport employees to staff the expanded concessionary functions at the replacement passenger terminal. Other employment sectors at the Airport would not change because the demand for employees is not related to the size of the replacement passenger terminal. Based on the proposed square footage for concession space, the estimated increase in permanent employment at the Airport is less than 5 percent, or about 135 additional employees. This increase, which is less than 0.2 percent of the total employment in Burbank and is within the employment projections of the DOF, SCAG, and the City's General Plan, would not be substantial enough to induce population growth; therefore, the impact related to employment during project operations would be less than significant.

In addition, the Southwest Quadrant Full-Size Terminal Option would not indirectly induce population growth because no extension of roads or infrastructure that would serve residential land uses would be constructed.

Mitigation Measure SW QUAD FULL-POP-1
No mitigation is warranted.

IMPACT SW QUAD FULL-POP-2: Impacts on Housing Demand
Implementation of the Southwest Quadrant Full-Size Terminal Option would not displace people or housing units. In addition, the estimated 135 additional permanent employees at the Airport could be accommodated by existing and projected housing in Burbank or in other communities throughout Los Angeles County. Because this minor increase in employment would not affect housing demand, the impact under this development option would be less than significant.

Mitigation Measure SW QUAD FULL-POP-2
No mitigation is warranted.

Cumulative Impacts

IMPACT SW QUAD FULL-POP-3: Cumulative Impacts on Employment, Population, and Housing

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Because the incremental effect of the Southwest Quadrant Full-Size Terminal Option would not be cumulatively considerable as to employment, population, and housing in Burbank and the greater Los Angeles area, it would not contribute to a significant cumulative impact in these regards.

Mitigation Measure SW QUAD FULL-POP-3

No mitigation is warranted.

3.14.3.3 SOUTHWEST QUADRANT SAME-SIZE TERMINAL OPTION

Project Impacts

IMPACT SW QUAD SAME-POP-1: Impacts Related to Population Growth

The Southwest Quadrant Same-Size Terminal Option would temporarily increase construction-related employment (see **Table 3.14-5**). As shown in the table, temporary employment would peak in 2022 with 404 construction employees, which is less than 0.5 percent of the total employment in Burbank. This increase in construction employment would not induce population growth in Burbank because these jobs would be temporary and because the pool of construction workers in Los Angeles is sufficiently large that construction workers are unlikely to relocate to Burbank. Therefore, the impact related to construction employment would be less than significant.

In addition, the Southwest Quadrant Same-Size Terminal Option would result in a minimal increase in permanent Airport employees to staff the expanded concessionary functions at the replacement passenger terminal. Other employment sectors at the Airport would not change because the demand for employees is not related to the size of the replacement passenger terminal. Based on the proposed square footage for concession space, the estimated increase in permanent employment at the Airport is less than 5 percent, or about 135 additional employees. However, the Southwest Quadrant Same-Size Terminal Option would not provide space for Authority offices. Therefore, approximately half of the 172 airport management employees that are currently at the Airport would be relocated to an off-Airport site not in Burbank. Thus, the increase in additional employees at the Airport would be about 50. This increase, which is less than 0.1 percent of the total employment in Burbank and is within the employment projections of the DOF, SCAG, and the City's General Plan, would not be substantial enough to induce population growth; therefore, the impact related to employment during project operations would be less than significant.

In addition, the Southwest Quadrant Full-Size Terminal Option would not indirectly induce population growth because no extension of roads or infrastructure that would serve residential land uses would be constructed.

Mitigation Measure SW QUAD SAME-POP-1

No mitigation is warranted.

IMPACT SW QUAD SAME-POP-2: Impacts on Housing Demand

Implementation of the Southwest Quadrant Same-Size Terminal Option would not displace people or housing units. In addition, the estimated 50 additional permanent employees at the Airport could be accommodated by existing and projected housing in Burbank or in other communities throughout Los Angeles County. Because this minor increase in employment would not affect housing demand, the impact under this development option would be less than significant.

Mitigation Measure SW QUAD SAME-POP-2

No mitigation is warranted.

Cumulative Impacts

IMPACT SW QUAD SAME-POP-3: Cumulative Impacts on Employment, Population, and Housing

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Because the incremental effect of the Southwest Quadrant Same-Size Terminal Option would not be cumulatively considerable as to employment, population, and housing in Burbank and the greater Los Angeles area, it would not contribute to a significant cumulative impact in these regards.

Mitigation Measure SW QUAD SAME-POP-3

No mitigation is warranted.

3.15 PUBLIC SERVICES

3.15.1 Background and Methodology

The purpose of this section is to determine whether implementation of the proposed project would result in significant environmental impacts on public services, specifically law enforcement, fire protection, and schools. The discussion differentiates between physical impacts on the environment and other impacts of community concern.

3.15.1.1 Regulatory Context

The California Environmental Quality Act (CEQA) requires that project sponsors evaluate the project's potential to affect public services. In addition, federal regulations, state codes, and local codes are used to determine an adequate level of service for law enforcement and fire protection services.

Title 14, Part 139: Certification of Airports

The FAA establishes requirements under Federal Aviation Regulations (FAR) Title 14, Part 139 for airports serving scheduled passenger-carrying operations of an air carrier operating aircrafts designed for more than 9 passenger seats or serving unscheduled passenger-carrying operations of an air carrier operating aircrafts designed for at least 31 passenger seats.[1] FAR Part 139 certification establishes that airports must maintain aircraft rescue and fire fighting (ARFF) facilities on airport property in order to continue operation. In addition to the FAR Part 139 certification, the FAA further classifies airports by an Index Level "A" through "E" ranking system; each classification rank has different ARFF requirements that must be met.[2] The Airport is classified as Index Level "C".

Title 49, Part 1540: Civil Aviation Security

FAR Title 49, Part 1540 establishes the Transportation Security Administration (TSA), which has the responsibility to serve as the authority over civil aviation security for all aviation-related activities. Part 1540 identifies TSA's role in airport security that may work in conjunction with the responsibilities of an airport's law enforcement authority.

Title 49, Part 1542: Airport Security

The FAA establishes requirements for operational airports to maintain an Airport Security Plan (ASP) under FAR Title 49, Part 1542.[3] The ASP provides for the safety and security of persons and property against acts of criminal violence, aircraft piracy, and the introduction of unauthorized weapons, explosives, or incendiaries onto an aircraft. Oversight compliance is the responsibility of the TSA.

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1 Code of Federal Regulations, Title 14, Part 139.1, *Certification of Airports.*
2 Code of Federal Regulations, Title 14, Part 139.315, *Certification of Airports.*
3 Code of Federal Regulations, Title 49, Part 1542, *Airport Security*, 2014.

Title 49, Part 1544: Aircraft Operator Security: Air Carriers and Commercial Operators
FAR Title 49, Part 1544 establishes that TSA is to be involved in the aviation security operations of any airport operation. Part 1544 requires the airport operator to adopt and implement a full security program in collaboration with the authority of TSA.

California Fire Code (Specific Reference to NFPA 415)
The City of Burbank Municipal Code and the City of Los Angeles Municipal Code have both adopted the California Fire Code, California Code of Regulations, Title 24, Part 9 2013 Edition,[4] compiled by the California Building Standards Commission based on the 2010 International Fire Code, including the table of contents, all appendices, and the index. These codes prescribe regulations consistent with nationally recognized standard practices safeguarding life, health, property, and public welfare to a reasonable degree from the hazards of fire and explosion.

The California Fire Code provides requirements for site access and fire flow of 6,000 gallons per minute (gpm) for a building not fully protected by fire sprinklers. The fire flow requirement for structures that are protected by fire sprinklers can be reduced by 75 percent for a total demand of 1,500 gpm.

Burbank Municipal Code
Burbank Municipal Code Title 9, Building Regulations, identifies the requirements for structures in the City of Burbank to meet fire requirements as well as other environmental protection considerations.[5] Burbank Municipal Code Title 5, Police and Public Safety, establishes the responsibilities of the Burbank Public Department to enforce City codes and regulations with the purpose of protecting the health, safety, and welfare of the public.[6]

Los Angeles Municipal Code
The Los Angeles Municipal Code establishes minimum requirements consistent with national standards to protect, safety, and property from various hazards within new and existing buildings, structures, or premises.[7] The Los Angeles Fire Code also provides for the safety of the City of Los Angeles' fire fighters and emergency responders during emergency operations. Additionally, the City of Los Angeles Municipal Code establishes the responsibilities of the Los Angeles Police Department BPD to enforce City of Los Angeles codes and regulations with the purpose of protecting the health, safety, and welfare of the public.[8]

3.15.1.2 Significance Thresholds
For purposes of this analysis, implementation of the proposed project would result in a significant impact related to public services if it resulted in:

- PUB SVCS-1: A substantial increase in fire protection or police protection services as a result of construction activities.

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4 California Code of Regulations, *Fire Code,* Title 24, Part 9, 2013.
5 City of Burbank, *Municipal Code*, Title 9, Building Regulations, 2014.
6 City of Burbank, *Municipal Code*, Title 5, Police and Public Safety, 2014.
7 City of Los Angeles, *Municipal Code*, Chapter V, Article 7, Fire Protection and Prevention (Fire Code), 2014.
8 City of Los Angeles, *Municipal Code*, Chapter V, Article 2, Police and Special Officers, 2014.

- PUB SVCS-2: A substantial increase in demand for fire protection services.
- PUB SVCS-3: A substantial increase in demand for police protection services.
- PUB SVCS-4: A substantial increase in the demand for school services.
- PUB SVCS-5: A substantial contribution to cumulative impacts to fire protection, police protection, or school services.

3.15.1.3 Methodologies

The evaluation of impacts related to public services is based on comparisons of projected service needs to levels of service currently provided and anticipated at the Airport. The public service analyses focus on the need for additional staff and equipment, as applicable to each function and the resulting environmental impacts of providing increased service capacity. For each public service department serving the Airport, facilities and staffing were analyzed as well as response times.

3.15.2 Existing Conditions / Environmental Setting

3.15.2.1 Fire Protection Services

Primary structure fire protection services at the Airport are provided by the City of Burbank Fire Department (BFD), with secondary responses provided by the Burbank-Glendale-Pasadena Airport Authority Fire Department (BGPAAFD), and on an as-needed basis through a mutual aid agreement with the City of Los Angeles Fire Department (LAFD).

The Verdugo Fire Communications Center (VFCC), a regional communications center that was established in 1979 between the cities of Burbank, Glendale, and Pasadena, is a communications center that provides a fire and emergency medical service (EMS), 911 call center, and dispatch for its members and contracting agencies. The VFCC fields calls for service for the 12 cities of Burbank, Glendale, Pasadena, Alhambra, Arcadia, Monrovia, Montebello, Monterey Park, San Gabriel, San Marino, Sierra Madre, South Pasadena, and Vernon with the purpose of optimizing the use of the fire service resources and services between these cities.[9] The communication center was established under a "no borders" agreement in which the closest fire station to a reported incident responds to the call, regardless of jurisdiction. In addition to these 12 cities, a representative of the BPGAA also sits on the VFCC Task Force. This results in a more efficient delivery of fire protection and emergency medical services within the region and to the Airport.

<u>Burbank-Glendale-Pasadena Airport Authority Fire Department</u>

The BGPAAFD is the on-site fire department that is operated and maintained by TBI Airport Management Inc., pursuant to an airport management services agreement with BGPAA. The BGPAAFD is classified as an ARFF, which functions to provide aircraft rescue and firefighting services for air carrier operations.[10] The ARFF responsibilities involve the response, hazard mitigation, evacuation, and rescue of passengers and crew from any aircraft emergency; fire prevention; disaster preparation; medical aid to level of EMT B; structure fire response; and EOC. Maintaining an ARFF station is required by FAA standards since BUR is considered a Part 139 certified airport.[11]

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9 Burbank Fire Department, "Verdugo Fire Communications Center," http://www.burbankfire.us/divisions/administration/verdugo-fire-communications-center.

10 Code of Federal Regulations, Title 14, Part 139, *Certification of Airports.*

11 Code of Federal Regulations, Title 14, Part 139, *Certification of Airports.*

FAR Part 139 also requires a specific level of fire suppression capability at an airport, which is described as an "Index" level.[12] Determined by the fuselage length of the longest air carrier aircraft with five or more daily departures, the FAA has established an airport ranking system from Index Level "A" through "E". Therefore, the Airport is ranked as an Index Level "C" airport facility based on the use of the aircrafts with the longest fuselage lengths of between 126 feet and 159 feet.[13]

Based on the mutual aid agreements the BGPAA has with VFCC member cities, other fire agencies provide fire response and emergency services to the Airport as needed. The VFCC will dispatch the nearest available unit, and in most cases the BFD responds to incident requests at the Airport.[14] Additionally, the BGPAAFD will provide off-airport mutual aid response for aircraft incidents and freeway incidents. This results in an additional level of safety and protection for the traveling public, airport tenants, airport users, and the surrounding community.[15]

The Verdugo Fire Communications Center (VFCC) provides fire, EMS, and rescue dispatch services on a contract basis to the Airport, as well as nine other cities in the region.[16] The BGPAAFD does respond to all emergencies including structure fires, aircraft emergencies, emergency medical calls and hazardous materials incidents.

The existing ARFF facility is located in the northwest quadrant of the Airport. The existing facility was originally constructed in 1990 as an interim, temporary facility, utilizing five modular buildings located inside a hangar. While the existing ARFF facility complies with relevant statutes and meets safety requirements applicable to an ARFF station, public safety staff believes that a new, state of the art facility would better enable staff to provide all of the necessary and desired services. The 3,600-square-foot structure that houses the current staff is considered insufficient and is not able to efficiently support ARFF operations such as training, storage, and exercise space. While response times meet minimum requirements, currently all ARFF responses must cross both runways to access the existing passenger terminal. Additionally, noise exposure inside the structure is higher than desirable levels given its close proximity to the runways.

The equipment the BGPAAFD currently has on-site includes three Rosenbauer Panther 1500s and one Oshkosh Stryker 1500, one Rescue Vehicle (Ford F-550), one Utility Vehicle (Ford F-450), one Emergency Response 24 foot Haulmark Trailer, and one 600 gallon Foam Trailer.

The BGPAAFD currently meets the FAA Index Level "C" requirement for on-site equipment. With Airport operations running 24 hours per day, 7 days per week, the BGPAAFD is currently staffed with a total of 18 fulltime emergency medical technician (EMT) B qualified firefighting personnel, including 1 chief (who works a 40-hour Monday thru Friday work week), 3 captains, and 15 firefighters.[17] EMS is also provided by the

12 Code of Federal Regulations, Title 14, Part 139.315, *Certification of Airports*.
13 Code of Federal Regulations, Title 14, Part 139.315(a)(1)(2)(b)(3), *Certification of Airports.*
14 David Full, AICP, RS&H, email correspondence, April 29, 2014.
15 David Full, AICP, RS&H, email correspondence, April 29, 2014.
16 Burbank Fire Department, BFD History, www.burbankfire.us/divisions/administration/bfd-history, April 2016
17 Captain Chad Peterson, Burbank Airport Fire Department, email correspondence, April 1, 2014.

BGPAAFD. The ARFF personnel can provide the initial response to emergency medical calls at the Airport with a rescue unit and available ARFF vehicle.

FAR Part 139 operational requirements establish performance criteria that at least one ARFF vehicle must respond to an incident on the Aircraft Operations Area within three minutes upon the time of alarm and all other ARFF vehicles must respond within 4 minutes.[18] The response time is dependent upon the emergency type and proximity of the ARFF station to the passenger terminal where incidents are more likely to occur.

The existing ARFF station is located near the intersection of the existing runways, which gives the BGPAAFD close proximity to any potential incident that may occur on the runways. Due to the nature of the ARFF facility being located on Airport property, obstruction from public roadways and intersection level of services along travel routes is not an issue.

The BGPAAFD also responds to incidents at Parking Lots B and C, which require ARFF vehicles to use public streets.

City of Burbank Fire Department

Fire protection services within the City of Burbank are provided by the BFD, which also provides first EMS, fire prevention services, and disaster preparedness services. The BFD consists of seven divisions: the Fire Prevention Bureau, Fire Suppression, EMS, Emergency Management, Fire Apparatus & Equipment, Training & Safety, and Administration. The BFD provides primary response to the Airport for structure fire protection and emergency response services, and secondary ARFF response.

The BFD maintains three fire stations in close proximity to the Airport: No. 12 (644 North Hollywood Way), No. 13 (2713 Thornton Avenue), and No. 14 (2305 West Burbank Boulevard). While Stations No. 12 and No. 14 are close to the Airport, Station No. 13 is the designated BFD fire station that provides first alarm response to the Airport. As shown in **Table 3.15-1**, Station No. 13 is equipped with one engine and one ambulance.

Table 3.15-1

BFD Fire Stations Within Proximity to BUR

Station No.	Distance from BUR	Equipment
12	2.6 miles	Engine and Truck Company Houses BFD HazMat 12 Division
13	0.7 miles	Engine and Rescue Ambulance
14	2.2 miles	Engine

Source: Burbank Fire Department (BFD), "Apparatus," http://www.burbankfire.us/divisions/fire-suppression/apparatus/-PhotoID-301.

18 Code of Federal Regulations, Title 14, Part 139.319(h)(2)(ii), *Aircraft Rescue and Firefighting: Operational Requirements.*

The BFD has approximately 120 uniformed fire personnel providing protection for life, property, and the environment and 15 professional support personnel staff providing technical and administrative expertise.[19] A total of 36 firefighters are always on duty throughout the City among the six neighborhood fire stations. The BFD currently maintains approximately one fire station per 18,000 residents.[20]

Response distances relate directly to the linear travel distance of the circulation system and the BFD's ability to successfully navigate access-ways within that circulation system. Roadway congestion and intersection levels of service along the response route can affect travel time. Based on the *Burbank2035 General Plan* Safety Element, the maximum response time for fire suppression services is 5 minutes.[21] According to the VFCC 2014-2015 Annual Fiscal Report, the BFD has an average response time of 2 minutes and 15 seconds for fire incidents and 1 minute and 30 seconds for EMS incidents,[22] which the meets maximum response time standard of less than 5 minutes that is established within the *Burbank2035 General Plan*.

<u>City of Los Angeles Fire Department</u>
Fire protection and emergency medical services in the City of Los Angeles are provided by the LAFD. The LAFD consists of three divisions that are further broken down into 16 battalions. There are 106 fire stations that span across the City's 471 square miles of jurisdiction, which house a total of 87 engine companies, 41 truck companies, 32 basic life support ambulances, and 4 hazardous material squads. A daily contingent of approximately 1,104 uniformed firefighter personnel is on duty at all times (242 of which are firefighter and paramedics) that support a population of approximately four million residents.[23]

The closest LAFD Stations that would provide response to the Airport are stations No. 60 (5320 Tujunga Avenue with an average response time of 4 minutes and 50 seconds), No. 77 (9224 Sunland Boulevard with an average response time of 5 minutes and 24 seconds), No. 86 (4305 Vineland Avenue with an average response time of 4 minutes and 59 seconds), No. 89 (7063 Laurel Canyon Boulevard with an average response time of 4 minutes and 16 seconds), and No. 98 (13035 Van Nuys Boulevard with an average response time of 4 minutes and 25 seconds).[24]

<u>Fire Flow Requirements and Conditions</u>
Fire flow requirements and supporting water infrastructure are maintained by either Burbank Water and Power (BWP) or the Los Angeles Department of Water Power (LADWP), depending on the routing of the lines beneath the Airport property. Therefore, the BGPAAFD consults with the BFD or LAFD for input regarding the size of water lines for fire suppression and relative pressure for those lines as some of the factors in determining such requirements are based on the size, structure, layout, and occupancy of a facility. In general, the quantity of water necessary for fire protection varies with the type of development, life hazard, type and level of occupancy, general and specific access, and degree of fire hazard (based on such

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19 BFD, "Fire Suppression," http://www.burbankfire.us/divisions/fire-suppression.

20 City of Burbank, *Burbank2035 Environmental Impact Report,* Safety Element, pp. 4.15-1, 2013.

21 City of Burbank, *Burbank2035 General Plan,* Public Services and Utilities, pp. 7-3, 2013.

22 Verdugo Fire Communications Center, "Fiscal Year Annual Report," 2014-2015.

23 Los Angeles Fire Department, "Administrative Operations," http://lafd.org/administration/114-administrative-operations.

24 http://www.lafd.org/fsla/stations-map. Accessed April 5, 2016

factors as building age or type of construction). Fire flow is normally measured in gallons per minute, as well as the duration of the fire flow. Fire flow requirements can range from 1,500 gallons per minute (gpm) in low-density residential areas to 7,000 gpm in high-density commercial or industrial areas. A minimum residual water pressure of 20 pounds per square inch is required to remain in the water system while the required gallons per minute are flowing, in order to be considered adequate by both City of Burbank and Los Angeles Fire Code standards and the State Department of Public Health.

BWP's potable water distribution system is made up of pipelines ranging in size from 2 inches to 30 inches in diameter, along with booster pumps, and 20 storage tanks and reservoirs. The tanks and reservoirs range in capacity from 13,500 gallons to 25 million gallons, with a total storage capacity of 53 million gallons. Daily water demands in Burbank are subject to wide fluctuations as a result of many factors, including climate, rainfall, and economic conditions, making this large amount of storage capacity necessary. The storage capacity is large enough to allow for short interruptions (1 to 3 days at average flow) in the water supply.

Water for fire service is provided by both BWP and LADWP to the Airport. As discussed in **Section 3.18,** BWP maintains an 18-inch water main along Hollywood Way, which reduces to a 12-inch main at San Fernando Road.[25] This 12-inch water main turns west at Cohasset Street. A 10-inch water main extends west from Hollywood Way at Tulare Avenue, which reduces to an 8-inch main, and then crosses the Airport's eastern boundary. A separate 12-inch water main crosses the northwest and southwest quadrants of the Airport in an alignment along an extended Clybourn Avenue. LADWP maintains an 8-inch and 20-inch water main along San Fernando Road.[26] Fire demand flows are infrequent events; however, the existing fire flow conveyance system can deliver a minimum of 6,000 gpm for a 4-hour duration to the Airport.

3.15.2.2 Police Protection Services

Law enforcement (police) protection services for the Airport are provided by the Burbank-Glendale-Pasadena Airport Authority Police Department (BGPAAPD). The BGPAAD is the primary responder for all law enforcement and related incidents located on Airport property, with secondary responses provided by the City of Burbank Police Department (BPD) and the City of Los Angeles Police Department (LAPD).

In addition to BGPAAPD, the TSA, under the authority of Department of Homeland Security, provides oversight compliance in airport security screening measures for the Airport. The BGPAAPD works in conjunction with TSA in the effort of administering BGPAAPD's airport security duties and to further the security mission at the Airport.[27] While there is a level of collaboration, the TSA and the BGPAAPD function separately due to the difference in each agency's established mission and goals.

Burbank-Glendale-Pasadena Airport Authority Police Department

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25 C&S Engineers, Inc., Water Use Technical Report, May 2014.

26 C&S Engineers, Inc., Water Use Technical Report, May 2014.

27 Code of Federal Regulations, Title 49, Part 1542, Airport Security.

The BGPAAPD provides law enforcement services at the Airport and is the first responder for all reported incidents. The mission of the BGPAAPD is to protect life and property, promote a safe and secure environment, and to provide enforcement response to incidents at BUR.[28]The BGPAAPD is required by the FAA to develop an Airport Security Plan (ASP) to provide sufficient response and service levels.[29]

The BGPAAPD is located in the existing passenger terminal and operates 24 hours a day, seven days a week.[30] The BGPAAPD is staffed by 32 Full Time Equivalent (FTE) law enforcement officers, including a three-person Command Staff, which under California law are direct employees of the Authority.[31]

Response times at airports are determined by the TSA which has established a minimum target response of 5 minutes to be met at the Airport for all reported incidents. The BGPAAPD currently is able to meet an average response time of 1 minute or less.

City of Burbank Police Department

Police protection services within the City of Burbank are provided by BPD. The BPD consists of the Patrol, Investigations, Administrative Services, and Support Services Divisions. Through a mutual aid agreement implemented with the BPGAA and the City of Burbank, the BPD provides police protection services to the Airport, which was further amended and restated in May 2013 to ensure consistency between the two agencies. All Airport arrestees are booked and processed at the Burbank Jail.

The BPD has 285 employees; of which 160 are sworn officers and 125 are civilians.[32] BPD also has 26 volunteers and 4 chaplains working with the Department. Therefore, based on the number of sworn officers and a population of about 105,000 residents, BPD has a ratio of 1.52 sworn officers per 1,000 residents.[33]

The BPD uses 11 patrol beats to provide services to all portions of the City of Burbank and will respond to calls outside of the City, if needed. As of July 2014, the average response time from the moment a call is answered to when an officer arrives at the scene for emergency calls was 3 minutes and 45 seconds and the average response time for non-emergency calls was 14 minutes and 13 seconds.[34] This response time to emergency calls falls within the maximum response time standard of less than 4 minutes that is established within the *Burbank2035 General Plan*.[35]

City of Los Angeles Police Department

28 Burbank-Glendale-Pasadena Airport Police Department, Mission Statement, http://www.bgpaapd.org/faqs.htm.

29 Code of Federal Regulations, Title 49, Part 1542, Airport Security.

30 Bob Hope Airport, Airport Police, http://www.burbankairport.com/security/airport-police.html.

31 David Full, AICP, RS&H, email correspondence, April 29, 2014.

32 Sergeant Darin Ryburn, City of Burbank Police Department, email correspondence, July 3, 2014.

33 California Department of Finance, Demographic Research Unit, *Report E-1, Population and Housing Estimates for Cities, Counties, and the State, January 1, 2011-2014, with 2010 Benchmark,* (2014).

34 Sergeant Darin Ryburn, City of Burbank Police Department, email correspondence, July 3, 2014.

35 City of Burbank, *Burbank2035 General Plan,* Safety Element, pp. 7-3, 2013.

The LAPD has the primary responsibility for providing police protection services to the residents of the City of Los Angeles. Portions of the Airport located in the City of Los Angeles are served by the LAPD's North Hollywood Community Police Station, located at 16640 Burbank Boulevard, and the Foothill Community Police Station, located at 12760 Osborne Street. While there is no formal agreement for mutual aid between the BPGAA and the City of Los Angeles, mutual aid is provided upon request from each agency.

Citywide, the LAPD has a total of approximately 10,023 sworn officers and 3,000 civilian employees.36 Based on the number of sworn officers and the City's 2014 DOF population of 3.9 million people, the LAPD has officer-to-resident ratio of 2.57 sworn officers per 1,000 residents.[37] Currently, the North Hollywood Community Police Station consists of a staff of approximately 264 sworn officers and 17 civilian personnel and the Foothill Community Police Station consists of 242 sworn officers and 18 civilian personnel.[38]

Currently, the average response times for the North Hollywood and Foothill Community Police stations are 5 minutes and 8 seconds; and 6 minutes and 7 seconds, respectively.[39]

3.15.2.3 Schools

No schools exist on Airport property. The only demand for school services at the Airport would be from employees at the Airport who use the Interdistrict Permit Process to enroll students in schools within Burbank.

3.15.3 Environmental Impacts and Mitigation Measures

3.15.3.1 ADJACENT PROPERTY FULL-SIZE TERMINAL OPTION

Project Impacts

IMPACT ADJ PROP FULL-PUB SVCS-1: Construction-Related Impacts on Public Services

Construction of the Adjacent Property Full-Size Terminal Option would not result in an appreciable increase in the demand for fire protection or police protection services because construction activities would be temporary. No increase in demand for school services would occur as a result of the construction of the Adjacent Property Full-Size Terminal Option because construction activities would be temporary.

Mitigation Measure ADJ PROP FULL-PUB SVCS-1

No mitigation is warranted.

36 Los Angeles Police Department, "LAPD Command Staff," www.lapdonline.org/lapd_command_staff/comm_bio_view/7579+&cd=3&hl=en&ct=clnk&gl=us.

37 California Department of Finance, Demographic Research Unit, *Report E-1, Population and Housing Estimates for Cities, Counties, and the State, January 1, 2011-2014, with 2010 Benchmark,* (2014).

38 Officer Leonid A. Tsap, City of Los Angeles Police Department, email correspondence, May 27, 2014.

39 Officer Leonid A. Tsap, City of Los Angeles Police Department, email correspondence, May 27, 2014.

IMPACT ADJ PROP FULL-PUB SVCS-2: Impacts to Fire Protection Services

The BGPAAFD would be able to maintain existing services at the Airport during the construction period of the Adjacent Property Full-Size Terminal Option, which would include a new ARFF facility. The new ARFF facility is likely to increase the effectiveness of ARFF operations and reduce response times because the new ARFF facility would be physically closer to the replacement passenger terminal. The new ARFF facility would have sufficient square footage to support the ARFF's operations and it would reduce the levels of exposure to, and infiltration of, external noise.[40]

The slight increase in permanent employment at the Airport as a result of the Adjacent Property Full-Size Terminal Option may result in a slight increase in the demand for recreational facilities in the Airport vicinity, but the impact would not be significant. Nonetheless, the development agreement between the City and the Authority would require the Authority to pay the City of Burbank's development impact fee to offset any incremental increased demand in fire protection services. The impact fee would be calculated to account for the removal of existing buildings at the Airport. Through payment of this fee, the implementation of the Adjacent Property Full-Size Terminal Option would ensure that no significant fire protection services impacts would occur.

Mitigation Measure ADJ PROP FULL-PUB SVCS-2

No mitigation is warranted.

IMPACT ADJ PROP FULL-PUB SVCS-3: Impacts to Police Protection Services

The BGPAAPD would be able to maintain existing police protection services at the Airport during the construction period of the Adjacent Property Full-Size Terminal Option, without the need to increase staffing levels. The replacement passenger terminal would be an efficiently-designed facility that meets current FAA standards, which would provide the highest security and safety features for those using the Airport. Thus, the BGPAAPD's facilities and response times would be enhanced and the Airport would experience an increase in police protection services, without the need for additional staff.

The increase in permanent employment of about 135 persons at the Airport as a result of the Adjacent Property Full-Size Terminal Option may result in a slight increase in the demand for recreational facilities in the Airport vicinity, but the impact would not be significant. Nonetheless, the development agreement between the City and the Authority would require the Authority to pay the City of Burbank's development impact fee to offset any incremental increased demand in police protection services. The impact fee would be calculated to account for the removal of existing buildings at the Airport. Through payment of this fee, the implementation of the Adjacent Property Full-Size Terminal Option would ensure that no significant police protection services impacts would occur.

Mitigation Measure ADJ PROP FULL-PUB SVCS-3

No mitigation is warranted.

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40 David Full, AICP, RS&H, email correspondence, April 29, 2014.

IMPACT ADJ PROP FULL-PUB SVCS-4: Impacts to School Services

The increase in permanent employment of about 135 persons at the Airport as a result of the Adjacent Property Full-Size Terminal Option may result in a slight increase in the number of students within schools in Burbank because employees could opt to use the Interdistrict Permit Process to enroll students in Burbank schools. Given the potential for a slight increase in students at Burbank schools, the impact is not expected to be significant. Nonetheless, the development agreement between the City and the Authority would require the Authority to pay the City of Burbank's development impact fee to offset any incremental increased demand in school services. The impact fee would be calculated to account for the removal of existing buildings at the Airport. Through payment of this fee, the implementation of the Adjacent Property Full-Size Terminal Option would ensure that no significant school service impacts would occur.

Mitigation Measure ADJ PROP FULL-PUB SVCS-4

No mitigation is warranted.

Cumulative Impacts

IMPACT ADJ PROP FULL-PUB SVCS-5: Cumulative Impacts to Public Services

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Because, as discussed above, the Adjacent Property Full-Size Terminal Option would have no significant effect on public services, any incremental effect in this regard would not be cumulatively considerable.

Mitigation Measure ADJ PROP FULL-PUB SVCS-5

No mitigation is warranted.

3.15.3.2 SOUTHWEST QUADRANT FULL-SIZE TERMINAL OPTION

Project Impacts

IMPACT SW QUAD FULL-PUB SVCS-1: Construction-Related Impacts on Public Services

Construction of the Southwest Quadrant Full-Size Terminal Option would not result in an appreciable increase in the demand for fire protection or police protection services because construction activities would be temporary. No increase in demand for school services would occur as a result of the construction of the Adjacent Property Full-Size Terminal Option because construction activities would be temporary.

Mitigation Measure SW QUAD FULL-PUB SVCS-1

No mitigation is warranted.

IMPACT SW QUAD FULL-PUB SVCS-2: Impacts to Fire Protection Services

The BGPAAFD would be able to maintain existing services at the Airport during the construction period of the Southwest Quadrant Full-Size Terminal Option, which would include a new ARFF facility. The new ARFF facility is likely to increase the effectiveness of ARFF operations and reduce response times because the new ARFF facility would be physically closer to the replacement passenger terminal. The new ARFF facility would have sufficient square footage to support the ARFF's operations and it would reduce the levels of exposure to, and infiltration of, external noise.[41] In addition, the Southwest Quadrant Full-Size Terminal Option would not result in any changes in BFD or LAFD staffing or services at the Airport because the existing staffing is adequate to meet the future needs at the Airport. Therefore, potential impacts to fire protection services would be less than significant.

The Southwest Quadrant Full-Size Terminal Option may result in a slight increase in the demand for recreational facilities in the Airport vicinity, but the impact would not be significant. Nonetheless, the development agreement between the City and the Authority would require the Authority to pay the City of Burbank's development impact fee to offset any incremental increased demand in fire protection services. The impact fee would be calculated to account for the removal of existing buildings at the Airport. Through payment of this fee, the implementation of the Adjacent Property Full-Size Terminal Option would ensure that no significant fire protection services impacts would occur.

Mitigation Measure SW QUAD FULL-PUB SVCS-2

No mitigation is warranted.

IMPACT SW QUAD FULL-PUB SVCS-3: Impacts to Police Protection Services

The BGPAAPD would be able to maintain existing police protection services at the Airport during the construction period of the Southwest Quadrant Full-Size Terminal Option. The replacement passenger terminal would be an efficiently-designed facility that meets current FAA standards, which would provide the highest security and safety features for those using the Airport. Thus, the BGPAAPD's facilities and response times would be enhanced and the Airport would experience an increase in police protection services. In addition, the Southwest Quadrant Full-Size Terminal Option would not result in any changes in BPD or LAPD staffing or services at the Airport because the existing staffing is adequate to meet the future needs at the Airport. Therefore, potential impacts to police protection services would be less than significant.

The Southwest Quadrant Full-Size Terminal Option may result in a slight increase in the demand for recreational facilities in the Airport vicinity, but the impact would not be significant. Nonetheless, the development agreement between the City and the Authority would require the Authority to pay the City of Burbank's development impact fee to offset any incremental increased demand in police protection services. The impact fee would be calculated to account for the removal of existing buildings at the Airport. Through payment of this fee, the implementation of the Adjacent Property Full-Size Terminal Option would ensure that no significant police protection services impacts would occur.

Mitigation Measure SW QUAD FULL-PUB SVCS-3

No mitigation is warranted.

41 David Full, AICP, RS&H, email correspondence, April 29, 2014.

IMPACT SW QUAD FULL-PUB SVCS-4: Impacts to School Services

The increase in permanent employment of about 135 persons at the Airport as a result of the Southwest Quadrant Full-Size Terminal Option may result in a slight increase in the number of students within schools in Burbank because employees could opt to use the Interdistrict Permit Process to enroll students in Burbank schools. Given the potential for a slight increase in students at Burbank schools, the impact is not expected to be significant. Nonetheless, the development agreement between the City and the Authority would require the Authority to pay the City of Burbank's development impact fee to offset any incremental increased demand in school services. The impact fee would be calculated to account for the removal of existing buildings at the Airport. Through payment of this fee, the implementation of the Southwest Quadrant Full-Size Terminal Option would ensure that no significant school service impacts would occur.

Mitigation Measure SW QUAD FULL-PUB SVCS-4

No mitigation is warranted.

Cumulative Impacts

IMPACT SW QUAD FULL-PUB SVCS-5: Cumulative Impacts to Public Services

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Because, as discussed above, the Southwest Quadrant Full-Size Terminal Option would have no significant effect on public services, any incremental effect in this regard would not be cumulatively considerable.

Mitigation Measure SW QUAD FULL-PUB SVCS-5

No mitigation is warranted.

3.15.3.3 SOUTHWEST QUADRANT SAME-SIZE TERMINAL OPTION

Project Impacts

IMPACT SW QUAD SAME-PUB SVCS-1: Construction-Related Impacts on Public Services

Construction of the Southwest Quadrant Same-Size Terminal Option would not result in an appreciable increase in the demand for fire protection or police protection services because construction activities would be temporary. No increase in demand for school services would occur as a result of the construction of the Adjacent Property Full-Size Terminal Option because construction activities would be temporary.

Mitigation Measure SW QUAD SAME-PUB SVCS-1

No mitigation is warranted.

IMPACT SW QUAD SAME-PUB SVCS-2: Impacts to Fire Protection Services

The BGPAAFD would be able to maintain existing services at the Airport during the construction period of the Southwest Quadrant Same-Size Terminal Option. However, this option would not include a new ARFF facility. Compared to the Adjacent Property Full-Size Terminal Option and the Southwest Quadrant Full-Size Terminal Option, this option would not increase the effectiveness of ARFF operations and would not reduce response times. The existing ARFF facility would continue to have insufficient square footage to support the ARFF's operations and the external noise issue would not be addressed. Thus, although this option does not result in any positive changes to fire protection services at the Airport, the BGPAAFD would continue to provide adequate fire protection services.

The Southwest Quadrant Same-Size Terminal Option may result in a slight increase in the demand for recreational facilities in the Airport vicinity, but the impact would not be significant. Nonetheless, the development agreement between the City and the Authority would require the Authority to pay the City of Burbank's development impact fee to offset any incremental increased demand in fire protection services. The impact fee would be calculated to account for the removal of existing buildings at the Airport. Through payment of this fee, the implementation of the Adjacent Property Full-Size Terminal Option would ensure that no significant fire protection services impacts would occur.

Mitigation Measure SW QUAD SAME-PUB SVCS-2

No mitigation is warranted.

IMPACT SW QUAD SAME-PUB SVCS-3: Impacts to Police Protection Services

The BGPAAPD would be able to maintain existing police protection services at the Airport during the construction period of the Southwest Quadrant Same-Size Terminal Option. The replacement passenger terminal would be an efficiently-designed facility that meets current FAA standards, which would provide the highest security and safety features for those using the Airport. Thus, the BGPAAPD's facilities and response times would be enhanced and the Airport would experience an increase in police protection services. In addition, the Southwest Quadrant Full-Size Terminal Option would not result in any changes in BPD or LAPD staffing or services at the Airport because the existing staffing is adequate to meet the future needs at the Airport. Therefore, potential impacts to police protection services would be less than significant.

The Southwest Quadrant Same-Size Terminal Option may result in a slight increase in the demand for recreational facilities in the Airport vicinity, but the impact would not be significant. Nonetheless, the development agreement between the City and the Authority would require the Authority to pay the City of Burbank's development impact fee to offset any incremental increased demand in police protection services. The impact fee would be calculated to account for the removal of existing buildings at the Airport. Through payment of this fee, the implementation of the Adjacent Property Full-Size Terminal Option would ensure that no significant police protection services impacts would occur.

Mitigation Measure SW QUAD SAME-PUB SVCS-3

No mitigation is warranted.

IMPACT SW QUAD SAME-PUB SVCS-4: Impacts to School Services

The increase in permanent employment of about 50 persons at the Airport as a result of the Southwest Quadrant Same-Size Terminal Option may result in a slight increase in the number of students within schools in Burbank because employees could opt to use the Interdistrict Permit Process to enroll students in Burbank schools. Given the potential for a slight increase in students at Burbank schools, the impact is not expected to be significant. Nonetheless, the development agreement between the City and the Authority would require the Authority to pay the City of Burbank's development impact fee to offset any incremental increased demand in school services. The impact fee would be calculated to account for the removal of existing buildings at the Airport. Through payment of this fee, the implementation of the Southwest Quadrant Same-Size Terminal Option would ensure that no significant school service impacts would occur.

Mitigation Measure SW QUAD SAME-PUB SVCS-4

No mitigation is warranted.

Cumulative Impacts

IMPACT SW QUAD SAME-PUB SVCS-5: Cumulative Impacts to Public Services

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Because, as discussed above, the Southwest Quadrant Same-Size Terminal Option would have no significant effect on public services, any incremental effect in this regard would not be cumulatively considerable.

Mitigation Measure SW QUAD SAME-PUB SVCS-5

No mitigation is warranted.

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3.16 RECREATION

3.16.1 Background and Methodology

The purpose of this section is to determine whether implementation of the proposed project would result in significant environmental impacts on recreation resources.

3.16.1.1 Regulatory Context

The California Environmental Quality Act (CEQA) requires that the lead agency evaluate the project's potential to increase demand for public recreational facilities or contribute to the physical deterioration of such facilities.

3.16.1.2 Significance Thresholds

For purposes of this analysis, implementation of the proposed project would cause a significant impact related to recreation facilities if it resulted in:

- REC-1: An increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- REC-2: The need to construct or expand recreational facilities to accommodate an increase in demand for recreational facilities.
- REC-3: A substantial contribution to cumulative impacts on recreational facilities.

3.16.1.3 Methodologies

Impacts related to recreation were evaluated by identifying the locations of existing recreational facilities and comparing park acreage against the locally accepted standards or service ratios to determine if the proposed project would increase demand on existing or planned recreational facilities.

