

CHAPTER 3
AFFECTED ENVIRONMENT

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3.1 INTRODUCTION

The Affected Environment chapter provides a description of the existing conditions in and around the vicinity of the Bob Hope “Hollywood-Burbank” Airport (BUR or Airport) that may be directly or indirectly affected by the Proposed Action and the No Action Alternative as described in Chapter 2, *Alternatives* of this Environmental Impact Statement (EIS).

This chapter describes the existing conditions of the geographic areas that may be affected by the Proposed Project and alternatives, as required by Federal Aviation Administration (FAA) Order 1050.1F, *Environmental Impacts: Policies and Procedures*.

In accordance with FAA Order 1050.1F paragraph 4-1, this Environmental Impact Statement (EIS) considers the following environmental resource categories:

- » Air quality
- » Biological resources
- » Climate
- » Coastal resources
- » U.S. Department of Transportation Act (U.S. DOT), Section 4(f)¹
- » Farmlands
- » Hazardous materials, solid waste, and pollution prevention
- » Historical, architectural, archeological, and cultural resources
- » Land use
- » Natural resources and energy supply
- » Noise and noise-compatible land use
- » Socioeconomics, environmental justice, and children’s environmental health and safety risks
- » Visual effects
- » Water resources (including wetlands, floodplains, surface waters, groundwater, and wild and scenic rivers)

¹ Section 4(f) of the U.S. DOT Act provides protection for that are publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance; and publicly or privately owned land from an historic site of national, state, or local significance.

3.2 STUDY AREAS

The Airport is located south of the Golden State Freeway (Interstate 5) and is about 17 miles north of downtown Los Angeles. The Airport lies about 700 feet above mean sea level and occupies about 555 acres, within which all Airport facilities are located. The majority of the Airport lies within the city of Burbank. However, the northern part of the airfield and western portion of Airport property west of the airfield lies within the city of Los Angeles.

The Airport's existing passenger terminal building is divided into two separate concourses and a main terminal building. The airfield contains two intersecting runways 15-33 and 8-26 with related parallel and connecting taxiways.

Exhibits 1.2-1 and 1.2-2 in Chapter 1, Purpose and Need, depict the Airport location.

Two study areas for the Proposed Project were identified for use in describing existing conditions in the Airport area and evaluating the potential impacts of the Proposed Project and alternatives. These two areas—identified as the Detailed Study Area and the General Study Area—are shown in **Exhibit 3.2-1**.

The Detailed Study Area is defined by the Airport property boundary, which encompasses about 555 acres located both in portions of the cities of Burbank and Los Angeles. This study area consists of areas where "direct," or physical ground-disturbance, impacts² could occur from construction of the Proposed Project and other reasonable alternatives.

The General Study Area of about 4,900 acres encompasses the Detailed Study Area and includes portions of the cities of Burbank and Los Angeles. The General Study Area delineates a larger geographic area to assess "indirect" impacts³ that could occur in the surrounding communities. Indirect impacts may include effects on air quality, noise-sensitive land uses, socioeconomic conditions, historic and cultural resources, or U.S. DOT Act, Section 4(f) resources. The General Study Area boundary is based on the current 65-decibel (dB) Community Noise Equivalent Level (CNEL)^{4 5} noise contour, with the boundary lines adjusted to follow major roadways in the area (see **Exhibit 3.2-2**).

² 40 CFR § 1508.8(a) (1978) states in part: "Direct effects... are caused by the action and occur at the same time and place."

³ 40 CFR § 1508.8(b) (1978) states: "Indirect effects... are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable."

⁴ Community Noise Equivalent Level (CNEL) is the average A-weighted noise level (dBA) during a 24-hour day, adjusted to apply a 10-decibel (dB) penalty during nighttime hours (from 10:00 p.m. to 7:00 a.m.) and an additional 5-dB penalty during evening hours (from 7:00 p.m. to 10:00 p.m.).

⁵ See Appendix B, paragraph B-1 of FAA Order 1050.1F and Chapter 1, paragraph 9(n) of FAA Order 5050.4B.

**EXHIBIT 3.2-1
STUDY AREAS**



Source: Bob Hope Airport Property Boundary from ALP and Current (March 2016) CNEL 65 dB noise contour.

EXHIBIT 3.2-2
GENERAL STUDY AREA AND 2018 CNEL 65 dB NOISE CONTOUR



Source: RS&H, 2020.

3.3 ENVIRONMENTAL RESOURCES NOT AFFECTED

This section describes environmental resources that would not be affected by the Proposed Project or alternatives. The environmental resources described in the subsections below are not present in either the Detailed Study Area or the General Study Area and, therefore, would not be impacted by any of the alternatives identified in this EIS. Since these environmental resources would not be affected by any of the alternatives, they are not discussed further in this EIS and there is no analysis provided for them in this EIS.

3.3.1 Coastal Resources

According to the California Coastal Commission Coastal Zone Boundary map, the study areas are not within the coastal zone.⁶ The coastal zone boundary generally extends inland from the ocean 1,000 yards from the mean high-tide line. The Airport is located about 15 miles northeast of the Pacific Ocean.