3.16.2 Existing Conditions / Environmental Setting

The Park Services Division of Burbank's Park, Recreation, and Community Services Department maintains public park grounds and landscaped areas and manages the city's urban forestry program. In total, there are 26 parks in Burbank ranging in size from pocket parks (less than 0.25 acre) to a 500-acre regional park.

Based on Burbank's 2014 population of about 106,000, there are approximately 6.95 acres of parkland for every 1,000 residents. **Table 3.16-1** shows city parkland broken down by park type and indicates whether parkland ratios recommended by the National Recreation and Park Association are being met.

The closest recreational facilities to the Airport are Robert E. Lundigan Park, a 1.32-acre neighborhood park about one-half mile east of the Airport, and Pacific Park, a 5.29-acre neighborhood park about one-half mile south of the Airport.

Table 3.16-1
Current (2014) and Recommended Parkland Ratios

Park Type	Parkland Acreage	Current Ratio (Acres/1,000 Residents)	Recommended Ratio (Acres/1,000 Residents)	Meeting Recommended Ratio?
Regional	603.57	5.73	8	No
Community	70.83	0.67	2	No
Neighborhood	55.43	0.53	1.5	No
Pocket	2.02	0.02	0.04	No
Total	731.85	6.95	–	–

Notes: Service levels recommended by National Recreation and Park Association.
Sources: City of Burbank, Burbank2035 General Plan (2013); U.S. Census Bureau, State & County QuickFacts, Burbank (city), California, 2014.
Prepared By: RS&H, 2016.

Figure 3.16-1 depicts areas in Burbank that are currently served by parks from a distance perspective. Areas shown in white are not within one-half mile of a park and are considered to be underserved. The Airport is in a portion of Burbank that is considered underserved by parks. However, given the distance between the Airport and existing parks or recreational facilities, any demand for recreation from employees at the Airport is minimal.

3.16.3 Environmental Impacts and Mitigation Measures

3.16.3.1 ADJACENT PROPERTY FULL-SIZE TERMINAL OPTION

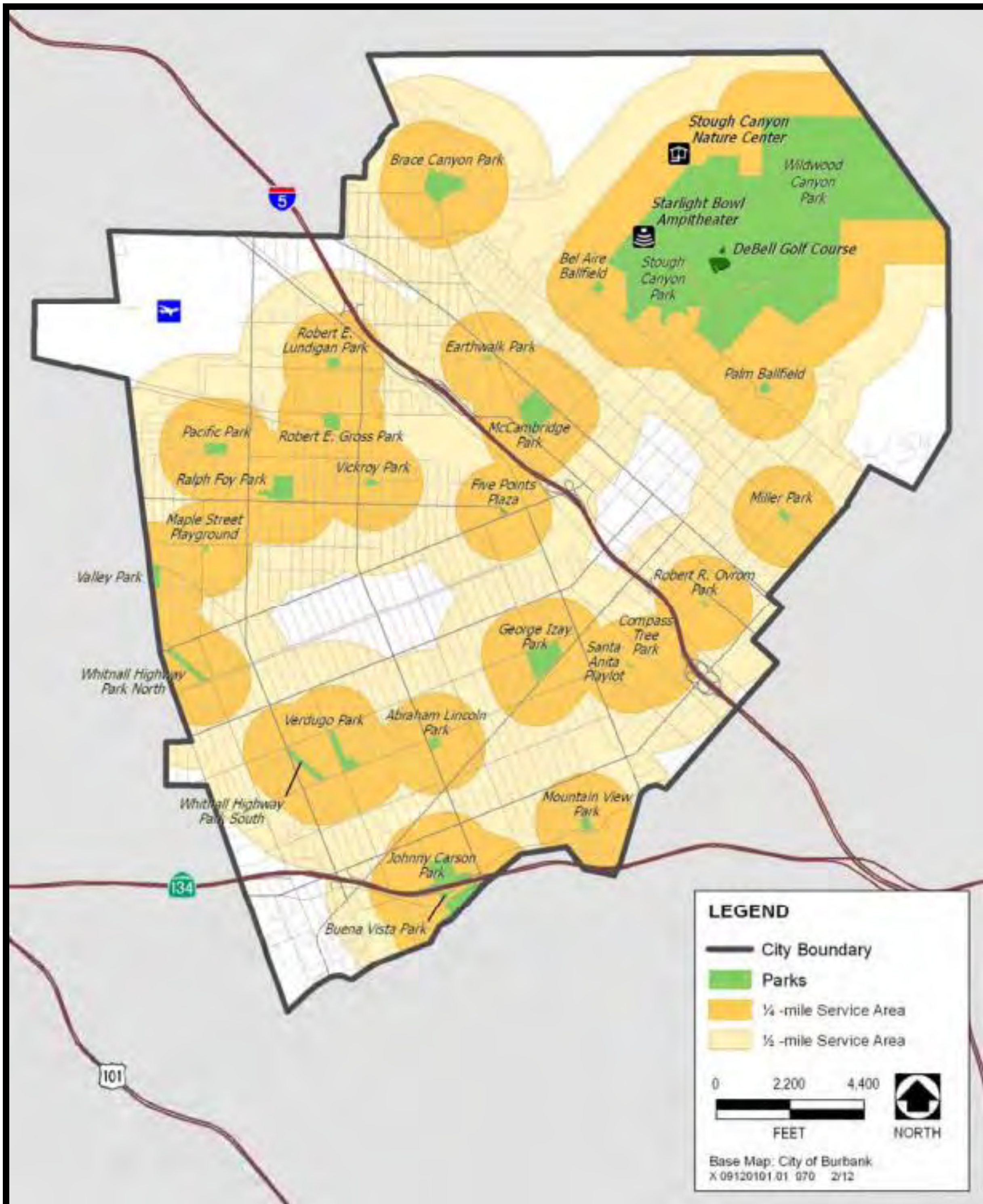
Project Impacts

IMPACT ADJ PROP FULL-REC-1: Increase in the Use of Existing Recreational Facilities

The Airport is in a part of Burbank that is underserved by recreational facilities and the demand from Airport employees for recreational facilities is minimal. The temporary increase in construction-related employment would occur during construction of the Adjacent Property Full-Size Terminal Option could result in a minimal increase in the use of existing recreational facilities by construction employees. This increase would be temporary and would not exceed the threshold for the payment of development impact fees for recreational facilities.

The increase in permanent employment of about 135 persons at the Airport as a result of the Adjacent Property Full-Size Terminal Option may result in a slight increase in the demand for recreational facilities in the Airport vicinity, but the impact would not be significant. Nonetheless, the development agreement between the City and the Authority would require the Authority to pay the City of Burbank's development impact fee to offset any incremental increased demand in recreational facilities. The impact fee would be calculated to account for the removal of existing buildings at the Airport. Through payment of this fee, the implementation of the Adjacent Property Full-Size Terminal Option would ensure that no significant recreation impacts would occur.

Figure 3.16-1
Recreational Facilities in Burbank



Source: City of Burbank, *Burbank2035 General Plan*, 2013.
Prepared By: RS&H, 2016.

Mitigation Measure ADJ PROP FULL-REC-1
No mitigation is warranted.

IMPACT ADJ PROP FULL-REC-2: Impacts Related to Need for Expanded or New Recreation Facilities

The increase of 135 employees at the Airport as a result of the Adjacent Property Full-Size Terminal Option would result in a slight increase in the demand for recreational facilities. This increase in demand for recreational facilities would not result in the need to expand existing or develop new recreational facilities. The Authority would pay the City of Burbank's development impact fee to offset the increased demand in recreational facilities. Through payment of this fee, the implementation of the Adjacent Property Full-Size Terminal Option would not result in any significant recreation impacts.

The increase in passengers at the Airport would have a minimal demand for recreational facilities and the implementation of the Adjacent Property Full-Size Terminal Option would not change that demand. Therefore, implementation of this development option would not increase demand for recreational facilities or accelerate the physical deterioration of existing and/or future recreational facilities. The minimal increase in demand for recreational facilities from passengers at the Airport is considered to be a less-than-significant impact.

Mitigation Measure ADJ PROP FULL-REC-2
No mitigation is warranted.

Cumulative Impacts

IMPACT ADJ PROP FULL-REC-3: Cumulative Impacts on Recreation Facilities

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Because, as discussed above, the Adjacent Property Full-Size Terminal Option would pay the City of Burbank development impact fee and would have no significant effect on recreational facilities, any incremental effect in this regard would not be cumulatively considerable.

Mitigation Measure ADJ PROP FULL-REC-3
No mitigation is warranted.

3.16.3.2 SOUTHWEST QUADRANT FULL-SIZE TERMINAL OPTION

Project Impacts

IMPACT SW QUAD FULL-REC-1: Increase in the Use of Existing Recreational Facilities

The Airport is in a part of Burbank that is underserved by recreational facilities and the demand from Airport employees for recreational facilities is minimal. The temporary increase in construction-related employment would occur during construction of the Southwest Quadrant Full-Size Terminal Option could result in a minimal increase in the use of existing recreational facilities by construction employees. This increase would be temporary and would not exceed the threshold for the payment of development impact fees for recreational facilities.

The increase in permanent employment of about 135 persons at the Airport as a result of the Southwest Quadrant Full-Size Terminal Option may result in a slight increase in the demand for recreational facilities in the Airport vicinity, but the impact would not be significant. Nonetheless, the development agreement between the City and the Authority would require the Authority to pay the City of Burbank's development impact fee to offset any incremental increased demand in recreational facilities. The impact fee would be calculated to account for the removal of existing buildings at the Airport. Through payment of this fee, the implementation of the Southwest Quadrant Full-Size Terminal Option would ensure that no significant recreation impacts would occur.

Mitigation Measure SW QUAD FULL-REC-1
No mitigation is warranted.

IMPACT SW QUAD FULL-REC-2: Impacts Related to Need for Expanded or New Recreation Facilities

The increase of 135 employees at the Airport as a result of the Southwest Quadrant Full-Size Terminal Option would result in a slight increase in the demand for recreational facilities. This increase in demand for recreational facilities would not result in the need to expand existing or develop new recreational facilities. The Authority would pay the City of Burbank's development impact fee to offset the increased demand in recreational facilities. Through payment of this fee, the implementation of the Southwest Quadrant Full-Size Terminal Option would not result in any significant recreation impacts.

The increase in passengers at the Airport would have a minimal demand for recreational facilities and the implementation of the Southwest Quadrant Full-Size Terminal Option would not change that demand. Therefore, implementation of this development option would not increase demand for recreational facilities or accelerate the physical deterioration of existing and/or future recreational facilities. The minimal increase in demand for recreational facilities from passengers at the Airport is considered to be a less-than-significant impact.

Mitigation Measure SW QUAD FULL-REC-2
No mitigation is warranted.

Cumulative Impacts

IMPACT SW QUAD FULL-REC-3: Cumulative Impacts on Recreation Facilities

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Because, as discussed above, the Southwest Quadrant Full-Size Terminal Option would pay the City of Burbank development impact fee and would have no significant effect on recreational facilities, any incremental effect in this regard would not be cumulatively considerable.

Mitigation Measure SW QUAD FULL-REC-3
No mitigation is warranted.

3.16.3.3 SOUTHWEST QUADRANT SAME-SIZE TERMINAL OPTION

Project Impacts

IMPACT SW QUAD SAME-REC-1: Increase in the Use of Existing Recreational Facilities

The Airport is in a part of Burbank that is underserved by recreational facilities and the demand from Airport employees for recreational facilities is minimal. The temporary increase in construction-related employment would occur during construction of the Southwest Quadrant Same-Size Terminal Option could result in a minimal increase in the use of existing recreational facilities by construction employees. This increase would be temporary and would not exceed the threshold for the payment of development impact fees for recreational facilities.

The increase in permanent employment of about 135 persons at the Airport as a result of the Southwest Quadrant Same-Size Terminal Option may result in a slight increase in the demand for recreational facilities in the Airport vicinity, but the impact would not be significant. Nonetheless, the development agreement between the City and the Authority would require the Authority to pay the City of Burbank's development impact fee to offset any incremental increased demand in recreational facilities. The impact fee would be calculated to account for the removal of existing buildings at the Airport. Through payment of this fee, the implementation of the Southwest Quadrant Same-Size Terminal Option would ensure that no significant recreation impacts would occur.

Mitigation Measure SW QUAD SAME-REC-1

No mitigation is warranted.

IMPACT SW QUAD SAME-REC-2: Impacts Related to Need for Expanded or New Recreation Facilities

The increase of 135 employees at the Airport as a result of the Southwest Quadrant Same-Size Terminal Option would result in a slight increase in the demand for recreational facilities. This increase in demand for recreational facilities would not result in the need to expand existing or develop new recreational facilities. The Authority would pay the City of Burbank's development impact fee to offset the increased demand in recreational facilities. Through payment of this fee, the implementation of the Southwest Quadrant Same-Size Terminal Option would not result in any significant recreation impacts.

The increase in passengers at the Airport would have a minimal demand for recreational facilities and the implementation of the Southwest Quadrant Same-Size Terminal Option would not change that demand. Therefore, implementation of this development option would not increase demand for recreational facilities or accelerate the physical deterioration of existing and/or future recreational facilities. The minimal increase in demand for recreational facilities from passengers at the Airport is considered to be a less-than-significant impact.

Mitigation Measure SW QUAD SAME-REC-2

No mitigation is warranted.

Cumulative Impacts

IMPACT SW QUAD SAME-REC-3: Cumulative Impacts on Recreation Facilities

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Because, as discussed above, the Southwest Quadrant Same-Size Terminal Option would pay the City of Burbank development impact fee and would have no significant effect on recreational facilities, any incremental effect in this regard would not be cumulatively considerable.

Mitigation Measure SW QUAD SAME-REC-3

No mitigation is warranted.

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3.17 TRANSPORTATION AND TRAFFIC

3.17.1 Background and Methodology

The purpose of this section is to determine whether implementation of the proposed project would result in significant environmental impacts on transportation systems in the Airport vicinity.

3.17.1.1 Regulatory Context

The California Environmental Quality Act (CEQA) requires that the lead agency evaluate the project's potential to affect surface traffic, roadways, and intersections in the vicinity of a project. **Appendix L** provides a detailed traffic impact study for each of the development options.

3.17.1.2 Significance Thresholds

For purposes of this analysis, implementation of the proposed project would cause a significant impact related to transportation systems if it resulted in:

- TRANS-1: A significant increase in traffic at a signalized intersection.
- TRANS-2: A significant increase in traffic at an unsignalized intersection.
- TRANS-3: A significant impact related to the congestion management program.
- TRANS-4: An impact to Caltrans facilities.
- TRANS-5: A significant impact to local streets in Burbank.
- TRANS-6: A significant impact to intersections during the construction phase of the project.

The Cities of Burbank and Los Angeles, Caltrans, and the Congestion Management Agency have developed specific thresholds for determining the significance of an impact. The specific thresholds are provided for TRANS-1, TRANS-2, and TRANS-3. These specific thresholds are described below.

TRANS-1: The Burbank2035 General Plan sets a mobility goal of LOS D at all intersections in the City. To this end, the City has developed a sliding scale methodology in which the minimum allowable increase in the V/C ratio attributable to a project decreases as the volume to capacity (V/C) ratio of the intersection increases. Intersections operating at LOS A, B, or C are not significantly affected regardless of the amount of project traffic at the intersection. Signalized intersections are considers to be significantly affected at LOS D, E, or F based on the criteria provided in **Table 3.17-1**. For signalized intersections, the City of Los Angeles considers a significant impact to occur based on the criteria provided in **Table 3.17-2**.

TRANS-2: For unsignalized intersections, the City of Burbank considered a significant impact to occur based on the criteria provided in **Table 3.17-3**.

Table 3.17-1

Significance Thresholds for Signalized Intersections in Burbank

Intersection Conditions with Project Traffic		Significant Impact Threshold for Project-related Increase in V/C Ratio
LOS	**V/C**	
D	0.801 – 0.900	Equal to or greater than 0.02
E	0.901 – 1.00	Equal to or greater than 0.01
F	> 1.00	Equal to or greater than 0.005

Source: City of Burbank

Table 3.17-2

Significance Thresholds for Signalized Intersections in Los Angeles

Intersection Conditions with Project Traffic		Significant Impact Threshold for Project-related Increase in V/C Ratio
LOS	**V/C**	
C	0.701 – 0.800	Equal to or greater than 0.04
D	0.801 – 0.900	Equal to or greater than 0.02
E, F	> 0.900	Equal to or greater than 0.01

Source: City of Los Angeles.

Table 3.17-3

Significance Thresholds for Unsignalized Intersections in Burbank

Intersection Conditions with Project Traffic		Significant Impact Threshold for Project-related Increase in Vehicle Trips Through Intersection
LOS	**Delay**	
D	25.0 – 35.0	Equal to or greater than 2% of total trips
E	35.0 – 50.0	Equal to or greater than 1% of total trips
F	> 50.0	5 or more project trips

Source: City of Burbank

TRANS-3: For the Congestion Management Program, a significant impact would occur if the project results in: (1) an incremental increase in intersection V/C ratio of 0.02 or greater to a facility projected to operate at LOS F after the addition of project traffic; (2) an incremental increase in freeway segment D/C ratio of 0.02 or greater to a facility projected to operate at LOS F after the addition of project traffic; or an increase in transit ridership beyond the current capacity of the transit system.

3.17.1.3 Methodologies

Intersection Analyses

The base assumptions and technical methodologies are based on the City of Burbank traffic study guidelines. Signalized intersections were analyzed using the Critical Movement Analysis ("CMA") Planning Method (*Transportation Research Circular No. 212, Interim Materials on Highway Capacity*, Transportation Research Board, 1980) and unsignalized intersections were analyzed using the 2000 Highway Capacity Manual ("HCM") methodology (Transportation Research Board, 2000). Each of these methodologies results in a level of service ("LOS") calculation ranging from LOS A (free-flow traffic conditions) to LOS F (over capacity and severely congested). The CMA methodology calculates an intersection's volume-to-capacity ("V/C") ratio and the HCM methodology calculates the average or worst-case delay, in seconds, experienced by vehicles passing through the intersection.

The City of Los Angeles also requires that signalized intersections use the CMA methodology and unsignalized intersections use the HCM methodology.

The analysis includes the analysis of existing and future traffic conditions, with and without the traffic shifts anticipated as a result of the various development options. The intersections included in the analysis are presented in **Table 3.17-4** and in **Figure 3.17-1**. The following scenarios were analyzed:

- Existing Year 2016 Conditions – The analysis of existing traffic conditions provides a basis for the assessment of future traffic conditions. The Existing Year 2016 analysis includes a description of key area streets and highways, traffic volumes and current operating conditions, and transit service in the Study Area. Intersection turning movement counts were collected in February 2014, December 2015, and January 2016 and, for the purposes of this analysis, represent year 2016 conditions.

- Existing Year 2016 with Project Conditions – Adjacent Property Full-Size Terminal Option – This analysis condition projects the potential intersection operating conditions that could be expected if the Adjacent Property Full-Size Terminal Option were built under existing conditions. This analysis evaluates the potential project-related traffic impacts as compared to Existing Year 2016 conditions.

- Existing Year 2016 with Project Conditions – Southwest Quadrant Full-Size Terminal Option – This analysis condition projects the potential intersection operating conditions that could be expected if the Southwest Quadrant Full-Size Terminal Option were built under existing conditions. This analysis evaluates the potential Project-related traffic impacts as compared to Existing Year 2016 conditions.

Table 3.17-4

List of Analyzed Intersections

No.	North/South Street	East/West Street
Signalized Intersections		
1.	Sunland Boulevard	San Fernando Boulevard
2.	Vineland Avenue	Sherman Way
3.	Clybourn Avenue	Vanowen Street
4.	Arvilla Avenue	San Fernando Boulevard
5.	Airport	Empire Avenue
6.	Hollywood Way	I-5 Northbound Ramps
7.	Hollywood Way Southbound Ramps	San Fernando Boulevard
8.	Hollywood Way Northbound Ramps	San Fernando Boulevard
9.	Hollywood Way	Tulare Avenue
10.	Hollywood Way	Winona Avenue
11.	Hollywood Way	Airport / Thornton Avenue
12.	Hollywood Way	Airport / Avon Avenue
13.	Hollywood Way	Victory Boulevard
14.	Hollywood Way	Burbank Boulevard
15.	Hollywood Way	Magnolia Boulevard
16.	Ontario Street	Winona Avenue
17.	Ontario Street	Thornton Avenue
18.	Ontario Street	Empire Avenue
19.	Buena Vista Street	I-5 Northbound Ramps
20.	Buena Vista Street	Winona Avenue
21.	Buena Vista Street	San Fernando Boulevard
22.	Buena Vista Street	Empire Avenue
23.	I-5 Southbound Ramps	Empire Avenue
24.	I-5 Northbound Ramps	Empire Avenue
25.	Avon Avenue	Empire Avenue

Table 3.17-4

List of Analyzed Intersections (cont.)

Unsignalized Intersections		
1.	Clybourn Avenue	Sherman Way
2.	Clybourn Avenue	Empire Avenue
3.	Lockheed Drive	San Fernando Road
4.	San Fernando Boulevard	Cohasset Street
5.	Hollywood Way	I-5 Southbound Ramps
6.	Hollywood Way	San Fernando Boulevard Ramps
7.	I-5 Southbound Ramps	San Fernando Boulevard
8.	San Fernando Boulevard / Naomi Street	Winona Avenue

- <u>Existing Year 2016 with Project Conditions – Southwest Quadrant Same-Size Terminal Option</u> – This analysis condition projects the potential intersection operating conditions that could be expected if the SWQ Same-Size Option were built under existing conditions. This analysis evaluates the potential Project-related traffic impacts as compared to Existing Year 2016 conditions.

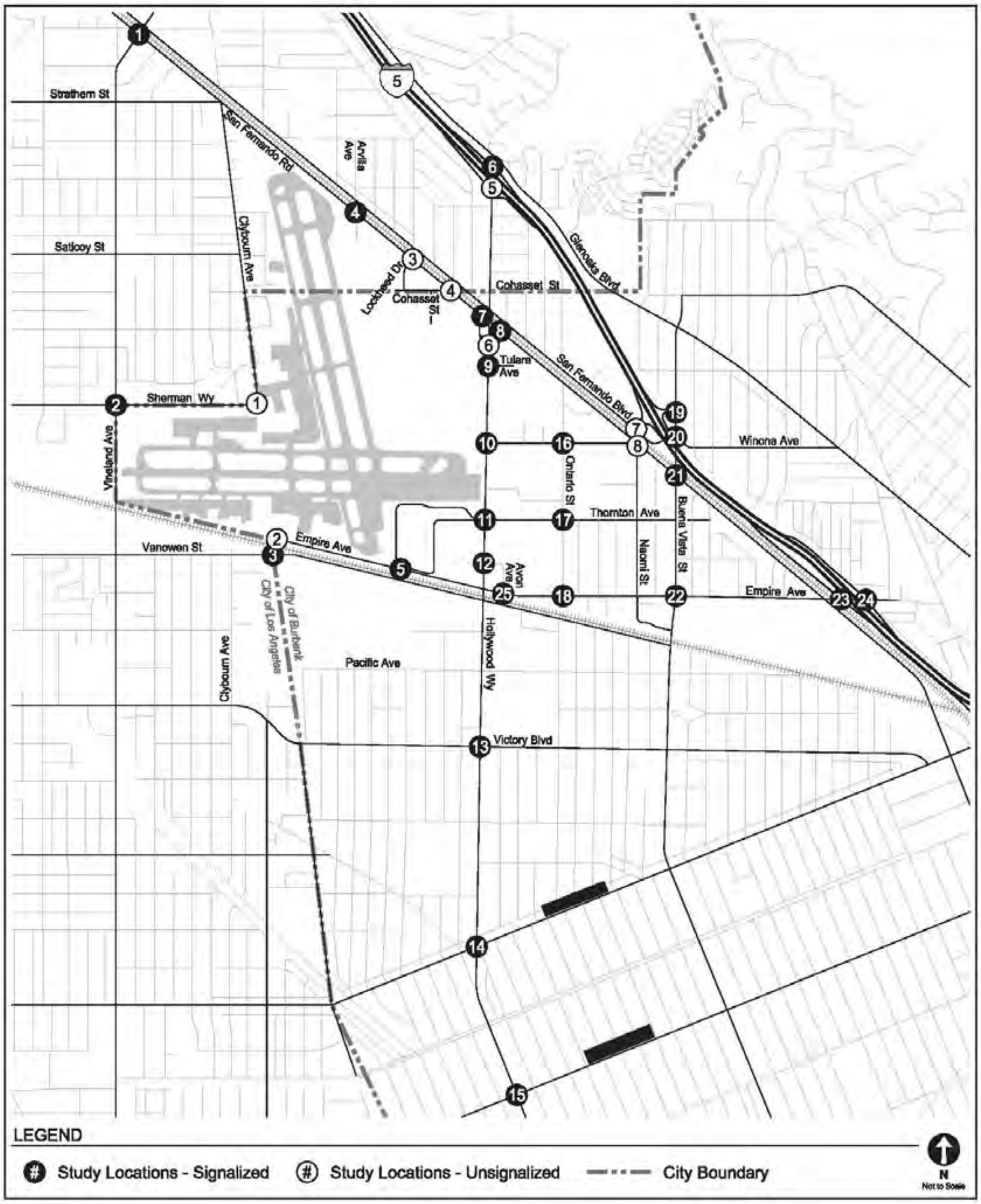
- <u>2023 without Project Conditions</u> – This analysis projects the future traffic growth and intersection operating conditions that could be expected as a result of local and regional growth and infrastructure improvements in the Study Area by 2023, which is when the replacement terminal is expected to open under all development options. The 2023 without project traffic conditions were forecast using traffic growth projections from the City of Burbank Travel Demand Model and other sources, applied to Existing Year 2016 conditions. This analysis provides the conditions by which the project impacts are evaluated in 2023.

- <u>2023 with Project Conditions – Adjacent Property Full-Size Terminal Option</u> – This analysis projects the potential intersection operating conditions that could be expected in year 2023 if the Adjacent Property Full-Size Terminal Option were built. This analysis identifies the potential incremental impacts of the Project upon opening of the replacement terminal, prior to mitigation, by adding the project-generated traffic to the 2023 without project traffic forecasts.

- <u>2023 with Project Conditions – Southwest Quadrant Full-Size Terminal Option</u> – This analysis projects the potential intersection operating conditions that could be expected in 2023 if the Southwest Quadrant Full-Size Terminal Option were built. This analysis identifies the potential incremental impacts of the Project upon opening of the replacement terminal, prior to mitigation, by adding the Project-generated traffic to the 2023 without project traffic forecasts.

Figure 3.17-1

STUDY INTERSECTIONS



- 2023 with Project Conditions – Southwest Quadrant Same-Size Terminal Option – This analysis projects the potential intersection operating conditions that could be expected in year 2023 if the Southwest Quadrant Same-Size Terminal Option were built. This analysis identifies the potential incremental impacts of the project upon opening of the replacement terminal, prior to mitigation, by adding the project-generated traffic to the 2023 without project traffic forecasts.

- 2025 without Project Conditions – This analysis projects the future traffic growth and intersection operating conditions that could be expected as a result of local and regional growth and infrastructure improvements in the Study Area by 2025, which is when all development options are projected to be complete. Like 2023 conditions, the 2025 without project traffic conditions were forecast using traffic growth projections from the City of Burbank Travel Demand Model and other sources, applied to Existing Year 2016 conditions. This analysis provides the conditions by which the project impacts are evaluated in 2025.

- 2025 with Project Conditions – Adjacent Property Full-Size Terminal Option – This analysis projects the potential intersection operating conditions that could be expected in 2025 if the Adjacent Property Full-Size Terminal Option were built. This analysis identifies the potential incremental impacts of the project upon completion, prior to mitigation, by adding the project-generated traffic to the 2025 without project traffic forecasts.

- 2025 with Project Conditions – Southwest Quadrant Full-Size Terminal Option – This analysis projects the potential intersection operating conditions that could be expected in 2025 if the Southwest Quadrant Full-Size Terminal Option were built. This analysis identifies the potential incremental impacts of the project upon completion, prior to mitigation, by adding the project-generated traffic to the 2025 without project traffic forecasts.

- 2025 with Project Conditions – Southwest Quadrant Same-Size Terminal Option – This analysis projects the potential intersection operating conditions that could be expected in 2025 if the Southwest Quadrant Same-Size Terminal Option were built. This analysis identifies the potential incremental impacts of the project upon completion, prior to mitigation, by adding the project-generated traffic to the 2025 without project traffic forecasts.

In order to accurately project future traffic conditions and potential traffic impacts of each of the development options, the following three steps were used (see **Appendix L** for additional details regarding these steps):

1. The peak hour traffic volumes associated with future passenger levels were estimated for years 2023 and 2025.
2. The peak hour traffic volumes from Step 1 were assigned to the local and regional roadway system in accordance with existing Airport traffic patterns. Because the growth in passengers is projected to occur with or without the project, this traffic was added to background traffic conditions (i.e., conditions without the proposed project).

3. The peak hour traffic volumes associated with passengers and all other Airport traffic were reassigned from the existing access patterns to the new access patterns that would result from each development option.

Congestion Management Program

An analysis was conducted according to *2010 Los Angeles County Congestion Management Program* (CMP) (Metro, 2010) guidelines. The CMP is a State-mandated program that serves as the monitoring and analytical basis for transportation funding decisions in the County made through the Regional Transportation Improvement Program (RTIP) and State Transportation Improvement Program (STIP) processes. The CMP requires that a Traffic Impact Analysis (TIA) be performed (1) for all CMP arterial monitoring intersections where a project would add 50 or more trips during either the AM or PM weekday peak hours and (2) all mainline freeway monitoring locations where a project would add 150 or more trips (in either direction) during the AM or PM weekday peak hours. In addition, it requires a review of potential impacts to the regional transit system. The required CMP analyses were performed, as detailed in Chapter 7, in accordance with the TIA guidelines referenced in the CMP.

Caltrans Facilities

Caltrans facilities were evaluated in accordance with the guidelines found in *Guide for the Preparation of Traffic Impact Studies*.

Local Street Impacts

Cohasset Street, which is a local street as classified by the Burbank2035 Mobility Plan, was analyzed using the City's traffic study guidelines.

Construction Traffic

Construction traffic is analyzed following the methodology for intersection analysis, as described above. The construction traffic is based on the number of off-site haul or delivery trucks and vehicles associated with construction workers.

3.17.2 Existing Conditions / Environmental Setting

The Study Area, shown in **Figure 3.17-1**, includes a geographic area approximately four miles (north-south) by 2.5 miles (east-west) that is generally bounded by Sunland Avenue / Vineland Avenue and San Fernando Road to the north, I-5 at Empire Avenue to the east, Magnolia Avenue to the south, and Vineland Avenue to the west. A total of 33 intersections (including 25 signalized intersections and 8 unsignalized intersections) were analyzed within this 10-square-mile study area. It should also be noted that two of the study intersections are proposed to be signalized intersections at the Empire Avenue interchange, which is currently undergoing a complete reconstruction. Because those intersections do not currently exist, no traffic data was available for those locations.

The existing street system in the Study Area consists of a regional roadway system including freeways, major arterials, secondary arterials, collectors, and local streets in the City of Burbank and freeways, boulevards, avenues, collectors, and local streets in the City of Los Angeles. These streets provide regional, sub-regional, or local access and circulation within the Study Area. Street classifications are designated in Burbank2035 General Plan and in the Los Angeles *Mobility Plan 2035: An Element of the General Plan*. For a discussion of each of these streets, as well as transit service and the bicycle and pedestrian network, see **Appendix L**.

Intersection turning movement counts were conducted at the 33 study intersections during the weekday morning (7:00 AM to 10:00 AM) and afternoon (4:30 PM to 7:30 PM) peak periods. The intersection counts were collected in December 2015 and January 2015. After consultation with City staff, traffic count data from February 2014 was used at eight intersections along Empire Avenue and Buena Vista Street, collected prior to the start of extensive construction and road closures in that area from the I-5 widening Project, the Empire Interchange project, and the Buena Vista Street railroad grade separation project. These traffic counts were used as a baseline because they reflect traffic patterns without the effects of major construction, which is a temporary condition. For the purposes of this analysis, the counts collectively represent year 2016 conditions. The existing intersection peak hour traffic volumes, traffic count worksheets and LOS calculation worksheets are provided in **Appendix L**.

Table 3.17-5 summarizes the weekday morning and afternoon peak hour LOS results for each of the signalized study intersections under 2016 conditions. **Table 3.17-5** indicates that 24 of the 25 signalized study intersections currently operate at LOS D or better during both the morning and afternoon peak hours. The only intersection that operates at an LOS worse than LOS D is Hollywood Way and Victory Boulevard, which operates at LOS F during both peak hours.

Table 3.17-6 summarizes the weekday morning and afternoon peak hour LOS results for each of the unsignalized study intersections under Existing Conditions. **Table 3.17-6** indicates that 6 of the 8 unsignalized study intersections currently operate at LOS D or better during both the morning and afternoon peak hours. The intersections of Hollywood Way and I-5 Southbound Ramps and Hollywood Way and San Fernando Boulevard Ramps each operate at LOS F during the morning or afternoon peak hours.

3.17.3 Environmental Impacts and Mitigation Measures

3.17.3.1 ADJACENT PROPERTY FULL-SIZE TERMINAL OPTION

Project Impacts

IMPACT ADJ PROP FULL-TRANS-1: Traffic at Signalized Intersections

EXISTING CONDITIONS PLUS PROJECT

If the project were hypothetically completed in the present day under current conditions, there would be differences between the LOS at signalized intersections in the Airport vicinity (see **Table 3.17-7**). The Adjacent Property Option would result in a significant traffic impact at the intersection of Hollywood Way and Winona Avenue during the afternoon peak hour.

2023 CONDITIONS WITH PROJECT

Table 3.17-8 presents the LOS at signalized intersections in the Airport vicinity in 2023. The Adjacent Property Option would result in a significant traffic impact at the intersection of Hollywood Way and Winona Avenue during the afternoon peak hour.

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Table 3.17-5
Existing Year 2016 Conditions
Signalized Intersection Levels of Service

No.	Intersection	Peak Hour	Existing Year 2016 Conditions	
			V/C	LOS
1. [a]	Sunland Boulevard & San Fernando Road	AM PM	0.758 0.656	C B
2. [a]	Vineland Avenue & Sherman Way	AM PM	0.774 0.737	C C
3. [a]	Clybourn Avenue & Vanowen Street	AM PM	0.586 0.736	A C
4. [a]	Arvilla Avenue & San Fernando Road	AM PM	0.573 0.575	A A
5.	Airport & Empire Avenue	AM PM	0.310 0.376	A A
6. [a]	Hollywood Way & I-5 Northbound Ramps	AM PM	0.656 0.770	B C
7.	Hollywood Way Southbound Ramps & San Fernando Boulevard	AM PM	0.369 0.193	A A
8.	Hollywood Way Northbound Ramps & San Fernando Boulevard	AM PM	0.354 0.200	A A
9.	Hollywood Way & Tulare Avenue	AM PM	0.505 0.708	A C
10.	Hollywood Way & Winona Avenue	AM PM	0.568 0.837	A D
11.	Hollywood Way & Airport / Thornton Avenue	AM PM	0.847 0.701	D C
12.	Hollywood Way & Airport / Avon Avenue	AM PM	0.569 0.624	A B
13.	Hollywood Way & Victory Boulevard	AM PM	1.061 1.164	F F
14.	Hollywood Way & Burbank Boulevard	AM PM	0.882 0.876	D D
15.	Hollywood Way & Magnolia Boulevard	AM PM	0.854 0.869	D D
16.	Ontario Street & Winona Avenue	AM PM	0.166 0.185	A A
17.	Ontario Street & Thornton Avenue	AM PM	0.448 0.409	A A
18.	Ontario Street & Empire Avenue	AM PM	0.264 0.291	A A
19.	Buena Vista Street & I-5 Northbound Ramps	AM PM	0.694 0.876	B D

Table 3.17-5

Existing Year 2016 Conditions - Signalized Intersection Levels of Service (cont.)

20.	Buena Vista Street & Winona Avenue	AM PM	0.723 0.731	C C
21.	Buena Vista Street & San Fernando Boulevard	AM PM	0.699 0.839	B D
22.	Buena Vista Street & Empire Avenue	AM PM	0.546 0.591	A A
23.	I-5 Southbound Ramps & Empire Avenue	AM PM	*Intersection has not yet been constructed.*	
24.	I-5 Northbound Ramps & Empire Avenue	AM PM	*Intersection has not yet been constructed.*	
25.	Avon Avenue & Empire Avenue	AM PM	0.260 0.355	A A

[a] Fully or partially within City of Los Angeles jurisdiction.

Table 3.17-6

Existing Year 2016 Conditions – Unsignalized Intersections Level of Services

No.	Intersection	Peak Hour	Existing Year 2016 Conditions	
			Delay	LOS
1. [a]	Clybourn Avenue & Sherman Way	AM PM	12.6 15.3	B C
2.	Clybourn Avenue & Empire Avenue	AM PM	11.8 11.9	B B
3. [a]	Lockheed Drive & San Fernando Road	AM PM	21.0 13.2	C B
4.	San Fernando Boulevard & Cohasset Street	AM PM	13.5 11.6	B B
5. [a]	Hollywood Way & I-5 Southbound Ramps	AM PM	overflow 23.6	F C
6.	Hollywood Way & San Fernando Boulevard Ramps	AM PM	54.7 62.3	F F
7.	I-5 Southbound Ramps & San Fernando Boulevard	AM PM	14.3 13.1	B B
8.	San Fernando Boulevard / Naomi Street & Winona Avenue	AM PM	17.5 16.9	C C

[a] Fully or partially within City of Los Angeles jurisdiction.

Table 3.17-7

Existing Year 2016 Conditions Plus Adjacent Property Full-Size Terminal Option – Signalized Intersections Level of Services

No.	Intersection	Peak Hour	Existing Year 2016 Conditions		Existing Year 2016 with Project Conditions - Adjacent Property Option			
			V/C	LOS	V/C	LOS	Δ V/C	Impact
1.	Sunland Boulevard &	AM	0.758	C	0.758	C	0.000	NO
[a]	San Fernando Road	PM	0.656	B	0.656	B	0.000	NO
2.	Vineland Avenue &	AM	0.774	C	0.774	C	0.000	NO
[a]	Sherman Way	PM	0.737	C	0.737	C	0.000	NO
3.	Clybourn Avenue &	AM	0.586	A	0.586	A	0.000	NO
[a]	Vanowen Street	PM	0.736	C	0.736	C	0.000	NO
4.	Arvilla Avenue &	AM	0.573	A	0.573	A	0.000	NO
[a]	San Fernando Road	PM	0.575	A	0.575	A	0.000	NO
5.	Airport &	AM	0.310	A	0.300	A	-0.010	NO
	Empire Avenue	PM	0.376	A	0.366	A	-0.010	NO
6.	Hollywood Way &	AM	0.656	B	0.656	B	0.000	NO
[a]	I-5 Northbound Ramps	PM	0.770	C	0.770	C	0.000	NO
7.	Hollywood Way Southbound Ramps &	AM	0.369	A	0.382	A	0.013	NO
	San Fernando Boulevard	PM	0.193	A	0.213	A	0.020	NO
8.	Hollywood Way Northbound Ramps &	AM	0.354	A	0.367	A	0.013	NO
	San Fernando Boulevard	PM	0.200	A	0.217	A	0.017	NO
9.	Hollywood Way &	AM	0.505	A	0.505	A	0.000	NO
	Tulare Avenue	PM	0.708	C	0.708	C	0.000	NO
10.	Hollywood Way &	AM	0.568	A	0.730	C	0.162	NO
	Winona Avenue	PM	0.837	D	0.865	D	0.028	**YES**
11.	Hollywood Way &	AM	0.847	D	0.733	C	-0.114	NO
	Airport / Thornton Avenue	PM	0.701	C	0.727	C	0.026	NO
12.	Hollywood Way &	AM	0.569	A	0.562	A	-0.007	NO
	Airport / Avon Avenue	PM	0.624	B	0.612	B	-0.012	NO
13.	Hollywood Way &	AM	1.061	F	1.061	F	0.000	NO
	Victory Boulevard	PM	1.164	F	1.164	F	0.000	NO
14.	Hollywood Way &	AM	0.882	D	0.882	D	0.000	NO
	Burbank Boulevard	PM	0.876	D	0.876	D	0.000	NO
15.	Hollywood Way &	AM	0.854	D	0.854	D	0.000	NO
	Magnolia Boulevard	PM	0.869	D	0.869	D	0.000	NO
16.	Ontario Street &	AM	0.166	A	0.166	A	0.000	NO
	Winona Avenue	PM	0.185	A	0.185	A	0.000	NO
17.	Ontario Street &	AM	0.448	A	0.447	A	-0.001	NO
	Thornton Avenue	PM	0.409	A	0.409	A	0.000	NO
18.	Ontario Street &	AM	0.264	A	0.258	A	-0.006	NO
	Empire Avenue	PM	0.291	A	0.286	A	-0.005	NO
19.	Buena Vista Street &	AM	0.694	B	0.694	B	0.000	NO
	I-5 Northbound Ramps	PM	0.876	D	0.876	D	0.000	NO
20.	Buena Vista Street &	AM	0.723	C	0.723	C	0.000	NO
	Winona Avenue	PM	0.731	C	0.731	C	0.000	NO
21.	Buena Vista Street &	AM	0.699	B	0.703	C	0.004	NO
	San Fernando Boulevard	PM	0.839	D	0.843	D	0.004	NO
22.	Buena Vista Street &	AM	0.546	A	0.545	A	-0.001	NO
	Empire Avenue	PM	0.591	A	0.586	A	-0.005	NO
23.	I-5 Southbound Ramps &	AM	*Intersection has not yet been constructed.*					
	Empire Avenue	PM						
24.	I-5 Northbound Ramps &	AM	*Intersection has not yet been constructed.*					
	Empire Avenue	PM						
25.	Avon Avenue &	AM	0.260	A	0.210	A	-0.050	NO
	Empire Avenue	PM	0.355	A	0.296	A	-0.059	NO
[a]	Fully or partially within City of Los Angeles jurisdiction.							

Table 3.17-8

2023 Conditions Plus Adjacent Property Full-Size Terminal Option – Signalized Intersections Level of Services

No.	Intersection	Peak Hour	Interim Year 2023 without Project Conditions		Interim Year 2023 with Project Conditions - Adjacent Property Option			
			V/C	LOS	V/C	LOS	Δ V/C	Impact
1.	Sunland Boulevard &	AM	0.785	C	0.785	C	0.000	NO
[a]	San Fernando Road	PM	0.702	C	0.702	C	0.000	NO
2.	Vineland Avenue &	AM	0.801	D	0.801	D	0.000	NO
[a]	Sherman Way	PM	0.771	C	0.771	C	0.000	NO
3.	Clybourn Avenue &	AM	0.611	B	0.611	B	0.000	NO
[a]	Vanowen Street	PM	0.782	C	0.782	C	0.000	NO
4.	Arvilla Avenue &	AM	0.612	B	0.612	B	0.000	NO
[a]	San Fernando Road	PM	0.619	B	0.619	B	0.000	NO
5.	Airport &	AM	0.350	A	0.331	A	-0.019	NO
	Empire Avenue	PM	0.454	A	0.425	A	-0.029	NO
6.	Hollywood Way &	AM	0.687	B	0.687	B	0.000	NO
[a]	I-5 Northbound Ramps	PM	0.833	D	0.833	D	0.000	NO
7.	Hollywood Way Southbound Ramps &	AM	0.387	A	0.401	A	0.014	NO
	San Fernando Boulevard	PM	0.197	A	0.213	A	0.016	NO
8.	Hollywood Way Northbound Ramps &	AM	0.358	A	0.373	A	0.015	NO
	San Fernando Boulevard	PM	0.233	A	0.257	A	0.024	NO
9.	Hollywood Way &	AM	0.875	D	0.875	D	0.000	NO
	Tulare Avenue	PM	0.877	D	0.874	D	-0.003	NO
10.	Hollywood Way &	AM	0.620	B	0.752	C	0.132	NO
	Winona Avenue	PM	0.928	E	0.973	E	0.045	**YES**
11.	Hollywood Way &	AM	1.008	F	0.863	D	-0.145	NO
	Airport / Thornton Avenue	PM	0.909	E	0.821	D	-0.088	NO
12.	Hollywood Way &	AM	0.580	A	0.537	A	-0.043	NO
	Airport / Avon Avenue	PM	0.627	B	0.574	A	-0.053	NO
13.	Hollywood Way &	AM	1.084	F	1.084	F	0.000	NO
	Victory Boulevard	PM	1.223	F	1.223	F	0.000	NO
14.	Hollywood Way &	AM	0.899	D	0.899	D	0.000	NO
	Burbank Boulevard	PM	0.913	E	0.913	E	0.000	NO
15.	Hollywood Way &	AM	0.872	D	0.872	D	0.000	NO
	Magnolia Boulevard	PM	0.907	E	0.907	E	0.000	NO
16.	Ontario Street &	AM	0.189	A	0.189	A	0.000	NO
	Winona Avenue	PM	0.188	A	0.202	A	0.014	NO
17.	Ontario Street &	AM	0.513	A	0.511	A	-0.002	NO
	Thornton Avenue	PM	0.413	A	0.413	A	0.000	NO
18.	Ontario Street &	AM	0.824	D	0.804	D	-0.020	NO
	Empire Avenue	PM	0.978	E	0.958	E	-0.020	NO
19.	Buena Vista Street &	AM	0.888	D	0.888	D	0.000	NO
	I-5 Northbound Ramps	PM	0.989	E	0.989	E	0.000	NO
20.	Buena Vista Street &	AM	0.759	C	0.773	C	0.014	NO
	Winona Avenue	PM	0.780	C	0.766	C	-0.014	NO
21.	Buena Vista Street &	AM	0.737	C	0.742	C	0.005	NO
	San Fernando Boulevard	PM	0.895	D	0.901	E	0.006	NO
22.	Buena Vista Street &	AM	0.852	D	0.834	D	-0.018	NO
	Empire Avenue	PM	1.024	F	1.009	F	-0.015	NO
23.	I-5 Southbound Ramps &	AM	0.694	B	0.680	B	-0.014	NO
	Empire Avenue	PM	0.602	B	0.588	A	-0.014	NO
24.	I-5 Northbound Ramps &	AM	0.817	D	0.802	D	-0.015	NO
	Empire Avenue	PM	0.733	C	0.718	C	-0.015	NO
25.	Avon Avenue &	AM	0.279	A	0.225	A	-0.054	NO
	Empire Avenue	PM	0.398	A	0.301	A	-0.097	NO
[a]	Fully or partially within City of Los Angeles jurisdiction.							

2025 CONDITIONS WITH PROJECT

Table 3.17-9 presents the LOS at signalized intersections in the Airport vicinity in 2025. The Adjacent Property Option would result in a significant traffic impact at the intersection of Hollywood Way and Winona Avenue during the afternoon peak hour.

Mitigation Measure ADJ PROP FULL-TRANS-1

The intersection of Hollywood Way and Winona Avenue would serve as the primary access to the terminal under the Adjacent Property Option. In order to fully mitigate the impact at this intersection to a less-than-significant level, it would have to be expanded with a third northbound through lane, a second northbound left turn lane, and a fourth eastbound lane exiting the Airport. Additionally, the eastbound approach would need to have a protected left-turn traffic signal arrow.

Significance After Mitigation: If Mitigation Measure ADJ PROP FULL-TRANS-1 is implemented, the impact at signalized intersections would be reduced to less-than-significant level. The remaining three mitigation measures, which are shown to be physically feasible and acceptable to the City of Burbank, would be implemented depending on the development option implemented. Because the City has indicated their commitment to cooperate in the implementation of this mitigation measure as proposed, this impact is mitigated to a less-than-significant level.

IMPACT ADJ PROP FULL-TRANS-2: Traffic at Unsignalized Intersections

EXISTING CONDITIONS PLUS PROJECT

If the project were hypothetically completed in the present day under current conditions, there would be differences between the LOS at unsignalized intersections in the Airport vicinity (see **Table 3.17-10**). The Adjacent Property Option would result in a significant impact at the intersection of Hollywood Way and San Fernando Boulevard Ramps during both the morning and afternoon peak hours.

2023 CONDITIONS WITH PROJECT

Table 3.17-11 presents the LOS at unsignalized intersections in the Airport vicinity in 2023. The Adjacent Property Option would result in significant impacts at the intersections of San Fernando Boulevard and Cohasset Street and Hollywood Way and San Fernando Boulevard Ramps during both the morning and afternoon peak hours.

2025 CONDITIONS WITH PROJECT

Table 3.17-12 presents the LOS at unsignalized intersections in the Airport vicinity in 2025. The Adjacent Property Option would result in significant impacts at the intersections of San Fernando Boulevard and Cohasset Street and Hollywood Way and San Fernando Boulevard Ramps during both the morning and afternoon peak hours.

Table 3.17-9

2025 Conditions Plus Adjacent Property Full-Size Terminal Option – Signalized Intersections Level of Services

No.	Intersection	Peak Hour	Completion Year 2025 without Project Conditions		Completion Year 2025 with Project Conditions - Adjacent Property Option			
			V/C	LOS	V/C	LOS	Δ V/C	Impact
1.	Sunland Boulevard &	AM	0.791	C	0.791	C	0.000	NO
[a]	San Fernando Road	PM	0.714	C	0.714	C	0.000	NO
2.	Vineland Avenue &	AM	0.807	D	0.807	D	0.000	NO
[a]	Sherman Way	PM	0.779	C	0.779	C	0.000	NO
3.	Clybourn Avenue &	AM	0.618	B	0.618	B	0.000	NO
[a]	Vanowen Street	PM	0.795	C	0.795	C	0.000	NO
4.	Arvilla Avenue &	AM	0.620	B	0.620	B	0.000	NO
[a]	San Fernando Road	PM	0.630	B	0.630	B	0.000	NO
5.	Airport &	AM	0.359	A	0.340	A	-0.019	NO
	Empire Avenue	PM	0.469	A	0.436	A	-0.033	NO
6.	Hollywood Way &	AM	0.694	B	0.694	B	0.000	NO
[a]	I-5 Northbound Ramps	PM	0.848	D	0.848	D	0.000	NO
7.	Hollywood Way Southbound Ramps &	AM	0.392	A	0.407	A	0.015	NO
	San Fernando Boulevard	PM	0.198	A	0.218	A	0.020	NO
8.	Hollywood Way Northbound Ramps &	AM	0.359	A	0.374	A	0.015	NO
	San Fernando Boulevard	PM	0.241	A	0.266	A	0.025	NO
9.	Hollywood Way &	AM	0.890	D	0.890	D	0.000	NO
	Tulare Avenue	PM	0.905	E	0.902	E	-0.003	NO
10.	Hollywood Way &	AM	0.633	B	0.768	C	0.135	NO
	Winona Avenue	PM	0.950	E	0.996	E	0.046	**YES**
11.	Hollywood Way &	AM	1.029	F	0.878	D	-0.151	NO
	Airport / Thornton Avenue	PM	0.929	E	0.841	D	-0.088	NO
12.	Hollywood Way &	AM	0.582	A	0.539	A	-0.043	NO
	Airport / Avon Avenue	PM	0.627	B	0.574	A	-0.053	NO
13.	Hollywood Way &	AM	1.094	F	1.094	F	0.000	NO
	Victory Boulevard	PM	1.237	F	1.237	F	0.000	NO
14.	Hollywood Way &	AM	0.902	E	0.902	E	0.000	NO
	Burbank Boulevard	PM	0.922	E	0.922	E	0.000	NO
15.	Hollywood Way &	AM	0.876	D	0.876	D	0.000	NO
	Magnolia Boulevard	PM	0.917	E	0.917	E	0.000	NO
16.	Ontario Street &	AM	0.196	A	0.196	A	0.000	NO
	Winona Avenue	PM	0.190	A	0.204	A	0.014	NO
17.	Ontario Street &	AM	0.529	A	0.528	A	-0.001	NO
	Thornton Avenue	PM	0.414	A	0.413	A	-0.001	NO
18.	Ontario Street &	AM	0.836	D	0.816	D	-0.020	NO
	Empire Avenue	PM	0.983	E	0.964	E	-0.019	NO
19.	Buena Vista Street &	AM	0.938	E	0.938	E	0.000	NO
	I-5 Northbound Ramps	PM	1.017	F	1.017	F	0.000	NO
20.	Buena Vista Street &	AM	0.768	C	0.782	C	0.014	NO
	Winona Avenue	PM	0.793	C	0.779	C	-0.014	NO
21.	Buena Vista Street &	AM	0.747	C	0.752	C	0.005	NO
	San Fernando Boulevard	PM	0.908	E	0.913	E	0.005	NO
22.	Buena Vista Street &	AM	0.863	D	0.845	D	-0.018	NO
	Empire Avenue	PM	1.028	F	1.013	F	-0.015	NO
23.	I-5 Southbound Ramps &	AM	0.703	C	0.689	B	-0.014	NO
	Empire Avenue	PM	0.604	B	0.590	A	-0.014	NO
24.	I-5 Northbound Ramps &	AM	0.827	D	0.812	D	-0.015	NO
	Empire Avenue	PM	0.735	C	0.719	C	-0.016	NO
25.	Avon Avenue &	AM	0.284	A	0.230	A	-0.054	NO
	Empire Avenue	PM	0.409	A	0.311	A	-0.098	NO
[a]	Fully or partially within City of Los Angeles jurisdiction.							

Table 3.17-10

Existing Year 2016 Conditions Plus Adjacent Property Full-Size Terminal Option – Unsignalized Intersections Level of Services

No.	Intersection	Peak Hour	Existing Year 2016 with Project Conditions - Adjacent Property Option					
			Delay	LOS	Trips Through Intersection			
					Total Trips	Project Trips	Percent Increase	Impact
1.	Clybourn Avenue &	AM	12.6	B	382	0	0.0%	NO
[a]	Sherman Way	PM	15.3	C	504	0	0.0%	NO
2.	Clybourn Avenue &	AM	11.8	B	843	0	0.0%	NO
	Empire Avenue	PM	11.9	B	1,032	0	0.0%	NO
3.	Lockheed Drive &	AM	24.1	C	1,377	0	0.0%	NO
[a]	San Fernando Road	PM	13.5	B	1,024	0	0.0%	NO
4.	San Fernando Boulevard &	AM	14.7	B	1,532	107	7.0%	NO
	Cohasset Street	PM	12.1	B	1,195	88	7.4%	NO
5.	Hollywood Way &	AM	overflow	F	2,904	0	0.0%	NO
[a]	I-5 Southbound Ramps	PM	23.6	C	2,854	0	0.0%	NO
6.	Hollywood Way &	AM	64.7	F	3,645	38	1.0%	**YES**
	San Fernando Boulevard Ramps	PM	70.1	F	3,438	31	0.9%	**YES**
7.	I-5 Southbound Ramps &	AM	14.3	B	986	0	0.0%	NO
	San Fernando Boulevard	PM	13.1	B	996	0	0.0%	NO
8.	San Fernando Boulevard / Naomi Street &	AM	18.0	C	1,182	38	3.2%	NO
	Winona Avenue	PM	17.4	C	889	31	3.5%	NO
[a]	Fully or partially within City of Los Angeles jurisdiction.							

Table 3.17-11

2023 Conditions Plus Adjacent Property Full-Size Terminal Option – Unsignalized Intersections Level of Services

No.	Intersection	Peak Hour	Interim Year 2023 with Project Conditions - Adjacent Property Option					
			Delay	LOS	Trips Through Intersection			
					Total Trips	Project Trips	Percent Increase	Impact
1.	Clybourn Avenue &	AM	12.9	B	400	0	0.0%	NO
[a]	Sherman Way	PM	16.1	C	537	0	0.0%	NO
2.	Clybourn Avenue &	AM	12.3	B	919	0	0.0%	NO
	Empire Avenue	PM	12.7	B	1,189	0	0.0%	NO
3.	Lockheed Drive &	AM	27.6	D	1,473	0	0.0%	NO
[a]	San Fernando Road	PM	16.7	C	1,145	0	0.0%	NO
4.	San Fernando Boulevard &	AM	26.3	D	1,772	120	6.8%	**YES**
	Cohasset Street	PM	29.6	D	1,477	130	8.8%	**YES**
5.	Hollywood Way &	AM	overflow	F	3,054	0	0.0%	NO
[a]	I-5 Southbound Ramps	PM	28.0	D	3,093	0	0.0%	NO
6.	Hollywood Way &	AM	overflow	F	4,024	43	1.1%	**YES**
	San Fernando Boulevard Ramps	PM	overflow	F	3,913	46	1.2%	**YES**
7.	I-5 Southbound Ramps &	AM	26.6	D	1,237	20	1.6%	NO
	San Fernando Boulevard	PM	17.0	C	1,195	20	1.7%	NO
8.	San Fernando Boulevard / Naomi Street &	AM	19.7	C	1,277	102	8.0%	NO
	Winona Avenue	PM	19.6	C	995	106	10.7%	NO
[a]	Fully or partially within City of Los Angeles jurisdiction.							

Table 3.17-12

2025 Conditions Plus Adjacent Property Full-Size Terminal Option – Unsignalized Intersections Level of Services

No.	Intersection	Peak Hour	Completion Year 2025 with Project Conditions - Adjacent Property Option					
			Delay	LOS	Trips Through Intersection			
					Total Trips	Project Trips	Percent Increase	Impact
1.	Clybourn Avenue &	AM	13.0	B	404	0	0.0%	NO
[a]	Sherman Way	PM	16.3	C	547	0	0.0%	NO
2.	Clybourn Avenue &	AM	12.5	B	938	0	0.0%	NO
	Empire Avenue	PM	12.9	B	1,227	0	0.0%	NO
3.	Lockheed Drive &	AM	28.3	D	1,486	0	0.0%	NO
[a]	San Fernando Road	PM	17.1	C	1,165	0	0.0%	NO
4.	San Fernando Boulevard &	AM	27.2	D	1,791	125	7.0%	**YES**
	Cohasset Street	PM	31.0	D	1,498	134	8.9%	**YES**
5.	Hollywood Way &	AM	overflow	F	3,090	0	0.0%	NO
[a]	I-5 Southbound Ramps	PM	29.5	D	3,154	0	0.0%	NO
6.	Hollywood Way &	AM	overflow	F	4,118	44	1.1%	**YES**
	San Fernando Boulevard Ramps	PM	overflow	F	4,030	48	1.2%	**YES**
7.	I-5 Southbound Ramps &	AM	33.3	D	1,295	20	1.5%	NO
	San Fernando Boulevard	PM	18.5	C	1,242	20	1.6%	NO
8.	San Fernando Boulevard / Naomi Street &	AM	19.9	C	1,286	104	8.1%	NO
	Winona Avenue	PM	19.8	C	1,004	107	10.7%	NO
[a]	Fully or partially within City of Los Angeles jurisdiction.							

Mitigation Measure ADJ PROP FULL-TRANS-2A

The intersection of San Fernando Boulevard & Cohasset Street would serve as a secondary access to the terminal under the Adjacent Property Option. The impacts at this location could be fully mitigated through the installation of traffic signal control, which is warranted under application of the peak hour traffic signal warrant from the MUTCD. Signal warrant worksheets are provided in Appendix L. Along with signalization, crosswalks could be installed and the eastbound approach on Cohasset Street could be striped with exclusive left and right-turn lanes.

Mitigation Measure ADJ PROP FULL-TRANS-2B

The intersection of Hollywood Way and San Fernando Boulevard Ramps could be fully mitigated by reconfiguring the intersection with traffic signal control and adding a second eastbound right-turn lane. The traffic signal control could be limited to the southbound side of Hollywood Way, as there is a raised median dividing the northbound and southbound sides of Hollywood Way and the northbound side does not have any conflicting vehicle movements. As part of the improvement, the Hollywood Way southbound ramp from San Fernando Boulevard would remain two lanes for its entire length rather than merging to one before reaching Hollywood Way, and would be realigned within the existing right-of-way to approach Hollywood Way at a 90-degree angle.

Significance After Mitigation: If Mitigation Measures ADJ PROP FULL-TRANS-2A and 2B are implemented, the impacts at signalized intersections would be reduced to less-than-significant level. Because the City has indicated their commitment to cooperate in the implementation of this mitigation measure as proposed, this impact is mitigated to a less-than-significant level.

IMPACT ADJ PROP FULL-TRANS-3: Impacts related to Congestion Management Program

The Congestion Management Program (CMP) does not identify any identify any arterial monitoring intersections within the Study Area. The nearest arterial monitoring stations are over four miles from the Airport, including one at Woodman Avenue and Victory Boulevard to the west and at Lankershim Boulevard and Ventura Boulevard to the south. As the Adjacent Property Full-Size Terminal Option consists of a local reassignment of trips to different access points, it would not have a measurable effect on intersections four miles from the Airport. It would add far fewer than 50 peak hour trips at either of the arterial monitoring intersections identified above and therefore the CMP arterial intersection impacts associated with the Adjacent Property Full-Size Terminal Option are considered to be less than significant and no further analysis is required.

The CMP does not identify any freeway monitoring locations within the Study Area. The nearest freeway monitoring location is on I-5 at Burbank Boulevard (approximately two miles southeast of the Airport). Other freeway monitoring locations include SR 170 at Sherman Way (approximately three miles west of the Airport) and SR 134 at Forman Avenue (approximately three miles south of the Airport). As with the arterial monitoring stations, the Adjacent Property Full-Size Terminal Option would not have a measurable effect on these freeway segments outside of the Study Area. It would add far fewer than 150 peak hour trips in either direction. Therefore, the CMP freeway segment impacts associated with the Adjacent Property Full-Size Terminal Option are considered to be less than significant and no further analysis is required.

Section B.8.4 of the CMP provides a methodology for estimating the number of transit trips expected to result from a proposed project based on the number of vehicle trips it would generate. However, as the Adjacent Property Full-Size Terminal Option is not expected to generate additional trips compared to the No Project scenario, that methodology is not applicable. The mode split assumptions suggest that less than 1% of Airport passengers currently travel to or from the Airport via public transit and that the number will remain at 1% in the future. There are several public transit improvements that are proposed to occur in the Airport vicinity. These include the construction of a new Metrolink station on San Fernando Boulevard near Cohasset Street and Hollywood Way that would serve Metrolink riders on the Antelope Valley Line and a pedestrian bridge between the existing Metrolink Burbank-Bob Hope Airport Station on Empire Avenue and the RITC. Upon the station's completion, the Authority has committed to provide an air carrier passenger shuttle between the terminal and the proposed Metrolink Station on San Fernando Boulevard for each arriving and departing train. While these improvements could result in a small increase in public transit usage to and from the Airport, they are independent of the Adjacent Property Full-Size Terminal Option and therefore any increase in transit ridership would be attributed to those improvements. Therefore, the Adjacent Property Full-Size Terminal Option is not anticipated to result in regional transit impacts and no additional analysis is required.

Mitigation Measure ADJ PROP FULL-TRANS-3

No mitigation is warranted.

IMPACT ADJ PROP FULL-TRANS-4: Impacts to Caltrans Facilities

An analysis of Caltrans facilities included freeway mainline segments, Caltrans intersections, off-ramp queuing, and on-ramp capacity. The analysis shows that the Adjacent Property Full-Size Terminal Option does not generate new traffic and any effect on Caltrans facilities is limited. This is considered to be a less than significant impact.

Mitigation Measure ADJ PROP FULL-TRANS-4

No mitigation is warranted.

IMPACT ADJ PROP FULL-TRANS-5: Impacts to Local Streets in Burbank

Cohasset Street is a designated Local Street in *Burbank2035 General Plan*. The City of Burbank traffic study guidelines specify criteria for identification of a significant impact on a "local residential street" based on an increase in the projected ADT volumes. However, because Cohasset Street serves only commercial and industrial uses where higher traffic volumes are not generally considered a nuisance, there are no significance criteria applicable to the roadway. Instead, this analysis focuses on a discussion of its capacity under the Adjacent Property Full-Size Terminal Option, in which Cohasset Street would be used as a secondary entrance and exit to the replacement passenger terminal.

Traffic conditions on Cohasset Street are not so much governed by the width of the street or its classification, but by the operating conditions of the intersection of San Fernando Boulevard and Cohasset Street. According to HCM 2000, "signal timing plays a major role in the capacity of [urban streets], limiting the portion of time that is available for movement along the urban street at critical intersections". The CMA intersection analysis methodology used by the City of Burbank utilizes a free-flow capacity of 1,500 vehicles per hour per lane (vphpl) in its calculations. Assuming that this intersection becomes signalized, Cohasset Street eastbound traffic (toward San Fernando Boulevard) would be metered by the percentage of the time the signal is green. For example, if that traffic signal provided 30% green-time to Cohasset Street (with the remaining 70% allocated to traffic on San Fernando Boulevard), it would provide a capacity of 450 vphpl (30% of 1,500 vphpl) for eastbound traffic turning onto San Fernando Boulevard. In operation, the roadway sensors would detect cars on Cohasset Street and would adjust the amount of green time as necessary to accommodate the demand (up to a maximum of, perhaps, 40% of green time for the minor street approach). Therefore, traffic on Cohasset Street could be accommodated up to a theoretical maximum of 600 vphpl, or 1,200 vehicles per hour for the two lanes (including 600 in each direction). This estimate conservatively excludes the additional capacity due to right-turns made during a red light, which is often a substantial number.

The morning and afternoon peak hour volumes turning onto and off of Cohasset Street from San Fernando Boulevard would be below the maximum capacity of 600 vphpl. Therefore, there is adequate capacity on Cohasset Street to accommodate anticipated traffic volumes, including any Airport-related traffic under the Adjacent Property Full-Size Terminal Option.

Mitigation Measure ADJ PROP FULL-TRANS-5

No mitigation is warranted.

IMPACT ADJ PROP FULL-TRANS-6: Construction-Related Traffic Impacts

A construction traffic analysis was conducted for 2023 and 2025. The traffic impacts were assessed by comparing conditions with the construction traffic to 2023 without project conditions (Phase 1) and by comparing conditions with the construction traffic to 2023 with project conditions (Phase 2).

Table 3.17-13 provides a summary of the potential temporary traffic impacts associated with construction of the Adjacent Property Full-Size Terminal Option. Up to 9 different intersections could be temporarily affected by construction traffic during Phase 1. Up to 5 different intersections could be temporarily affected by construction traffic during Phase 2.

Most construction trips would occur during the daytime, but some construction trips associated with airfield improvements may occur during nighttime hours. The construction impacts are considered significant despite the fact that they would only occur temporarily during peak times of construction.

Mitigation Measure ADJ PROP FULL-TRANS-6

A detailed Construction Management Plan, including street closure information, a detour plan, haul routes, and a staging plan, would be prepared and submitted to the City for review and approval. The Construction Management Plan would formalize how construction would be carried out and identify specific actions that would be required to reduce effects on the surrounding community.

The Construction Management Plan shall be based on the nature and timing of the specific construction activities and other projects in the vicinity of the project site, and may include, but not be limited to, the following elements, as appropriate:

- Adequate parking would be provided for construction workers at all time, and construction workers would be prohibited from parking on nearby residential streets; if remote parking is used, shuttles would be provided to take workers to and from the construction site.
- Temporary traffic control would be provided during any construction activities adjacent to public rights-of-way to improve safety and traffic flow on public roadways.
- Construction activities would be scheduled to reduce the effect of worker traffic on surrounding arterial streets during peak hours.
- Construction-related vehicles would not park on surrounding public streets.
- Construction-related deliveries, haul trips, etc., would be scheduled so as to occur outside the commuter peak hours to the extent feasible.
- Haul and delivery vehicles would be routed to reduce travel on congested streets and to avoid residential areas.
- Contractors would be required to obtain any applicable haul route permits.

Significance After Mitigation: If Mitigation Measure ADJ PROP FULL-TRANS-6 is implemented, the impacts associated with construction-related traffic would be reduced to less-than-significant level.

Table 3.17-13

Construction-Related Traffic Impacts – Adjacent Property Full-Size Terminal Option

No.	Intersection	Phase 1 Delivery Trucks and Worker Trips	Phase 2 Haul Trucks	Phase 2 Worker Trips
Signalized Intersections				
9	Hollywood Way & Tulare Avenue	Afternoon Peak Hour		
10	Hollywood Way & Winona Avenue	Afternoon Peak Hour	Afternoon Peak Hour	Afternoon Peak Hour
11	Hollywood Way & Airport / Thornton Avenue	Afternoon Peak Hour		
13	Hollywood Way & Victory Boulevard	Afternoon Peak Hour		Afternoon Peak Hour
22	Buena Vista Street & Empire Avenue	Afternoon Peak Hour		Afternoon Peak Hour
Unsignalized Intersections				
3	Lockheed Drive & San Fernando Road	Morning Peak Hour		
4	San Fernando Boulevard & Cohasset Street	Morning Peak Hour		
5	Hollywood Way & I-5 Southbound Ramps	Both Peak Hours	Morning Peak Hour	Morning Peak Hour
6	Hollywood Way & San Fernando Boulevard Ramps	Both Peak Hours	Morning Peak Hour	Both Peak Hours

3.17.3.2 SOUTHWEST QUADRANT FULL-SIZE TERMINAL OPTION

Project Impacts

IMPACT SW QUAD FULL-TRANS-1: Traffic at Signalized Intersections

EXISTING CONDITIONS PLUS PROJECT

If the project were hypothetically completed in the present day under current conditions, there would be differences between the LOS at signalized intersections in the Airport vicinity (see **Table 3.17-14**). The Southwest Quadrant Full-Size Option would not result in significant traffic impacts at any study intersection.

2023 CONDITIONS WITH PROJECT

Table 3.17-15 presents the LOS at signalized intersections in the Airport vicinity in 2023. The Southwest Quadrant Full-Size Option would not result in significant traffic impacts at any study intersection.

2025 CONDITIONS WITH PROJECT

Table 3.17-16 presents the LOS at signalized intersections in the Airport vicinity in 2025. The Southwest Quadrant Full-Size Option would not result in significant traffic impacts at any study intersection.

Mitigation Measure SW QUAD FULL-TRANS-1

No mitigation is warranted.

Table 3.17-14

Existing Year 2016 Conditions Plus Southwest Quadrant Full-Size Terminal Option – Signalized Intersections Level of Services

No.	Intersection	Peak Hour	Existing Year 2016 Conditions		Existing Year 2016 with Project Conditions - SWQ Full-Size Option			
			V/C	LOS	V/C	LOS	Δ V/C	Impact
1.	Sunland Boulevard &	AM	0.758	C	0.760	C	0.002	NO
[a]	San Fernando Road	PM	0.656	B	0.657	B	0.001	NO
2.	Vineland Avenue &	AM	0.774	C	0.775	C	0.001	NO
[a]	Sherman Way	PM	0.737	C	0.738	C	0.001	NO
3.	Clybourn Avenue &	AM	0.586	A	0.571	A	-0.015	NO
[a]	Vanowen Street	PM	0.736	C	0.723	C	-0.013	NO
4.	Arvilla Avenue &	AM	0.573	A	0.574	A	0.001	NO
[a]	San Fernando Road	PM	0.575	A	0.576	A	0.001	NO
5.	Airport &	AM	0.310	A	0.319	A	0.009	NO
	Empire Avenue	PM	0.376	A	0.389	A	0.013	NO
6.	Hollywood Way &	AM	0.656	B	0.659	B	0.003	NO
[a]	I-5 Northbound Ramps	PM	0.770	C	0.772	C	0.002	NO
7.	Hollywood Way Southbound Ramps &	AM	0.369	A	0.370	A	0.001	NO
	San Fernando Boulevard	PM	0.193	A	0.194	A	0.001	NO
8.	Hollywood Way Northbound Ramps &	AM	0.354	A	0.354	A	0.000	NO
	San Fernando Boulevard	PM	0.200	A	0.202	A	0.002	NO
9.	Hollywood Way &	AM	0.505	A	0.509	A	0.004	NO
	Tulare Avenue	PM	0.708	C	0.715	C	0.007	NO
10.	Hollywood Way &	AM	0.568	A	0.574	A	0.006	NO
	Winona Avenue	PM	0.837	D	0.848	D	0.011	NO
11.	Hollywood Way &	AM	0.847	D	0.832	D	-0.015	NO
	Airport / Thornton Avenue	PM	0.701	C	0.701	C	0.000	NO
12.	Hollywood Way &	AM	0.569	A	0.574	A	0.005	NO
	Airport / Avon Avenue	PM	0.624	B	0.628	B	0.004	NO
13.	Hollywood Way &	AM	1.061	F	1.063	F	0.002	NO
	Victory Boulevard	PM	1.164	F	1.165	F	0.001	NO
14.	Hollywood Way &	AM	0.882	D	0.883	D	0.001	NO
	Burbank Boulevard	PM	0.876	D	0.877	D	0.001	NO
15.	Hollywood Way &	AM	0.854	D	0.855	D	0.001	NO
	Magnolia Boulevard	PM	0.869	D	0.870	D	0.001	NO
16.	Ontario Street &	AM	0.166	A	0.166	A	0.000	NO
	Winona Avenue	PM	0.185	A	0.185	A	0.000	NO
17.	Ontario Street &	AM	0.448	A	0.448	A	0.000	NO
	Thornton Avenue	PM	0.409	A	0.409	A	0.000	NO
18.	Ontario Street &	AM	0.264	A	0.261	A	-0.003	NO
	Empire Avenue	PM	0.291	A	0.289	A	-0.002	NO
19.	Buena Vista Street &	AM	0.694	B	0.694	B	0.000	NO
	I-5 Northbound Ramps	PM	0.876	D	0.876	D	0.000	NO
20.	Buena Vista Street &	AM	0.723	C	0.723	C	0.000	NO
	Winona Avenue	PM	0.731	C	0.733	C	0.002	NO
21.	Buena Vista Street &	AM	0.699	B	0.699	B	0.000	NO
	San Fernando Boulevard	PM	0.839	D	0.838	D	-0.001	NO
22.	Buena Vista Street &	AM	0.546	A	0.539	A	-0.007	NO
	Empire Avenue	PM	0.591	A	0.590	A	-0.001	NO
23.	I-5 Southbound Ramps &	AM	*Intersection has not yet been constructed.*					
	Empire Avenue	PM						
24.	I-5 Northbound Ramps &	AM	*Intersection has not yet been constructed.*					
	Empire Avenue	PM						
25.	Avon Avenue &	AM	0.260	A	0.278	A	0.018	NO
	Empire Avenue	PM	0.355	A	0.367	A	0.012	NO
[a]	Fully or partially within City of Los Angeles jurisdiction.							

Table 3.17-15

2023 Conditions Plus Southwest Quadrant Full-Size Terminal Option – Signalized Intersections Level of Services

No.	Intersection	Peak Hour	Interim Year 2023 without Project Conditions		Interim Year 2023 with Project Conditions - SWQ Full-Size Option			
			V/C	LOS	V/C	LOS	Δ V/C	Impact
1.	Sunland Boulevard &	AM	0.785	C	0.786	C	0.001	NO
[a]	San Fernando Road	PM	0.702	C	0.704	C	0.002	NO
2.	Vineland Avenue &	AM	0.801	D	0.801	D	0.000	NO
[a]	Sherman Way	PM	0.771	C	0.772	C	0.001	NO
3.	Clybourn Avenue &	AM	0.611	B	0.596	A	-0.015	NO
[a]	Vanowen Street	PM	0.782	C	0.769	C	-0.013	NO
4.	Arvilla Avenue &	AM	0.612	B	0.613	B	0.001	NO
[a]	San Fernando Road	PM	0.619	B	0.620	B	0.001	NO
5.	Airport &	AM	0.350	A	0.362	A	0.012	NO
	Empire Avenue	PM	0.454	A	0.502	A	0.048	NO
6.	Hollywood Way &	AM	0.687	B	0.690	B	0.003	NO
[a]	I-5 Northbound Ramps	PM	0.833	D	0.835	D	0.002	NO
7.	Hollywood Way Southbound Ramps &	AM	0.387	A	0.388	A	0.001	NO
	San Fernando Boulevard	PM	0.197	A	0.198	A	0.001	NO
8.	Hollywood Way Northbound Ramps &	AM	0.358	A	0.359	A	0.001	NO
	San Fernando Boulevard	PM	0.233	A	0.234	A	0.001	NO
9.	Hollywood Way &	AM	0.875	D	0.880	D	0.005	NO
	Tulare Avenue	PM	0.877	D	0.885	D	0.008	NO
10.	Hollywood Way &	AM	0.620	B	0.622	B	0.002	NO
	Winona Avenue	PM	0.928	E	0.936	E	0.008	NO
11.	Hollywood Way &	AM	1.008	F	0.991	E	-0.017	NO
	Airport / Thornton Avenue	PM	0.909	E	0.891	D	-0.018	NO
12.	Hollywood Way &	AM	0.580	A	0.585	A	0.005	NO
	Airport / Avon Avenue	PM	0.627	B	0.639	B	0.012	NO
13.	Hollywood Way &	AM	1.084	F	1.085	F	0.001	NO
	Victory Boulevard	PM	1.223	F	1.224	F	0.001	NO
14.	Hollywood Way &	AM	0.899	D	0.900	D	0.001	NO
	Burbank Boulevard	PM	0.913	E	0.914	E	0.001	NO
15.	Hollywood Way &	AM	0.872	D	0.873	D	0.001	NO
	Magnolia Boulevard	PM	0.907	E	0.908	E	0.001	NO
16.	Ontario Street &	AM	0.189	A	0.189	A	0.000	NO
	Winona Avenue	PM	0.188	A	0.188	A	0.000	NO
17.	Ontario Street &	AM	0.513	A	0.513	A	0.000	NO
	Thornton Avenue	PM	0.413	A	0.413	A	0.000	NO
18.	Ontario Street &	AM	0.824	D	0.820	D	-0.004	NO
	Empire Avenue	PM	0.978	E	0.976	E	-0.002	NO
19.	Buena Vista Street &	AM	0.888	D	0.888	D	0.000	NO
	I-5 Northbound Ramps	PM	0.989	E	0.989	E	0.000	NO
20.	Buena Vista Street &	AM	0.759	C	0.758	C	-0.001	NO
	Winona Avenue	PM	0.780	C	0.782	C	0.002	NO
21.	Buena Vista Street &	AM	0.737	C	0.737	C	0.000	NO
	San Fernando Boulevard	PM	0.895	D	0.894	D	-0.001	NO
22.	Buena Vista Street &	AM	0.852	D	0.847	D	-0.005	NO
	Empire Avenue	PM	1.024	F	1.023	F	-0.001	NO
23.	I-5 Southbound Ramps &	AM	0.694	B	0.694	B	0.000	NO
	Empire Avenue	PM	0.602	B	0.602	B	0.000	NO
24.	I-5 Northbound Ramps &	AM	0.817	D	0.816	D	-0.001	NO
	Empire Avenue	PM	0.733	C	0.733	C	0.000	NO
25.	Avon Avenue &	AM	0.279	A	0.302	A	0.023	NO
	Empire Avenue	PM	0.398	A	0.427	A	0.029	NO
[a]	Fully or partially within City of Los Angeles jurisdiction.							

Table 3.17-16

2025 Conditions Plus Southwest Quadrant Full-Size Terminal Option – Signalized Intersections Level of Services

No.	Intersection	Peak Hour	Completion Year 2025 without Project Conditions		Completion Year 2025 with Project Conditions - SWQ Full-Size Option			
			V/C	LOS	V/C	LOS	Δ V/C	Impact
1.	Sunland Boulevard &	AM	0.791	C	0.792	C	0.001	NO
[a]	San Fernando Road	PM	0.714	C	0.715	C	0.001	NO
2.	Vineland Avenue &	AM	0.807	D	0.808	D	0.001	NO
[a]	Sherman Way	PM	0.779	C	0.780	C	0.001	NO
3.	Clybourn Avenue &	AM	0.618	B	0.603	B	-0.015	NO
[a]	Vanowen Street	PM	0.795	C	0.781	C	-0.014	NO
4.	Arvilla Avenue &	AM	0.620	B	0.622	B	0.002	NO
[a]	San Fernando Road	PM	0.630	B	0.631	B	0.001	NO
5.	Airport &	AM	0.359	A	0.372	A	0.013	NO
	Empire Avenue	PM	0.469	A	0.518	A	0.049	NO
6.	Hollywood Way &	AM	0.694	B	0.697	B	0.003	NO
[a]	I-5 Northbound Ramps	PM	0.848	D	0.850	D	0.002	NO
7.	Hollywood Way Southbound Ramps &	AM	0.392	A	0.393	A	0.001	NO
	San Fernando Boulevard	PM	0.198	A	0.200	A	0.002	NO
8.	Hollywood Way Northbound Ramps &	AM	0.359	A	0.359	A	0.000	NO
	San Fernando Boulevard	PM	0.241	A	0.243	A	0.002	NO
9.	Hollywood Way &	AM	0.890	D	0.894	D	0.004	NO
	Tulare Avenue	PM	0.905	E	0.913	E	0.008	NO
10.	Hollywood Way &	AM	0.633	B	0.634	B	0.001	NO
	Winona Avenue	PM	0.950	E	0.958	E	0.008	NO
11.	Hollywood Way &	AM	1.029	F	1.010	F	-0.019	NO
	Airport / Thornton Avenue	PM	0.929	E	0.907	E	-0.022	NO
12.	Hollywood Way &	AM	0.582	A	0.588	A	0.006	NO
	Airport / Avon Avenue	PM	0.627	B	0.640	B	0.013	NO
13.	Hollywood Way &	AM	1.094	F	1.095	F	0.001	NO
	Victory Boulevard	PM	1.237	F	1.239	F	0.002	NO
14.	Hollywood Way &	AM	0.902	E	0.903	E	0.001	NO
	Burbank Boulevard	PM	0.922	E	0.923	E	0.001	NO
15.	Hollywood Way &	AM	0.876	D	0.877	D	0.001	NO
	Magnolia Boulevard	PM	0.917	E	0.918	E	0.001	NO
16.	Ontario Street &	AM	0.196	A	0.196	A	0.000	NO
	Winona Avenue	PM	0.190	A	0.190	A	0.000	NO
17.	Ontario Street &	AM	0.529	A	0.529	A	0.000	NO
	Thornton Avenue	PM	0.414	A	0.414	A	0.000	NO
18.	Ontario Street &	AM	0.836	D	0.832	D	-0.004	NO
	Empire Avenue	PM	0.983	E	0.982	E	-0.001	NO
19.	Buena Vista Street &	AM	0.938	E	0.938	E	0.000	NO
	I-5 Northbound Ramps	PM	1.017	F	1.017	F	0.000	NO
20.	Buena Vista Street &	AM	0.768	C	0.767	C	-0.001	NO
	Winona Avenue	PM	0.793	C	0.795	C	0.002	NO
21.	Buena Vista Street &	AM	0.747	C	0.747	C	0.000	NO
	San Fernando Boulevard	PM	0.908	E	0.907	E	-0.001	NO
22.	Buena Vista Street &	AM	0.863	D	0.857	D	-0.006	NO
	Empire Avenue	PM	1.028	F	1.027	F	-0.001	NO
23.	I-5 Southbound Ramps &	AM	0.703	C	0.702	C	-0.001	NO
	Empire Avenue	PM	0.604	B	0.603	B	-0.001	NO
24.	I-5 Northbound Ramps &	AM	0.827	D	0.826	D	-0.001	NO
	Empire Avenue	PM	0.735	C	0.734	C	-0.001	NO
25.	Avon Avenue &	AM	0.284	A	0.307	A	0.023	NO
	Empire Avenue	PM	0.409	A	0.439	A	0.030	NO
[a]	Fully or partially within City of Los Angeles jurisdiction.							