3.3.2 Farmlands

Both study areas lie within an area that the U.S. Census Bureau (USCB) has identified as urban.⁷ Under Section 523(10)(B) of the Farmland Protection Policy Act, USCB-identified urbanized areas are not subject to the provisions of the Farmland Protection Policy Act. Therefore, the Farmland Protection Policy Act does not apply to either study area.

3.3.3 Wetlands

According to the U.S. Fish and Wildlife Service's (USFWS) National Wetlands Inventory, there are no wetlands within either study area.⁸ This was confirmed by a visual inspection of the Detailed Study Area. There is a drainage channel located to the north of the proposed replacement passenger terminal building, but this area is completely paved and therefore, not suitable for a wetland designation under Title 33 Code of Federal Regulations (CFR) § 328.3(a).

⁶ State of California. (2018). California Coastal Commission, Coastal Zone Boundary Map. Retrieved July 2018, from State of California: <https://www.coastal.ca.gov/maps/czb/>.

⁷ U.S. Census Bureau. (2010). 2010 Census Urbanized Area Reference Map, Los Angeles-Long Beach-Anaheim, California. Retrieved July 2018, from U.S. Census Bureau: https://www2.census.gov/geo/maps/dc10map/UAUC_RefMap/ua/ua51445_los_angeles--long_beach--anaheim_ca/DC10UA51445_000.pdf.

⁸ U.S. Fish and Wildlife Service. (2018). National Wetlands Inventory. Retrieved July 2018, from U.S. Fish and Wildlife Service: <https://www.fws.gov/wetlands/data/mapper.html>.

3.3.4 Wild and Scenic Rivers

According to the Nationwide Rivers Inventory, managed by the National Park Service, there are no designated wild and scenic rivers within either study area.⁹ The nearest designated Wild and Scenic River segment is the Sespe Creek, located in Ventura County about 43 miles northwest of the Airport.

3.4 AIR QUALITY

3.4.1 Regulatory Context

See **Appendix D** for air quality regulations.

3.4.2 Existing Conditions

The Detailed Study Area is located within the South Coast Air Basin, which the U.S. Environmental Protection Agency (U.S. EPA) has designated as a nonattainment area because it does not currently meet the National Ambient Air Quality Standards (NAAQS) for certain pollutants regulated under the Clean Air Act (CAA). As a result, an Air Quality Modeling Protocol was developed for analyzing the impacts associated with air pollutant emissions (see **Appendix E**). This protocol was coordinated with the U.S. EPA, California Air Resources Board (CARB) and the South Coast Air Quality Management District (SCAQMD), and the Southern California Association of Governments (SCAG) prior to its use in this EIS and the accompanying Draft General Conformity Determination.

California Health and Safety Code Section 39607(e) requires CARB to establish and periodically review the designation criteria it uses to determine the attainment status of air pollutants with respect to the California Ambient Air Quality Standards (CAAQS). **Table 3.4-1** summarizes the attainment status of the Los Angeles County portion of the air basin with respect to the National and State of California air quality standards. CARB has designated the air basin as in attainment of the CAAQS for sulfates and as unclassified for hydrogen sulfide and visibility-reducing particles.

⁹ National Park Service. (2020). Nationwide Rivers Inventory. Retrieved July 2020, from National Park Service: <https://www.nps.gov/subjects/rivers/nationwide-rivers-inventory.htm>.

TABLE 3.4-1
SOUTH COAST AIR BASIN ATTAINMENT STATUS (LOS ANGELES COUNTY)

Pollutant	National Standards	California Standards
Ozone (O ₃) (1-hour standard)	N/A ^{/a/}	Nonattainment – Extreme
Ozone (O ₃) (8-hour standard)	Nonattainment – Extreme ^{/b/}	Nonattainment
Carbon Monoxide (CO)	Attainment	Attainment
Nitrogen Dioxide (NO ₂)	Attainment	Attainment
Sulfur Dioxide (SO ₂)	Attainment	Attainment
Particulate Matter (PM ₁₀)	Attainment	Nonattainment
Particulate Matter (PM _{2.5})	Nonattainment	Nonattainment
Lead (Pb)	Nonattainment ^{/c/}	Attainment
Visibility-Reducing Particles	N/A	Unclassified
Sulfates (SO ₄)	N/A	Attainment
Hydrogen Sulfide	N/A	Unclassified
Vinyl Chloride	N/A	N/A ^{/d/}

Notes:

N/A = not applicable

/a/ The U.S. EPA revoked the 1-hour NAAQS for ozone on June 15, 2005, for all areas except Early Action Compact areas.

/b/ The South Coast Air Basin is in “nonattainment–extreme” for both the 2008 and 2015 Federal standards.

/c/ Partial nonattainment designation is for the Los Angeles County portion of the air basin only for near-source monitors. It is expected to be redesignated to attainment based on current monitoring data.

/d/ In 1990, CARB identified vinyl chloride as a TAC and determined it does not have an identifiable threshold. Therefore, CARB does not monitor or make status designations for this pollutant.

Sources: U.S. EPA, 2015; CARB, 2015.