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IMPACT ADJ PROP FULL-TRANS-2: Traffic at Unsignalized Intersections

EXISTING CONDITIONS PLUS PROJECT

If the project were hypothetically completed in the present day under current conditions, there would be differences between the LOS at unsignalized intersections in the Airport vicinity (see **Table 3.17-17**). The SWQ Full-Size Option would result in a significant traffic impact at the intersection of Hollywood Way and San Fernando Boulevard Ramps during both the morning and afternoon peak hours.

2023 CONDITIONS WITH PROJECT

Table 3.17-18 presents the LOS at unsignalized intersections in the Airport vicinity in 2023. The SWQ Full-Size Option would result in a significant traffic impact at the intersection of Hollywood Way and San Fernando Boulevard Ramps during both the morning and afternoon peak hours.

2025 CONDITIONS WITH PROJECT

Table 3.17-19 presents the LOS at unsignalized intersections in the Airport vicinity in 2025. The SWQ Full-Size Option would result in a significant traffic impact at the intersection of Hollywood Way & San Fernando Boulevard Ramps during both the morning and afternoon peak hours.

Mitigation Measure SW QUAD FULL-TRANS-2

The intersection of Hollywood Way and San Fernando Boulevard Ramps could be fully mitigated by reconfiguring the intersection with traffic signal control and adding a second eastbound right-turn lane. The traffic signal control could be limited to the southbound side of Hollywood Way, as there is a raised median dividing the northbound and southbound sides of Hollywood Way and the northbound side does not have any conflicting vehicle movements. As part of the improvement, the Hollywood Way southbound ramp from San Fernando Boulevard would remain two lanes for its entire length rather than merging to one before reaching Hollywood Way, and would be realigned within the existing right-of-way to approach Hollywood Way at a 90-degree angle.

Significance After Mitigation: If Mitigation Measure SW QUAD FULL-TRANS-2 is implemented, the impact at unsignalized intersections would be reduced to less-than-significant level. Because the City has indicated their commitment to cooperate in the implementation of this mitigation measure as proposed, this impact is mitigated to a less-than-significant level.

IMPACT SW QUAD FULL-TRANS-3: Impacts Related to Congestion Management Program

The Congestion Management Program (CMP) does not identify any identify any arterial monitoring intersections within the Study Area. The nearest arterial monitoring stations are over four miles from the Airport, including one at Woodman Avenue and Victory Boulevard to the west and at Lankershim Boulevard and Ventura Boulevard to the south. As the Southwest Quadrant Full-Size Terminal Option consists of a local reassignment of trips to different access points, it would not have a measurable effect on intersections four miles from the Airport. It would add far fewer than 50 peak hour trips at either of the arterial monitoring intersections identified above and therefore the CMP arterial intersection impacts associated with the Southwest Quadrant Full-Size Terminal Option are considered to be less than significant and no further analysis is required.

The CMP does not identify any freeway monitoring locations within the Study Area. The nearest freeway monitoring location is on I-5 at Burbank Boulevard (approximately two miles southeast of the Airport). Other freeway monitoring locations include SR 170 at Sherman Way (approximately three miles west of the Airport) and SR 134 at Forman Avenue (approximately three miles south of the Airport). As with the arterial monitoring stations, the Southwest Quadrant Full-Size Terminal Option would not have a measurable effect on these freeway segments outside of the Study Area. It would add far fewer than 150 peak hour trips in either direction. Therefore, the CMP freeway segment impacts associated with the Southwest Quadrant Full-Size Terminal Option are considered to be less than significant and no further analysis is required.

Section B.8.4 of the CMP provides a methodology for estimating the number of transit trips expected to result from a proposed project based on the number of vehicle trips it would generate. However, as the Southwest Quadrant Full-Size Terminal Option is not expected to generate additional trips compared to the No Project scenario, that methodology is not applicable. The mode split assumptions suggest that less than 1% of Airport passengers currently travel to or from the Airport via public transit and that the number will

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Table 3.17-17

Existing Year 2016 Conditions Plus Southwest Quadrant Full-Size Terminal Option – Unsignalized Intersections Level of Services

No.	Intersection	Peak Hour	Existing Year 2016 with Project Conditions - SWQ Full-Size Option					
			Delay	LOS	Trips Through Intersection			
					Total Trips	Project Trips	Percent Increase	Impact
1.	Clybourn Avenue &	AM	12.6	B	382	0	0.0%	NO
[a]	Sherman Way	PM	15.3	C	504	0	0.0%	NO
2.	Clybourn Avenue &	AM	8.7	A	801	-77	-9.6%	NO
	Empire Avenue	PM	0.0	A	1,001	-79	-7.9%	NO
3.	Lockheed Drive &	AM	21.1	C	1,383	7	0.5%	NO
[a]	San Fernando Road	PM	13.3	B	1,030	7	0.7%	NO
4.	San Fernando Boulevard &	AM	13.5	B	1,431	7	0.5%	NO
	Cohasset Street	PM	11.6	B	1,113	7	0.6%	NO
5.	Hollywood Way &	AM	overflow	F	2,930	25	0.9%	NO
[a]	I-5 Southbound Ramps	PM	24.2	C	2,881	26	0.9%	NO
6.	Hollywood Way &	AM	58.0	F	3,638	32	0.9%	**YES**
	San Fernando Boulevard Ramps	PM	64.8	F	3,438	33	1.0%	**YES**
7.	I-5 Southbound Ramps &	AM	14.3	B	985	-1	-0.1%	NO
	San Fernando Boulevard	PM	13.0	B	994	-2	-0.2%	NO
8.	San Fernando Boulevard / Naomi Street &	AM	17.6	C	1,144	2	0.2%	NO
	Winona Avenue	PM	16.9	C	860	2	0.2%	NO
[a]	Fully or partially within City of Los Angeles jurisdiction.							

Table 3.17-18

2023 Conditions Plus Southwest Quadrant Full-Size Terminal Option – Unsignalized Intersections Level of Services

No.	Intersection	Peak Hour	Interim Year 2023 with Project Conditions - SWQ Full-Size Option					
			Delay	LOS	Trips Through Intersection			
					Total Trips	Project Trips	Percent Increase	Impact
1.	Clybourn Avenue &	AM	12.9	B	400	0	0.0%	NO
[a]	Sherman Way	PM	16.1	C	537	0	0.0%	NO
2.	Clybourn Avenue &	AM	8.7	A	876	-77	-8.8%	NO
	Empire Avenue	PM	0.0	A	1,155	-79	-6.8%	NO
3.	Lockheed Drive &	AM	25.4	D	1,479	7	0.5%	NO
[a]	San Fernando Road	PM	16.3	C	1,151	7	0.6%	NO
4.	San Fernando Boulevard &	AM	21.6	C	1,658	7	0.4%	NO
	Cohasset Street	PM	20.9	C	1,354	7	0.5%	NO
5.	Hollywood Way &	AM	overflow	F	3,080	25	0.8%	NO
[a]	I-5 Southbound Ramps	PM	28.8	D	3,120	26	0.8%	NO
6.	Hollywood Way &	AM	overflow	F	4,012	32	0.8%	**YES**
	San Fernando Boulevard Ramps	PM	overflow	F	3,899	33	0.8%	**YES**
7.	I-5 Southbound Ramps &	AM	23.9	C	1,216	-1	-0.1%	NO
	San Fernando Boulevard	PM	16.3	C	1,173	-2	-0.2%	NO
8.	San Fernando Boulevard / Naomi Street &	AM	18.2	C	1,176	2	0.2%	NO
	Winona Avenue	PM	17.5	C	890	1	0.1%	NO
[a]	Fully or partially within City of Los Angeles jurisdiction.							

Table 3.17-19

2025 Conditions Plus Southwest Quadrant Full-Size Terminal Option – Unsignalized Intersections Level of Services

No.	Intersection	Peak Hour	Completion Year 2025 with Project Conditions - SWQ Full-Size Option					
			Delay	LOS	Trips Through Intersection			
					Total Trips	Project Trips	Percent Increase	Impact
1.	Clybourn Avenue &	AM	13.0	B	404	0	0.0%	NO
[a]	Sherman Way	PM	16.3	C	547	0	0.0%	NO
2.	Clybourn Avenue &	AM	8.7	A	894	-77	-8.6%	NO
	Empire Avenue	PM	0.0	A	1,193	-79	-6.6%	NO
3.	Lockheed Drive &	AM	25.8	D	1,492	7	0.5%	NO
[a]	San Fernando Road	PM	16.6	C	1,171	7	0.6%	NO
4.	San Fernando Boulevard &	AM	21.9	C	1,673	7	0.4%	NO
	Cohasset Street	PM	21.3	C	1,370	7	0.5%	NO
5.	Hollywood Way &	AM	overflow	F	3,116	25	0.8%	NO
[a]	I-5 Southbound Ramps	PM	30.4	D	3,181	26	0.8%	NO
6.	Hollywood Way &	AM	overflow	F	4,104	32	0.8%	**YES**
	San Fernando Boulevard Ramps	PM	overflow	F	4,015	33	0.8%	**YES**
7.	I-5 Southbound Ramps &	AM	29.6	D	1,274	-1	-0.1%	NO
	San Fernando Boulevard	PM	17.6	C	1,220	-2	-0.2%	NO
8.	San Fernando Boulevard / Naomi Street &	AM	18.3	C	1,183	1	0.1%	NO
	Winona Avenue	PM	17.6	C	897	1	0.1%	NO
[a]	Fully or partially within City of Los Angeles jurisdiction.							

remain at 1% in the future. There are several public transit improvements that are proposed to occur in the Airport vicinity. These include the construction of a new Metrolink station on San Fernando Boulevard near Cohasset Street and Hollywood Way that would serve Metrolink riders on the Antelope Valley Line and a pedestrian bridge between the existing Metrolink Burbank-Bob Hope Airport Station on Empire Avenue and the RITC. Upon the station’s completion, the Authority has committed to provide an air carrier passenger shuttle between the terminal and the proposed Metrolink Station on San Fernando Boulevard for each arriving and departing train. While these improvements could result in a small increase in public transit usage to and from the Airport, they are independent of the Adjacent Property Full-Size Terminal Option and therefore any increase in transit ridership would be attributed to those improvements. Therefore, the Southwest Quadrant Full-Size Terminal Option is not anticipated to result in regional transit impacts and no additional analysis is required.

Mitigation Measure SW QUAD FULL-TRANS-3
No mitigation is warranted.

IMPACT SW QUAD FULL-TRANS-4: Impacts to Caltrans Facilities

An analysis of Caltrans facilities included freeway mainline segments, Caltrans intersections, off-ramp queuing, and on-ramp capacity. The analysis shows that the Southwest Quadrant Full-Size Terminal Option does not generate new traffic and any effect on Caltrans facilities is limited. This is considered to be a less than significant impact.

Mitigation Measure SW QUAD FULL-TRANS-4
No mitigation is warranted.

IMPACT SW QUAD FULL-TRANS-5: Impacts to Local Streets in Burbank

The Southwest Quadrant Full-Size Terminal Option would have no effect on any local streets in Burbank.

Mitigation Measure SW QUAD FULL-TRANS-5
No mitigation is warranted.

IMPACT SW QUAD FULL-TRANS-6: Construction-Related Traffic Impacts

A construction traffic analysis was conducted for 2023 and 2025. The traffic impacts were assessed by comparing conditions with the construction traffic to 2023 without project conditions (Phase 1) and by comparing conditions with the construction traffic to 2023 with project conditions (Phase 2).

Table 3.17-20 provides a summary of the potential temporary traffic impacts associated with construction of the Southwest Quadrant Full-Size Terminal Option. Up to 8 different intersections could be temporarily affected by construction traffic during Phase 1. Up to 7different intersections could be temporarily affected by construction traffic during Phase 2.

Most construction trips would occur during the daytime, but some construction trips associated with airfield improvements may occur during nighttime hours. The construction impacts are considered significant despite the fact that they would only occur temporarily during peak times of construction.

Mitigation Measure SW QUAD FULL-TRANS-6
A detailed Construction Management Plan, including street closure information, a detour plan, haul routes, and a staging plan, would be prepared and submitted to the City for review and approval. The Construction Management Plan would formalize how construction would be carried out and identify specific actions that would be required to reduce effects on the surrounding community.

The Construction Management Plan shall be based on the nature and timing of the specific construction activities and other projects in the vicinity of the project site, and may include, but not be limited to, the following elements, as appropriate:

- Adequate parking would be provided for construction workers at all time, and construction workers would be prohibited from parking on nearby residential streets; if remote parking is used, shuttles would be provided to take workers to and from the construction site.
- Temporary traffic control would be provided during any construction activities adjacent to public rights-of-way to improve safety and traffic flow on public roadways.
- Construction activities would be scheduled to reduce the effect of worker traffic on surrounding arterial streets during peak hours.
- Construction-related vehicles would not park on surrounding public streets.
- Construction-related deliveries, haul trips, etc., would be scheduled so as to occur outside the commuter peak hours to the extent feasible.
- Haul and delivery vehicles would be routed to reduce travel on congested streets and to avoid residential areas.

Table 3.17-20

Construction-Related Traffic Impacts – Southwest Quadrant Full-Size Terminal Option

No.	Intersection	Phase 1 Delivery Trucks and Worker Trips	Phase 2 Haul Trucks	Phase 2 Worker Trips
Signalized Intersections				
9	Hollywood Way & Tulare Avenue			Afternoon Peak Hour
10	Hollywood Way & Winona Avenue	Afternoon Peak Hour		Afternoon Peak Hour
11	Hollywood Way & Airport / Thornton Avenue	Both Peak Hours		Afternoon Peak Hour
13	Hollywood Way & Victory Boulevard	Afternoon Peak Hour		Afternoon Peak Hour
18	Ontario Street & Empire Avenue	Morning Peak Hour		
22	Buena Vista Street & Empire Avenue	Both Peak Hours	Morning Peak Hour	Afternoon Peak Hour
24	I-5 Northbound Ramps & Empire Avenue	Morning Peak Hour		
Unsignalized Intersections				
5	Hollywood Way & I-5 Southbound Ramps	Morning Peak Hour	Morning Peak Hour	Morning Peak Hour
6	Hollywood Way & San Fernando Boulevard Ramps	Both Peak Hours	Morning Peak Hour	Both Peak Hours

Significance After Mitigation: If Mitigation Measure SW QUAD FULL-TRANS-6 is implemented, the impacts associated with construction-related traffic would be reduced to less-than-significant level.

3.17.3.3 SOUTHWEST QUADRANT SAME-SIZE TERMINAL OPTION

Project Impacts

IMPACT SW QUAD SAME-TRANS-1: Traffic at Signalized Intersections

EXISTING CONDITIONS PLUS PROJECT

If the project were hypothetically completed in the present day under current conditions, there would be differences between the LOS at signalized intersections in the Airport vicinity (see **Table 3.17-21**). The Southwest Quadrant Same-Size Option would not result in significant traffic impacts at any study intersection.

Table 3.17-21

Existing Year 2016 Conditions Plus Southwest Quadrant Same-Size Terminal Option – Signalized Intersections Level of Services

No.	Intersection	Peak Hour	Existing Year 2016 Conditions		Existing Year 2016 with Project Conditions - SWQ Same-Size Option			
			V/C	LOS	V/C	LOS	Δ V/C	Impact
1.	Sunland Boulevard &	AM	0.758	C	0.758	C	0.000	NO
[a]	San Fernando Road	PM	0.656	B	0.655	B	-0.001	NO
2.	Vineland Avenue &	AM	0.774	C	0.775	C	0.001	NO
[a]	Sherman Way	PM	0.737	C	0.738	C	0.001	NO
3.	Clybourn Avenue &	AM	0.586	A	0.572	A	-0.014	NO
[a]	Vanowen Street	PM	0.736	C	0.723	C	-0.013	NO
4.	Arvilla Avenue &	AM	0.573	A	0.572	A	-0.001	NO
[a]	San Fernando Road	PM	0.575	A	0.574	A	-0.001	NO
5.	Airport &	AM	0.310	A	0.318	A	0.008	NO
	Empire Avenue	PM	0.376	A	0.387	A	0.011	NO
6.	Hollywood Way &	AM	0.656	B	0.655	B	-0.001	NO
[a]	I-5 Northbound Ramps	PM	0.770	C	0.768	C	-0.002	NO
7.	Hollywood Way Southbound Ramps &	AM	0.369	A	0.368	A	-0.001	NO
	San Fernando Boulevard	PM	0.193	A	0.192	A	-0.001	NO
8.	Hollywood Way Northbound Ramps &	AM	0.354	A	0.353	A	-0.001	NO
	San Fernando Boulevard	PM	0.200	A	0.200	A	0.000	NO
9.	Hollywood Way &	AM	0.505	A	0.503	A	-0.002	NO
	Tulare Avenue	PM	0.708	C	0.705	C	-0.003	NO
10.	Hollywood Way &	AM	0.568	A	0.570	A	0.002	NO
	Winona Avenue	PM	0.837	D	0.833	D	-0.004	NO
11.	Hollywood Way &	AM	0.847	D	0.823	D	-0.024	NO
	Airport / Thornton Avenue	PM	0.701	C	0.693	B	-0.008	NO
12.	Hollywood Way &	AM	0.569	A	0.568	A	-0.001	NO
	Airport / Avon Avenue	PM	0.624	B	0.624	B	0.000	NO
13.	Hollywood Way &	AM	1.061	F	1.060	F	-0.001	NO
	Victory Boulevard	PM	1.164	F	1.159	F	-0.005	NO
14.	Hollywood Way &	AM	0.882	D	0.880	D	-0.002	NO
	Burbank Boulevard	PM	0.876	D	0.873	D	-0.003	NO
15.	Hollywood Way &	AM	0.854	D	0.853	D	-0.001	NO
	Magnolia Boulevard	PM	0.869	D	0.867	D	-0.002	NO
16.	Ontario Street &	AM	0.166	A	0.166	A	0.000	NO
	Winona Avenue	PM	0.185	A	0.184	A	-0.001	NO
17.	Ontario Street &	AM	0.448	A	0.448	A	0.000	NO
	Thornton Avenue	PM	0.409	A	0.409	A	0.000	NO
18.	Ontario Street &	AM	0.264	A	0.261	A	-0.003	NO
	Empire Avenue	PM	0.291	A	0.288	A	-0.003	NO
19.	Buena Vista Street &	AM	0.694	B	0.694	B	0.000	NO
	I-5 Northbound Ramps	PM	0.876	D	0.876	D	0.000	NO
20.	Buena Vista Street &	AM	0.723	C	0.722	C	-0.001	NO
	Winona Avenue	PM	0.731	C	0.734	C	0.003	NO
21.	Buena Vista Street &	AM	0.699	B	0.699	B	0.000	NO
	San Fernando Boulevard	PM	0.839	D	0.838	D	-0.001	NO
22.	Buena Vista Street &	AM	0.546	A	0.540	A	-0.006	NO
	Empire Avenue	PM	0.591	A	0.589	A	-0.002	NO
23.	I-5 Southbound Ramps &	AM	*Intersection has not yet been constructed.*					
	Empire Avenue	PM						
24.	I-5 Northbound Ramps &	AM	*Intersection has not yet been constructed.*					
	Empire Avenue	PM						
25.	Avon Avenue &	AM	0.260	A	0.277	A	0.017	NO
	Empire Avenue	PM	0.355	A	0.369	A	0.014	NO
[a]	Fully or partially within City of Los Angeles jurisdiction.							

2023 CONDITIONS WITH PROJECT

Table 3.17-22 presents the LOS at signalized intersections in the Airport vicinity in 2023. The Southwest Quadrant Same-Size Option would not result in significant traffic impacts at any study intersection.

2025 CONDITIONS WITH PROJECT

Table 3.17-23 presents the LOS at signalized intersections in the Airport vicinity in 2025. The Southwest Quadrant Same-Size Option would not result in significant traffic impacts at any study intersection.

Mitigation Measure SW QUAD SAME-TRANS-1

No mitigation is warranted.

IMPACT SW QUAD SAME-TRANS-2: Traffic at Unsignalized Intersections

EXISTING CONDITIONS PLUS PROJECT

If the project were hypothetically completed in the present day under current conditions, there would be differences between the LOS at unsignalized intersections in the Airport vicinity (see **Table 3.17-24**). The Southwest Quadrant Same-Size Terminal Option also would not result in significant traffic impacts at any study intersection.

2023 CONDITIONS WITH PROJECT

Table 3.17-25 presents the LOS at unsignalized intersections in the Airport vicinity in 2023. The Southwest Quadrant Same-Size Terminal Option would not result in significant traffic impacts at any unsignalized study intersections.

2025 CONDITIONS WITH PROJECT

Table 3.17-26 presents the LOS at unsignalized intersections in the Airport vicinity in 2025. The SWQ Same-Size Option would not result in significant traffic impacts at any unsignalized study intersections.

Mitigation Measure SW QUAD SAME-TRANS-2

No mitigation is warranted.

Table 3.17-22

2023 Conditions Plus Southwest Quadrant Same -Size Terminal Option – Signalized Intersections Level of Services

No.	Intersection	Peak Hour	Interim Year 2023 without Project Conditions		Interim Year 2023 with Project Conditions - SWQ Same-Size Option			
			V/C	LOS	V/C	LOS	Δ V/C	Impact
1.	Sunland Boulevard &	AM	0.785	C	0.784	C	-0.001	NO
[a]	San Fernando Road	PM	0.702	C	0.702	C	0.000	NO
2.	Vineland Avenue &	AM	0.801	D	0.801	D	0.000	NO
[a]	Sherman Way	PM	0.771	C	0.772	C	0.001	NO
3.	Clybourn Avenue &	AM	0.611	B	0.598	A	-0.013	NO
[a]	Vanowen Street	PM	0.782	C	0.770	C	-0.012	NO
4.	Arvilla Avenue &	AM	0.612	B	0.611	B	-0.001	NO
[a]	San Fernando Road	PM	0.619	B	0.618	B	-0.001	NO
5.	Airport &	AM	0.350	A	0.361	A	0.011	NO
	Empire Avenue	PM	0.454	A	0.499	A	0.045	NO
6.	Hollywood Way &	AM	0.687	B	0.686	B	-0.001	NO
[a]	I-5 Northbound Ramps	PM	0.833	D	0.831	D	-0.002	NO
7.	Hollywood Way Southbound Ramps &	AM	0.387	A	0.386	A	-0.001	NO
	San Fernando Boulevard	PM	0.197	A	0.196	A	-0.001	NO
8.	Hollywood Way Northbound Ramps &	AM	0.358	A	0.358	A	0.000	NO
	San Fernando Boulevard	PM	0.233	A	0.232	A	-0.001	NO
9.	Hollywood Way &	AM	0.875	D	0.873	D	-0.002	NO
	Tulare Avenue	PM	0.877	D	0.874	D	-0.003	NO
10.	Hollywood Way &	AM	0.620	B	0.619	B	-0.001	NO
	Winona Avenue	PM	0.928	E	0.923	E	-0.005	NO
11.	Hollywood Way &	AM	1.008	F	0.982	E	-0.026	NO
	Airport / Thornton Avenue	PM	0.909	E	0.880	D	-0.029	NO
12.	Hollywood Way &	AM	0.580	A	0.579	A	-0.001	NO
	Airport / Avon Avenue	PM	0.627	B	0.634	B	0.007	NO
13.	Hollywood Way &	AM	1.084	F	1.082	F	-0.002	NO
	Victory Boulevard	PM	1.223	F	1.218	F	-0.005	NO
14.	Hollywood Way &	AM	0.899	D	0.897	D	-0.002	NO
	Burbank Boulevard	PM	0.913	E	0.910	E	-0.003	NO
15.	Hollywood Way &	AM	0.872	D	0.871	D	-0.001	NO
	Magnolia Boulevard	PM	0.907	E	0.905	E	-0.002	NO
16.	Ontario Street &	AM	0.189	A	0.189	A	0.000	NO
	Winona Avenue	PM	0.188	A	0.188	A	0.000	NO
17.	Ontario Street &	AM	0.513	A	0.513	A	0.000	NO
	Thornton Avenue	PM	0.413	A	0.413	A	0.000	NO
18.	Ontario Street &	AM	0.824	D	0.821	D	-0.003	NO
	Empire Avenue	PM	0.978	E	0.976	E	-0.002	NO
19.	Buena Vista Street &	AM	0.888	D	0.888	D	0.000	NO
	I-5 Northbound Ramps	PM	0.989	E	0.989	E	0.000	NO
20.	Buena Vista Street &	AM	0.759	C	0.757	C	-0.002	NO
	Winona Avenue	PM	0.780	C	0.783	C	0.003	NO
21.	Buena Vista Street &	AM	0.737	C	0.737	C	0.000	NO
	San Fernando Boulevard	PM	0.895	D	0.894	D	-0.001	NO
22.	Buena Vista Street &	AM	0.852	D	0.847	D	-0.005	NO
	Empire Avenue	PM	1.024	F	1.023	F	-0.001	NO
23.	I-5 Southbound Ramps &	AM	0.694	B	0.693	B	-0.001	NO
	Empire Avenue	PM	0.602	B	0.601	B	-0.001	NO
24.	I-5 Northbound Ramps &	AM	0.817	D	0.816	D	-0.001	NO
	Empire Avenue	PM	0.733	C	0.732	C	-0.001	NO
25.	Avon Avenue &	AM	0.279	A	0.301	A	0.022	NO
	Empire Avenue	PM	0.398	A	0.428	A	0.030	NO
[a]	Fully or partially within City of Los Angeles jurisdiction.							

Table 3.17-23

2025 Conditions Plus Southwest Quadrant Same -Size Terminal Option – Signalized Intersections Level of Services

No.	Intersection	Peak Hour	Completion Year 2025 without Project Conditions		Completion Year 2025 with Project Conditions - SWQ Same-Size Option			
			V/C	LOS	V/C	LOS	Δ V/C	Impact
1.	Sunland Boulevard &	AM	0.791	C	0.790	C	-0.001	NO
[a]	San Fernando Road	PM	0.714	C	0.713	C	-0.001	NO
2.	Vineland Avenue &	AM	0.807	D	0.808	D	0.001	NO
[a]	Sherman Way	PM	0.779	C	0.780	C	0.001	NO
3.	Clybourn Avenue &	AM	0.618	B	0.605	B	-0.013	NO
[a]	Vanowen Street	PM	0.795	C	0.782	C	-0.013	NO
4.	Arvilla Avenue &	AM	0.620	B	0.620	B	0.000	NO
[a]	San Fernando Road	PM	0.630	B	0.629	B	-0.001	NO
5.	Airport &	AM	0.359	A	0.371	A	0.012	NO
	Empire Avenue	PM	0.469	A	0.515	A	0.046	NO
6.	Hollywood Way &	AM	0.694	B	0.693	B	-0.001	NO
[a]	I-5 Northbound Ramps	PM	0.848	D	0.847	D	-0.001	NO
7.	Hollywood Way Southbound Ramps &	AM	0.392	A	0.391	A	-0.001	NO
	San Fernando Boulevard	PM	0.198	A	0.198	A	0.000	NO
8.	Hollywood Way Northbound Ramps &	AM	0.359	A	0.358	A	-0.001	NO
	San Fernando Boulevard	PM	0.241	A	0.240	A	-0.001	NO
9.	Hollywood Way &	AM	0.890	D	0.888	D	-0.002	NO
	Tulare Avenue	PM	0.905	E	0.902	E	-0.003	NO
10.	Hollywood Way &	AM	0.633	B	0.632	B	-0.001	NO
	Winona Avenue	PM	0.950	E	0.946	E	-0.004	NO
11.	Hollywood Way &	AM	1.029	F	1.002	F	-0.027	NO
	Airport / Thornton Avenue	PM	0.929	E	0.900	D	-0.029	NO
12.	Hollywood Way &	AM	0.582	A	0.582	A	0.000	NO
	Airport / Avon Avenue	PM	0.627	B	0.635	B	0.008	NO
13.	Hollywood Way &	AM	1.094	F	1.092	F	-0.002	NO
	Victory Boulevard	PM	1.237	F	1.232	F	-0.005	NO
14.	Hollywood Way &	AM	0.902	E	0.900	D	-0.002	NO
	Burbank Boulevard	PM	0.922	E	0.919	E	-0.003	NO
15.	Hollywood Way &	AM	0.876	D	0.875	D	-0.001	NO
	Magnolia Boulevard	PM	0.917	E	0.915	E	-0.002	NO
16.	Ontario Street &	AM	0.196	A	0.196	A	0.000	NO
	Winona Avenue	PM	0.190	A	0.190	A	0.000	NO
17.	Ontario Street &	AM	0.529	A	0.529	A	0.000	NO
	Thornton Avenue	PM	0.414	A	0.414	A	0.000	NO
18.	Ontario Street &	AM	0.836	D	0.832	D	-0.004	NO
	Empire Avenue	PM	0.983	E	0.981	E	-0.002	NO
19.	Buena Vista Street &	AM	0.938	E	0.938	E	0.000	NO
	I-5 Northbound Ramps	PM	1.017	F	1.017	F	0.000	NO
20.	Buena Vista Street &	AM	0.768	C	0.766	C	-0.002	NO
	Winona Avenue	PM	0.793	C	0.796	C	0.003	NO
21.	Buena Vista Street &	AM	0.747	C	0.747	C	0.000	NO
	San Fernando Boulevard	PM	0.908	E	0.907	E	-0.001	NO
22.	Buena Vista Street &	AM	0.863	D	0.858	D	-0.005	NO
	Empire Avenue	PM	1.028	F	1.026	F	-0.002	NO
23.	I-5 Southbound Ramps &	AM	0.703	C	0.701	C	-0.002	NO
	Empire Avenue	PM	0.604	B	0.603	B	-0.001	NO
24.	I-5 Northbound Ramps &	AM	0.827	D	0.826	D	-0.001	NO
	Empire Avenue	PM	0.735	C	0.734	C	-0.001	NO
25.	Avon Avenue &	AM	0.284	A	0.307	A	0.023	NO
	Empire Avenue	PM	0.409	A	0.441	A	0.032	NO
[a]	Fully or partially within City of Los Angeles jurisdiction.							

Table 3.17-24

Existing Year 2016 Conditions Plus Southwest Quadrant Same-Size Terminal Option – Unsignalized Intersections Level of Services

No.	Intersection	Peak Hour	Existing Year 2016 with Project Conditions - SWQ Same-Size Option					
			Delay	LOS	Trips Through Intersection			
					Total Trips	Project Trips	Percent Increase	Impact
1.	Clybourn Avenue &	AM	12.6	B	382	0	0.0%	NO
[a]	Sherman Way	PM	15.3	C	504	0	0.0%	NO
2.	Clybourn Avenue &	AM	9.6	A	797	-61	-7.7%	NO
	Empire Avenue	PM	0.0	A	996	-64	-6.4%	NO
3.	Lockheed Drive &	AM	20.9	C	1,374	-3	-0.2%	NO
[a]	San Fernando Road	PM	13.2	B	1,021	-4	-0.4%	NO
4.	San Fernando Boulevard &	AM	13.5	B	1,422	-3	-0.2%	NO
	Cohasset Street	PM	11.6	B	1,104	-4	-0.4%	NO
5.	Hollywood Way &	AM	overflow	F	2,894	-9	-0.3%	NO
[a]	I-5 Southbound Ramps	PM	23.4	C	2,844	-9	-0.3%	NO
6.	Hollywood Way &	AM	53.2	F	3,595	-13	-0.4%	NO
	San Fernando Boulevard Ramps	PM	61.3	F	3,393	-13	-0.4%	NO
7.	I-5 Southbound Ramps &	AM	14.3	B	984	-2	-0.2%	NO
	San Fernando Boulevard	PM	13.0	B	992	-4	-0.4%	NO
8.	San Fernando Boulevard / Naomi Street &	AM	17.5	C	1,141	-1	-0.1%	NO
	Winona Avenue	PM	16.9	C	856	-1	-0.1%	NO
[a]	Fully or partially within City of Los Angeles jurisdiction.							

Table 3.17-25

2023 Conditions Plus Southwest Quadrant Same-Size Terminal Option – Unsignalized Intersections Level of Services

No.	Intersection	Peak Hour	Interim Year 2023 with Project Conditions - SWQ Same-Size Option					
			Delay	LOS	Trips Through Intersection			
					Total Trips	Project Trips	Percent Increase	Impact
1.	Clybourn Avenue &	AM	12.9	B	400	0	0.0%	NO
[a]	Sherman Way	PM	16.1	C	537	0	0.0%	NO
2.	Clybourn Avenue &	AM	10.0	A	873	-61	-7.0%	NO
	Empire Avenue	PM	0.0	A	1,150	-64	-5.6%	NO
3.	Lockheed Drive &	AM	25.2	D	1,470	-3	-0.2%	NO
[a]	San Fernando Road	PM	16.2	C	1,142	-4	-0.4%	NO
4.	San Fernando Boulevard &	AM	21.4	C	1,649	-3	-0.2%	NO
	Cohasset Street	PM	20.7	C	1,345	-4	-0.3%	NO
5.	Hollywood Way &	AM	overflow	F	3,044	-9	-0.3%	NO
[a]	I-5 Southbound Ramps	PM	27.8	D	3,083	-9	-0.3%	NO
6.	Hollywood Way &	AM	overflow	F	3,969	-13	-0.3%	NO
	San Fernando Boulevard Ramps	PM	overflow	F	3,854	-13	-0.3%	NO
7.	I-5 Southbound Ramps &	AM	23.8	C	1,215	-2	-0.2%	NO
	San Fernando Boulevard	PM	16.2	C	1,171	-4	-0.3%	NO
8.	San Fernando Boulevard / Naomi Street &	AM	18.2	C	1,173	-1	-0.1%	NO
	Winona Avenue	PM	17.5	C	887	-2	-0.2%	NO
[a]	Fully or partially within City of Los Angeles jurisdiction.							

Table 3.17-26

2025 Conditions Plus Southwest Quadrant Same-Size Terminal Option – Unsignalized Intersections Level of Services

No.	Intersection	Peak Hour	Completion Year 2025 with Project Conditions - SWQ Same-Size Option					
			Delay	LOS	Trips Through Intersection			
					Total Trips	Project Trips	Percent Increase	Impact
1.	Clybourn Avenue &	AM	13.0	B	404	0	0.0%	NO
[a]	Sherman Way	PM	16.3	C	547	0	0.0%	NO
2.	Clybourn Avenue &	AM	10.1	B	891	-61	-6.8%	NO
	Empire Avenue	PM	0.0	A	1,188	-64	-5.4%	NO
3.	Lockheed Drive &	AM	25.5	D	1,483	-3	-0.2%	NO
[a]	San Fernando Road	PM	16.5	C	1,162	-4	-0.3%	NO
4.	San Fernando Boulevard &	AM	21.7	C	1,664	-3	-0.2%	NO
	Cohasset Street	PM	21.1	C	1,361	-4	-0.3%	NO
5.	Hollywood Way &	AM	overflow	F	3,080	-9	-0.3%	NO
[a]	I-5 Southbound Ramps	PM	29.3	D	3,144	-9	-0.3%	NO
6.	Hollywood Way &	AM	overflow	F	4,061	-13	-0.3%	NO
	San Fernando Boulevard Ramps	PM	overflow	F	3,970	-13	-0.3%	NO
7.	I-5 Southbound Ramps &	AM	29.4	D	1,273	-2	-0.2%	NO
	San Fernando Boulevard	PM	17.5	C	1,218	-4	-0.3%	NO
8.	San Fernando Boulevard / Naomi Street &	AM	18.3	C	1,180	-2	-0.2%	NO
	Winona Avenue	PM	17.6	C	894	-2	-0.2%	NO
[a]	Fully or partially within City of Los Angeles jurisdiction.							

IMPACT SW QUAD SAME-TRANS-3: Impacts related to Congestion Management Program

The Congestion Management Program (CMP) does not identify any identify any arterial monitoring intersections within the Study Area. The nearest arterial monitoring stations are over four miles from the Airport, including one at Woodman Avenue and Victory Boulevard to the west and at Lankershim Boulevard and Ventura Boulevard to the south. As the Southwest Quadrant Same-Size Terminal Option consists of a local reassignment of trips to different access points, it would not have a measurable effect on intersections four miles from the Airport. It would add far fewer than 50 peak hour trips at either of the arterial monitoring intersections identified above and therefore the CMP arterial intersection impacts associated with the Southwest Quadrant Same-Size Terminal Option are considered to be less than significant and no further analysis is required.

The CMP does not identify any freeway monitoring locations within the Study Area. The nearest freeway monitoring location is on I-5 at Burbank Boulevard (approximately two miles southeast of the Airport). Other freeway monitoring locations include SR 170 at Sherman Way (approximately three miles west of the Airport) and SR 134 at Forman Avenue (approximately three miles south of the Airport). As with the arterial monitoring stations, the Southwest Quadrant Full-Size Terminal Option would not have a measurable effect on these freeway segments outside of the Study Area. It would add far fewer than 150 peak hour trips in either direction. Therefore, the CMP freeway segment impacts associated with the Southwest Quadrant Same-Size Terminal Option are considered to be less than significant and no further analysis is required.

Section B.8.4 of the CMP provides a methodology for estimating the number of transit trips expected to result from a proposed project based on the number of vehicle trips it would generate. However, as the Southwest Quadrant Same-Size Terminal Option is not expected to generate additional trips compared to the No Project scenario, that methodology is not applicable. The mode split assumptions suggest that less than 1% of Airport passengers currently travel to or from the Airport via public transit and that the number will remain at 1% in the future. There are several public transit improvements that are proposed to occur in the Airport vicinity. These include the construction of a new Metrolink station on San Fernando Boulevard near Cohasset Street and Hollywood Way that would serve Metrolink riders on the Antelope Valley Line and a pedestrian bridge between the existing Metrolink Burbank-Bob Hope Airport Station on Empire Avenue and the RITC. Upon the station's completion, the Authority has committed to provide an air carrier passenger shuttle between the terminal and the proposed Metrolink Station on San Fernando Boulevard for each arriving and departing train. While these improvements could result in a small increase in public transit usage to and from the Airport, they are independent of the Adjacent Property Full-Size Terminal Option and therefore any increase in transit ridership would be attributed to those improvements. Therefore, the Southwest Quadrant Full-Size Terminal Option is not anticipated to result in regional transit impacts and no additional analysis is required.

Mitigation Measure SW QUAD SAME-TRANS-3
No mitigation is warranted.

IMPACT SW QUAD SAME-TRANS-4: Impacts to Caltrans Facilities

An analysis of Caltrans facilities included freeway mainline segments, Caltrans intersections, off-ramp queuing, and on-ramp capacity. The analysis shows that the Southwest Quadrant Same-Size Terminal Option does not generate new traffic and any effect on Caltrans facilities is limited. This is considered to be a less than significant impact.

Mitigation Measure SW QUAD SAME-TRANS-4
No mitigation is warranted.

IMPACT SW QUAD SAME-TRANS-5: Impacts to Local Streets in Burbank

The Southwest Quadrant Same-Size Terminal Option would have no effect on any local streets in Burbank.

Mitigation Measure SW QUAD SAME-TRANS-5
No mitigation is warranted.

IMPACT SW QUAD SAME-TRANS-6: Construction-Related Traffic Impacts

A construction traffic analysis was conducted for 2023 and 2025. The traffic impacts were assessed by comparing conditions with the construction traffic to 2023 without project conditions (Phase 1) and by comparing conditions with the construction traffic to 2023 with project conditions (Phase 2).

Table 3.17-27 provides a summary of the potential temporary traffic impacts associated with construction of the Southwest Quadrant Same-Size Terminal Option. Up to 8 different intersections could be temporarily affected by construction traffic during Phase 1. Up to 7 different intersections could be temporarily affected by construction traffic during Phase 2.

Most construction trips would occur during the daytime, but some construction trips associated with airfield improvements may occur during nighttime hours. The construction impacts are considered significant despite the fact that they would only occur temporarily during peak times of construction.

Table 3.17-27

Construction-Related Traffic Impacts – Southwest Quadrant Same-Size Terminal Option

No.	Intersection	Phase 1 Delivery Trucks and Worker Trips	Phase 2 Haul Trucks	Phase 2 Worker Trips
Signalized Intersections				
9	Hollywood Way & Tulare Avenue			Afternoon Peak Hour
10	Hollywood Way & Winona Avenue	Afternoon Peak Hour		Afternoon Peak Hour
11	Hollywood Way & Airport / Thornton Avenue	Both Peak Hours		Afternoon Peak Hour
13	Hollywood Way & Victory Boulevard	Afternoon Peak Hour		Afternoon Peak Hour
18	Ontario Street & Empire Avenue	Morning Peak Hour		
22	Buena Vista Street & Empire Avenue	Both Peak Hours	Morning Peak Hour	Afternoon Peak Hour
24	I-5 Northbound Ramps & Empire Avenue	Morning Peak Hour		
Unsignalized Intersections				
5	Hollywood Way & I-5 Southbound Ramps	Morning Peak Hour	Morning Peak Hour	Morning Peak Hour
6	Hollywood Way & San Fernando Boulevard Ramps	Both Peak Hours	Morning Peak Hour	Both Peak Hours

Mitigation Measure SW QUAD SAME-TRANS-6

A detailed Construction Management Plan, including street closure information, a detour plan, haul routes, and a staging plan, would be prepared and submitted to the City for review and approval. The Construction Management Plan would formalize how construction would be carried out and identify specific actions that would be required to reduce effects on the surrounding community.

The Construction Management Plan shall be based on the nature and timing of the specific construction activities and other projects in the vicinity of the project site, and may include, but not be limited to, the following elements, as appropriate:

- Adequate parking would be provided for construction workers at all time, and construction workers would be prohibited from parking on nearby residential streets; if remote parking is used, shuttles would be provided to take workers to and from the construction site.

- Temporary traffic control would be provided during any construction activities adjacent to public rights-of-way to improve safety and traffic flow on public roadways.
- Construction activities would be scheduled to reduce the effect of worker traffic on surrounding arterial streets during peak hours.
- Construction-related vehicles would not park on surrounding public streets.
- Construction-related deliveries, haul trips, etc., would be scheduled so as to occur outside the commuter peak hours to the extent feasible.
- Haul and delivery vehicles would be routed to reduce travel on congested streets and to avoid residential areas.

Significance After Mitigation: If Mitigation Measure SW QUAD SAME-TRANS-6 is implemented, the impacts associated with construction-related traffic would be reduced to less-than-significant level.

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3.18 UTILITIES AND SERVICE SYSTEMS

3.18.1 Background and Methodology

The purpose of this section is to determine whether implementation of the proposed project would result in significant environmental impacts on utility and service systems, specifically wastewater, storm water, water supply, and solid waste facilities. The discussion differentiates between physical impacts on the environment and other impacts of community concern.

3.18.1.1 Regulatory Context

The California Environmental Quality Act (CEQA) requires that project sponsors evaluate the project's potential to affect utilities and service systems. In addition, federal regulations, state codes, and local codes are used to determine an adequate level of service for law enforcement and fire protection services.

FEDERAL

Clean Water Act

For a discussion regarding the 1972 Clean Water Act, see **Section 3.10.1.1**.

National Pollution Elimination Discharge System

For a discussion regarding the National Pollutant Discharge Elimination System (NPDES), see **Section 3.10.1.1**.

STATE

Porter Cologne Water Quality Control Act

For a discussion of California's Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act), see **Section 3.10.1.1**.

California Water Conservation Bill

The Water Conservation Bill (SB X7-7), enacted in 2009, set an overall goal of reducing per capita urban water use in the State by 20 percent by December 31, 2020.[1] The State shall make incremental progress toward this goal by reducing per capita water use by at least 10 percent by December 31, 2015. SB X7-7 requires urban water suppliers to reduce per capita water use 20 percent by 2020. Urban water suppliers are required to establish water conservation targets for the years 2015 and 2020. Urban retail water suppliers are directed to include in their water management plans the baseline daily per capita water use, water use targets, interim water use targets, and compliance daily per capita water use.

Senate Bill 610

Senate Bill 610 (SB 610)[2] modifies the requirements for the water supply assessments already required to be provided by the water suppliers to local planning agencies for certain types of projects. SB 610 also expands the requirements for certain types of information in an Urban Water Management Plan (UWMP), including an identification of any existing water supply entitlement, water rights, or water service contracts

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1 Section I, Part 2.55, Division 6 of the California Water Code

2 Section 21151.9 of the Public Resources Code and Section 10910 et seq. of the Water Code

held relevant to the water supply assessment for a proposed project, and a description of water deliveries received in prior years.

SB 610 also requires the preparation of "water supply assessments" (WSA) for large developments (e.g., for projects of 500 or more residential units; 500,000 square feet of retail commercial space; or 250,000 square feet of office commercial space). These assessments, prepared by "public water systems" responsible for service, address whether adequate existing or projected water supplies are available to serve proposed projects, in addition to urban and agricultural demands and other anticipated development in the service area in which the project is located.

Where a WSA concludes that insufficient supplies are available, the WSA must describe steps that would be required to obtain the necessary supply. The content requirements for the assessment include identification of the existing and future water suppliers and quantification of water demand and supply by source in 5-year increments over a 20-year projection. This information must be provided for average normal, single-dry, and multiple-dry years. The absence of an adequate current water supply does not preclude project approval, but does require a lead agency to address a water supply shortfall in its project approval findings.

Groundwater Management Act

The Groundwater Management Act, Assembly Bill 3030, signed into law in 1992, provides a systematic procedure for, but does not require, an existing local agency to develop a groundwater management plan. This statute provides such an agency with the powers of a water replenishment district to raise revenue to pay for facilities to manage the basin (extraction, recharge, conveyance, and quality). In some basins, groundwater is managed under other statutory or judicial authority (such as adjudicated groundwater basins) and is not subject to the provisions of this act for groundwater management plans.

Urban Water Management Act

The California Urban Water Management Planning Act of 1983 requires that each urban water supplier, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually, shall prepare, update, and adopt its Urban Water Management Plan at least once every 5 years on or before December 31, in years ending in five and zero. The plan describes and evaluates sources of water supply, projected water needs, conservation, implementation strategy, and schedule.

Sewer System Management Plan

The SWRCB adopted new policies in December 2004 requiring wastewater collection providers to report sanitary sewer overflows and to prepare and implement Sewer System Management Plans (SSMPs). SSMP requirements are modeled on proposed federal capacity, management, operations, and maintenance plans. The SSMP policy requires dischargers to provide adequate capacity in the sewer collection system, take feasible steps to stop sewer overflows, identify and prioritize system deficiencies, and develop a plan for disposal of grease, among other requirements. In addition, wastewater providers must now report sanitary sewer overflows to the Los Angeles RWQCB, must keep internal records of these overflows, and must produce an annual report on overflows. Overflows from laterals on private property, if caused by an owner, are not required to be reported.

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the California Legislature passed the California Integrated Waste Management Act (CIWMA) of 1989 (AB 939, Statutes of 1989), effective January 1990. According to the CIWMA, all cities and counties were required to divert 25% of all solid waste from landfill facilities by January 1, 1995, and 50% by January 1, 2000. To help in the increase of diversion rates, each jurisdiction is required to create an integrated waste management plan. Each city plan must demonstrate integration with the relevant county plan. The plans must promote (in order of priority) source reduction, recycling and composting, and environmentally safe transformation and land disposal. Elements of the plans must be updated every five years.

AB 939 established the California Integrated Waste Management Board (CIWMB) to oversee integrated waste management planning and compliance. Its passage led to the refinement of a statewide system of permitting, inspections, maintenance, and enforcement for waste facilities in California, and also required the CIWMB to adopt minimum standards for waste handling and disposal to protect public health and safety and the environment. In 2009, CIWMB was realigned and is currently titled the Department of Resources Recycling and Recovery (CalRecycle). CalRecycle is responsible for approving permits for waste facilities, approving local agencies diversion rates, and enforcing the planning requirements of the law through Local Enforcement Agencies (LEAs). LEAs are responsible for enforcing laws and regulations related to solid waste management, issuing permits to solid waste facilities, ensuring compliance with state mandated requirements, coordinating with other government agencies on solid waste related issues, and overseeing corrective actions at solid waste facilities. LEAs inspect facilities, respond to complaints, and conduct investigations into various aspects of solid waste management.

LOCAL

Water Quality Control Plan – Los Angeles Basin

For a discussion regarding the Water Quality Control Plan (Basin Plan) for the Los Angeles Region, see **Section 3.10.1.1**.

County of Los Angeles Low Impact Development Standards Manual

The 2014 Low Impact Development (LID) Standards Manual complies with the requirements of the NPDES Municipal Separate Storm Sewer System (MS4) Permit for storm water and non-storm water discharges from the MS4 within the coastal watersheds of Los Angeles County. This manual provides guidance for the implementation of storm water quality control measures in new development and redevelopment projects in unincorporated areas of the County with the intention of improving water quality and mitigating potential water quality impacts from storm water and non-storm water discharges.

The Los Angeles RWQCB’s 2012 MS4 Permit named 84 incorporated cities, the County, and the Los Angeles County Flood Control District as permittees. The MS4 Permit, which became effective December 28, 2012 and runs through December 17, 2017, imposes a number of basic programs, called Minimum Control Measures, on all permittees in order to maintain a level of acceptable runoff conditions through the implementation of practices, devices, or designs generally referred to as BMPs, that mitigate storm water quality problems. As an example, a development’s construction program requires the implementation of temporary BMPs during a project's construction phase to protect water resources by preventing erosion, controlling runoff, protecting natural slopes and channels, storing fluids safely, managing spills quickly, and conserving natural areas.

The MS4 Permit also includes design requirements for new development and significant redevelopment. New Development/Redevelopment Project Performance Criteria apply to all projects which create or replace more than 5,000 square feet of impervious cover that have not been deemed complete prior to February 8, 2013. Where redevelopment results in an alteration to more than 50 percent of impervious surfaces of a previously existing development and the existing development was not subject to post-construction storm water quality control requirements, the entire project must be mitigated. Projects that trigger the Project Performance Criteria are required to retain on site (by either infiltrating or storing for reuse) the volume of runoff that is generated from the 3/4-inch storm or the 85th percentile, 24-hour storm, whichever is greater. Alternative compliance measures can be implemented if the project can demonstrate that retaining the water from a design storm is technically infeasible. Projects that use alternative compliance measures must still implement flow-through BMPs to treat (but not retain) on-site storm water. Flow-through BMPs must be sized to treat 0.2 inches per hour or the one-year, one-hour rainfall intensity, whichever is greater.

Under the MS4 Permit, new development requires implementation of a Standard Urban Storm water Mitigation Plan (SUSMP) and compliance with LID. In the past, land development projects were designed to direct storm water into the storm water conveyance system and move it off the site as quickly and efficiently as possible. LID is designed to capture and retain storm water runoff for on-site treatment (typically using natural vegetated systems) and/or reuse, while also reducing downstream peak flows and runoff volumes. LID often also include infiltration components where feasible. The SUSMP contains a list of minimum BMPs that must be employed to infiltrate or treat storm water runoff, control peak flow discharge, and reduce the post-project discharge of pollutants from storm water conveyance systems. The SUSMP defines the types of practices that must be included and issues that must be addressed as appropriate to the development type and size based on land use type.

LID is a decentralized approach to storm water management that works to mimic the natural hydrology of the site by retaining precipitation on-site to the maximum extent practicable. Storm water quality control measures that incorporate LID principles are placed throughout the site in small, discrete units and distributed near the source of impacts. LID strategies are designed to protect surface and groundwater quality, maintain the integrity of ecosystems, and preserve the physical integrity of receiving waters by managing storm water runoff at or close to the source. The purpose of LID is to reduce the peak discharge rate, volume, and duration of flow through the use of site design and storm water quality control measures. The benefits of reduced storm water runoff volume include reduced pollutant loadings and increased groundwater recharge and evapotranspiration rates. The LID Standards Manual addresses the following objectives:

- Lessen the adverse impacts of storm water runoff from development and urban runoff on natural drainage systems, receiving waters, and other water bodies;

- Minimize pollutant loadings from impervious surfaces by requiring development projects to incorporate properly-designed, technically-appropriate BMPs and other LID strategies; and
- Minimize erosion and other hydrologic impacts on natural drainage systems by requiring development projects to incorporate properly-designed, technically appropriate hydromodification control development principles and technologies.

All projects must retain 100-percent of the Storm Water Quality Design volume on-site through infiltration, evapotranspiration, storm water runoff harvest and use, or a combination thereof unless it is demonstrated that it is technically infeasible to do so. LID strategies include use of bioretention/infiltration landscape areas, disconnected hydrologic flow paths, reduced impervious areas, functional landscaping, and grading to maintain natural hydrologic functions that existed prior to development, such as interception, shallow surface storage, infiltration, evapotranspiration, and groundwater recharge. By implementing LID strategies, a project site can be designed to be an integral part of the environment by maintaining undeveloped hydrologic functions through the careful use of storm water quality control measures.

Los Angeles Countywide Integrated Waste Management Plan

The Los Angeles County Waste Management Division (LACWMD) oversees solid waste activities in the County. The Los Angeles Countywide Integrated Waste Management Plan (CIWMP) outlines the goals, policies, and programs the County of Los Angeles and its cities would implement to create an integrated and cost-effective waste management system that complies with the provisions of AB 939 and its diversion mandates. The CIWMP is composed of the Los Angeles Countywide Summary Plan and the Los Angeles Countywide Siting Element (CSE), a Source Reduction and Recycling Element (SRRE), a Non-disposal Facility Element (NDFE), and a Household Hazardous Waste Element (HHWE) for the County and each provides information with regard to solid waste and hazardous waste disposal and recycling.

Burbank Municipal Code

The Burbank Municipal Code (BMC) describes the City of Burbank's public utilities requirements in Title 8. Chapter 1 of Title 8 describes the uniform requirements for discharges to publicly owned treatment works (POTW), sewer system and storm drain systems. Chapter 2 discusses water and contains the City's Sustainable Water Use Ordinance, which describes required practices such as outdoor water use restrictions, outdoor vehicle washing requirements, irrigation overspray elimination, etc. The City's Water Conserving Fixtures and Fittings Ordinance (BMC Section 8-2-301 et seq.) requires new water conserving fixtures and fittings standards for all new construction, additions, and certain remodels.

The purpose of the City of Burbank's Diversion of Construction Ordinance (effective July 1, 2007), in accordance with the California Waste Management Act of 1989, requires all cities and counties in the State to reduce the amount of waste materials deposited in landfills by 50 percent. All demolition, residential, and nonresidential construction projects with a scope of work exceeding 500 square feet must divert and recycle at least 50 percent of the construction and demolition debris generated on-site.

Burbank Urban Water Management Plan

For a discussion of the Burbank Urban Water Management Plan, see **Section 3.10.1.1**.

Recycled Water Master Plan

Burbank Water and Power (BWP) operates an existing recycled water system. In 2015, this system is expected to deliver over 1 billion gallons of recycled water to customers within the City limits. The source of water for this system is the city-owned Burbank Water Reclamation Plant. To better utilize this valuable resource, BWP prepared a Recycled Water Master Plan (RWMP) to identify future users and guide the expansion of the recycled water system. The overriding goal of the original RWMP in 2007 was to enhance the City of Burbank's sustainability through maximizing the use of recycled water. In accordance with BWP's 2005 UWMP, "The goals (for the recycled water system) are to fully utilize all the recycled water available, to offset the demand for potable water on the Metropolitan Water District (Metropolitan) and local groundwater production, and to lower the peak demands on the domestic water system in the summer months."

According to the City of Burbank's 2010 RWMP, the existing airport terminal is an existing user (Burbank Water and Power, 2010). The Adjacent Property and Southwest Quadrant Sites are located within recycled water Zone 1. As described in the 2010 RWMP, inactive recycled water mains and future proposed mains are shown within the proposed Adjacent Property Site. According to BWP (2015) the recycled water system expansion is completed.

Sewer System Evaluation and Capacity Assurance Plan

The City had a Sewer System Evaluation and Capacity Assurance Plan (SSECAP) prepared in 2006. The SSECAP directs the City to develop a dynamic hydraulic modeling package for infrastructure planning that is compatible with the City's existing wastewater data model. The SSECAP also identifies areas of future study that are cost-effective and technically feasible to address both potential capacity and operational constraints and that are coordinated with other improvement projects. The plan contains the following key objectives:

- Properly fund, manage, operate, and maintain all parts of the wastewater collection system;
- Provide adequate capacity to convey peak sewer flows;
- Minimize the frequency of sanitary sewer overflows (SSOs); and
- Construct and maintain the collection system using trained staff (and/or contractors) possessing adequate knowledge, skills, and abilities as demonstrated through a validated program.

Burbank Sustainable Water Use Ordinance

The City of Burbank passed the Sustainable Water Use Ordinance in 2008 in order to implement voluntary and mandatory conservation measures to reduce water use to conserve the water supply.3 Water use restrictions are implemented in four stages and increase in severity of voluntary to mandated measures based on drought levels. Stage I, consisting of all voluntary measures, took effect immediately on the effective date of the ordinance. Stages II, III, and IV consist of mandatory measures and require subsequent action of the City Council.

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[3] City of Burbank Department of Water and Power. *Sustainable Water Use Ordinance* (January 2008). hhtp://www.burbankwaterandpower.com/water/conservation/californias-water-supply-crisis.

Burbank 2035 General Plan

The Burbank 2035 General Plan is a state-required policy document that provides guidance to decision-makers in determining the City of Burbank's future development, both in terms of physical form and character. The General Plan contains vision statements that cover a broad range of aspects of the City's development, some of which will guide the City's approach to management of its water resources, including the following:

- The Air Quality and Climate Change Element, which promotes water conservation and recycling as a means to reduce greenhouse gas emissions and discusses management of water supply in the face of climate change.
- The Land Use element, which promotes new building designs, retrofits, and development projects to seek to minimize water consumption as well as decrease stormwater runoff.
- The Open Space and Conservation Element, which discusses goals and policies to protect the City's water resources by reducing water usage, increasing conservation efforts, and improving water quality.
- The Safety Element, which discusses measures to protect water-related infrastructure, including the City's flood control system.

Plan Realization Element Program Open Space and Conservation-9 for Regional Water Consultation states: "Consult with Metropolitan Water District of Southern California and the Los Angeles Regional Water Quality Control Board to achieve the following water supply, distribution, and conservation objectives:

- Maintain groundwater recharge areas to protect water quality and ensure continued recharge of local groundwater basins.
- Reduce the amount of water used for landscaping and increase use of native and drought tolerant plants.
- Encourage the production, distribution, and use of recycled water for landscaping projects.
- Maintain water quality objectives for urban runoff.
- Comply with all provisions of the NPDES permit, and support regional efforts by the Los Angeles RWQCB to improve and protect surface water quality."

Plan Realization Element Program Open Space and Conservation -11 Burbank Urban Water Management Plan and Recycled Water Master Plan states:. "Continue to update the Burbank Urban Water Management Plan and Recycled Water Master Plan every five years to serve as foundational documents and a source of information for Water Supply Assessments and Written Verifications of Water Supply. Include estimates for population, water demand, and water supply with projections in five-year increments to 2035. Use the Recycled Water Master Plan to ensure the use of recycled water wherever allowed and feasible.

- Implement BWP UWMP water conservation programs.
- Expand recycled water systems.
- Increase the number of targeted large irrigation customers required to use recycled water."

The Burbank 2035 General Plan states that the City was currently developing a Storm Water Master Plan, which will promote a LID approach to balance the needs of storm water management with the needs of land development. BMPs mentioned include vegetated swales, biofilters, and constructed wetlands. The LID manual was adopted in 2015.

3.18.1.2 Significance Thresholds

For purposes of this analysis, implementation of the proposed project would result in a significant impact related to public services if it resulted in:

- UTILS-1: The need for new or expanded water supply systems to serve the project.
- UTILS-2: The need for new or expanded wastewater treatment facilities to service the project.
- UTILS-3: The need for new or expanded landfill capacity to accommodate the project's solid waste disposal needs.
- UTILS-4: Non-compliance with federal, State, and local statutes and regulations related to solid waste.
- UTILS-5: A substantial contribution to cumulative impacts to utilities and service systems.

3.18.1.3 Methodologies

Relevant state and local plans and significance thresholds were used to conduct the impact analysis of the impacts of the proposed project on wastewater, water use, and solid waste. Project impacts were measured against the existing conditions of the Airport and significance thresholds to determine the level of significance of each impact.

3.18.2 Existing Conditions / Environmental Setting

3.18.2.1 Water

WATER SUPPLY

The South Coast Hydrologic Region (SCHR) is California's most urbanized and populous region. More than half of the state's population resides in the region which covers 11,000 square miles or 7 percent of the state's total land (California Department of Water Resources, 2013). The region extends from the Pacific Ocean east to the Transverse and Peninsular Mountain Ranges and from the Ventura-Santa Barbara County line south to the international border with Mexico. It includes all of Orange County and portions of Ventura, Los Angeles, San Bernardino, Riverside, and San Diego counties.

To meet water demand in the region, the SCHR utilizes all available water resources: imported water, water transfers, conservation, captured surface water, groundwater, recycled water, and desalination. Water is also imported to the SCHR from three major sources: the Sacramento–San Joaquin Delta via the State Water Project (SWP), the Colorado River via the Colorado River Aqueduct (CRA), and the Owens Valley/Mono Basin via the Los Angeles Aqueducts. The SWP is the largest state-built, multi-purpose water project in the country, and delivers water to 29 urban and agricultural water suppliers across California. Local agencies have emphasized diversification of water sources given the level of uncertainty about future water supply from the Delta and the Colorado River.

The South Coast region contains hundreds of water supply agencies. The Metropolitan Water District of Southern California (Metropolitan), the largest recipient of imported water in the region, imports an average of 1,200,000 acre-feet per year (AFY) from the SWP and 4,400,000 AFY or more from the CRA (depending on the availability of surplus water) and 240,000 AFY from the Owens Valley/Mono Basin. Metropolitan wholesales the water to a consortium of 26 cities including Burbank, water districts, and a county authority that in total serves nearly 19 million people residing in the South Coast.

In the City of Burbank, water is supplied by the Burbank Water and Power (BWP) Water Division, which provides potable water, water for fire protection purposes, and recycled water to approximately 26,400 service connections within the City, including residential, commercial, and industrial customers. Much of the background information found in this and subsequent subsections is from the Burbank Urban Water Management Plan, prepared for the City of Burbank in 2010, which is the most recent UWMP plan. The City's current and future water supplies include imported surface water, treated groundwater, and recycled water. BWP received 44 percent of its potable water from Metropolitan supplies during the 2010 calendar year. Burbank has five potable water connections to the Metropolitan system, with a maximum rated capacity of 115 cubic feet per second (51,610 gallons per minute). BWP's water supplies are supplemented locally from groundwater wells drawing from the San Fernando Groundwater Basin, which account for the remaining 56 percent of the City's water supply. In 2010, BWP used approximately 7,852 acre-feet of treated water from Metropolitan and supplemented its potable supply with an additional 9,917 acre-feet from groundwater supplies. In addition, BWP is required to purchase additional untreated water supplies from Metropolitan to replenish local groundwater supplies. Recently, the City completed a new Metropolitan connection to deliver untreated imported water to the existing Pacoima and Lopez spreading grounds in the north San Fernando Valley for groundwater replenishment. In 2010, the City purchased 2,034 acre-feet. Approximately 73 percent of the City's water is used by residential customers, 20 percent by commercial customers, and the remainder by industrial and other users. Total water deliveries in 2010 included 21,813 AFY with 17,769 AFY of potable water and 4,044 AFY of recycled water.

Although localized areas exist where groundwater levels have risen or remained relatively constant, in general, groundwater storage in the San Fernando Basin has been steadily declining since the early 1980s because of heavy pumping, limited artificial recharge, and low precipitation. The San Fernando Basin is estimated to have approximately 3.2 million acre-feet of total groundwater storage capacity. The native safe yield, defined as the portion of safe yield derived from native waters, is 43,660 AFY. The safe yield, which additionally includes return flows from imported waters, is 90,680 AFY. The Los Angeles Regional Water Quality Control Board (RWQCB) derived a regulatory storage requirement of 360,000 acre-feet for the San Fernando Basin, spanning the interval of 210,000 acre-feet above and 150,000 acre-feet below the amount of water in storage in 1954 (2.99 million acre-feet). The City plans to maintain a reserve of 10,000 AF in groundwater credits for use during a prolonged drought. This would allow for three years of normal extraction without replenishment, assuming the purchase of 4,200 AFY of physical solution water from the Los Angeles Department of Water and Power (LADWP), as permitted under Superior Court Case No. 650079.

In the event that the reserved water is used, the City would need to negotiate the purchase of additional groundwater from the LADWP.

Burbank's 2010 UWMP)[4] was prepared as a result of the California Urban Water Management Planning Act. Pursuant to these regulatory requirements, the UWMP includes evaluations of expected water supplies and demands, and of the reliability of the supplies and descriptions of water conservation and water management activities, including water recycling and preparation for water shortages. These supply and demand projections are summarized in **Table 3.18-1**. Burbank will distribute approximately 25,800 AFY of potable water and 5,100 AFY of recycled water supplies to customers within the City's service area by 2035. The UWMP concluded that the City would be able to meet 100 percent of imported surface water commitments during the 25-year planning period through 2030. The City forecasts sufficient water for the period 2010 to 2035 to meet a normal year water demand, single dry year water demand, and multiple dry year water demand.

Table 3.18-1
City of Burbank Water Supply and Demand (AFY)

	2015	2020	2025	2030	2035
Potable					
Purchased from Metropolitan	6,750	7,481	8,141	8,779	9,391
Supplier-produced groundwater	11,000	11,000	11,000	11,000	11,000
Potable Total	**17,750**	**18,431**	**19,141**	**19,779**	**20,391**
Non-potable					
Metropolitan replacement	2,100	500	300	200	100
Recycled water	3,660	5,160	5,160	5,160	5,160
Non-potable Total	**5,760**	**5,660**	**5,460**	**5,360**	**5,260**
Total Supplies	23,510	24,141	24,601	25,139	25,651
Total Demand	23,511	24,141	24,601	25,139	N/A
Difference (supply minus demand)	**-1**	**0**	**0**	**0**	**N/A**

Source: City of Burbank, 2011.
Notes: AFY = acre-feet per year

SWP Reliability

The California Department of Water prepares a biennial report titled, "State Water Project Delivery Reliability Report." This Report assists SWP contractors in assessing the reliability of the SWP component of their overall supplies. The 2015 SWP Draft Delivery Reliability Report updates DWR's estimate of the current and future water delivery reliability of the SWP. "Water delivery reliability" is defined as the annual amount of water that can be expected to be delivered with a certain frequency. The updated analysis shows that the primary component of the annual SWP water deliveries from the Delta (commonly referred to as Table A

4 Burbank Water and Power, Water Division, "*2010 Urban Water Management Plan*," June 2011.

deliveries) will be less under current and future conditions, when compared to the preceding report. The report also discusses factors having the potential to affect SWP water delivery reliability, including restrictions on SWP operations due to new regulations protecting endangered fish; climate change and sea level rise, which are altering the hydrologic conditions in the State; vulnerability of levees to failure due to floods and earthquakes; annual snowpack; and reservoir capacity.

WATER RIGHTS

Burbank does not have groundwater rights to any native (i.e. derived from precipitation) water in the San Fernando, Sylmar, Verdugo, or Eagle Rock basins, per the Final Judgment in Superior Court Case No. 650079.[5] The City of Los Angeles (Los Angeles) has sole rights to native groundwater in the San Fernando Basin, which underlies the City of Burbank. However, according to the Judgment, Burbank has a right to import return water in the amount of 20 percent of all water delivered. This means that 20 percent of water delivered within Burbank's service area is considered to be returned to the groundwater by percolation and is credited to the City, including imported water, groundwater, recycled water (except power plant), and the irrigation water pumped from private wells by Valhalla Cemetery. Import return water not extracted in a given water year will carry over as a water credit for future years. The City can also purchase untreated Metropolitan water for groundwater replenishment through spreading, in order to increase its stored water credits.

Capacity and reliability of the groundwater supply depends on the safe yield capacity of the aquifer, the physical well and pump capacity, treatment capacity, and water rights. Aquifer capacity is not an issue for Burbank because it lacks water rights for native groundwater extraction, and the basin is managed to stay within the established safe yield. According to the UWMP, even a 3-year drought would not reduce the amount of groundwater the City can extract within the limits of the treatment plants. The City also has more well capacity than it has water rights or treatment capacity. The lack of water for groundwater replenishment during a drought could limit the City's groundwater pumping. The City has plans to maintain a reserve of 10,000 acre-feet in groundwater credits.

RECYCLED WATER

Recycled water has been used in the City of Burbank for decades. Some of the uses for recycled water include landscaping irrigation along I-5, parks, DeBell Golf Course, schools, and several commercial complexes as well as for industrial use, fire suppression, and commercial heating, ventilation, and air-condition (HVAC) systems. Recycled water is also used at Burbank Landfill and at the Magnolia Power Plant. Wastewater is treated at the Burbank Water Reclamation Plant (BWRP), with a design capacity of 12.5 million gallons per day (MGD) and an average daily flow of 8.5 MGD. Recycled water is delivered to users via a separate recycled potable water system from the standard water delivery infrastructure. Overall, the Magnolia Power Plant uses approximately 1.2 MGD per year (1,350 AFY). In 2010, 2,010 acre-feet of recycled water was delivered to customers. The 2010 UWMP estimates that a total of 3,160 AFY (2.8 MGD) of recycled water will be in use throughout the City by BWP power plants and other users, with another 2,000 AFY delivered to LADWP by 2035.[6]

5 Superior Court of the State of California for the County of Los Angeles, *"Final Judgment Superior Court Case 650079, Annex to the Urban Water Management Plan,"* January 1979.

6 Burbank Water and Power, *Water Division,* June 2011.

WATER DISTRIBUTION SYSTEM

BWP's potable water distribution system is made up of approximately 280 miles of pipelines ranging in size from 1.5 to 30 inches in diameter, along with groundwater wells, booster pumps, Metropolitan connections, and 21 storage tanks and reservoirs. The tanks and reservoirs range in capacity from 13,500 gallons to 25 million gallons, with a total storage capacity of 53 million gallons. Daily water demands in Burbank are subject to wide fluctuations as a result of many factors, including climate, rainfall, and economic conditions, making this large amount of storage capacity necessary. The storage capacity is large enough to allow for short interruptions (1 to 3 days at average flow) in the water supply.

The water distribution system consists of three major pressure zones and 8 smaller hillside zones. The three largest pressure zones are denoted Zones 1, 2, and 3. Zone 1, which includes the Airport, comprises approximately 90 percent of the total City service area and is the principle pressure zone. The water demand in Zone 1 represents 88 percent of the total City demand. The ground surface elevations in Zone 1 range from 480 feet at the southerly boundary at Chavez Street and Linden Avenue, to 830 feet on Bel Aire Drive at Orange Grove Avenue. The reservoirs that serve Zone 1 have a hydraulic elevation of 904 feet.

Almost all of the water supplies enter the system in Zone 1. The only exception is that some water from one of the five Metropolitan connections (B-5) can feed Zone 2. Water is pumped from Zone 1 to Zones 2 and 3 at hydraulic elevations 991 and 1,156 feet above sea level, respectively. From Zones 2 and 3, water is pumped to the eight hillside zones through successive pumping stations. The system has 21 tanks and reservoirs ranging in capacity from 13,500 gallons to 25 million gallons. The combined storage capability of all the reservoirs is approximately 53 million gallons. The storage capability for Zone 1 is approximately 43 million gallons, 81 percent of the total system storage. Large storage reservoirs are included in the system and these reservoirs provide for hourly flow/demand variations throughout the distribution system. The storage capacity is large enough to allow for short interruptions (1 to 3 days at average flow) in the water supply.

WATER USE

Water use in Burbank is strictly for urban uses, including residential, commercial, and governmental uses; water is not provided for agricultural uses. In 2010, residential uses created the vast majority of the City's water demand, at 73.4 percent of the total water demand, followed by commercial uses (19.9 percent), industrial uses (3.8 percent), City departments (2.8 percent), and fire protection uses (0.1 percent). Water deliveries during 2010 totaled 17,591 acre-feet. Despite population increases, daily water demands have decreased since 1970, largely as a result of water-conserving measures.

According to the UWMP, BWP anticipates that the largest amount of growth in water demand in its service area to be in the commercial sector, as a result of intensification of commercial land use Downtown and an increase in mixed-use development along major transportation corridors. In addition, BWP anticipates that future residential development will be predominantly multifamily, resulting in intensification of land uses and increased populations on the same amount of land.

Water is currently supplied to the Airport by BWP. The LADWP also provides potable water to residential, commercial and industrial users in the area. Both municipalities are members of, and obtain water from

Metropolitan. Burbank does not have ownership rights to naturally occurring water underneath the City and is dependent on the imported water purchased from Metropolitan. City of Burbank maintains an 18-inch water transmission main along Hollywood Way, which reduces to a 12-inch main at San Fernando Road. The 12-inch water main turns west along the City of Burbank boundary at Cohasset Street. A 10-inch water main extends west from Hollywood Way at Tulare Avenue onto the former Lockheed B-6 property, reduces to an 8-inch main, and then crosses the Airport eastern boundary. The City of Los Angeles maintains an 8-inch and 20-inch water main along San Fernando Road.

Water use for each of the existing Airport facilities is provided in **Table 3.18-2**. The number of gallons used by the existing passenger terminal is based on actual water deliveries in 2015 and the number of gallons for other facilities is based on typical demand rates. Based on the water deliveries in 2010 of 17,591 acre-feet, the existing use of 50.41 acre-feet for the Airport represents approximately 0.26 percent of the City's total water use. In 2007, when the peak number of annual passengers used the Airport, the water demand would have been about 73.77 AFY, or about 46% more than what was experienced in 2015.

Table 3.18-2

Existing Bob Hope Airport Water Demand

Potable Water Demand						
Existing Facilities	**Units**	**Unit Type**	**GPD/Unit**	**Gallons/Day**	**Gallons/Year**	**AFY**
Existing Terminal	3,944,000	Passengers	3.84	41,534	15,160,000	46.52
ARFF	1,000	SF	0.19	190	69,350	0.21
Air Cargo Building	16,000	SF	0.02	320	116,800	0.36
Authority Offices	15,600	SF	0.19	2,964	1,081,860	3.32
Total Existing/Baseline Water Use						**50.41**
Recycled Water Demand						
Existing Facilities	**Units**	**Unit Type**	**GPD/Unit**	**Gallons/Day**	**Gallons/Year**	**AFY**
Landscaping	1.00	AC	2678.00	2,678	977,470	3.00
Total Existing/Recycled Water Use						**3.00**

Source: ESA PCR, 2016; BGPAA, 2016
GPD = gallons per day

3.18.2.2 Wastewater

The City of Burbank provides wastewater collection and treatment services for the majority of the City, as well as a small area within the city limits of Los Angeles, adjacent to Burbank's northwestern border. A few small areas within Burbank's city limits are served by the City of Glendale or by the City of Los Angeles. Much of the background information found in this subsection is from the Sanitary Sewer Management Plan, prepared for the City of Burbank Public Works Department in 2006, which is the most recent sewer management plan.

The City of Burbank's wastewater collection and conveyance infrastructure includes 230 miles of underground wastewater pipelines located throughout the City, conveying flows to the BWRP. Pipelines range in diameter from 8 to 30 inches and primarily consist of vitrified clay pipe, with more than 80 percent of the pipelines are 8 inches in diameter. In addition to the pipelines and associated manholes, the City owns and operates two wastewater pump stations, the Mariposa Pump Station and the Beachwood Pump Station. Both pump stations are located in the southeastern portion of the City. Under normal conditions,

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flows from the southeastern portion of the City flow to the Mariposa Pump Station, located at the corner of Mariposa Avenue and Riverside Drive. When necessary, discharges from the Mariposa Pump Station are directed to a gravity sewer main in Mariposa Street, which terminates at the North Outfall Sewer (NOS). In normal conditions, discharges from the Mariposa Pump Station are directed to the Beachwood Pump Station, where they are ultimately pumped to the BWRP. The Mariposa Pump Station has an available capacity of 1.3 MGD.

Flows from the remainder of the southeastern portion of the City are sent directly to the Beachwood Pump Station, located at Beachwood Drive and Riverside Drive. The Beachwood Pump Station also receives flows from the southwestern and northeastern quadrants of the City, in addition to pumped flows from the Mariposa Pump Station. Flows from the Beachwood Pump Station are pumped north up Beachwood Drive until it intersects with Chandler Boulevard, where the force main turns east and flows to the BWRP. The Beachwood Pump Station has a capacity of 7.2 MGD. Existing average dry weather flows to the Beachwood Pump station are approximately 6.23 MGD and peak wet weather flows (i.e., peak flows during storm events) are 16.83 MGD.

The most recent Sewer System Evaluation and Capacity Assurance Plan (SSECAP) was prepared for the City of Burbank in 2006, which estimated that future average dry weather flows to the Beachwood Pump Station would be 7.1 MGD.[7] Although the facility has an available capacity of 7.2 MGD, the study determined that the facility would not be able to accommodate peak wet weather flows (i.e., peak flows during storm events), which were estimated to be 18.34 MGD in 2025. The plan also found that peak wet weather flows (i.e., peak flows during storm events) in 2025 to the Mariposa Pump Station would be 1.33 MGD, which narrowly exceeds the 1.3 MGD of available capacity at that facility. The plan concluded that a study was needed to determine whether a new pump station is necessary. At this time, the Beachwood/Sparks Force Main Replacement and Pump Station Upgrade Project is being constructed to replace the existing Beachwood Force Main and existing Beachwood Pump Station.

Once flows are transported from both the gravity mains and the force main/pump stations to the BWRP, the wastewater flows are treated to tertiary level standards. The BWRP has been treating 8.5 MGD to 9 MGD on average. However, the BWRP completed the installation of an equalization basin (EQ basin) in late 2010, which now gives the plant a treatment capacity of 12.5 MGD. Approximately 6 MGD of untreated wastewater flows directly via gravity to BWRP from the northern portion of Burbank, with the Beachwood Pumping Station sending 2.5 MGD to 3 MGD to the BWRP. Thus, the Beachwood Pump Station is not utilized to its full capacity.

Sludge from BWRP is conveyed out of Burbank via the NOS, a 48-inch pipeline owned and operated by the City of Los Angeles. The NOS also directly collects some wastewater flows in the northern portion of Burbank that do not flow to the BWRP. Approximately 1 MGD of Burbank wastewater flows directly to the NOS. Discharges from the Mariposa Pump Station can also be directed to the NOS. Wastewater not treated within Burbank is treated at the Hyperion Treatment Plant, which is owned and operated by the City of Los Angeles.

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[7] City of Burbank Public Works Department, *Sewer System Management Plan,* March 2006. http://burbank.granicus.com/MetaViewer.php?view_id=2&clip_id=465&meta_id=44685.

Evaluation of Burbank's wastewater collection system showed that overall, the condition of the system is considered to be good. However, portions of Burbank's wastewater system were installed around 1911, while other portions have been more recently improved. Older portions of the system may be nearing or have reached their useful life, which may indicate the need for upgrades. In general, the infrastructure within the mid-eastern portion of Burbank is the oldest, while the infrastructure in the hills in the northeastern portion of Burbank is the newest, and therefore the last priority for upgrades. The Airport is in an area with newer infrastructure.

An inflow and infiltration (I/I) study of the City of Burbank's wastewater pipelines, which monitored 25 areas located throughout Burbank showed that there was minimal response to three wet weather events. The rainfall-dependent I/I values showed that less than 1.5 percent of net rainfall penetrated the infrastructure system, and most areas had less than 0.5 percent of leakage. Typically, the guideline is that pipeline systems with less than 5 percent of rainfall leakage are considered a tight system. Based on this guideline, the study determined that the City's wastewater system is adequate and that the City should focus on pipeline capacity improvements.

The SSECAP anticipated that redevelopment activity would be expected to have the greatest impact on future wastewater infrastructure needs, since there is very little vacant land in Burbank for major development projects.

The City of Burbank maintains an 8-inch sewer line and a parallel 10-inch sewer line along Winona Avenue. The 8-inch sewer line continues west onto the old Lockheed property and north along Hollywood Way and San Fernando Boulevard.

As shown in **Table 3.18-3,** the estimated existing peak wastewater discharge is approximately 111,845 gallons per day (GPD). Because no specific information on the amount of wastewater generated by the existing passenger terminal is available, it was conservatively assumed that the amount of wastewater generated would be equal to the water demand. Using this conservative approach, the existing uses represent 0.16 percent of the City's current wastewater treatment capacity.

3.18.2.3 Solid Waste

The City of Burbank owns and operates the Burbank Landfill, located in the Verdugo Hills at the eastern edge of the planning area. The facility is located on 86 acres, 48 of which are used for disposal. The landfill has a maximum permitted capacity of 5,933,365 cubic yards and as of 2013, had a remaining capacity of 5,107,465 cubic yards (approximately 86% of the maximum permitted capacity). The maximum permitted throughput is 240 tons per day. Burbank Landfill has an expected closure date of January 1, 2053. Residential trash collected by the City is disposed of at this facility. Solid waste collected by private waste haulers, which typically provide municipal solid waste disposal service to multi-family residential units and commercial users, can be transported to any number of landfills, although the City has little control over which landfills private haulers may contract with to collect solid waste. As shown in **Table 3.18-4**, solid waste generated in Burbank was primarily hauled to eight landfills: Chiquita Canyon Sanitary Landfill, Sunshine Canyon City/County Landfill, Simi Valley Landfill and Recycling Center, Puente Hills Landfill, Lancaster Landfill and Recycling Center, Olinda Alpha Sanitary Landfill, and Azusa Land Reclamation Co. Landfill.