The SCAQMD maintains a network of air quality monitoring stations throughout the South Coast Air Basin to measure ambient pollutant concentrations. The Burbank Monitoring Station provided monitoring data that most represents air quality at the Airport. However, use of this station was discontinued in 2014. Until its closure, criteria pollutants monitored at this station included O₃, NO₂, SO₂, CO, PM₁₀, and PM_{2.5}. The nearest representative monitoring station for lead (Pb) is the Central Los Angeles County Monitoring Station. In addition, the Central Los Angeles County Monitoring Station collects data regarding pollutants such as O₃, NO₂, SO₂, CO, PM₁₀, and PM_{2.5}; this data is currently the most representative ambient air quality conditions being collected. **Table 3.4-2** summarizes the pollutant concentration data for Central Los Angeles station for the 2012 to 2016 years and **Table 3.4-3**

**TABLE 3.4-2
CENTRAL LOS ANGELES STATION AMBIENT AIR QUALITY DATA**

Pollutant/Standard	2012	2013	2014	2015	2016
Ozone (O₃) (1-hour)					
Maximum Concentration (ppm)	0.117	0.110	0.091	0.104	0.103
Days > CAAQS (0.09 ppm)	8	4	0	2	0
Ozone (O₃) (8-hour)					
Maximum Concentration (ppm)	0.088	0.083	0.079	0.074	0.078
4th High 8-hour Concentration (ppm)	0.081	0.079	0.069	0.072	0.071
Days > CAAQS (0.070 ppm)	15	17	2	0	4
Days > NAAQS (0.075 ppm)	8	6	1	6	1
Nitrogen Dioxide (NO₂) (1-hour)					
Maximum Concentration (ppm)	0.08	0.07	0.07	0.08	0.06
98th Percentile Concentration (ppm)	0.06	0.06	0.07	0.06	0.06
Days > CAAQS (0.18 ppm)	0	0	0	–	–
Nitrogen Dioxide (NO₂) (Annual)					
Annual Arithmetic Mean (0.030 ppm)	0.022	0.020	0.022	0.022	0.021
Carbon Monoxide (CO) (1-hour)					
Maximum Concentration (ppm)	–	–	3.0	3.2	1.9
Days > CAAQS (20 ppm)	–	–	0	–	–
Days > NAAQS (35 ppm)	–	–	0	–	–
Carbon Monoxide (CO) (8-hour)					
Maximum Concentration (ppm)	2.4	2.4	3.0	1.8	1.4
Days > CAAQS (9 ppm)	0	0	0	–	–
Days > NAAQS (9 ppm)	0	0	0	–	–
Sulfur Dioxide (SO₂) (1-hour)					
Maximum Concentration (ppm)	0.006	0.011	0.005	0.013	0.013
99th Percentile Concentration (ppm)	0.003	0.004	0.004	0.006	0.003
Days > CAAQS (0.25 ppm)	0	0	0	–	–
Days > NAAQS (0.075 ppm)	0	0	0	–	–
Sulfur Dioxide (SO₂) (24-hour)					
Maximum Concentration (ppm)	–	–	–	–	–
Days > CAAQS (0.04 ppm)	–	–	–	–	–
Days > NAAQS (0.14 ppm)	–	–	–	–	–
Particulate Matter (PM₁₀) (24-hour)					
Maximum Concentration (µg/m ³)	55	52	60	88	67
Samples > CAAQS (50 µg/m ³)	1	1 (2%)	1	26 (8%)	18 (6%)
Samples > NAAQS (150 µg/m ³)	0	0	0	0	0
Particulate Matter (PM₁₀) (Annual Average)					
Annual Arithmetic Mean (20 µg/m ³)	26.4	28.5	31.2	33	32.4

Pollutant/Standard	2012	2013	2014	2015	2016
Particulate Matter (PM_{2.5}) (24-hour)	54.2	45.1	–	56.4	44.39
Maximum Concentration (µg/m ³)	28.2	30.4	–	38	27.3
98th Percentile Concentration (µg/m ³)	2	4 (1.2%)	–	7 (2.0%)	2 (0.6%)
Samples > NAAQS (35 µg/m ³)					
Particulate Matter (PM_{2.5}) (Annual)	12.2	12.2	–	12.38	11.83
Annual Arithmetic Mean (12 µg/m ³)					
Lead (Pb)					
Maximum 30-day average (µg/m ³)	0.014	0.013	0.013	0.013	0.016
Samples > CAAQS (1.5 µg/m ³)	0	0	0	–	–

Notes:

µg/m³ = micrograms/per cubic meter

ppb = parts per billion

ppm = parts per million

CAAQS = California Ambient Air Quality Standards

NAAQS = National Ambient Air Quality Standards

Source: SCAQMD Historical Data, 2015.

TABLE 3.4-3
EAST SAN FERNANDO VALLEY (BURBANK) AMBIENT AIR QUALITY DATA

Pollutant/Standard	2012	2013	2014
Ozone (O₃) (1-hour)			
Maximum Concentration (ppm)	0.117	0.110	0.091
Days > CAAQS (0.09 ppm)	8	4	0
Ozone (O₃) (8-hour)			
Maximum Concentration (ppm)	0.088	0.083	0.079
4th High 8-hour Concentration (ppm)	0.081	0.079	0.069
Days > CAAQS (0.070 ppm)	15	17	2
Days > NAAQS (0.075 ppm)	8	6	2
Nitrogen Dioxide (NO₂) (1-hour)			
Maximum Concentration (ppm)	0.08	0.07	0.07
98th Percentile Concentration (ppm)	0.06	0.06	0.07
Days > CAAQS (0.18 ppm)	0	0	-
Nitrogen Dioxide (NO₂) (Annual)			
Annual Arithmetic Mean (0.030 ppm)	0.022	0.020	0.022