Table 3.18-3

Existing Bob Hope Airport Wastewater Demand

Source	Building SF or Units	Unit Type	Wastewater Generation	GPD	GPY
Existing Terminal	3,944,000	Passengers	0.0105	41,535	15,160,000
Rescue and Firefighting Station	1,000	SF	0.1740	174	63,510
Air Cargo Building	16,600	SF	0.0190	315	114,975
Authority Offices	15,600	SF	0.1740	2,714	990,610
			Total	**44,738**	**16,329,095**
			Peak (2.5 factor) Total	**111,845**	**40,822,737**

Source: ESA PCR,2016

Table 3.18-4

Municipal Solid Waste Hauled to Landfills

Facility Name	Tons Burbank Hauls to Each Landfill	Percentage of Burbank's Annual Waste	Remaining Landfill Capacity (cubic yards)	Landfill Closure Date
Burbank Landfill Site No. 3	37,676	47.4	5,107,465	2053
Chiquita Canyon Sanitary Landfill	25,882	32.5	29,300,000	2019
Sunshine Canyon City/County Landfill	9,737	12.2	112,300,000	2037
Simi Valley Landfill and Recycling Center	6,039	7.6	119,600,000	2052
Olinda Alpha Sanitary Landfill	195	0.2	38,578,383	2021
Total	**79,529**	**100.0**	**304,885,848**	

Source: Burbank2035 General Plan, 2013; RS&H, 2016

CalRecycle completes a statewide waste characterization study every eight years. According to the most recent data available, the City of Burbank disposed of a total of 110,105 tons of solid waste in 2008. Of that, 109,965 tons were landfilled and 140 tons were burned. Residential waste accounted for 43% of all solid waste, while commercial waste made up 57% of the City's total waste stream. The regional estimate for the amount of solid waste generated per capita was 0.41 tons per resident per year.

As shown in **Table 3.18-5,** the estimated existing solid waste generation is approximately 19,230 pounds per day (PPD). The existing uses represent 0.3 percent of the City's solid waste generation.

Table 3.18-5
Existing Bob Hope Airport Solid Waste Generation

Source	Building SF or Units	Unit Type	Solid Waste Generation (lbs)	PPD	PPY
Existing Terminal	3,944,000	Passengers	0.7	7,564	2,760,800
Employees at the Airport	2,713	Employees	4.3	11,666	4,258,054
			Total	**19,230**	**7,018,854**

Source: ESA PCR,2016

3.18.2.4 Project Design Features

The Authority would implement the following PDFs to reduce the use of water at the Airport.

PDF-Util-1: When available, the Authority would use recycled water for landscape irrigation and cooling towers.

3.18.3 Environmental Impacts and Mitigation Measures

The proposed project would comply with all applicable requirements and permits related to water, wastewater, and solid waste. In addition, the construction plans for the proposed Bob Hope Airport Replacement Terminal would be reviewed and approved by the appropriate authorities.

3.18.3.1 ADJACENT PROPERTY FULL-SIZE TERMINAL OPTION

Project Impacts

IMPACT ADJ PROP FULL-UTIL-1: Impacts to Water Supply Systems

CONSTRUCTION

During construction of the Adjacent Property Full-Size Terminal Option, water would be used for dust suppression, the mixing and pouring of concrete, and other construction related activities. It is not possible to quantify the water usage attributable to development construction with any level of certainty. However, water usage would be temporary in nature and would not exceed that of the completed Adjacent Property Full-Size Terminal Option when it is in operation. In addition, reclaimed water may be used for dust suppression and other construction-related activities, reducing the use of potable water. It is unlikely that potable water use would exceed the available supply during construction, given the current utilization of reclaimed water serving the airport currently. Construction of the Adjacent Property Full-Size Terminal

Option would not require the construction of new water facilities or the expansion of existing water facilities. Therefore, impacts related to water use during construction would be less than significant.

OPERATIONS

The Adjacent Property Full-Size Terminal Option would require a connection to the water supply system in Burbank. This connection would be to the 12-inch water main along Hollywood Way, the 12-inch water main along Cohasset Street, or the 10-inch water main along the Tulare Avenue right-of-way west of

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Hollywood Way. These water mains are adequately sized to accommodate the water demand for the replacement passenger terminal.

Because the Adjacent Property Full-Size Terminal Option is a replacement passenger terminal, water supply would not be an issue as it is currently being supplied by the City of Burbank, which has an adequate supply of potable and recycled water that can be provided to the project. The existing Airport uses 50.41 AFY, which represents approximately 0.26 percent of the City's total water use. In 2025 the demand for water at the Airport would be about 74.88 AFY (see **Table 3.18-6**). The primary reason for the increase in water demand is associated with the forecasted increase in passengers and is not associated with the increase in the square footage of the replacement passenger terminal compared to the existing passenger terminal. This amount represents approximately 0.43 percent of the City's total water deliveries in 2010 (17,591 AFY) and 0.37 percent of available potable water in 2025 (20,391 AFY). The increase of 24.47 AFY can be accommodated by the City of Burbank using existing water supplies. It also is important to note that this increase of 24.47 AFY is considered conservative because it does not include the use of water efficient improvements, such as low flow fixtures or waterless urinals. In addition, this increase in water demand is about the same demand as what occurred in 2007. Thus, the demand identified in **Table 3.18-6** in 2025 is likely greater than what would actually occur. Because the City of Burbank's water supply is adequate to accommodate the increase in demand, the operation of the Adjacent Property Full-Size Terminal Option would not require the construction of new water facilities or the expansion of existing water facilities and impacts would be less than significant.

SUMMARY

Implementation of the Adjacent Property Full-Size Terminal Option would not generate demand for water that would exceed the capacity of the BWP, nor would it require additional potable water facilities to meet water demands. Therefore, the Adjacent Property Full-Size Terminal Option would not require or result in the construction of new water treatment facilities or the expansion of existing facilities and impacts would be less than significant.

Mitigation Measure ADJ PROP FULL-UTIL-1

No mitigation is warranted.

Table 3.18-6

Adjacent Property Full-Size Terminal Option Water Demand 2025

Potable Water Demand 2025						
Proposed Facilities	**Units**	**Unit Type**	**GPD/Unit**	**Gallons/Day**	**Gallons/Year**	**AFY**
Replacement Passenger Terminal	4,935,414	Passengers	3.84 /a/	51,923	18,951,989	58.16
ARFF	19,000	SF	0.19	3,610	1,317,650	4.04
Air Cargo Building	8,000	SF	0.02	160	58,400	0.18
Authority Offices	50,344	SF	0.19	9,565	3,491,356	10.71

Potable Water Demand 2025						
Proposed Facilities	Units	Unit Type	GPD/Unit	Gallons/Day	Gallons/Year	AFY
Ground Service Equipment Building	8,000	SF	0.20	1,600	584,000	1.79
Total Future Water Use						**74.88**

NOTE: /a/ Annual water demand of 3.84 gallons per passenger does not take into account any water efficiency infrastructure that would be included in the replacement passenger terminal.
Source: ESA PCR 2016, C&S Engineers, 2014; BGPAA, 2016
GPD = gallons per day

IMPACT ADJ PROP FULL-UTIL-2: Impacts to Wastewater Systems

CONSTRUCTION

During construction of the Adjacent Property Full-Size Terminal Option, a negligible amount of wastewater would be generated by construction staff. It is anticipated that portable toilets would be provided by a private company and the waste disposed of off-site. Wastewater generation from construction activities is not anticipated to cause a measurable increase in wastewater flows at a point where, and a time when, a sewer's capacity is already constrained or that would cause a sewer's capacity to be constrained. Additionally, construction is not anticipated to generate wastewater flows that would substantially, or incrementally, exceed the future scheduled capacity of the BWRP by generating flows greater than those anticipated in the Wastewater Facilities Plan or the City of Burbank General Plan and its elements. Therefore, construction of the Adjacent Property Full-Size Terminal Option would not require nor result in the construction of new wastewater treatment facilities or expansion of existing facilities and impacts would be less than significant.

OPERATIONS

The Adjacent Property Full-Size Terminal Option would require a connection to the existing 10-inch sewer line along Winona Avenue or the 8-inch sewer line along Hollywood Way. The Authority would complete a sewer capacity analysis for the project pursuant to the Burbank Municipal Code.

Based on proposed uses for the Adjacent Property Full-Size Terminal Option, an average flow of 64,191 GPD is expected in 2025. With a peaking factor of 2.5, the Adjacent Property Full-Size Terminal Option would generate approximately 160,477 GPD of wastewater in 2025 (see **Table 3.18-7**). This corresponds to 0.22 percent of the City's current capacity. The increase of 48,632 GPD can be accommodated by the City of Burbank with the existing wastewater treatment system. In addition, this amount of wastewater generated is about the same as what occurred in 2007. Thus, implementation of the Adjacent Property Full-Size Terminal Option would not require or result in the construction of new wastewater treatment facilities or the expansion of existing facilities. It also is important to note that this increase of 48,632 GPD is considered conservative because it does not include the use of water efficient improvements, such as low flow fixtures or waterless urinals. Thus, the increase identified for 2025 is likely greater than what would actually occur. Sewers to convey wastewater would be constructed on-site as required and would be sized according to projected flows, including peak day flows. Therefore, operational impacts related to wastewater treatment would be less than significant.

Table 3.18-7

Adjacent Property Full-Size Terminal Option Wastewater Generation 2025

Year 2025	Building SF or Units	Unit Type	Wastewater Generation	GPD	GPY
Replacement Passenger Terminal	4,935,414	Passengers	0.0105	51,821	18,914,974
ARFF Station	19,000	SF	0.1740	3,306	1,206,690
Air Cargo Building	8,000	SF	0.0190	152	55,480
Authority Offices	50,344	SF	0.1740	8,760	3,197,400
Ground Service Equipment Building	8,000	SF	0.0190	152	55,480
Total				**64,191**	**23,430,024**
Peak (2.5 factor) Total				**160,477**	**58,575,060**

Source: ESA PCR, 2016, C&S Engineers, 2014

SUMMARY

Implementation of the Adjacent Property Full-Size Terminal Option would not generate wastewater that would exceed the capacity of the BWRP. In addition, the project would be required to comply with its NPDES permit. Therefore, the Adjacent Property Full-Size Terminal Option would not exceed wastewater treatment requirements of the Los Angeles RWQCB and impacts would be less than significant.

Mitigation Measure ADJ PROP FULL-UTIL-2

No mitigation is warranted.

IMPACT ADJ PROP FULL-UTIL-3: Impacts to Landfill Capacity

Based on proposed uses for the Adjacent Property Full-Size Terminal Option, the amount of solid waste generated per day would be about 21,797 pounds (see **Table 3.18-9**). This corresponds to an approximately 12.8 percent in the amount of solid waste generated at the Airport. However, it is noted that this does not account for any increase in recycling and waste diversion that is expected to occur. This increase can be accommodated at the existing landfills. Therefore, the Adjacent Property Full-Size Terminal Option would not affect landfill capacity and impacts would be less than significant.

Table 3.18-9

Adjacent Property Full-Size Terminal Option Solid Waste Generation 2025

Source	Building SF or Units	Unit Type	Solid Waste Generation (lbs)	PPD	PPY
Existing Terminal	4,935,414	Passengers	0.7	9,465	3,454,790
Employees at the Airport	2,868	Employees	4.3	12,332	4,501,326
			Total	**21,797**	**7,956,116**

Source: ESA PCR,2016

Mitigation Measure ADJ PROP FULL-UTIL-3

No mitigation is warranted.

IMPACT ADJ PROP FULL-UTIL-4: Compliance with Statutes and Regulations Related to Solid Waste

Solid waste resulting from the Adjacent Property Full-Size Terminal Option would be regulated by the Los Angeles County CIWMP. The CIWMP outlines goals, policies, and programs Los Angeles County and its cities, including the City of Burbank, would implement to create an integrated and cost-effective waste management system that complies with the provisions of AB 939 and its diversion mandates. The Adjacent Property Full-Size Terminal Option would also be under the influence of the LAWMD, and would therefore be required to divert up to 50 percent of its solid waste.[8] Currently, the Airport recycles 66 percent of its solid waste.[9] Since the Adjacent Property Full-Size Terminal Option would be mandated to adhere to the regulations set forth in the CIWMP and other local and state regulations, impacts would be less than significant.

Mitigation Measure ADJ PROP FULL-UTIL-4

No mitigation is warranted.

8 LAWMD, "Commercial Recycling," https://www.wm.com/location/california/antelope-valley/la-county/commercial/index.jsp.

9 Mark Hardyment, Director of Government & Environmental Affairs, Burbank Bob Hope Airport, conversation, April 26, 2016.

Cumulative Impacts

IMPACT ADJ PROP FULL-UTIL-5: Cumulative Impacts Related to Utilities and Service Systems

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Each of these other projects would result in an increase in water demand, wastewater generation, and solid waste generation. Given the number of residential units, institutional uses, and commercial development planned in Burbank and the adjacent neighborhoods in Los Angeles, the overall demand for utilities would increase. Each project would be required to demonstrate that the demand for utilities could be accommodated. In addition, all projects would be reviewed for consistency with adopted plans, policies, and design guidelines with respect to utilities and service systems. For this reason, other projects are anticipated to be consistent with applicable standards and would have the adequate water, wastewater, and solid waste infrastructure to accommodate any change in demand. The implementation of the Adjacent Property Full-Size Terminal Option would not result in a significant increase in demand for water, wastewater, or solid waste services, but would contribute to the overall increase in this demand. Given the capacity of these utilities, the contribution of the Adjacent Property Full-Size Terminal Option to the cumulative impacts to utilities and service systems would be less than significant.

Mitigation Measure ADJ PROP FULL-UTIL-5

No mitigation is warranted.

3.18.3.2 SOUTHWEST QUADRANT FULL-SIZE TERMINAL OPTION

Project Impacts

IMPACT SW QUAD FULL-UTIL-1: Impacts to Water Supply Systems

CONSTRUCTION

During construction of the Southwest Quadrant Full-Size Terminal Option, water would be used for dust suppression, the mixing and pouring of concrete, and other construction related activities. It is not possible to quantify the water usage attributable to development construction with any level of certainty. However, water usage would be temporary in nature and would not exceed that of the completed Southwest Quadrant Full-Size Terminal Option when it is in operation. In addition, reclaimed water may be used for dust suppression and other construction-related activities, reducing the use of potable water. It is unlikely that potable water use would exceed the available supply during construction, given the current utilization of reclaimed water serving the airport currently. Construction of the Southwest Quadrant Full-Size Terminal Option would not require the construction of new water facilities or the expansion of existing water facilities. Therefore, impacts related to water use during construction would be less than significant.

OPERATIONS

The Southwest Quadrant Full-Size Terminal Option would require a connection to the water supply system in Burbank. This connection would be to the 12-inch water main along Hollywood Way. This water main is adequately sized to accommodate the water demand for the replacement passenger terminal.

Because the Southwest Quadrant Full-Size Terminal Option is a replacement passenger terminal, water supply would not be an issue as it is currently being supplied by the City of Burbank, which has an adequate supply of potable and recycled water that can be provided to the project. The existing Airport uses 50.41 AFY, which represents approximately 0.26 percent of the City's total water use. In 2025 the demand for water at the Airport would be about 75.79 AFY (see **Table 3.18-10**). The primary reason for the increase in water demand is associated with the forecasted increase in passengers and is not associated with the increase in the square footage of the replacement passenger terminal compared to the existing passenger terminal. This amount represents approximately 0.43 percent of the City's total water deliveries in 2010 (17,591 AFY) and 0.37 percent of available potable water in 2025 (20,391 AFY). The increase of 25.38 AFY can be accommodated by the City of Burbank using existing water supplies. It also is important to note that this increase of 25.38 AFY is considered conservative because it does not include the use of water efficient improvements, such as low flow fixtures or waterless urinals. In addition, this increase in water demand is about the same demand as what occurred in 2007. Thus, the demand identified in **Table 3.18-10** in 2025 is likely greater than what would actually occur. Because the City of Burbank's water supply is adequate to accommodate the increase in demand, the operation of the Southwest Quadrant Full-Size Terminal Option would not require the construction of new water facilities or the expansion of existing water facilities and impacts would be less than significant.

Table 3.18-10

Southwest Quadrant Full-Size Terminal Option Water Demand 2025

Potable Water Demand 2025						
Proposed Facilities	**Units**	**Unit Type**	**GPD/Unit**	**Gallons/Day**	**Gallons/Year**	**AFY**
Replacement Passenger Terminal	4,935,414	Passengers	3.84 /a/	51,923	18,951,989	58.16
ARFF	19,000	SF	0.19	3,610	1,317,650	4.04
Air Cargo Building	8,000	SF	0.02	160	58,400	0.18
Authority Offices	54,589	SF	0.19	10,372	3,785,747	11.62
Ground Service Equipment Building	8,000	SF	0.20	1,600	584,000	1.79
Total Future Water Use						**75.79**

NOTE: /a/ Annual water demand of 3.84 gallons per passenger does not take into account any water efficiency infrastructure that would be included in the replacement passenger terminal.
Source: ESA PCR 2016, C&S Engineers, 2014; BGPAA, 2016
GPD = gallons per day

SUMMARY

Implementation of the Adjacent Property Full-Size Terminal Option would not generate demand for water that would exceed the capacity of the BWP, nor would it require additional potable water facilities to meet water demands. Therefore, the Adjacent Property Full-Size Terminal Option would not require or result in the construction of new water treatment facilities or the expansion of existing facilities and impacts would be less than significant.

Mitigation Measure SW QUAD FULL-UTIL-1
No mitigation is warranted.

IMPACT SW QUAD FULL-UTIL-2: Impacts to Wastewater Systems

CONSTRUCTION

During construction of the Southwest Quadrant Full-Size Terminal Option, a negligible amount of wastewater would be generated by construction staff. It is anticipated that portable toilets would be provided by a private company and the waste disposed of off-site. Wastewater generation from construction activities is not anticipated to cause a measurable increase in wastewater flows at a point where, and a time when, a sewer's capacity is already constrained or that would cause a sewer's capacity to be constrained. Additionally, construction is not anticipated to generate wastewater flows that would substantially, or incrementally, exceed the future scheduled capacity of the BWRP by generating flows greater than those anticipated in the Wastewater Facilities Plan or the City of Burbank General Plan and its elements. Therefore, construction of the Southwest Quadrant Full-Size Terminal Option would not require nor result in the construction of new wastewater treatment facilities or expansion of existing facilities and impacts would be less than significant.

OPERATIONS

The Southwest Quadrant Full-Size Terminal Option would require a connection to the existing 8-inch sewer line along Hollywood Way. This sewer line is adequately sized to accommodate the wastewater generated by the replacement passenger terminal.

Based on proposed uses for the Southwest Quadrant Full-Size Terminal Option, an average flow of 64,930 GPD is expected in 2025. With a peaking factor of 2.5, the Adjacent Property Full-Size Terminal Option would generate approximately 162,325 GPD of wastewater in 2025 (see **Table 3.18-11**). This corresponds to 0.22 percent of the City's current capacity. The increase of 50,480 GPD can be accommodated by the City of Burbank using existing wastewater treatment system. In addition, this amount of wastewater generated is about the same as what occurred in 2007. Thus, implementation of the Southwest Quadrant Full-Size Terminal Option would not require or result in the construction of new wastewater treatment facilities or the expansion of existing facilities. It also is important to note that this increase of 50,480 GPD is considered conservative because it does not include the use of water efficient improvements, such as low flow fixtures or waterless urinals. Thus, the increase identified for 2025 is likely greater than what would actually occur. Sewers to convey wastewater would be constructed on-site as required and would be sized according to projected flows, including peak day flows. Therefore, operational impacts related to wastewater treatment would be less than significant.

SUMMARY

Implementation of the Southwest Quadrant Full-Size Terminal Option would not generate wastewater that would exceed the capacity of the BWRP. In addition, the project would be required to comply with its NPDES permit. Therefore, the Southwest Quadrant Full-Size Terminal Option would not exceed wastewater treatment requirements of the Los Angeles RWQCB and impacts would be less than significant.

Table 3.18-11

Southwest Quadrant Full-Size Terminal Option Wastewater Generation 2025

Year 2025	Building SF or Units	Unit Type	Wastewater Generation	GPD	GPY
Replacement Passenger Terminal	4,935,414	Passengers	0.0105	51,821	18,914,974
ARFF Station	19,000	SF	0.1740	3,306	1,206,690
Air Cargo Building	8,000	SF	0.0190	152	55,480
Authority Offices	54,589	SF	0.1740	9,499	3,467,135
Ground Service Equipment Building	8,000	SF	0.0190	152	55,480
Total				**64,930**	**23,699,759**
Peak (2.5 factor) Total				**162,325**	**59,249,397**

Source: ESA PCR, 2016, C&S Engineers, 2014

Mitigation Measure SW QUAD FULL-UTIL-2

No mitigation is warranted.

IMPACT SW QUAD FULL-UTIL-3: Impacts to Landfill Capacity

Based on proposed uses for the Adjacent Property Full-Size Terminal Option, the amount of solid waste generated per day would be about 21,797 pounds (see **Table 3.18-9**). This corresponds to an approximately 12.8 percent in the amount of solid waste generated at the Airport. However, it is noted that this does not account for any increase in recycling and waste diversion that is expected to occur. This increase can be accommodated at the existing landfills. Therefore, the Adjacent Property Full-Size Terminal Option would not affect landfill capacity and impacts would be less than significant.

Table 3.18-12

Southwest Quadrant Full-Size Terminal Option Solid Waste Generation 2025

Source	Building SF or Units	Unit Type	Solid Waste Generation (lbs)	PPD	PPY
Existing Terminal	4,935,414	Passengers	0.7	9,465	3,454,790
Employees at the Airport	2,868	Employees	4.3	12,332	4,501,326
			Total	**21,797**	**7,956,116**

Source: ESA PCR,2016

Mitigation Measure SW QUAD FULL-UTIL-3

No mitigation is warranted.

IMPACT SW QUAD FULL-UTIL-4: Compliance with Statutes and Regulations Related to Solid Waste

Solid waste resulting from the Southwest Quadrant Full-Size Terminal Option would be regulated by the Los Angeles County CIWMP. The CIWMP outlines goals, policies, and programs Los Angeles County and its cities, including the City of Burbank, would implement to create an integrated and cost-effective waste management system that complies with the provisions of AB 939 and its diversion mandates. The Southwest Quadrant Full-Size Terminal Option would also be under the influence of the LAWMD, and would therefore be required to divert up to 50 percent of its solid waste.[10] Currently, the Airport recycles 66 percent of its solid waste.[11] Since the Southwest Quadrant Full-Size Terminal Option would be mandated to adhere to the regulations set forth in the CIWMP and other local and state regulations, impacts would be less than significant.

Mitigation Measure SW QUAD FULL-UTIL-4

No mitigation is warranted.

Cumulative Impacts

IMPACT SW QUAD FULL-UTIL-5: Cumulative Impacts Related to Utilities and Service Systems

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Each of these other projects would result in an increase in water demand, wastewater generation, and solid waste generation. Given the number of residential units, institutional uses, and commercial development planned in Burbank and the adjacent neighborhoods in Los Angeles, the overall demand for utilities would increase. Each project would be required to demonstrate that the demand for utilities could be accommodated. In addition, all projects would be reviewed for consistency with adopted plans, policies, and design guidelines with respect to utilities and service systems. For this reason, other projects are anticipated to be consistent with applicable standards and would have the adequate water, wastewater, and solid waste infrastructure to accommodate any change in demand. The implementation of the Southwest Quadrant Full-Size Terminal Option would not result in a significant increase in demand for water, wastewater, or solid waste services, but would contribute to the overall increase in this demand. Given the capacity of these utilities, the contribution of the Southwest Quadrant Full-Size Terminal Option to the cumulative impacts to utilities and service systems would be less than significant.

Mitigation Measure SW QUAD FULL-UTIL-5

No mitigation is warranted.

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10 LAWMD, "Commercial Recycling," https://www.wm.com/location/california/antelope-valley/la-county/commercial/index.jsp.

11 Mark Hardyment, Director of Government & Environmental Affairs, Burbank Bob Hope Airport, conversation, April 26, 2016.

3.18.3.3 SOUTHWEST QUADRANT SAME-SIZE TERMINAL OPTION

Project Impacts

IMPACT SW QUAD SAME-UTIL-1: Impacts to Water Supply Systems

CONSTRUCTION

During construction of the Southwest Quadrant Same-Size Terminal Option, water would be used for dust suppression, the mixing and pouring of concrete, and other construction related activities. It is not possible to quantify the water usage attributable to development construction with any level of certainty. However, water usage would be temporary in nature and would not exceed that of the completed Southwest Quadrant Same-Size Terminal Option when it is in operation. In addition, reclaimed water may be used for dust suppression and other construction-related activities, reducing the use of potable water. It is unlikely that potable water use would exceed the available supply during construction, given the current utilization of reclaimed water serving the airport currently. Construction of the Southwest Quadrant Same-Size Terminal Option would not require the construction of new water facilities or the expansion of existing water facilities. Therefore, impacts related to water use during construction would be less than significant.

OPERATIONS

The Southwest Quadrant Same-Size Terminal Option would require a connection to the water supply system in Burbank. This connection would be to the 12-inch water main along Hollywood Way. This water main is adequately sized to accommodate the water demand for the replacement passenger terminal.

Because the Southwest Quadrant Same-Size Terminal Option is a replacement passenger terminal, water supply would not be an issue as it is currently being supplied by the City of Burbank, which has an adequate supply of potable and recycled water that can be provided to the project. The existing Airport uses 50.41 AFY, which represents approximately 0.26 percent of the City's total water use. In 2025 the demand for water at the Airport would be about 66.61 AFY (see **Table 3.18-13**). The primary reason for the increase in water demand is associated with the forecasted increase in passengers and is not associated with the increase in the square footage of the replacement passenger terminal compared to the existing passenger terminal. This amount represents approximately 0.37 percent of the City's total water deliveries in 2010 (17,591 AFY) and 0.32 percent of available potable water in 2025 (20,391 AFY). The increase of 16.20 AFY can be accommodated by the City of Burbank using existing water supplies. It also is important to note that this increase of 16.20 AFY is considered conservative because it does not include the use of water efficient improvements, such as low flow fixtures or waterless urinals. In addition, this increase in water demand is about the same demand as what occurred in 2007. Thus, the demand identified in **Table 3.18-13** in 2025 is likely greater than what would actually occur. Because the City of Burbank's water supply is adequate to accommodate the increase in demand, the operation of the Southwest Quadrant Full-Size Terminal Option would not require the construction of new water facilities or the expansion of existing water facilities and impacts would be less than significant.

Table 3.18-13

Southwest Quadrant Same-Size Terminal Option Water Demand 2025

Potable Water Demand 2025						
Existing Facilities	**Units**	**Unit Type**	**GPD/Unit**	**Gallons/Day**	**Gallons/Year**	**AFY**
Replacement Passenger Terminal	4,935,414	Passengers	3.84	51,923	18,951,989	58.16
ARFF	19,000	SF	0.19	3,610	1,317,650	4.04
Air Cargo Building	8,000	SF	0.20	1,600	584,000	1.79
Ground Service Equipment Building	10,000	SF	0.20	2,000	730,000	2.62
Total Future Water Use						**66.61**

Source: ESA PCR 2016, C&S Engineers, 2014.
GPD = gallons per day

This increase also does not account for any office space for the Authority at the Airport. Under the Southwest Quadrant Same-Size Terminal Option, the Authority offices would be moved to existing office space in a nearby community (i.e., Los Angeles or Glendale). The demand for water from this office space has already been accounted for would not result in any new demand for water.

SUMMARY

Implementation of the Adjacent Property Same-Size Terminal Option would not generate demand for water that would exceed the capacity of the BWP, nor would it require additional potable water facilities to meet water demands. Therefore, the Adjacent Property Same-Size Terminal Option would not require or result in the construction of new water treatment facilities or the expansion of existing facilities and impacts would be less than significant.

Mitigation Measure SW QUAD SAME-UTIL-1

No mitigation is warranted.

IMPACT SW QUAD SAME-UTIL-2: Impacts to Wastewater Systems

CONSTRUCTION

During construction of the Southwest Quadrant Same-Size Terminal Option, a negligible amount of wastewater would be generated by construction staff. It is anticipated that portable toilets would be provided by a private company and the waste disposed of off-site. Wastewater generation from construction activities is not anticipated to cause a measurable increase in wastewater flows at a point where, and a time when, a sewer's capacity is already constrained or that would cause a sewer's capacity to be constrained. Additionally, construction is not anticipated to generate wastewater flows that would substantially, or incrementally, exceed the future scheduled capacity of the BWRP by generating flows greater than those anticipated in the Wastewater Facilities Plan or the City of Burbank General Plan and its elements. Therefore, construction of the Southwest Quadrant Same-Size Terminal Option would not require nor result in the construction of new wastewater treatment facilities or expansion of existing facilities and impacts would be less than significant.

OPERATIONS

The Southwest Quadrant Same-Size Terminal Option would require a connection to the existing 8-inch sewer line along Hollywood Way. This sewer line is adequately sized to accommodate the wastewater generated by the replacement passenger terminal.

Based on proposed uses for the Southwest Quadrant Same-Size Terminal Option, an average flow of 55,469 GPD is expected in 2025. With a peaking factor of 2.5, the Adjacent Property Full-Size Terminal Option would generate approximately 138,672 GPD of wastewater in 2025 (see **Table 3.18-14**). This corresponds to 0.19 percent of the City's current capacity. The increase of 26,827 GPD can be accommodated by the City of Burbank using existing wastewater treatment system. In addition, this amount of wastewater generated is about the same as what occurred in 2007. Thus, implementation of the Southwest Quadrant Same-Size Terminal Option would not require or result in the construction of new wastewater treatment facilities or the expansion of existing facilities. It also is important to note that this increase of 26,827 GPD is considered conservative because it does not include the use of water efficient improvements, such as low flow fixtures or waterless urinals. Thus, the increase identified for 2025 is likely greater than what would actually occur. Sewers to convey wastewater would be constructed on-site as required and would be sized according to projected flows, including peak day flows. Therefore, operational impacts related to wastewater treatment would be less than significant.

Table 3.18-15

Southwest Quadrant Same-Size Terminal Option Wastewater Generation 2025

Year 2025	Building SF or Units	Unit Type	Wastewater Generation	GPD	GPY
Replacement Passenger Terminal	4,935,414	Passengers	0.0105	51,821	18,914,974
ARFF Station	19,000	SF	0.1740	3,306	1,206,690
Air Cargo Building	8,000	SF	0.0190	152	55,480
Ground Service Equipment Building	10,000	SF	0.019	190	69,350
Total				**55,469**	**20,246,494**
Peak (2.5 factor) Total				**138,672**	**50,616,235**

Source: ESA PCR, 2016, C&S Engineers, 2014

This increase also does not account for any office space for the Authority at the Airport. Under the Southwest Quadrant Same-Size Terminal Option, the Authority offices would be moved to existing office space in a nearby community (i.e., Los Angeles or Glendale). The generation of wastewater from this office space has already been accounted for would not result in any new generation of wastewater.

SUMMARY

Implementation of the Southwest Quadrant Same-Size Terminal Option would not generate wastewater that would exceed the capacity of the BWRP. In addition, the project would be required to comply with its NPDES permit. Therefore, the Southwest Quadrant Same-Size Terminal Option would not exceed wastewater treatment requirements of the Los Angeles RWQCB and impacts would be less than significant.

Mitigation Measure SW QUAD SAME-UTIL-2

No mitigation is warranted.

IMPACT SW QUAD SAME-UTIL-3: Impacts to Landfill Capacity

Based on proposed uses for the Southwest Quadrant Same-Size Terminal Option, the amount of solid waste generated per day would be about 21,432 pounds (see **Table 3.18-16**). This corresponds to an approximately 11.5 percent in the amount of solid waste generated at the Airport. However, it is noted that this does not account for any increase in recycling and waste diversion that is expected to occur. This increase can be accommodated at the existing landfills. Therefore, the Southwest Quadrant Same-Size Terminal Option would not affect landfill capacity and impacts would be less than significant.

Table 3.18-16

Southwest Quadrant Same-Size Terminal Option Solid Waste Generation 2025

Source	Building SF or Units	Unit Type	Solid Waste Generation (lbs)	PPD	PPY
Existing Terminal	4,935,414	Passengers	0.7	9,465	3,454,790
Employees at the Airport	2,783	Employees	4.3	11,967	4,367,919
			Total	**21,432**	**7,822,709**

Source: ESA PCR,2016

Mitigation Measure SW QUAD SAME-UTIL-3

No mitigation is warranted.

IMPACT SW QUAD SAME-UTIL-4: Compliance with Statutes and Regulations Related to Solid Waste

Solid waste resulting from the Southwest Quadrant Same-Size Terminal Option would be regulated by the Los Angeles County CIWMP. The CIWMP outlines goals, policies, and programs Los Angeles County and its cities, including the City of Burbank, would implement to create an integrated and cost-effective waste management system that complies with the provisions of AB 939 and its diversion mandates. Currently, the Airport recycles 66 percent of its solid waste.[12] The Southwest Quadrant Full-Size Terminal Option would also be under the influence of the LAWMD, and would therefore be required to divert up to 50 percent of

[12] Mark Hardyment, Director of Government & Environmental Affairs, Burbank Bob Hope Airport, conversation, April 26, 2016.

its solid waste.[13] Since the Southwest Quadrant Same-Size Terminal Option would be mandated to adhere to the regulations set forth in the CIWMP and other local and state regulations, impacts would be less than significant.

Mitigation Measure SW QUAD SAME-UTIL-4
No mitigation is warranted.

Cumulative Impacts

IMPACT SW QUAD SAME-UTIL-5: Cumulative Impacts Related to Utilities and Service Systems

The other projects in the vicinity of the Airport are presented in **Section 3.1**. Each of these other projects would result in an increase in water demand, wastewater generation, and solid waste generation. Given the number of residential units, institutional uses, and commercial development planned in Burbank and the adjacent neighborhoods in Los Angeles, the overall demand for utilities would increase. Each project would be required to demonstrate that the demand for utilities could be accommodated. In addition, all projects would be reviewed for consistency with adopted plans, policies, and design guidelines with respect to utilities and service systems. For this reason, other projects are anticipated to be consistent with applicable standards and would have the adequate water, wastewater, and solid waste infrastructure to accommodate any change in demand. The implementation of the Southwest Quadrant Same-Size Terminal Option would not result in a significant increase in demand for water, wastewater, or solid waste services, but would contribute to the overall increase in this demand. Given the capacity of these utilities, the contribution of the Southwest Quadrant Same-Size Terminal Option to the cumulative impacts to utilities and service systems would be less than significant.

Mitigation Measure SW QUAD SAME-UTIL-5
No mitigation is warranted.

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13 LAWMD, "Commercial Recycling," https://www.wm.com/location/california/antelope-valley/la-county/commercial/index.jsp.

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CHAPTER 4
ALTERNATIVES

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4.1 INTRODUCTION

As required under Section 15126(d) of the CEQA Guidelines, an Environmental Impact Report (EIR) must discuss a range of reasonable alternatives to a proposed project that would feasibly attain most of the basic objectives of the project while avoiding or lessening significant environmental effects. An evaluation of the comparative merits of the project alternatives also is required. This Chapter provides a discussion of alternatives to the proposed project, including a No Project Alternative, which is considered to be an alternative to the proposed project in conformance with Section 15126(d) of the CEQA Guidelines. The comparison of impacts between the project alternatives and the proposed project is presented in this chapter and is based on the discussion of the impacts associated with the proposed project as presented in **Chapter 3**, *Existing Conditions and Environmental Impacts*.

As discussed in **Chapter 2**, the Authority has identified eleven objectives associated with the replacement passenger terminal project. Two objectives are associated with meeting state and federal design standards and nine objectives are associated with the replacement passenger terminal, such as its efficiency, cost-effectiveness, and convenience, among others.

This chapter provides a description of each of these other alternatives that were reviewed and presents the reasons each of these other alternatives was either brought forward for or eliminated from further study. Finally, this chapter also identifies an environmentally superior alternative. The purpose of the alternatives analysis is to explore ways that the objectives of the proposed project could be attained while reducing or avoiding significant environmental impacts of the project as proposed. This process is intended to foster informed decision-making and public participation in the environmental process.

4.2 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER REVIEW

4.2.1 Introduction

Regulations require the Lead Agency to consider alternatives that are outside its jurisdiction. For example, use of other modes of transportation or shifting air traffic to other airports might reduce enplanements and operations at the Airport. Other alternatives considered for the nonstandard passenger terminal alternatives, both within the Authority's jurisdiction and outside its jurisdiction, included:

- Other on-Airport locations for the replacement passenger terminal;
- Use of other modes of transportation; and
- Use of other airports in the area

4.2.2 Other On-Airport Locations for Replacement Passenger Terminal

4.2.2.1 Description

The purpose of the proposed project is to provide a replacement passenger terminal that meets the FAA's design standards. The alternative of other on-Airport locations would replace the existing passenger terminal in either the Northwest Quadrant, the Southeast Quadrant, or a terminal split between the Northwest and Southwest Quadrants of the Airport.

4.2.2.2 Ability to Meet Project Objectives

These alternatives would not meet the Authority's project objectives because they would not meet applicable FAA design standards, are financially prohibitive, or both. Neither the Northwest Quadrant nor the Southeast Quadrant are of adequate size and geometric configuration to permit a replacement passenger terminal that meets the project objectives, including accommodating 14 gates. Relocating the passenger terminal to the Northwest Quadrant is not feasible due to inadequate roadway infrastructure and the close proximity to incompatible land uses. Relocating the passenger terminal to the Southeast Quadrant would not be feasible because the existing passenger terminal would not be able to be operational while the replacement passenger terminal was being constructed. Splitting the passenger terminal between the Northwest Quadrant and Southwest Quadrant would be cost prohibitive because it would require people and baggage movers underneath an active runway. It is operationally less desirable because it splits the operations and creates operating and security complications, including but not limited to, baggage security in transit between the split terminals. This alternative also decreases passenger convenience and passenger processing efficiency. Considering all these factors, each of the alternative on-Airport locations was rejected from further consideration in this EIR.

4.2.3 Use of Other Modes of Transportation

4.2.3.1 Description

The purpose of the proposed project is to provide a replacement passenger terminal that meets the FAA's design standards. The alternative of using other modes of transportation would replace some or all of the air transportation activity at the Airport, including ground transportation or rail.

4.2.3.2 Ability to Meet Project Objectives

This alternative would not meet the Authority's project objectives because the existing passenger terminal would not meet applicable FAA design standards and safety would not be enhanced. Inefficiencies associated with the passenger terminal would still exist. Additionally, the Authority does not have the ability to compel Airport users to use other modes of transportation. Further, this would in effect result in the closure of the Airport. This alternative was eliminated from further consideration in this EIR.

4.2.4 Use of Other Area Public Airports

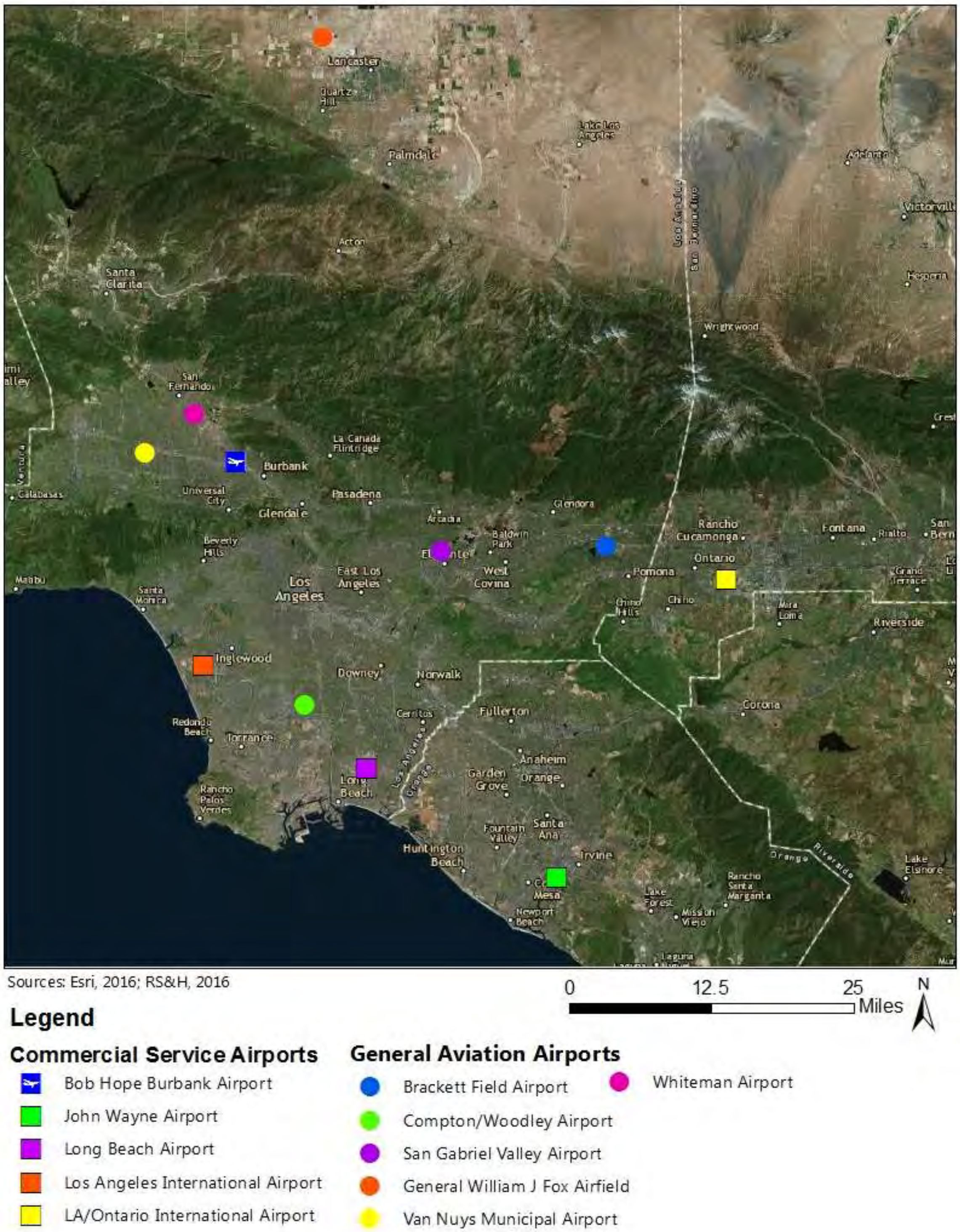
4.2.4.1 Description

This alternative includes the relocation of some or all of air traffic to other airports in the area. General aviation airports that exist in the vicinity of the Airport include; Van Nuys Municipal Airport, Whiteman Airport, Brackett Field Airport, Compton/Woodley Airport, San Gabriel Valley Airport, and General William J. Fox Airfield (see **Figure 4-1**). For these airports to provide commercial air passenger service, a number of improvements would be needed, including, depending on the airport, the development of passenger facilities (e.g., terminals, parking facilities, etc.), extensions of runways to accommodate commercial service aircraft, and infrastructure to support such commercial air passenger service operations. In addition, the airport sponsors of these general aviation airports have not indicated a desire to accommodate commercial air passenger service. The closest commercial air passenger service airports to the Airport include; Los Angeles International Airport, LA/Ontario International Airport, and John Wayne Airport, and Long Beach Airport (see **Figure 4-1**).

4.2.4.2 Ability to Meet Project Objectives

This alternative would not meet the Authority's project objectives because the existing passenger terminal would not meet applicable FAA design standards and safety would not be enhanced. Inefficiencies associated with the passenger terminal would still exist. The Airport is the primary commercial air passenger service airport for the region. The Authority does not have the ability to divert air transportation activity from the Airport to other airports. This alternative was eliminated from further consideration in this EIR.

Figure 4-1
Other Airports in the Burbank Area



Sources: Esri, 2016; RS&H, 2016

4.3 NO PROJECT ALTERNATIVE

4.3.1 Description of No Project Alternative

Under the No Project Alternative, no replacement terminal would be constructed. The existing passenger terminal would remain at its current location and would continue to not meet the FAA design standards. The associated actions to the replacement passenger terminal would not occur or be constructed.

4.3.2 Environmental Impacts

4.3.2.1 Aesthetics

The aesthetics associated with the No Project Alternative would be the same as those described for the existing conditions and no scenic vistas, scenic resources, or visual character in the Airport vicinity would be affected.

4.3.2.2 Agriculture and Forestry Resources

No prime, unique, farmland of statewide importance, or farmland of local importance exist at the Airport. Therefore, under the No Project of Alternative, no impacts to farmland would occur. Additionally, no forest resources exist at the Airport; therefore, no impacts to forest resources would occur.

4.3.2.3 Air Quality

Emissions associated with the No Project Alternative account for future forecast growth, which would occur with or without implementation of the proposed project. The majority of the emissions are associated with aircraft landings and take offs and taxiing, which would occur with or without implementation of the proposed project.

4.3.2.4 Biological Resources

Under the No Project Alternative, no impacts to biological resources would occur. The Airport does not support any special-status plant or wildlife species, riparian habitat, wetlands, or wildlife movement corridors. Additionally, no street tree removal would occur under the No Project Alternative.

4.3.2.5 Cultural Resources

None of the existing archaeological or historical resources at the Airport would be affected as a result of the No Project Alternative.

4.3.2.6 Geology and Soils

No disturbance of soils or substantial erosion would occur No Project Alternative.

4.3.2.7 Greenhouse Gas Emissions

The No Project Alternative greenhouse gas (GHG) emissions accounts for future growth in passenger throughput, which would occur with or without implementation of the proposed project. The majority of the emissions are associated with aircraft landings and take offs and taxiing, which would occur with or without implementation of the proposed project.

4.3.2.8 Hazards and Hazardous Materials

Existing use of petrochemical and chemical products such as avgas, Jet A, solvents, cleaning products, and other various lubricants would continue and would be the same under the No Project Alternative. Handling and disposal of these materials and other potentially hazardous materials would have to comply with federal, county, and local regulations. However, the No Project Alternative would not result in future disturbance of hazardous materials at the Airport.

4.3.2.9 Hydrology and Water Quality

Under the No Project Alternative, there are no ground surface alterations or modifications that would change drainage patterns associated with either the Lockheed Channel or the Burbank Western Channel. In addition, the groundwater basin would not be disturbed or altered.

4.3.2.10 Land Use and Planning

No land use compatibility issues would occur under the No Project Alternative. The Airport would continue to operate under the existing land use plans and policies currently applicable.

4.3.2.11 Mineral Resources

The Airport is located in an urban area where mining is not permitted. Additionally, no mineral resource recovery sites exist at the Airport or in the immediate Airport vicinity. Therefore, under the No Project Alternative, no impacts to mineral resources or mineral resources recovery sites would occur.

4.3.2.12 Noise

Under the No Project Alternative, the 65 dB Community Noise Equivalent Level (CNEL) contour from 2015 to 2025 is projected to increase, which would occur whether a replacement passenger terminal is constructed or not. This projected increase over the next 10 years is due to the volume of aircraft activity that is forecast to increase. Under the No Project Alternative for the year 2015, 1.799 acres would be within the 65 dB CNEL noise contour, for the year 2023, 2.153 acres would be within the 65 dB CNEL noise contour, and for the year 2025, 2.196 acres would be within the 65 dB CNEL noise contour. There will be homes that at one time were inside the 65 dB CNEL contour, are currently outside the 65 dB CNEL contour and will be moved back into the 65 dB CNEL contour under the No Project Alternative. However, the size of the 65 dB CNEL contour for 2025 is not projected to expand beyond the 65 dB CNEL contour that existed in 2007-2008. Under the No Project Alternative, there would be no construction related noise impacts.

4.3.2.13 Population and Housing

Under the No Project Alternative, temporary construction jobs would not be created during the construction of the replacement passenger terminal. No additional permanent jobs associated with the replacement passenger terminal would be created.

4.3.2.14 Public Services

Under the No Project Alternative, there would be no change in demand for Burbank fire protection services, police protection services, or school services.

4.3.2.15 Recreation

Under the No Project Alternative, there would be no additional demand for recreation and no recreation facilities would be affected.

4.3.2.16 Traffic and Transportation

Under the No Project Alternative, nine signalized intersections and four unsignalized intersections in the Airport vicinity would operate at an unacceptable level of service. Even under the No Project Alternative, future roadway improvements would be needed to address unacceptable levels of service in the Airport vicinity.

4.3.2.17 Utilities and Service Systems

Under the No Project Alternative, new water facilities or the expansion of existing water facilities would not be needed. Water usage, wastewater generation, and solid waste generation would slightly increase due to the forecast commercial air passenger levels. However, water usage would not increase due to construction dust suppression under the No Project Alternative.

4.3.2.18 Cumulative Impacts

The No Project Alternative would not contribute to any cumulative aesthetics, agricultural and forestry resources, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, population and housing, public services, recreation, or utilities and service systems. However, the No Project Alternative would contribute to cumulative air quality, noise, and traffic and transportation impacts in the Airport vicinity because of forecasted increases in passenger and air carrier operations.

4.3.3 Ability to Meet Project Objectives

The No Project Alternative would not construct a replacement passenger terminal, and therefore, would not provide a replacement passenger terminal that was compliant with FAA design standards. Further, this alternative would not satisfy the purpose and need for the proposed project, and does not meet the project objectives. However, this alternative is being retained for further consideration as required by CEQA to serve as the environmental baseline for the evaluation of the other alternatives.

4.4 PREFERRED PROJECT – ADJACENT PROPERTY FULL-SIZE TERMINAL OPTION

The Adjacent Property Full-Size Terminal Option proposes to construct a 355,000-square-foot replacement passenger terminal on the Adjacent Property. This is the Authority's preferred development option. The Adjacent Property is undeveloped and is currently used for airport passenger and employee automobile parking, movie equipment staging, and truck/recreational vehicle parking. A detailed description of this alternative is presented in **Chapter 2**, *Project Description*.

4.5 ALTERNATIVE 1 – SOUTHWEST QUADRANT FULL-SIZE TERMINAL OPTION

The Southwest Quadrant Full-Size Terminal Option proposes to construct a 355,000-square-foot replacement passenger terminal in the Southwest Quadrant of the Airport. This property is currently used for general aviation hangars and aircraft ramps, Federal Aviation Administration (FAA) maintenance and communication facilities, rental car storage, air freighter facilities (FedEx and UPS), and an air cargo building for commercial air carriers. A detailed description of this alternative is presented in **Chapter 2**, *Project Description*.

4.6 ALTERNATIVE 2 – SOUTHWEST QUADRANT SAME-SIZE TERMINAL OPTION

The Southwest Quadrant Same-Size Terminal Option proposes to construct a 232,000-square foot replacement passenger terminal in the Southwest Quadrant of the Airport. This property is currently used for general aviation hangars and aircraft ramps, Federal Aviation Administration (FAA) maintenance and communication facilities, rental car storage, air freighter facilities (FedEx and UPS), and an air cargo building for commercial air carriers. A detailed description of this alternative is presented in **Chapter 2**, *Project Description*.

4.7 COMPARISON OF ALTERNATIVES

A total of four alternatives were identified and analyzed in detail to see if they met the eleven objectives for the proposed project.

Table 4-1 provides an overview of the impacts associated with the No Project Alternative and provides a comparison of these impacts with those of the Adjacent Property Full-Size Terminal Option, the Southwest Quadrant Full-Size Terminal Option, and the Southwest Quadrant Same-Size Terminal Option.

Table 4-1

Summary of Environmental Impacts of the No Project Alternative and the Development Options

	No Project Alternative Impact Significance	**Adjacent Property Full-Size Terminal Option Impact Significance**	**Alt. # 1 Southwest Quadrant Full-Size Terminal Option Impact Significance**	**Alt #2 Southwest Quadrant Same-Size Terminal Option Impact Significance**
Environmental Impact Categories				
Aesthetics				
Impacts on Scenic Vistas	N	N	N	N
Impacts on Scenic Resources	N	LTS	LTS w M *Mitigation Measure SW QUAD FULL-AESTH-2*	LTS w M *Mitigation Measure SW QUAD SAME-AESTH-2*
Impacts on Visual Character of Airport Vicinity	N	N	N	N
Impacts on Light and Glare	N	N	LTS	LTS
Cumulative Impacts on Aesthetics	N	N	N	N
Agriculture and Forestry Resources				
Impacts to Farmlands	N	N	N	N
Impacts to Forestry Lands	N	N	N	N
Cumulative Impacts to Farmlands and Forestry Lands	N	N	N	N
Air Quality				
Consistency with Applicable Plans and Policies	N	LTS	LTS	LTS
Violation of Construction Air Quality Standards	N	LTS	LTS	LTS
Violation of Operational Air Quality Standards	S	SU	SU	SU
Increase in Non-Attainment Criteria Pollutants	S	SU	SU	SU
Generation of Pollutant Emissions Greater Than Localized Significance Thresholds	S	LTS	LTS	LTS
Contribution to an Exceedance of CO Standards	S	LTS	LTS	LTS
Generation of Toxic Air Contaminants	LTS	LTS	SU	SU

Note: N – No impact. S – Significant impact. LTS – Less than significant. LTS w M – Less than significant with mitigation. Impact is initially significant and with the implementation of mitigation measures, becomes less than significant. SU – Significant unavoidable.

Table 4-1 (cont.)

Summary of Environmental Impacts of the No Project Alternative and the Development Options

	No Project Alternative Impact Significance	**Adjacent Property Full-Size Terminal Option Impact Significance**	**Alt. # 1 Southwest Quadrant Full-Size Terminal Option Impact Significance**	**Alt #2 Southwest Quadrant Same-Size Terminal Option Impact Significance**
Environmental Impact Categories				
Air Quality cont.				
Creation of Objectionable Odors	N	LTS	LTS	LTS
Cumulative Air Quality Impacts	S	LTS	SU	SU
Biological Resources				
Impacts on Special-Status Species	N	N	N	N
Impacts on Riparian Habitat or Sensitive Natural Communities	N	N	N	N
Impacts on Wetlands	N	N	N	N
Impacts on Wildlife Movement	N	LTS w M *Mitigation Measure ADJ PROP FULL-BIO-4*	LTS w M *Mitigation Measure SW QUAD FULL-BIO-4*	LTS w M *Mitigation Measure SW QUAD SAME-BIO-4*
Conflict with Local Policies or Ordinances	N	N	LTS w M *Mitigation Measure SW QUAD FULL-BIO-5*	LTS w M *Mitigation Measure SW QUAD SAME-BIO-5*
Conflict with Adopted Plans	N	N	N	N
Cumulative Impacts on Biological Resources	N	N	N	N
Cultural Resources				
Impacts on Archaeological Resources	N	LTS w M *Mitigation Measure ADJ PROP FULL-CULT-1A* *Mitigation Measure ADJ PROP FULL-CULT-1B*	LTS w M *Mitigation Measure SW QUAD FULL-CULT-1A* *Mitigation Measure SW QUAD FULL-CULT-1B*	LTS w M *Mitigation Measure SW QUAD SAME-CULT-1A* *Mitigation Measure SW QUAD SAME-CULT-1B*
Impacts on Paleontological Resources	N	LTS w M *Mitigation Measure ADJ PROP FULL-CULT-2A* *Mitigation Measure ADJ PROP FULL-CULT-2B* *Mitigation Measure ADJ PROP FULL-CULT-2C*	LTS w M *Mitigation Measure SW QUAD FULL-CULT-2A* *Mitigation Measure SW QUAD FULL-CULT-2B* *Mitigation Measure SW QUAD FULL-CULT-2C*	LTS w M *Mitigation Measure SW QUAD SAME-CULT-2A* *Mitigation Measure SW QUAD SAME-CULT-2B* *Mitigation Measure SW QUAD SAME-CULT-2C*
Impacts on Tribal Cultural Resources	N	LTS w M *Mitigation Measure ADJ PROP FULL-CULT-3*	LTS w M *Mitigation Measure SW QUAD FULL-CULT-3*	LTS w M *Mitigation Measure SW QUAD SAME-CULT-3*
Impacts on Historical Resources	N	LTS	LTS w M *Mitigation Measure SW QUAD FULL-CULT-4A* *Mitigation Measure SW QUAD FULL-CULT-4B* *Mitigation Measure SW QUAD FULL-CULT-4C* *Mitigation Measure SW QUAD FULL-CULT-4D*	LTS w M *Mitigation Measure SW QUAD SAME-CULT-4A* *Mitigation Measure SW QUAD SAME-CULT-4B* *Mitigation Measure SW QUAD SAME-CULT-4C* *Mitigation Measure SW QUAD SAME-CULT-4D*
Cumulative Impacts to Cultural Resources	N	N	N	N

Note: N – No impact. S – Significant impact. LTS – Less than significant. LTS w M – Less than significant with mitigation. Impact is initially significant and with the implementation of mitigation measures, becomes less than significant. SU – Significant unavoidable.

Table 4-1 (cont.)

Summary of Environmental Impacts of the No Project Alternative and the Development Options

	No Project Alternative Impact Significance	**Adjacent Property Full-Size Terminal Option Impact Significance**	**Alt. # 1 Southwest Quadrant Full-Size Terminal Option Impact Significance**	**Alt #2 Southwest Quadrant Same-Size Terminal Option Impact Significance**
Environmental Impact Categories				
Energy Considerations	N	N	N	N
Geology and Soils				
Expose People or Structures to Surface Rupture	N	LTS	LTS	LTS
Expose People or Structures to Strong Seismic Ground Shaking or Liquefaction	N	LTS	LTS	LTS
Result in Substantial Soil Erosion or the Loss of Topsoil	N	LTS	LTS	LTS
Potential for Impacts from a Landslide	N	LTS	LTS	LTS
Impacts due to Expansive or Corrosive Soils	N	LTS	LTS	LTS
Cumulative Impacts related to Seismic Shaking, Liquefaction, Landslide, and Expansive Soils	N	N	N	N
Greenhouse Gas Emissions				
Generation of Greenhouse Gas Emissions	S	LTS	LTS	LTS
Conflict with Applicable Plan, Policy, or Regulation Regarding Emissions of Greenhouse Gases	N	LTS	LTS	LTS
Hazards and Hazardous Materials				
Impacts Related to Transport, Use, or Disposal of Hazardous Materials	N	LTS w M *Mitigation Measure ADJ PROP FULL-HAZ-1A* *Mitigation Measure ADJ PROP FULL-HAZ-1B*	LTS w M *Mitigation Measure SW QUAD FULL-HAZ-1A* *Mitigation Measure SW QUAD FULL-HAZ-1B*	LTS w M *Mitigation Measure SW QUAD SAME-HAZ-1A* *Mitigation Measure SW QUAD SAME-HAZ-1B*
Impacts from Release of Hazardous Materials Through Foreseeable Upset or Accident Conditions	N	LTS	LTS	LTS

Note: N – No impact. S – Significant impact. LTS – Less than significant. LTS w M – Less than significant with mitigation. Impact is initially significant and with the implementation of mitigation measures, becomes less than significant. SU – Significant unavoidable.

Table 4-1 (cont.)

Summary of Environmental Impacts of the No Project Alternative and the Development Options

	No Project Alternative Impact Significance	Adjacent Property Full-Size Terminal Option Impact Significance	Alt. # 1 Southwest Quadrant Full-Size Terminal Option Impact Significance	Alt #2 Southwest Quadrant Same-Size Terminal Option Impact Significance
Environmental Impact Categories				
Hazards and Hazardous Materials cont.				
Impacts Related to Hazardous Emissions Near a School	N	LTS	LTS	LTS
Impacts Related to Location on a Site on the Cortese List	N	LTS	LTS	LTS
Impacts Related to Safety Hazard for People in Airport Vicinity	N	LTS	LTS	LTS
Impacts Related to Emergency Response or Evacuation Plans	N	LTS	LTS	LTS
Impacts Related to Wildland Fires	N	LTS	LTS	LTS
Cumulative Impacts Related to Hazards and Hazardous Materials	N	LTS	LTS	LTS
Hydrology and Water Quality				
Violation of Water Quality Standards	LTS	LTS	LTS	LTS
Groundwater Impacts	LTS	LTS	LTS	LTS
Impacts to Drainage Patterns	LTS	LTS	LTS	LTS
Change in Runoff / Flooding	LTS	LTS	LTS	LTS
Impacts to Drainage System Capacity	LTS	LTS	LTS	LTS
Water Quality Impacts	LTS	LTS	LTS	LTS
Impacts Related to Placement of Structures in a Floodplain	N	N	N	N
Exposure of People or Structures to Flooding	N	N	N	N
Cumulative Impacts Related to Hydrology and Water Quality	LTS	LTS	LTS	LTS
Land Use and Planning				
Division of an Established Community	N	LTS	LTS	LTS
Consistency with Existing Plans and Zoning	N	LTS	LTS	LTS
Cumulative Land Use Impacts	N	N	N	N

Note: N – No impact. S – Significant impact. LTS – Less than significant. LTS w M – Less than significant with mitigation. Impact is initially significant and with the implementation of mitigation measures, becomes less than significant. SU – Significant unavoidable.

Table 4-1 (cont.)

Summary of Environmental Impacts of the No Project Alternative and the Development Options

	No Project Alternative Impact Significance	Adjacent Property Full-Size Terminal Option Impact Significance	Alt. # 1 Southwest Quadrant Full-Size Terminal Option Impact Significance	Alt #2 Southwest Quadrant Same-Size Terminal Option Impact Significance
Environmental Impact Categories				
Mineral Resources				
Impacts on Mineral Facilities	N	N	N	N
Cumulative Impacts on Mineral Facilities	N	N	N	N
Noise				
Impacts Related to Construction Vibration	N	N	LTS w M *Mitigation Measure SW QUAD FULL-NOISE-1*	LTS w M *Mitigation Measure SW QUAD SAME-NOISE-1*
Impacts Related to Aircraft Noise	N	N	N	N
Cumulative Impacts on Noise	N	N	N	N
Population and Housing				
Impacts Related on Population Growth	N	LTS	LTS	LTS
Impacts on Housing Demand	N	LTS	LTS	LTS
Cumulative Impacts on Employment, Population, and Housing	N	N	N	N
Public Services				
Impacts on Fire Protection Services	N	N	N	N
Impacts on Police Protection Services	N	N	N	N
Impacts on School Services	N	N	N	N
Cumulative Impacts to Public Services	N	N	N	N
Recreation				
Construction-Related Impacts on Recreational Facilities	N	N	N	N
Impacts on Recreational Facilities	N	LTS	LTS	LTS
Cumulative Impacts on Recreational Facilities	N	N	N	N

Note: N – No impact. S – Significant impact. LTS – Less than significant. LTS w M – Less than significant with mitigation. Impact is initially significant and with the implementation of mitigation measures, becomes less than significant. SU – Significant unavoidable.

Table 4-1 (cont.)

Summary of Environmental Impacts of the No Project Alternative and the Development Options

	No Project Alternative Impact Significance	**Adjacent Property Full-Size Terminal Option Impact Significance**	**Alt. # 1 Southwest Quadrant Full-Size Terminal Option Impact Significance**	**Alt #2 Southwest Quadrant Same-Size Terminal Option Impact Significance**
Environmental Impact Categories				
Traffic and Transportation				
Traffic at Signalized Intersections	S	LTS w M *Mitigation Measure ADJ PROP FULL-TRANS-1*	N	N
Traffic at Unsignalized Intersections	S	LTS w M *Mitigation Measure ADJ PROP FULL-TRANS-2A* *Mitigation Measure ADJ PROP FULL-TRANS-2B*	LTS *Mitigation Measure SW QUAD FULL-TRANS-2*	N
Impacts Related to Congestion Management Program	N	N	N	N
Impacts to Caltrans Facilities	N	N	N	N
Impacts to Local Streets in Burbank	N	N	N	N
Construction-related Traffic Impacts	N	LTS w M *Mitigation Measure ADJ PROP FULL-TRANS-6*	LTS w M *Mitigation Measure SW QUAD FULL-TRANS-6*	LTS w M *Mitigation Measure SW QUAD SAME-TRANS-6*
Utilities and Service Systems				
Impacts to Water Supply Systems	N	LTS	LTS	LTS
Impacts to Wastewater Systems	N	LTS	LTS	LTS
Impacts to Landfill Capacity	N	LTS	LTS	LTS
Compliance with Statutes and Regulations Related to Solid Waste	N	LTS	LTS	LTS
Cumulative Impacts Related to Utilities and Service Systems	N	LTS	LTS	LTS

Source: RS&H, 2016

Note: N – No impact. S – Significant impact. LTS – Less than significant. LTS w M – Less than significant with mitigation. Impact is initially significant and with the implementation of mitigation measures, becomes less than significant. SU – Significant unavoidable.

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4.8 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

An EIR is required to identify the environmentally superior alternative, that is, the alternative having the potential for the fewest significant environmental impacts, from among the range of reasonable alternatives that are evaluated.

The environmentally superior alternative is the No Project Alternative. It would have the fewest environmental impacts, but would not meet any of the project objectives.

The CEQA Guidelines require that if the No Project Alternative is the environmentally superior alternative, another alternative must also be identified as the environmentally superior alternative. Of the remaining alternatives, the Adjacent Property Full-Size Terminal Option is the environmentally superior alternative. Of the remaining alternatives, none offer any substantial environmental benefit over the proposed project. Moreover, all but four of the significant impacts can be reduced to less than significant with the Adjacent Property Full-Size Terminal Option. Both Southwest Quadrant Full-Size Terminal Option and Southwest Quadrant Same-Size Terminal Option also have significant impacts that cannot be reduced to less than significant and would result in greater impacts to aesthetics, air quality, biological resources, and historic resources compared to the proposed project. Therefore, the Adjacent Property Full-Size Terminal Option is considered to be the environmentally superior alternative because it meets the eleven key objectives outlined in **Chapter 2** with the least amount of environmental impact.

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CHAPTER 5
IMPACT OVERVIEW

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5.1 SIGNIFICANT AND UNAVOIDABLE ADVERSE IMPACTS

As required by Section 16126.2(b) of the California Environmental Quality Act (CEQA) Guidelines, this section identifies project impacts that could not be eliminated or reduced to a less-than-significant level with the incorporation of mitigation measures identified in the environmental impact report (EIR).

5.1.1 Adjacent Property Full-Size Terminal Option

The potential impacts associated with the Adjacent Property Full-Size Terminal Option are described in detail in **Chapter 3**. As discussed in **Chapter 3**, the following significant and unavoidable impacts would occur as a result of the proposed project:

- Violation of Operational Air Quality Standards (ADJ PROP FULL-AIR-3)
- Increase in Non-Attainment Criteria Pollutants (ADJ PROP FULL-AIR-4)

Mitigation measures have been identified to reduce these impacts. However, even with the implementation of these mitigation measures, these impacts would still be considered significant and unavoidable.

5.1.2 Southwest Quadrant Full-Size Terminal Option

The potential impacts associated with the Southwest Quadrant Full-Size Terminal Option are described in detail in **Chapter 3**. As discussed in **Chapter 3**, the following significant and unavoidable impacts would occur as a result of the Southwest Quadrant Full-Size Terminal Option:

- Violation of Operational Air Quality Standards (SW QUAD FULL-AIR-3)
- Increase in Non-Attainment Criteria Pollutants (SW QUAD FULL-AIR-4)
- Generation of Toxic Air Contaminants (SW QUAD FULL-AIR-7)
- Cumulative Air Quality Impacts (SW QUAD FULL-AIR-9)

Mitigation measures have been identified to reduce these impacts. However, even with the implementation of these mitigation measures, these impacts would still be considered significant and unavoidable.

5.1.3 Southwest Quadrant Same-Size Terminal Option

The potential impacts associated with the Southwest Quadrant Same-Size Terminal Option are described in detail in **Chapter 3**. As discussed in **Chapter 3**, the following significant and unavoidable impacts would occur as a result of the Southwest Quadrant Same-Size Terminal Option:

- Violation of Operational Air Quality Standards (SW QUAD SAME-AIR-3)
- Increase in Non-Attainment Criteria Pollutants (SW QUAD SAME-AIR-4)
- Generation of Toxic Air Contaminants (SW QUAD SAME-AIR-7)
- Cumulative Air Quality Impacts (SW QUAD SAME-AIR-9)

Mitigation measures have been identified to reduce these impacts. However, even with the implementation of these mitigation measures, these impacts would still be considered significant and unavoidable.

5.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Section 15126.2(c) of the CEQA Guidelines requires that significant irreversible environmental changes caused by a proposed project be addressed in an EIR. Specifically, the EIR must consider whether "uses of non-renewable resources during the construction and operational phases of the project may be irreversible since a large commitment of such resources makes removal or non-use thereafter unlikely" or whether land use changes would permanently restrict any future development. Nonrenewable resources, in this context, refer to the physical features of the natural environmental, such as land, air, and waterways. A discussion of such changes is described below.

5.2.1 Use of Nonrenewable Resources

The proposed project would require the use of fuels and energy from construction vehicles to perform all the activities associated with the proposed project. The use of local fuels associated with construction vehicles would be considered an irreversible effect.

5.2.2 Use of Utility Services

The proposed project would require the use of utilities during construction activities. The commitment of these services would be short-term and irreversible, but their use is not expected to result in any shortfalls in the availability of these resources. No new generation facilities would be required to provide utility services during the construction of the proposed project. Although the energy consumed during construction would not contribute to energy shortfalls, the use of these utility services would be considered an irreversible effect.

5.3 GROWTH INDUCING IMPACTS

This section discusses the ways in which the proposed project could foster economic or population growth. Growth-inducing impacts are caused by those characteristics of a project that tend to foster or encourage population and/or economic growth. Inducements to growth include the generation of construction and permanent employment opportunities in the support sector of the economy. A proposed project could also induce growth by lowering or removing barriers to growth or by creating an amenity that attracts new population or economic activity.

In accordance with Section 15126.2(d) of the CEQA Guidelines, an EIR must:

> "Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth. Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristics of some projects which may encourage and facilitate other activities that could significantly affect the environment, either

individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."

Two issues must be considered when assessing the growth-inducing impacts of a project:

- Elimination of obstacles to population growth: The extent to which additional infrastructure capacity or a change in regulatory structure would allow additional development in the Airport vicinity; and
- Promotion of economic growth: The extent to which the proposed project can cause increased activity in the local or regional economy. Economic impacts can include direct effects, such as the direction and strategies implemented within the Airport vicinity, and indirect or secondary impacts, such as increased commercial activity needed to serve the additional population projected from the proposed project.

5.3.1 Elimination of Obstacles to Population Growth

The elimination of either physical or regulatory obstacles to population growth is considered to be a growth-inducing impact. A physical obstacle to population growth typically involves the lack of public service infrastructure. The extension of public service infrastructure, including roadways, water mains, and sewer lines, into areas not currently provided with these services is expected to support new development. Similarly, the elimination of or change to a regulatory obstacle, including existing growth and development policies, can result in new population growth.

None of the three development options would extend public service infrastructure into new areas or eliminate or change a regulatory obstacle that can result in new population growth. Current Burbank and Los Angeles land use plans and policies are the guiding force on whether future business and residential growth can be accommodated by the existing infrastructure facilities and services in the Airport vicinity. The construction and operation of a replacement passenger terminal is not directly related to future development and growth potential in the Airport vicinity. Instead, the replacement passenger terminal and the ancillary projects are designed to accommodate the forecasted demand (see **Appendix E** for forecasts). The analysis shows that the existing passenger terminal also would accommodate forecasted demand.

Based on the CEQA Guidelines, none of the three replacement terminal options would induce economic or population growth, or cause the construction of additional housing in the Airport vicinity. Much of the land surrounding the Airport is developed for urban uses. Even with additional passengers anticipated by 2025 (regardless of whether the existing passenger terminal is replaced), the increase in employment would be about 135 additional permanent employees at the Airport. This increase could be accommodated by existing and projected housing in Burbank or in other communities throughout Los Angeles County. In addition, this slight increase in employment would not significantly affect the demand for goods and services within the Airport vicinity.

5.3.2 Growth Inducement Effects

Growth inducement may constitute an adverse impact if the growth is not consistent with the land use and growth management policies for the local jurisdictions. The Burbank2035 General Plan guides development patterns and provides for orderly development supported by adequate public services. A project that would induce "disorderly" growth in conflict with local land use plans could indirectly cause additional adverse environmental impacts to other public services.

The increase in passengers could result in additional economic growth in the Airport vicinity. However, this increase would occur equally for each of the three replacement terminal options as well as for the No Project Alternative. Since the increase in passengers would occur whether or not a replacement passenger terminal is developed, no indirect effect of growth would occur in the Airport vicinity. The Burbank2035 General Plan already anticipates growth in the Airport vicinity and any replacement passenger terminal would not encourage any additional development or growth that is in addition to, or in conflict with, the Burbank2035 General Plan.

5.4 ENERGY CONSIDERATIONS

5.4.1 Construction

5.4.1.1 Anticipated Energy Consumption

The proposed project would be constructed in phases over a period of approximately ten years. Construction energy consumption would result primarily from transportation fuels (e.g., diesel and gasoline) used for haul trucks, heavy-duty construction equipment, and construction workers traveling to and from the site. Construction energy consumption may vary slightly between the Adjacent Property Full-Size Terminal Option, Southwest Quadrant Full-Size Terminal Option, and Southwest Quadrant Same-Size Terminal Option. In particular, the Southwest Quadrant Same-Size Terminal Option could require less energy due to the smaller replacement passenger terminal floor area. However, this analysis provides the estimated maximum construction energy consumption for the purposes of evaluating the associated impacts on energy resources.

Based on the proposed development program and engineering estimates that form the basis of the construction-related impact analyses, it is estimated that a maximum of approximately 38,550 one-way truck trips would be required to haul the material to off-site reuse and disposal facilities over the construction period. It is conservatively estimated that a maximum of approximately 290,000 one-way vendor truck trips would be required to deliver building materials and supplies to the site over the construction period. Based on the California Air Resources Board (CARB) on-road vehicle emissions model, EMFAC2014, heavy-duty trucks operating in the South Coast Air Basin would have an estimated fuel economy of approximately 6.3 miles per gallon averaged over the construction timeframe. Based on the information described above, construction of the proposed project would use a total of approximately 440,242 gallons of diesel fuel for haul truck and vendor delivery trips. On an annual average basis, haul trucks and vendor delivery trips associated with construction would use approximately 88,000 gallons of diesel fuel per year during the construction period.

Heavy-duty construction equipment associated with demolition, grading, utilities, paving, and building construction would include equipment such as excavators, graders, tractors/loaders/backhoes, dozers, scrapers, air compressors, cranes, forklifts, generators, pumps, welders, rollers, trenchers and pavers. The majority of the equipment would likely be diesel-fueled. However, smaller equipment, such as air compressors and forklifts may be electric-, gasoline-, or natural gas-fueled and tower cranes would likely be electric. For the purposes of this assessment, it is assumed equipment would be diesel-fueled, due to the speculative nature of specifying the amounts and types of non-diesel equipment that might be used, and the difficulties in calculating the energy which would be consumed by this non-diesel equipment. This also represents a worst-case scenario intended to represent the maximum potential energy use during construction. Based on the number and type of construction equipment that would be used during project construction, and based on the estimated duration of construction activities, the project would use approximately 853,000 gallons of diesel fuel for heavy-duty construction equipment.[1] On an annual average basis, heavy-duty construction equipment would use approximately 170,000 gallons of diesel fuel per year.

The number of construction workers that would be required would vary based on the phase of construction and activity taking place. The transportation fuel required by construction workers to travel to and from the project site would depend on the total number of worker trips estimated for the duration of construction activity. According to the EMFAC2014 model, passenger vehicles operating in the South Coast Air Basin would have an average fuel economy of approximately 27.7 miles per gallon averaged over the construction period. Assuming construction worker automobiles have an average fuel economy consistent with the EMFAC2014 model and given the total vehicle miles traveled for construction workers, based on engineering estimates provided in the California Emissions Estimator Model (CalEEMod) used for the air quality and greenhouse gas emissions assessment, workers would travel a total of 10.6 million miles and would use approximately 382,040 gallons of fuel (primarily gasoline) for construction worker trips. On an annual average basis, construction workers would use approximately 76,410 gallons of fuel (primarily gasoline) per year.

In 2014, California consumed a total of 343,568 thousand barrels of gasoline for transportation, which is equivalent to a total annual consumption of 14.4 billion gallons by the transportation sector.[2] For diesel,

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1 Fuel consumption is estimated based on fuel consumption factors in the OFFROAD2011 emissions model and the equipment horsepower and load factor ratings in CalEEMod.

2 U.S. Energy Information Administration, Table F3: Motor Gasoline Consumption, Price, and Expenditure Estimates, 2014, http://www.eia.gov/state/seds/data.cfm?incfile=/state/seds/sep_fuel/html/fuel_mg.html&sid=US. Accessed March 2016.

California consumed a total of 79,756 thousand barrels for transportation, which is equivalent to a total annual consumption of 3.3 billion gallons by the transportation sector.[3]

Based on the conservatively estimated fuel usage amounts presented above, construction of the proposed project would use approximately 76,410 gallons of gasoline and 170,600 gallons of diesel on an annual average basis during the construction period, assuming worker automobiles are primarily gasoline fueled and heavy-duty construction equipment and trucks are primarily diesel-fueled. To put these numbers into perspective, the estimated annual average construction fuel usage would represent a very small fraction of the state's annual fuel usage (about 0.001 percent of the statewide annual gasoline consumption and 0.005 percent of the statewide annual diesel consumption).

Electricity used during construction to provide temporary power for lighting and electronic equipment (e.g., computers, etc.) and to power certain construction equipment would generally not result in a substantial increase in on-site electricity use. Certain heavy-duty construction could be electric or alternatively fueled, such as tower cranes, based on commercial availability. The proposed project would use electric- or alternatively-fueled equipment as available and as feasible. Electricity use during construction would be variable depending on lighting needs and the use of electric-powered equipment and would be temporary for the duration of construction activities. Therefore, it is expected that construction electricity use would generally be considered as temporary and negligible over the long-term.

5.4.1.2 Regulatory Compliance

The proposed project would use construction contractors who demonstrate compliance with applicable CARB regulations governing the accelerated retrofitting, repowering, or replacement of heavy duty diesel on- and off-road equipment. As discussed in **Section 3.4**, CARB has adopted an Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other toxic air contaminants. This measure prohibits diesel-fueled commercial vehicles greater than 10,000 pounds from idling for more than five minutes at any given time. CARB has also approved the Truck and Bus regulation (CARB Rules Division 3, Chapter 1, Section 2025, subsection (h)) to reduce NO_X, PM_{10}, and $PM_{2.5}$ emissions from existing diesel vehicles operating in California. This regulation will be phased in, with full implementation for large and medium fleets by 2023 and for small fleets by 2028. In addition to limiting exhaust from idling trucks, CARB recently promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower. The regulation aims to reduce emissions by requiring the installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models. Implementation began January 1, 2014, and the compliance schedule requires that best available control technology turnovers or retrofits be fully implemented by 2023 for large and medium equipment fleets and by 2028 for small fleets.

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3 U.S. Energy Information Administration, Table F3: Motor Gasoline Consumption, Price, and Expenditure Estimates, 2012, http://www.eia.gov/state/seds/data.cfm?incfile=/state/seds/sep_fuel/html/fuel_use_df.html&sid=US. Accessed March 2016.

While intended to reduce construction criteria pollutant emissions, compliance with the above anti-idling and emissions regulations also would result in efficient use of construction-related energy and the minimization or elimination of wasteful and unnecessary consumption of energy. It is not possible to accurately quantify the amount of energy that construction of a project would save by complying with these regulations due to the difficulties in estimating idling times and technology turnovers in the absence of the regulations. Nonetheless, idling restrictions and the use of newer engines and equipment would result in less fuel combustion and energy consumption.

With respect to solid waste, the Authority would implement a construction waste management plan to recycle and/or salvage a minimum of 75 percent of nonhazardous construction debris as specified in PDF-AIR-1 (see **Section 3.4**). The project would require and utilize construction contractors that can demonstrate compliance with the construction waste management plan requirements in PDF-AIR-1. Through compliance with PDF-AIR-1, the project would achieve a high of waste recycling and reuse rate for construction and demolition debris and minimize wasteful or unnecessary consumption of energy for the production of virgin raw materials.

5.4.1.3 Conclusion

Construction would use energy for necessary on-site activities and to transport materials, soil, and debris to and from the Airport. The amount of energy used would not represent a substantial fraction of the available energy supply in terms of equipment and transportation fuels. Furthermore, compliance with the previously discussed anti-idling and emissions regulations would result in a more efficient use of construction-related energy and the minimization or elimination of wasteful and unnecessary consumption of energy. The proposed project would also implement a construction waste management plan and achieve a high level of waste diversion as specified in PDF-AIR-1. Idling restrictions, the use of newer engines and equipment, and diverting waste would result in less fuel combustion and energy consumption. The project would also utilize newer equipment that meet stringent emissions standards and provide opportunities for future energy efficiency by using electric or alternatively-fueled equipment as available and feasible. Therefore, construction of the proposed project would not result in the wasteful, inefficient, and unnecessary consumption of energy and would not preempt opportunities for future energy conservation.

5.4.2 Operation and Maintenance

5.4.2.1 Anticipated Energy Consumption

Operational energy consumption may vary slightly between the Adjacent Property Full-Size Terminal Option, Southwest Quadrant Full-Size Terminal Option, and Southwest Quadrant Same-Size Terminal Option. In particular, the Southwest Quadrant Same-Size Terminal Option could require less building energy due to the smaller replacement passenger terminal floor area. However, this analysis provides the estimated maximum operational energy consumption for the purposes of evaluating the associated impacts on energy resources.

The project must comply with the applicable portions of the Title 24 Building Standards Code and California Green Building (CALGreen) Code. The proposed project would incorporate Project Design Features in a manner to achieve the reductions in energy and water usage, as well as encourage recycling and waste diversion, above and beyond State regulatory requirements. Physical and operational project characteristics for which sufficient data are available to quantify the reductions from building energy and resource consumption have been included in the quantitative analysis, and include but are not limited to the following measures as discussed in PDF-AIR-1: designing and operating the replacement passenger terminal to meet or exceed the Title 24, Part 11 (CALGreen) Tier 1 standards and optimizing energy performance and reduce building energy cost by at least 15 percent for new commercial construction compared to the Title 24, Part 6 standards; optimizing energy performance and reducing building energy cost by installing energy efficient commercial appliances that meet the U.S. Environmental Protection Agency (USEPA) ENERGY STAR rating standards or equivalent; reducing indoor potable water use within the replacement passenger terminal by installing water fixtures that exceed applicable standards; and providing recycling collection bins within appropriate publicly accessible locations of the replacement passenger terminal.