Pollutant/Standard	2012	2013	2014
Carbon Monoxide (CO) (1-hour)			
Maximum Concentration (ppm)	–	–	3.0
Days > CAAQS (20 ppm)	–	–	-
Days > NAAQS (35 ppm)	–	–	-
Carbon Monoxide (CO) (8-hour)			
Maximum Concentration (ppm)	2.4	2.4	3.0
Days > CAAQS (9 ppm)	0	0	-
Days > NAAQS (9 ppm)	0	0	-
Sulfur Dioxide (SO₂) (1-hour)			
Maximum Concentration (ppm)	0.007	0.011	0.005
99th Percentile Concentration (ppm)	0.003	0.004	0.004
Days > CAAQS (0.25 ppm)	-	-	-
Days > NAAQS (0.075 ppm)	-	-	-
Sulfur Dioxide (SO₂) (24-hour)			
Maximum Concentration (ppm)	–	–	–
Days > CAAQS (0.04 ppm)	–	–	–
Days > NAAQS (0.14 ppm)	–	–	–
Particulate Matter (PM₁₀) (24-hour)	55	52	68
Maximum Concentration (µg/m ³)	1	1 (2%)	2(1%)
Samples > CAAQS (50 µg/m ³)	0	0	0
Samples > NAAQS (150 µg/m ³)			
Particulate Matter (PM₁₀) (Annual Average)			
Annual Arithmetic Mean (20 µg/m ³)	26.4	28.5	31.2
Particulate Matter (PM_{2.5}) (24-hour)	54.2	45.1	64.6
Maximum Concentration (µg/m ³)	28.2	30.4	29
98th Percentile Concentration (µg/m ³)	2	4 (1.2%)	2(1.1%)
Samples > NAAQS (35 µg/m ³)			
Particulate Matter (PM_{2.5}) (Annual)	12.2	12.2	12.08
Annual Arithmetic Mean (12 µg/m ³)			
Lead (Pb)			
Maximum 30-day average (µg/m ³)	-	-	-
Samples > CAAQS (1.5 µg/m ³)	-	-	-

Source: SCAQMD Historical Data, 2015.

summarizes the pollutant concentration data for the East San Fernando Valley (Burbank) station for 2012 through 2014. Both the Burbank and Central Los Angeles County Monitoring Stations are included for completeness and to show trends in the monitoring data at the two most representative stations.

3.4.2.1 Regional Pollutant Levels

FAA Orders 1050.1F and 5050.4B (and the associated FAA Order 1050.1F Desk Reference) provide guidance on addressing hazardous air pollutants (HAPs). The FAA's 2015 *Aviation Emissions and Air Quality Handbook*, Chapter 6.2, *Hazardous Air Pollutants*, provides the most applicable guidance regarding HAPs pollutants in FAA documents prepared in compliance with the National Environmental Policy Act.¹⁰ There are no NAAQS for HAPs, but these compounds are regulated under the Federal CAA. These pollutants are comprised of a wide array of organic and inorganic compounds (e.g., formaldehyde, acetaldehyde, benzene, toluene, acrolein, 1,3-butadiene, xylene, lead, naphthalene, propionaldehyde). These compounds are present in the exhaust of motor vehicle engines and, to a lesser extent, are emitted from boilers, fuel facilities, and other stationary sources. Although HAPs are not measured at fixed monitoring stations, the SCAQMD's Multiple Air Toxics Exposure Studies (MATES) I-IV demonstrated a decrease in mobile and stationary-source emissions HAPs emissions over time.¹¹

Additionally, the California Clean Air Act (CCAA), administered by the California Air Resources Board (CARB), requires all air districts in the state to achieve and maintain the California Ambient Air Quality Standards (CAAQS). These standards are generally more stringent than the federal standards and include four additional pollutants: sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particulates.¹² California law does not require that CAAQS be met by specified dates as is the case with NAAQS. Rather, it requires incremental progress toward attainment.¹³ However, attainment of the NAAQS has precedence over attainment of the CAAQs.¹⁴ Furthermore, the air quality significance determination in this EIS

¹⁰ FAA. (2015). *Aviation Emissions and Air Quality Handbook*, Version 3 Update 1. Retrieved September 2018, from FAA: https://www.faa.gov/regulations_policies/policy_guidance/envir_policy/airquality_handbook/media/Air_Quality_Handbook_Appendices.pdf.

¹¹ South Coast Air Quality Management District. (2015). *Final Report – Multiple Air Toxics Exposure Study in the South Coast Air Basin*. Retrieved November 2018, from South Coast Air Quality Management District: <http://www.aqmd.gov/docs/default-source/air-quality/air-toxic-studies/mates-iv/mates-iv-final-draft-report-4-1-15.pdf>.

¹² A discussion on CAAQS are included in this discussion per FAA Order 1050.1F, Desk Reference: "When discussing the existing conditions in the study area, refer to the following ... Applicable state ambient air quality standards."

¹³ California Air Resources Board. (2020). California Ambient Air Quality Standards. Retrieved May 2020, from California Air Resources Board: <https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards>.

¹⁴ Additional information regarding the California Ambient Air Quality Standards (CAAQS) is provided in Appendix D Regulatory Standards of the EIS.

shall be based on whether the Proposed Project, when compared to the No Action alternative, would cause pollutant concentrations to exceed one or more of the NAAQS for any of the time periods analyzed, or to increase the frequency or severity of any such existing violations. The CAAQs have no bearing on this determination. Also, Section 176(c) of the federal Clean Air Act requires federal agencies to ensure that their actions conform to the appropriate State Implementation Plan (SIP) for air basins that have not attained the NAAQS or are maintenance areas.

3.4.2.2 Existing Sources

Existing mobile sources of emissions at the Airport include aircraft (landings, takeoffs, taxiing) and ground support equipment. Other mobile sources of emissions include automobiles and buses that carry passengers and employees to and from the Airport. Stationary sources of emissions are associated with heating, cooling, lighting, and generation of electrical power for buildings, including the existing passenger terminal building, maintenance and cargo buildings, and hangars and buildings associated with general aviation. The year 2018 was the most recent full year with data available for terminal building operations when the study commenced. The 2018 operational emissions are presented in **Table 3.4-4**.

TABLE 3.4-4
2018 OPERATIONAL EMISSIONS INVENTORY (TONS PER YEAR)

Source	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Area	4.30	<0.01	0.11	<0.01	<0.01	<0.01
Energy	0.02	0.21	0.18	<0.01	0.02	0.02
Emergency Generators	0.09	1.77	1.09	<0.01	0.01	0.01
Mobile - Passengers	29.46	64.53	271.27	0.63	55.44	15.53
Mobile - Employees	1.24	1.09	12.52	0.03	2.87	0.77
Aircraft	109.08	175.53	1,197.79	39.17	2.29	2.29
Ground Support Equipment	7.54	27.08	161.88	1.22	1.52	1.52
Total	151.72	270.21	1,644.83	41.04	62.14	20.14

Notes:

CO = carbon monoxide

NO_x = oxides of nitrogen

PM₁₀ = particulate matter less than or equal to 10 microns in diameter

PM_{2.5} = particulate matter less than or equal to 2.5 microns in diameter

SO₂ = sulfur dioxide

VOC = volatile organic compounds

Source: ESA, 2020.

3.5 BIOLOGICAL RESOURCES

3.5.1 Regulatory Context

See **Appendix D** for regulations associated with biological resources.

3.5.2 Existing Conditions

3.5.2.1 Literature Review

Relevant literature on the biological resources was reviewed, including the USFWS Information for Planning and Consultation (IPaC) for information on federally-listed species and critical habitat in the Airport vicinity, and the California Natural Diversity Database (CNDDDB) for information on special-status species and sensitive habitats in the Airport vicinity.^{15 16} The results of the IPaC query and the Airport's previous documentation on biological resources are included in **Appendix F**. The results of the IPaC query identified the following federally-listed species: California condor (*Gymnogyps californianus*), coastal California gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo bellii pusillus*), Gambel's watercress (*Rorippa gambellii*) and Nevin's barberry (*Berberis nevinii*). No designated critical habitat for these species or other federally-listed species was identified in the IPaC query. In addition, both the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants for special-status plant species recorded in the Airport vicinity and the Airport's previous documentation on biological resources at the Airport were reviewed.^{17 18}

3.5.2.2 Field Investigation

A qualified biologist conducted a general biological survey and vegetation mapping on September 26, 2018, to document existing conditions and inventory plant and wildlife species observed within the Detailed Study Area. The qualified biologist directly mapped plant communities in the field using an aerial photograph. Plant community names, codes, and descriptions follow *A Manual of California*

¹⁵ U.S. Fish and Wildlife Service. (2018). Information, Planning, and Consultation System (IPaC), Official Species List. Retrieved September 24, 2018, from U.S. Fish and Wildlife Service.

¹⁶ California Department of Fish and Wildlife. (2018). Wildlife Habitat and Data Analysis Branch, California Natural Diversity Database, data request for the Oat Mountain, San Fernando, Sunland, Condor Peak, Canoga Park, Van Nuys, Burbank, Pasadena, Topanga, Beverly Hills, Hollywood, and Los Angeles 7.5-minute USGS topographic quadrangles. Retrieved August 2018, from: California Department of Fish and Wildlife.

¹⁷ California Native Plant Society. (2018). Electronic Inventory of Rare and Endangered Plants of California, data request for the Oat Mountain, San Fernando, Sunland, Condor Peak, Canoga Park, Van Nuys, Burbank, Pasadena, Topanga, Beverly Hills, Hollywood, and Los Angeles 7.5-minute USGS topographic quadrangles. Retrieved August 2018, from California Native Plant Society: <http://www.cnps.org/inventory>.

¹⁸ Burbank-Glendale-Pasadena Airport Authority. (2016). *Environmental Impact Report for a Replacement Airline Passenger Terminal at Burbank Bob Hope Airport*.

*Vegetation.*¹⁹ After completing the survey, the qualified 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 in the Detailed Study Area, as well as any diagnostic signs (calls, tracks, nests, scat, remains, or other sign), were recorded in field notes. The qualified biologist used binoculars and regional field guides to identify wildlife, as necessary. Because common names for species vary among references, this discussion presents the scientific names at the first mention of each species, after which their common names are used throughout this section.