The daily operation of the replacement passenger terminal and associated facilities would generate demand for electricity, natural gas, and water supply, as well as generating wastewater requiring conveyance, treatment, and disposal off-site, and solid waste requiring disposal off-site. Based on engineering estimates used as the basis for greenhouse gas (GHG) emissions calculations, the proposed project would have an electricity demand of approximately 16.4 million kilowatt-hours (kWh), which is inclusive of approximately 4.1 million kWh for water supply and wastewater treatment.[4] To put this number into perspective, the value is compared to the Burbank Water and Power network demand, which is the utility provider for the City of Burbank. In the fiscal year ending June 30, 2014, Burbank Water and Power had an annual electric supply of approximately 1,153 million kWh. The project represents approximately 1 percent of the Burbank Water and Power network demand for the 2014 fiscal year, which is a relatively very small fraction of the Burbank Water and Power network given the size, scope, and operation of the Airport uses.

Based on engineering estimates used as the basis for GHG emissions calculations, the initial operational year of the project would have a natural gas demand of approximately 6.0 million kilo British thermal units (kBtu) per year.[5] To put this number into perspective, the value is compared to the Southern California Gas Company network demand, which is a regional utility provider for much of Southern California, including the City of Burbank. In 2015, the Southern California Gas Company had natural gas sales of approximately 291 billion cubic feet, equivalent to approximately 306 billion kBtu. The project represents approximately 0.002 percent of the Southern California Gas Company network demand for the 2015 year, which is a very small fraction of the Southern California Gas Company network.

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4 Values are based on the Title 24 (2016) standards. Compliance with future updated Title 24 standards in effect at the time of building permit issuance could result in further reduced energy demand.

5 Values are based on the Title 24 (2016) standards. Compliance with future updated Title 24 standards in effect at the time of building permit issuance could result in further reduced energy demand.

As discussed in **Section 3.8**, Executive Orders S-3-05 and B-30-15 are orders from the State's Executive Branch for the purpose of reducing statewide GHG emissions. These Executive Orders establish the goals to reduce GHG emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. These goals have not yet been codified. However, in order to meet the 2030 and 2050 targets, aggressive technologies in the transportation and energy sectors, including electrification and the decarbonization of fuel, will be required. In its *Climate Change Scoping Plan*, CARB acknowledged that the measures needed to meet the 2050 are too far in the future to define in detail. Although the State has yet to identify specific technologies and measures, in particular for meeting the 2050 target, it is reasonable to conclude that the project's post-2020 emissions trajectory, and associated energy use, is expected to follow a declining trend, consistent with Statewide efforts to meet these future year targets.

5.4.2.2 Alternative Energy Considerations

The use of energy provided by alternative (i.e., renewable) resources, off-site and on-site, to meet the proposed project's operational demands is constrained by the energy portfolio mix managed by Burbank Water and Power and limitations on the availability or feasibility of on-site energy generation.

Burbank Water and Power is required to commit to the use of renewable energy sources for compliance with the Renewables Portfolio Standard. Burbank Water and Power is required to meet the requirement to procure at least 33 percent of their energy portfolio from renewable sources by 2020 through the procurement of energy from eligible renewable resources, to be implemented as fiscal constraints, renewable energy pricing, system integration limits, and transmission constraints permit. SB 350 (Chapter 547, Statues of 2015) further increased the Renewables Portfolio Standard to 50 percent by 2030. The legislation also included interim targets of 40 percent by 2024 and 45 percent by 2027. Eligible renewable resources are defined in the Renewable Portfolio Standard to include biodiesel; biomass; hydroelectric and small hydro (30 Mega Watts [MW] or less); Los Angeles Aqueduct hydro power plants; digester gas; fuel cells; geothermal; landfill gas; municipal solid waste; ocean thermal, ocean wave, and tidal current technologies; renewable derived biogas; multi-fuel facilities using renewable fuels; solar photovoltaic; solar thermal electric; wind; and other renewables that may be defined later. In the fiscal year 2014, Burbank Water and Power provided approximately 29 percent of its annual electric supply from renewable power. This represents the available off-site renewable sources of energy that would meet project demand.

With respect to on-site renewable energy sources, because of the Airport's location, there are no local on-site sources of energy from the following sources: biodiesel, biomass hydroelectric and small hydro, digester gas, fuel cells, geothermal energy, landfill gas, municipal solid waste, ocean thermal, ocean wave, and tidal current technologies, or multi-fuel facilities using renewable fuels.

Solar and wind power represent variable-energy, or intermittent, resources that are generally used to augment, but not replace, natural gas-fired (or other non-renewable fuel) energy power generation, since reliability of energy availability and transmission is necessary to meet demand, which is constant.

Wind-powered energy is not feasible on the project site due to the lack of sufficient wind in the Los Angeles basin. The California Energy Commission (CEC) studied the State's high wind resource potential. Based on a map of California's wind resource potential, the Airport is not identified as an area with wind resource potential. Wind resource areas with winds above 12 mph within Los Angeles County are located in relatively remote areas in the northwestern portion of the County. In addition, wind turbines would generally not be feasible as they could interfere with aircraft operations.

Similarly, solar energy is highly variable in the Los Angeles area, particularly in proximity to the coastline where there is increased cloud cover and an intermittent marine layer, and is therefore not cost-effective or reliable as a primary source of energy. The CEC has identified areas within the State with high potential for viable solar, wind, and geothermal energy production. The CEC rated California's solar potential by county using insolation values available to typical photovoltaic system configurations, as provided by the National Renewable Energy Laboratory. Although Los Angeles as a County has a relatively high photovoltaic potential of 3,912,346 megawatt-hours (MWh)/day, inland counties such as Inyo (10,047,177 MWh/day), Riverside (7,811,694 MWh/day), and San Bernardino (25,338,276 MWh/day) are more suitable for large-scale solar power generation. In addition, most of the high potential areas of greater than 6 KWh/sqm/day in Los Angeles County are concentrated in the northeastern corner of the county around Lancaster, approximately 60 miles to the north of the Airport. These facts alone do not preclude its use in the Airport vicinity or at the Airport. The proposed project would support regional efforts to promote solar installations by incorporating building design elements that includes solar ready rooftops for photovoltaic panels as provided in PDF-AIR-1. As such, the project would promote solar electrical systems. It is not possible to accurately quantify the energy savings from the use of photovoltaic panels since it is unknown the extent that such equipment would be required to be installed.

5.4.2.3 Energy Conservation: Regulatory Compliance

The CEC first adopted the Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Part 11 of the Title 24 Building Standards Code is referred to as the CALGreen Code. The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) planning and design; (2) energy efficiency; (3) water efficiency and conservation; (4) material conservation and resource efficiency; and (5) environmental air quality." As of January 1, 2011, the CALGreen Code is mandatory for all new buildings constructed in the state. The CALGreen Code establishes mandatory measures for new residential and non-residential buildings, which includes requirements for energy efficiency, water conservation, material conservation, planning and design and overall environmental quality. The CALGreen Code was most recently updated in 2013 to include new mandatory measures for residential as well as nonresidential uses; the new measures took effect on January 1, 2014 (the energy provisions took effect on July 1, 2014). The project would comply with or exceed the applicable provisions of Title 24 and the CALGreen Code in affect at the time of building permit issuance. According to the CEC, the Title 24 (2016) standards use 5 percent less energy for nonresidential lighting, heating, cooling, ventilation, and water heating compared to the Title 24 (2013) standards. It is expected that future updates to the Title 24 standards would result in increased energy efficiency. However, it is not possible to accurately predict the increased level of energy efficiency associated with future updates to the Title 24 standards; therefore, the energy estimates provided in this Draft EIR represent the current Title 24 (2016) standards. It is reasonable to expect that the proposed project would achieve greater levels of energy efficiency than provided herein should the CEC adopt future revisions to the standards prior to building permit issuance.

With respect to solid waste, the proposed project is required to comply with applicable regulations, including those pertaining to waste reduction and recycling. Waste haulers serving the Airport would divert project-generated municipal waste in accordance with applicable ordinances as well as future updates to the ordinances in effect at the time of construction and operations.

5.4.2.4 Transportation Estimated Energy Consumption

Operation of the proposed project would result in transportation energy use. Transportation fuels, primarily gasoline and diesel, would be provided by local or regional suppliers and vendors. As discussed previously, in 2014, California consumed a total of 14.4 billion gallons of gasoline and 3.3 billion gallons of diesel in the transportation sector.[6, 7] Passenger vehicles would require a fraction of a percent of the total state's transportation fuel consumption. According to the EMFAC2014 model, the vehicle fleet average fuel economy for passenger vehicles in the Southern California Association of Governments region in 2025 is predicted to be 30.0 miles per gallon for gasoline and 42.2 miles per gallon for diesel with gasoline vehicles accounting for 93.5 percent of the total VMT and diesel vehicles accounting for 0.8 percent of the total VMT. Electric vehicles are predicted to account for 5.7 percent of the total VMT.

Based on the project's maximum estimated VMT of 164.7 million miles per year, passenger vehicles would use approximately 5.1 million gallons of gasoline and 31,220 gallons of diesel fuel in a year. This would represent about 0.04 percent of the statewide gasoline consumption and about 0.001 percent of the statewide diesel consumption, which represents a very small fraction of the state's annual fuel usage. As stated in **Section 3.8**, the proposed project would include pre-installation or installation of electric vehicle supply equipment, which would eliminate infrastructure roadblocks for passengers that purchase electric or electric-hybrid vehicles. As a result, the proposed project would support statewide efforts to improve transportation energy efficiency and reduce wasteful or inefficient transportation energy consumption with respect to private automobiles.

Alternative-fueled, electric, and hybrid vehicles, to the extent these types of vehicles would be used by passengers, would reduce the project's consumption of gasoline and diesel. However, the effect may be

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6 U.S. Energy Information Administration, Table F3: Motor Gasoline Consumption, Price, and Expenditure Estimates, 2014, http://www.eia.gov/state/seds/data.cfm?incfile=/state/seds/sep_fuel/html/fuel_mg.html&sid=US. Accessed March 2016.

7 U.S. Energy Information Administration, Table F3: Motor Gasoline Consumption, Price, and Expenditure Estimates, 2012, http://www.eia.gov/state/seds/data.cfm?incfile=/state/seds/sep_fuel/html/fuel_use_df.html&sid=US. Accessed March 2016.

minimal in current vehicle market. According to the EMFAC2014 model, electric vehicles are predicted to account for 5.7 percent of the passenger vehicle total VMT in 2025 in the region. Based on the estimate above, this would translate to a fuel savings of up to about 312,950 gallons of fuel (primarily gasoline, assuming electric vehicles replace gasoline-fueled passenger vehicles) per year. The Authority does not have the ability to control the type of vehicle passengers drive to the Airport or which mode of transportation (e.g., bus, rail) passengers choose to travel to or from the Airport.

5.4.2.5 Aircraft and Supporting Equipment

Future passenger growth that would occur with or without implementation of the proposed project would result in some increase in aircraft and supporting equipment fuel usage. However, the effect of passenger growth on fuel usage is not linear. Additional passengers do not typically result in a strictly one-to-one growth rate in the number of aircraft landings and take offs (LTOs). Existing aircraft LTOs can to some extent accommodate growth in passengers because many flights currently have unused seat capacity. Future growth in passengers that would occur with or without implementation of the proposed project could provide commercial carriers with options for optimizing and improving the efficiency of flights such that aircraft could fill empty seats with passengers, which would improve the overall fuel efficiency of aircraft and supporting equipment on a per passenger basis. As a result, the project itself would not result in the wasteful, inefficient, and unnecessary consumption of aircraft and supporting equipment energy and would not preempt opportunities for future energy conservation. Future growth that would occur with or without the proposed project could provide opportunities for improving the overall fuel efficiency. Although not project related, the industry trend is toward continued reductions in fuel consumption per passenger.

5.4.2.6 Conclusion

Operation of the proposed project would use energy for necessary on-site activities and off-site transportation associated with passengers traveling to and from the site. The amount of energy used would not represent a substantial fraction of the available energy supply in terms of equipment and transportation fuels. Furthermore, the proposed project would meet or exceed energy standards by incorporating green building measures consistent with City policy with respect to CALGreen Tier 1 compliance. The proposed project would also provide opportunities for future energy efficiency by promoting solar power and electric or alternatively-fueled vehicles. The proposed project itself would not result in the wasteful, inefficient, and unnecessary consumption of aircraft and supporting equipment energy and future growth that would occur with or without the project could provide opportunities for improving overall fuel efficiency. Therefore, operation of the proposed project would not result in the wasteful, inefficient, and unnecessary consumption of energy and would not preempt opportunities for future energy conservation. The proposed project already addresses the wasteful or inefficient use of energy site design to minimize energy consumption. Based on the foregoing, the proposed project won't have any significant energy-related impacts and incorporates various energy conservation measures such that no additional mitigation measures are warranted.

5.5 CUMULATIVE IMPACTS

According to Section 15130 of the CEQA Guidelines, an EIR shall discuss the cumulative impacts of a proposed project. A cumulative impact consists of an impact that is created as a result of the combination of the proposed project evaluated in the EIR together with other projects causing related impacts.

There are a variety of existing and reasonably foreseeable projects in the Airport vicinity (see **Table 3.1-1**).

The cumulative impacts associated with each of the three development options were largely discussed in **Chapter 3**. The following is an overview of these cumulative impacts.

5.5.1 Adjacent Property Full-Size Terminal Option

As discussed in **Chapter 3,** cumulative impacts may occur in certain environmental categories, however, all of those impacts are the result of growth in forecast aircraft operations, other related projects, or both, and would not be attributable to the Adjacent Property Full-Size Terminal Option. Therefore, the Adjacent Property Full-Size Terminal Option's contribution to those potential cumulative impacts would not be cumulatively considerable.

5.5.2 Southwest Quadrant Full-Size Terminal Option

As discussed in **Chapter 3,** cumulative impacts may occur in certain environmental categories, however, all of those impacts are the result of growth in forecast aircraft operations, other related projects, or both, and would not be attributable to the Southwest Quadrant Full-Size Terminal Option. Therefore, the Southwest Quadrant Full-Size Terminal Option's contribution to those potential cumulative impacts would not be cumulatively considerable.

5.5.3 Southwest Quadrant Same-Size Terminal Option

As discussed in **Chapter 3,** cumulative impacts may occur in certain environmental categories, however, all of those impacts are the result of growth in forecast aircraft operations, other related projects, or both, and would not be attributable to the Southwest Quadrant Same-Size Terminal Option. Therefore, the Southwest Quadrant Same-Size Terminal Option's contribution to those potential cumulative impacts would not be cumulatively considerable.

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CHAPTER 6
PUBLIC OUTREACH AND COORDINATION

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6.1 INTRODUCTION

California Environmental Quality Act (CEQA) requirements were considered and adhered to when conducting public involvement activities. The public involvement process was designed to inform the public and agencies about the proposed replacement terminal project, alert the public of the opportunity to raise environmental concerns, and provide the public with an opportunity to review and comment on the replacement terminal development options being analyzed. By receiving and responding to public comments, the Burbank-Glendale-Pasadena Airport Authority (Authority) was able to evaluate and address the public and agency concerns about the social, economic, and environmental effects of the proposed project and determine whether additional environmental analysis and mitigation measures were necessary as part of the preparation of the Draft EIR.

The Authority hired a consultant to conduct the EIR process in November of 2015. A Notice of Preparation (NOP), which informed the public and agencies that an Environmental Impact Report (EIR) would be prepared, was published in December 2015. The public outreach and stakeholder involvement for the EIR, including activities conducted to date and schedule for the remainder of the process, are summarized in **Table 6-1**. **Appendix B**, *Scoping Report*, which contains the public and agency comments received on the NOP, as well as responses to comments. Additionally, **Appendix B** contains the public involvement documentation (e.g., brochures, public workshop presentation materials, etc.) that has been used for this EIR process.

6.2 PUBLIC OUTREACH EFFORTS

Prior to the initiation of the EIR process, the Authority conducted early and continuous public outreach, beginning in 2012, in the form of telephone and online surveys. In addition, prior to the publication of the Final EIR, the Authority provided notification and conducted five workshops as detailed in **Table 6-1**.

6.2.1 Public Workshops

Public information workshops are an important element of the public involvement program. Five outreach opportunities were provided at key junctures. Four were public workshops held during the EIR process. The purpose of these workshops was to inform the public of the study process, obtain public response and input, and to coordinate planning objectives with the needs and concerns of local community organizations and the public at large. The final opportunity for public outreach was held as a formal presentation to interested agencies that briefed them on the EIR process, the Conceptual Term Sheet, and the alternatives considered.

6.2.1.1 Pre-Scoping Informational Workshop

Authority staff and the Authority's consultants were present at the pre-scoping informational workshop to provide information and answer questions. The workshop format included a number of workstations presenting information relating to specific aspects of the proposed project on television monitors. The workstations were staffed by selected representatives to address public comments and questions on a one-to-one basis. A stenographer was available at the workshop to record oral comments. Additionally, tablets and comment forms were made available to the public to provide a written comment.

Table 6-1

EIR Public Involvement Process

DATE	OUTREACH	DETAILS
November 19, 2015	Pre-Scoping Informational Workshop	Informational workshop to introduce the project to the public (see **Appendix B** for workshop materials).
December 1, 2015	Project Website	The website (www.BURreplacementterminal.com) was launched for public viewing.
December 10, 2015	Agency Scoping Meeting	An example letter identifying the date and time of the agency scoping meeting were sent to a variety of agencies (see **Appendix B**)
December 10, 2015	Public Scoping Meeting	Mailing to 52,000 residents and businesses and newspaper ads (see **Appendix B**).
December 22, 2015	NOP Notification and Distribution	Notification of availability of the NOP (see **Appendix A**) and start of formal comment period.
January 31, 2016	End of formal NOP public comment period	NOP formal public comment period closed.
April 29, 2016	Draft EIR Notification and Distribution	Notice of Completion of the Draft EIR (see **Appendix B**) and the start of the formal comment period.
May 19, 2016	Public Scoping Meeting	Public workshop on the Draft EIR (see **Appendix B** for workshop advertisement)
June 1, 2016	Public Scoping Meeting	Public workshop on the Draft EIR (see **Appendix B** for workshop advertisement).
June 6, 2013	Authority Commission Meeting	Public comments on the DEIR received by the Authority.
June 13, 2016	End of formal Draft EIR public comment period	Draft EIR formal public comment period closed.

Source: RS&H, 2016

6.2.1.2 Agency Scoping Workshop

Authority staff and the Authority's consultants were present at the agency scoping meeting. The consultant Project Manager made a formal presentation regarding the EIR process, the Authority's Conceptual Term Sheet (see **Appendix D**), and the alternatives being considered as part of the proposed project. A stenographer was available at the workshop to record oral comments.

6.2.1.3 Public Scoping Workshop

As with the pre-scoping information workshop, Authority personnel staff and the Authority's consultants were present at the public scoping workshops. The format included a number of workstations presenting information relating to specific aspects of the proposed project. The workstations were staffed by selected representatives to address public comments and questions on a one on-one basis. A stenographer was available at the workshop to record oral comments from the public. Additionally, tablets and comment forms were made available to the public to provide a written comment.

6.2.1.4 Draft EIR Public Workshops

Two public workshops were held in conjunction with the publication of the Draft EIR. Public workshops similar in scope to the previous workshops, were held during the 45-day comment period regarding the publication of the Draft EIR.

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6.2.2 Authority Website

The Authority established and maintained an informational website regarding the proposed at the following website address:

http://BURreplacementterminal.com/

Information was provided at the project inception, and updated at the completion of each major task during the EIR process. Website information was updated as needed for announcements of public workshops.

Additionally, a separate comment webpage was established and maintained for the public to submit comments regarding the proposed project at the following webpage address:

http://replaceburterminal.com/

6.2.3 Other Public Outreach Efforts

The Authority created and mailed a brochure to 52,000 residents and businesses regarding the proposed project. The brochure contained information informing residents and businesses of the project website, the purpose of the proposed project, the CEQA process, and the Measure B voting process. **Appendix B** contains the mailed brochure.

The Authority has a Public Relations Department that is committed to keeping the public informed about the proposed project and the EIR process. The Public Relations Department maintains a heavy social media presence (e.g., Facebook, Twitter, and Instagram) and as a result, the public was notified of the outreach workshops via social media. Further, the public was informed of workshop proceedings via the Public Relations Department's real-time use of Twitter and Instagram during each workshop.

6.3 LIST OF PERSONS AND AGENCIES CONSULTED

The consultation process includes notifying agencies, organizations, and individuals of various documents that are produced during the EIR process. The following tables list the agencies, organizations, and individuals that received the NOP, received notification of the publication of the Draft EIR or those entities that were added to the mailing list after the publication of the Draft EIR and will receive notification of the publication of the Final EIR.

6.3.1 Federal Agencies

Table 6-2 lists the federal agencies consulted as part of the EIR.

Table 6-2

Federal Agencies Consulted

Federal Agency	Division
Federal Aviation Administration	Western-Pacific Region

Source: RS&H, 2015

6.3.2 State of California Agencies

Table 6-3 lists the state agencies consulted as part of the EIR.

Table 6-3

State Agencies Consulted

State Agency	Division
California Department of Water Resources	
State Water Resources Control Board	
California Natural Resources Agency	
California Environmental Protection Agency	Region 4; Water Quality Control Board
California Public Utilities Commission	
California Office of Historic Preservation	
California Native American Heritage Commission	
California Department of Fish and Wildlife	Region 5, California Fish and Game
California Department of Transportation	Caltrans, Division of Aeronautics
California Department of Transportation	Caltrans Planning
California Department of Transportation	District 7
California Environmental Protection Agency	Air Resources Board
State Clearinghouse	

Source: RS&H, 2015

6.3.3 Regional Agencies

Table 6-4 lists the regional agencies consulted as part of the EIR.

Table 6-4

Regional Agencies Consulted

Regional Agency	Division
Southern California Association of Governments	
South Coast Air Quality Management District	

Source: RS&H, 2015

6.3.4 U.S. House of Representatives

Table 6-5 lists the U.S. House of Representatives consulted as part of the EIR.

Table 6-5

U.S. House of Representatives Consulted

U.S. House of Representative	Title	District
Adam Schiff	Congressman	California's 28th District
Tony Cárdenas	Congressman	California's 29th District
Brad Sherman	Congressman	California's 30th District

Source: Authority, 2016

6.3.5 State of California Representatives

Table 6-6 lists the State of California Representatives consulted as part of the EIR.

Table 6-6

State Representatives Consulted

State Senate Representative	Title	District
Carol Liu	State Senator	California State Senate, District 25
Daniel Cedeno	District Representative	Office of Senator Carol Liu, District 25
Talin Mangioglu	District Director	Office of Senator Carol Liu, District 25
Fran Pavley	State Senator	California State Senate, District 27
Lauren Gallant	District Director	Office of Senator Fran Pavley, District 27
State Assembly Representative	**Title**	**District**
Chris R. Holden	Assembly Member	Office of Assembly member Chris R. Holden, District 41
Mike Gatto	Assembly Member	California State Assembly, District 43
Matt Dababneh	Assembly Member	California State Assembly, District 45
Adrin Nazarian	Assembly Member	California State Assembly, District 46

Source: Consensus Inc., 2015

6.3.6 Local Agencies

Table 6-7 lists the local agencies consulted as part of the EIR.

Table 6-7

Local Agencies Consulted

Local Agencies	Division	Individual	Title
City of Burbank	Public Information Office	Drew Sugars	Public Information Officer
Los Angeles County Airport Land Use Commission			
City of Glendale	Management Services	Tom Lorenz	Director of Communications and Community Relations
City of Los Angeles			
City of Pasadena	City Manager's Office	William H. Boyer	City Manager's Office

Source: RS&H, 2015

6.3.7 Local Elected Representatives

Table 6-8 lists the local elected representatives consulted about the EIR.

Table 6-8

Local Elected Representatives Consulted

Los Angeles County Representatives	Title	District/Office
Michael D. Antonovich	Supervisor	District 5, County of Los Angeles, Board of Supervisors
Kathryn Barger	Chief Deputy Supervisor	District 5, County of Los Angeles, Board of Supervisors
Jennifer Brogin	Transportation Deputy	District 5, County of Los Angeles, Board of Supervisors
Mike Cano	Transportation Deputy	Office of Los Angeles County, Supervisor Michael Antonovich
Dave Perry	Field Deputy	Office of Los Angeles County, Supervisor Michael Antonovich
Rosalind Wayman	Field Deputy	Office of Los Angeles County, Supervisor Michael Antonovich
Norm Hickling	Field Deputy	Office of Los Angeles County, Supervisor Michael Antonovich
Paul Krekorian	Council Member	District 2, Los Angeles City Council

Table 6-8

Local Elected Representatives Consulted (cont.)

Sheila Kuehl	Supervisor	District 3, County of Los Angeles, Board of Supervisors
Karo Torossian	Planning and Land Use Director	Office of Councilmember Paul Krekorian
Burbank Planning Commission	**Title**	**District/Office**
Diane Eaton	Boardmember	Community Development Department, Planning Division
Apraham Atteukenian	Boardmember	Community Development Department, Planning Division
Undine M. Petrulis	Boardmember	Community Development Department, Planning Division
Kimberly Jo	Vice Chair	Community Development Department, Planning Division
Christopher Rizzotti	Chair	Community Development Department, Planning Division
City of Burbank, City Council	**Title**	**District/Office**
Bob Frutos	Mayor	City of Burbank
Jess Talamantes	Vice Mayor	City of Burbank
Emily Gabel-Luddy	Councilmember	City of Burbank
Dr. David Gordon	Councilmember	City of Burbank
Will Rogers	Councilmember	City of Burbank
City of Glendale, City Council	**Title**	**District/Office**
Ara Najarian	Mayor	City of Glendale
Paula Devine	Councilmember	City of Glendale
City of Glendale, City Council	**Title**	**District/Office**
Laura Friedman	Councilmember	City of Glendale
Vartan Gharpetian	Councilmember	City of Glendale
Zareh Sinanyan	Councilmember	City of Glendale
City of Pasadena, City Council	**Title**	**District/Office**

Table 6-8

Local Elected Representatives Consulted (cont.)

Terry Tornek	Mayor	City of Pasadena
Tyron A.L. Hampton	Councilmember	District 1
Margaret McAustin	Councilmember	District 2
John J. Kennedy	Councilmember	District 3
Gene Masuda	Vice Mayor & Councilmember	District 4
Victor M. Gordo, Esq.	Councilmember	District 5
Steve Madison	Councilmember	District 6
Andy Wilson	Councilmember	District 7

Source: Consensus Inc., 2015

6.3.8 Other Public / Private Entities

Table 6-9 lists other public and private entities consulted as part of the EIR.

Table 6-9

Other Public and Private Entities Consulted

Burbank Unified School District Board	Title	Entity
Charlene Tabet	President	Burbank Unified School District
Larry Applebaum	Vice President	Burbank Unified School District
Steve Ferguson	Clerk	Burbank Unified School District
Dr. Armond Aghakhanian	Member	Burbank Unified School District
Roberta Reynolds	Member	Burbank Unified School District
Burbank Business Organizations	**Title**	**Individual**
The Walt Disney Company	Vice President	Deanna Detchemendy
	Director, Corporate Real Estate, Asset Management & Production Services	Adam Gilbert
	Vice President, Government Relations	Lisa Pitney

Table 6-9

Other Public and Private Entities Consulted (cont.)

Burbank Chamber of Commerce	President, CEO	Tom Flavin
Burbank Town Center		Jim O'Neil
Woodbury University	President	Dr. David Steele
Warner Bros.	VP Public Affairs	Michael Walbrecht
Valley Economic Alliance	President, CEO	Kenn Phillips
Valley Industry and Commerce Association	Chair	Coby King
Universal City/North Hollywood Chamber of Commerce	Executive Director	Michelle Gillstrap
Burbank Community Based Organizations	Title	Individual
Burbank Noon Lions	President	William Narez
Burbank Noon Kiwanis	President	Cynthia Faust
Burbank Community Based Organizations	Title	Individual
Burbank Sunrise Kiwanis	President	Jack Reardon
Burbank Sunrise Rotary	President	Suzanne Cox
Zonta Club of Burbank	President	Brittany Vaughn
Burbank Noon Rotary	President	Renay Johnson
Glendale Business Organizations	Title	Individual
Glendale Chamber of Commerce	CEO	Judee Kendall
Glendale Community Based Organizations	Title	Individual
Glendale Kiwanis Club	Club Secretary	Susan Dell
Glendale Rotary Club		
Northwest Glendale Lions Club	Club Secretary	Ross Adams
Pasadena Community Based Organizations	Title	Individual
Pasadena Rotary Club		
Pasadena Host Lions Club		
Kiwanis Club of Pasadena		Craig Wallace
Pasadena Jaycees		

Table 6-9

Other Public and Private Entities Consulted (cont.)

Pasadena Business Organizations	Title	Individual
Innovate Pasadena	Director of Marketing and Operations	Celina Guerrero
Pasadena Chamber of Commerce	President, CEO	Paul Little
Leadership Pasadena		
North Lake Village Business Association		
Pasadena Community Foundation	Executive Director	Jennifer Gleming DeVoll
Old Pasadena Management District	President, CEO	Steve Mulheim
Pasadena Playhouse District	Executive Director	Erlinda Romo
Rose Bowl Operations Company	General Manager	Darryl Dunn
Pasadena Center Operating Company	CEO	Michael Ross
Pasadena Heritage	Executive Director	Sue Mossman
South Lake Business Association		
Pasadena City College Student Affairs	Dean of Student Life	Rebecca L. Cobb
Pasadena Visitors and Convention Bureau	Sr. Director of Sales and Marketing	Jeanne O'Grady
Pasadena-Foothills Association of Realtors		

Source: Consensus Inc., 2015

CHAPTER 7
GLOSSARY AND ABBREVIATIONS

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The following are abbreviations or acronyms that are used in this environmental impact report (EIR). These are being provided for ease of reference in identifying terms that are used in the EIR.

AAC – Aircraft Approach Category

AB – Assembly Bill

AC – Advisory Circular

ACM – Asbestos Containing Material

ADA – Americans with Disabilities Act

ADG – Airplane Design Group

AEDT – Aviation Environmental Design Tool

AHCAC – Available Hexavalent Chromium Attenuation Capacity

Air Basin – South Coast Air Basin

Airport – Burbank Bob Hope Airport

ALP – Airport Layout Plan

ALUC – Airport Land Use Commission

ALUP – Airport Land Use Plan

ANCA – Airport Noise and Capacity Act of 1990

AOC – Areas of Concern

APLL – Aircraft Parking Limit Line

AQMP – Air Quality Management Plan

ARC – Airport Reference Code

ARFF – Aircraft Rescue and Fire Fighting

ARM – Ambient Ratio Method

Asbestos O&M Plan – Asbestos Operation & Management Plan

ASCE – American Society of Civil Engineers

ASF – Age Sensitivity Factors

ASP – Airport Security Plan

AST – Aboveground Storage Tank

ATCM – Air Toxics Control Measure

ATCT – Airport Traffic Control Tower

Authority – Burbank-Glendale-Pasadena Airport Authority

AWDPM – Average Weekday Peak Month

BACT – Best Available Control Technology

Basin Plan – Water Quality Control Plan

BAU – Business-as-usual

BFD – Burbank Fire Department

BGPAAFD – Burbank-Glendale-Pasadena Airport Authority Fire Department

BGPAAPD – Burbank-Glendale-Pasadena Airport Authority Police Department

BMC – Burbank Municipal Code

BMP – Best Management Practice

BPD – Burbank Police Department

BRL – Building Restriction Line

BWP – Burbank Water and Power

BWRP – Burbank Water Reclamation Plant

CAAQS – California Ambient Air Quality Standards

CalEEMod – California Emissions Estimator Model

CalEPA – California Environmental Protection Agency

CALGreen – California Green Building Standards

California Register – California Register of Historical Places

CalRecycle – Department of Resources Recycling and Recovery

Calsites – State's Calsites Database

Caltrans – California Department of Transportation

CAPCOA – California Air Pollution Control Officers Association

CARB – California Air Resources Board

CAT – Climate Action Team

CBC – California Building Code

CCR – California Code of Regulations

CDFW – California Department of Fish and Wildlife

CEC – California Energy Commission

CEM – Conceptual Exposure Model

CESA – California Endangered Species Act

CEQ – Council on Environmental Quality

CEQA – California Environmental Quality Act

CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act

CERS – California Environmental Reporting System

CEUS – Commercial End-Use Survey

CFCP – California Farmland Conservancy Program

CFR – Code of Federal Regulations

CGS – California Geological Survey

CHL – California Historical Landmarks

CHRIS – California Historic Resources Inventory System

CIWMA – California Integrated Waste Management Act

CIWMB – California Integrated Waste Management Board

CIWMP – Los Angeles Countywide Integrated Waste Management Plan

CLUP – Comprehensive Land Use Plan

CMP – Congestion Management Program

CNDDB – California Natural Diversity Database

CNPS – California Native Plant Society

CNRA – California Natural Resources Agency

COC – Contaminant of Concern

Commission – California Fish and Game Commission

CPHI – California Points of Historical Interest

CPUC – California Public Utilities Commission

CRA – Colorado River Aqueduct

CRPR – California Rare Plant Ranks

CSE – Countywide Siting Element

CUPA – Certified Unified Program Agency

CY – Cubic Yards

DEA – Drug Enforcement Administration

DEIR – Draft Environmental Impact Report

DNL – Day/Night Noise Level

DOF – California Department of Finance

DPF – Diesel Particulate Matter Filter

DPM – Diesel Particulate Matter

DTSC – Department of Toxic Substances Control

EIR – Environmental Impact Report

EMAS – Engineered Material Arresting System

EMS – Emergency Medical Service

EMT – Emergency Medical Technician

EPA – U.S. Environmental Protection Agency

EPCRA – Emergency Planning and Community Right-to-Know Act

EQ Basin – Equalization Basin

ESA – Environmental Site Assessment

FAA – Federal Aviation Administration

FAR – Federal Aviation Regulations

FBO – Fixed Based Operator

FEIR – Final Environmental Impact Report

FESA – Federal Endangered Species Act

FIND – Facility Information Detail

FIRM – Flood Insurance Rate Maps

FMMP – Farmland Mapping and Monitoring Program

FTA – Federal Transit Authority

FTE – Full Time Equivalent

GA – General Aviation

GGRP – Greenhouse Gas Reduction Plan

GIS – Geographic Information System

GPD – Gallons Per Day

GPM – Gallons Per Minute

GSE – Ground Service Equipment

HABS – Historic American Buildings Survey

HARP – Hotspots Analysis and Reporting Program

HCM – High Capacity Manual

HHWE – Household Hazardous Waste Element

HIST CORTESE – Historical Hazardous Waste and Substances Sites List

HRA – Health Risk Assessment

HRI – Historical Resources Inventory

HSR – High Speed Rail

HVAC – Commercial Heating, Ventilation, and Air-Condition

HWCL – California Hazardous Waste Control Law

I-I – Internal-Internal

I/I – Inflow and Infiltration

IFR – Instrument Flight Rules

INM – Integrated Noise Model

IPCC – Intergovernmental Panel on Climate Change

I-X – Internal-External

JPA – Joint Powers Agreement

LACDPW – Los Angeles County Department of Public Works

LACFD – Los Angeles County Fire Department

LACWMD – Los Angeles County Waste Management Division

LADWP – Los Angeles Department of Water and Power

LAFD – Los Angeles Fire Department

LAPD – Los Angeles Police Department

LBP – Lead-Based Paint

LEA – Local Enforcement Agency

LED – Light-Emitting Diode

LID – Low-Impact Development

LOS – Level of Serivce

LST – Localized Significance Threshold

LTOs – Aircraft Landings and Take Offs

MATES IV – Multiple Air Toxics Exposure Study

MBTA – Migratory Bird Treaty Act

MCL – Maximum Contaminant Level

MERV – Minimum Efficiency Reporting Value

Metropolitan – Metropolitan Water District

MGD – Million Gallons Per Day

MICR – Maximum Individual Cancer Risk

MLD – Most Likely Descendent

Mmax – Maximum moment magnitude

MMT – Million Metric Tons

MRR – Mandatory Reporting Rule

MRZ – Mineral Resource Zone

MS4 – Municipal Separate Storm Sewer System

MSL – Mean Sea Level

NAHC – Native American Heritage Commission

National Register – The National Register of Historic Places

NDFE – Non-Disposal Facility Element

NEHRP – National Earthquake Hazards Reduction Program

NEHRPA – National Earthquake Hazards Reduction Program Act

NEPA – National Environmental Policy Act

NFA – No Further Action

NHMLAC – Natural History Museum of Los Angeles County

NHPA – National Historic Preservation Act

NM – Noise Metric

NMFS – National Marine Fisheries Service

NOI – Notice of Intent

NOP – Notice of Preparation

NOS – North Outfall Sewer

NPDES – National Pollution Discharge Elimination System

NPS – National Park Service

OEHHA – Office of Environmental Health Hazards Assessment

OFA – Object Free Area

OHP – Office of Historic Preservation

OSHA – Occupational Safety and Health Administration

OU – Operable Units

PCBs – Polychlorinated Biphenyls

PCE - Tetrachloroethene

PD – Planned Development

PDFs – Project Design Features

PGA – Peak Ground Acceleration

PID – Photo-Ionization Detector

POI – Point of Interest

POTW – Publicly Owned Treatment Works

PPD – Pounds Per Day

PPM – Parts Per Million

PUC – Public Utilities Commission

PV – Solar Photovoltaic

QA/QC – Quality Assurance / Quality Control

RCRA – Resource Conservation and Recovery Act

RCV – Recycled Content Value

REL – Reference Exposure Level

RHNA – Regional Housing Needs Assessment

RITC – Regional Intermodal Transportation Center

RPS – Replacement Parking Structure

RPZ – Runway Protection Zones

RSA – Runway Safety Area

RTP – Regional Transportation Plan

RTIP – Regional Transportation Improvement Program

RWQCB – Regional Water Quality Control Board

SB – Senate Bill

SCAG – Southern California Association of Governments

SCAQMD – South Coast Air Quality Management District

SCCIC – South Central Coastal Information Center

SCEC – Southern California Earthquake Center

SCHR – South Coast Hydrologic Region

SCS – Sustainable Communities Strategy

SEL – Sound Exposure Level

SLF – Sacred Lands File

SMARA – Surface Mining and Reclamation Act

SMP – Soil Management Plan

SPLP – Synthetic Precipitation Leaching Procedure

SRI – Solar Reflective Index

SRPS – State's Renewables Portfolio Standard

SRRE – Source Reduction and Recycling Element

SSECAP – Sewer System Evaluation and Capacity Assurance Plan

SSMP – Sewer System Management Plan

SSO – Sanitary Sewer Overflow

STIP – State Transportation Improvement Program

SUSMP – Standard Urban Stormwater Mitigation Plan

SWH – Solar Water Heating

SWP – State Water Project

SWPP – Stormwater Pollution Prevention Plan

SWQDv – Stormwater Quality Design Volume

SWRCB – State Water Resources Control Board

TAC – Toxic Air Contaminant

TAF – Terminal Area Forecast

TCE – Trichloroethene

TDS – Total Dissolved Solids

TIA – Traffic Impact Analysis

TMDL – Total Maximum Daily Load

TMO – Transportation Management Organization

TNC – Transportation Network Company

TSA – Transportation Security Administration

TSCA – Toxic Substances Control Act

UBC – Uniform Building Code

USACE – U.S. Army Corps of Engineers

USC – U. S. Code

USFWS – U.S. Fish and Wildlife Service

USGS – United States Geological Service

UWMP – Urban Water Management Plan

UST – Underground Storage Tank

V/C – Volume to Capacity

VEC – Vapor Encroachment Condition

VFCC – Verdugo Fire Communications Center

VFR – Visual Flight Rules

VMT – Vehicle-Miles Traveled

VOCs – Volatile Organic Compounds

VPHPL – Vehicles Per Hour Per Lane

WIP – Well Investigation Program

WSA – Water Supply Assessment

X-I – External-Internal

ZEV – Zero Emissions Vehicle

CHAPTER 8
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CHAPTER 9
LIST OF PREPARERS

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RS&H has prepared the EIR under contract to the Burbank-Glendale-Pasadena Airport Authority (Authority). Persons directly involved in the preparation and review of the EIR include:

9.1 BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY

Daniel Feger, P.E., Executive Director.

John Hatanaka, Senior Deputy Executive Director.

Mark Hardyment, Director, Government and Environmental Affairs.

Lucy Burghdorf, Director, Public Affairs and Communications.

Maggie Martinez, Noise and Environmental Compliance.

Rachael Warecki, Public Relations and Media Specialist.

9.2 RS&H TEAM

9.2.1 RS&H

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Julie Barrow, RS&H Team Deputy Project Manager.

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Joseph Jackson, Project Officer.

Nicholas Kozlik, LEED GA, Project Environmental Specialist.

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Lindsay Maron, P.E., CFM, Project Engineer.

Clayton Singleton, EIT, Project Engineer.

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William Willkie, Quality Assurance / Quality Control (QA/QC) Manager.

9.2.2 CONSENSUS, INC.

Andrea Campbell, Public Outreach Project Manager.

Andres Ramos, Public Outreach Deputy Project Manager.

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9.2.3 GIBSON TRANSPORTATION CONSULTING

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9.2.4 PCR ESA SERVICES CORPORATION

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9.3 CONSULTANTS TO BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY

9.3.1 CONWAY CONSULTING

Mark Conway, President.

RS&H