Land Cover

The qualified biologist observed two land cover types during the site visit: developed areas and disturbed areas. The literature review did not identify any plant communities within the Detailed Study Area (see **Exhibit 3.5-1**). All plant species observed within the Detailed Study Area are included below in the descriptions of the two land covers.

Developed Areas

Developed areas consist of a variety of impervious surfaces, such as pavements for runways, taxiways, aircraft parking aprons, buildings, Airport Traffic Control Tower, hangars, roadways, and automobile parking lots. Only non-native species were found in association with developed areas (e.g., planted vegetation in the paved parking lots or along streets) including fern pine tree (*Afrocarpus gracilior*), Mexican fan palm (*Washingtonia robusta*), queen palm (*Syagrus romanzoffiana*), Brazilian pepper (*Schinus terebinthifolius*), magnolia (*Magnolia grandiflora*), Crape myrtle (*Lagerstroemia indica*), and London plane tree (*Platanus × acerifolia*).

Developed areas account for approximately 430.8 acres and are shown on **Exhibit 3.5-1**.

Disturbed Areas

Areas that have been heavily disturbed by human activities support little to no vegetation. Undeveloped portions of the Airport are considered disturbed by Airport activities, and soil stabilizer with a soil sterilizer is used on these areas to prevent excessive vegetation growth. The plants that are found in disturbed areas are

¹⁹ Sawyer, John O.; Keeler-Wolf, Todd; and Evens, Julie M. (2009). *A Manual of California Vegetation*, Second Edition.

typically ruderal (weedy) species. During the survey of disturbed areas, the qualified biologist identified the following species: Mexican fan palm, tree-of-heaven (*Ailanthus altissima*), redstem filaree (*Erodium cicutarium*), Russian thistle (*Salsola tragus*), puncture vine (*Tribulus terrestris*), African daisy (*Gazania* sp.), flatspine bur ragweed (*Ambrosia acanthicarpa*), Bermuda grass (*Cynodon dactylon*), African fountain grass (*Pennisetum setaceum*), wild oat (*Avena fatua*), cheeseweed (*Malva parviflora*), lambs quarters (*Chenopodium album*), spotted spurge (*Euphorbia maculata*), and sprangletop (*Leptochloa* sp.). Native species included telegraphweed (*Heterotheca grandiflora*), Canadian horseweed (*Erigeron canadensis*), wire lettuce (*Stephanomeria* sp.), and scalebroom (*Lepidospartum squamatum*). Airport maintenance crews regularly mow these disturbed areas to ensure vegetation does not get too high and provide a roosting or loafing area for various species of wildlife under 36 CFR Part 139²⁰, as discussed and required within the Airport's Wildlife Hazard Management Plan (WHMP).²¹ Disturbed areas in the Detailed Study Area are primarily found along undeveloped areas adjacent to the runway and in gravelly, empty lots that are not paved. Disturbed areas account for approximately 124.7 acres and are shown on **Exhibit 3.5-1**.

Federally-Listed, State-Listed, and Special-Status Species and Critical Habitat

During the literature review, which included the IPaC, CNDDDB, and CNPS databases queries, five federally-listed species and an additional four state-listed species were identified (see **Table 3.5-1**). However, the Detailed Study Area does not support native plant communities and does not contain any habitat suitable for supporting federally- or state-listed species. In addition, there are no known occurrences of federally- or state-listed species or other special-status species in the Detailed Study Area. Although burrowing owl (*Athene cunicularia*) is not a federally- or state-listed species, it is species protected under the Migratory Bird Treaty Act (MBTA) and a California Species of Special Concern associated with disturbed lands, including those within or adjacent to airports. Therefore, this evaluation considered the potential for species occurrence, as discussed below. The Detailed Study Area does not contain habitat suitable for supporting other special-status species. The nearest designated critical habitat is approximately 3.3 miles to the north of the Detailed Study Area for the Southwestern willow flycatcher (*Empidonax traillii*).

²⁰ 36 CFR Part 139 § 337

²¹ AMEC Environment & Infrastructure, Inc. (2014, May) *Bob Hope Airport Wildlife Hazard Management Plan*.

**EXHIBIT 3.5-1
BIOLOGICAL RESOURCES IN DETAILED STUDY AREA**



Sources: ESA, 2018; RS&H, 2018.

**TABLE 3.5-1
FEDERALLY-LISTED, STATE-LISTED, AND SPECIAL STATUS SPECIES OBSERVED DURING SITE SURVEY IN
DETAILED STUDY AREA**

Species	Listing Status^{/a/}	Habitat	Observed During Site Survey
California condor	FE, SE	Require vast expanses of open savannah, grasslands, and foothill chaparral in mountain ranges of moderate altitude. Deep canyons containing clefts in the rocky walls provide nesting sites. Forages up to 100 miles from roost/nest.	No
Coastal California gnatcatcher	FT, SC	Obligate, permanent resident of coastal sage scrub below 2500 ft in Southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	No
Least Bell's vireo	FE, SE	Riparian forest, riparian scrub, riparian woodland. Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	No

Species	Listing Status ^{/a/}	Habitat	Observed During Site Survey
Gambel's watercress	FE, ST	Marshes and swamps. Freshwater and brackish marshes at the margins of lakes and along streams, in or just above the water level. 5-305 m.	No
Nevin's barberry	FE, SE	Chaparral, cismontane woodland, coastal scrub, riparian scrub. On steep, N-facing slopes or in low grade sandy washes. 290-1575 m.	No
Bank swallow	ST	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	No
Beach spectaclepod	ST	Coastal dunes, coastal scrub. Sea shores, on sand dunes, and sandy places near the shore. 3-65 m.	No
Swainson's hawk	ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields	No

Species	Listing Status ^{/a/}	Habitat	Observed During Site Survey
		supporting rodent populations.	
Tricolored blackbird	ST	Freshwater marsh, marsh & swamp, swamp, wetland. Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	No
Burrowing Owl	SC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	No

Notes:

/a/ - FE – Federally Endangered, FT – Federally Threatened, SE – State Endangered, ST – State Threatened, SC – State Species of Concern

Sources: USFWS, 2018; CNDDDB, 2018; CNPS, 2018; RS&H, 2020.

Non-Sensitive Species

During the survey of the Detailed Study Area, the qualified biologist observed the following common non-sensitive species: American kestrel (*Falco sparverius*), cliff swallow (*Petrochelidon pyrrhonota*), common raven (*Corvus corax*), killdeer (*Charadrius vociferus*), mourning dove (*Zenaida macroura*), house finch (*Haemorhous mexicanus*), northern mockingbird (*Mimus polyglottos*), red-tailed hawk (*Buteo jamaicensis*), Say's phoebe (*Sayornis saya*), western meadowlark

(*Sturnella neglecta*), unidentified hummingbird species, California ground squirrel (*Otospermophilus beecheyi*), and western fence lizard (*Sceloporus occidentalis*). In addition, the qualified biologist observed one large mammal burrow believed to be made by coyote (*Canis latrans*), and other potential burrows in the form of culverts or actual California ground squirrel burrows. **Exhibit 3.5-1** shows the locations of the burrows observed in the Detailed Study Area.

Two wildlife species were documented onsite during a 2016 survey (see **Appendix F** for field notes) but were not observed during the 2018 survey: Anna's hummingbird (*Calypte anna*) and American crow (*Corvus brachyrhynchos*).

Migratory Birds

According to the IPaC, there is the potential for 11 migratory bird species to be found on Airport property.²² However, the Airport property does not support native plant communities but developed areas of the Detailed Study Area contain trees and shrubs that are suitable habitat for nesting songbirds protected under the MBTA. However, to ensure airport safety, Airport maintenance crews regularly remove vegetation that may attract nesting birds to deter them from establishing on Airport property.

As a holder of an operating certificate issued by the FAA under 14 CFR Part 139, the Airport implements a WHMP, as required by 36 CFR § 139.337, to deter wildlife from establishing on Airport property. As part of the plan, maintenance crews remove wildlife and wildlife attractants (e.g., rodents and small mammals) that may attract other wildlife, such as burrowing owls and raptors, to the area. Wildlife can collide with aircraft causing significant damage to the aircraft and have resulted in fatal aircraft accidents.

3.6 CLIMATE

3.6.1 Regulatory Context

See **Appendix D** for climate regulations.

3.6.2 Existing Conditions

Climate change is a global phenomenon that has local impacts.²³ Therefore, the affected environment for climate change effects is defined as the entire geographic

²² U.S. Fish and Wildlife Service. (2018). Information, Planning, and Consultation System (IPaC), Official Species List. Retrieved September 24, 2018, from U.S. Fish and Wildlife Service.

²³ FAA. (2015, July). *1050.1F Desk Reference*, Chapter 3. *Climate*. Retrieved June 2019, from FAA: https://www.faa.gov/about/office/org/headquarters_offices/apl/enviro_policy_guidance/policy/faq_nepa_order/desk_ref/media/desk-ref.pdf.

area that could be either directly or indirectly affected by the Proposed Project. The study area consists of both the Detailed Study Area and the General Study Area.

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. As noted by Council on Environmental Quality (CEQ), *"climate change is a particularly complex challenge given its global nature and inherent interrelationships among its sources, causation, mechanisms of action and impacts...."* CEQ has also noted, *"it is not currently useful for the NEPA analysis to attempt to link specific climatological changes, or the environmental impacts thereof, to the particular project or emissions, as such direct linkage is difficult to isolate and to understand."*²⁴ Nonetheless, the Intergovernmental Panel on Climate Change (IPCC's) AR5 states 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 greenhouse gas concentrations and other anthropogenic forces [sic] together."*²⁵ 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.²⁶ 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.²⁷

A 2018 update to Safeguarding California Plan builds from the 2009 California Climate Adaptation Strategy document to guide California towards improved climate resiliency and is a roadmap showing how California's state government is taking

²⁴ 79 Federal Register 77802 (December 24, 2014). *Revised Draft Guidance for Federal Departments and Agencies, Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate change in National Environmental Policy Act Reviews.*

²⁵ IPCC. (2013). *Fifth Assessment Report, Summary for Policy Makers*, pg. 15. Retrieved June 2020, from IPCC: https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_SPM_FINAL.pdf.

²⁶ Anderegg, William R. L., J.W. Prall, J. Harold, S.H. Schneider. (2010). *Expert Credibility in Climate Change, Proceedings of the National Academy of Sciences of the United States of America*. 107: 12107-12109.

²⁷ U. S. Global Change Research Program. (2018). *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II*. Retrieved April 2019, from U.S. Global Change Research Program: <https://nca2018.globalchange.gov/>.

action to respond to climate change.²⁸ The 2018 Update to the Safeguarding California Plan lays out the next steps to achieve the State's goals and how those objectives will be achieved. Over 1,000 ongoing actions and next steps, organized by 76 policy recommendations across 11 policy sectors, were developed through the scientific and policy expertise of staff from 38 state agencies. In accordance with the 2009 California Climate Adaptation Strategy, the California Energy Commission (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. The information provided on the CalAdapt website represents a projection of potential future climate scenarios comprised of local average values for temperature, sea level rise, snowpack, and other data representative of a variety of models and scenarios, including potential social and economic factors.

CARB compiles greenhouse gas (GHG) inventories for the State of California; however, emissions from interstate and international aviation diesel emissions are not included in the GHG emission inventory.²⁹ As explained by CARB in its Technical Support Document to the 2000-2014 statewide GHG inventory, CARB staff opted to not include GHG emissions resulting from aviation fuel purchased in California and used for interstate flights based upon jurisdictional interpretation of IPCC protocols.³⁰ Emissions from other sources (ground service equipment, taxiing of aircraft and engines running while on ground, other land based vehicles) are included in the GHG emission inventory. Based on the 2016 GHG inventory data (i.e., the latest year for which data are available from CARB), California emitted 429.4 Million Metric tons of Carbon Dioxide Equivalent (MMTCO_{2e}), as shown in **Table 3.6-1**.

The year 2018 was the most recent full year with data available for terminal building operations when the study commenced. The 2018 operational GHG emissions are presented in **Table 3.6-2**.

²⁸ California Natural Resources Agency. (2018). *Safeguarding California Plan: 2018 Update to California's Climate Adaptation Strategy*. Retrieved April 2019, from California Natural Resources Agency: <http://resources.ca.gov/climate/safeguarding/>.

²⁹ California Air Resources Board. (2018). *Greenhouse Gas Emissions for 2000 to 2016*, 2018 edition. Retrieved October 2018, from: California Air Resources Board: https://www.arb.ca.gov/cc/inventory/pubs/reports/2000_2016/ghg_inventory_trends_00-16.pdf.

³⁰ California Air Resources Board. (2016). *California's 2000-2014 Greenhouse Gas Emission Inventory, Technical Support Document*, 2016 edition. Retrieved on May 2020, from California Air Resources Board: https://www3.arb.ca.gov/cc/inventory/doc/methods_00-14/ghg_inventory_00-14_technical_support_document.pdf.

**TABLE 3.6-1
STATE OF CALIFORNIA GHG EMISSIONS**

Category	Total 1990 Emissions using IPCC Second Assessment Report ^{/a/} (MMTCO₂e)	Percent of Total 1990 Emissions	Total 2016 Emissions using IPCC Fourth Assessment Report (MMTCO₂e)	Percent of Total 2016 Emissions
Transportation	150.7	35%	167	39%
Electric Power	110.6	26%	69	16%
Commercial	14.4	3%	21	5.3%
Residential	29.7	7%	30	6.6%
Industrial	103.0	24%	90	21%
Recycling and Waste ^{/b/}	–	–	9	2%
High GWP/Non-Specified ^{/c/}	1.3	<1%	20	4.6%
Agriculture/Forestry	23.6	6%	34	7.9%
Forestry Sinks	-6.7		– ^{/d/}	–
Net Total (IPCC Second Assessment Report)	426.6	100%	–	–
Net Total (IPCC Fourth Assessment Report)^{/e/}	431	100%	429.4	100%

Notes:

ICPP = Intergovernmental Panel on Climate Change

MMTCO₂e = million metric tons of carbon dioxide equivalent

/a/ GWPs and associated CO₂e values were developed by the IPCC and published in its Second Assessment Report (SAR) in 1996. Historically, GHG emission inventories have been calculated using the GWPs from the IPCC's SAR. The IPCC updated the GWP values based on the latest science in its AR4. The CARB reports GHG emission inventories for California using the GWP values from the IPCC AR4.

/b/ Included in other categories for the 1990 emissions inventory.

/c/ High global warming potential (GWP) gases include hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). High GWP gases are not specifically called out in the 1990 emissions inventory.

/d/ Revised methodology under development (not reported for 2012).

/e/ CARB revised the state's 1990-level GHG emissions using GWPs from the IPCC AR4.

Source: California Air Resources Board, 2007.

TABLE 3.6-2
2018 GHG OPERATIONS EMISSIONS INVENTORY AT THE AIRPORT

Emission Source	Estimated GHG Emissions Inventory in CO_{2e} (MT/year) for 2018
Area	< 1
Building Energy (electricity/natural gas)	7,098
Waste	236
Water treatment/conveyance	2,462
Emergency Generators	199
Mobile	61,959
Aircraft	105,520
Ground Support Equipment	714
Total Emissions	178,189

Notes:

CO_{2e} = carbon dioxide equivalent

Source: ESA, 2020.

3.7 U.S. DEPARTMENT OF TRANSPORTATION ACT, SECTION 4(F)

3.7.1 Regulatory Context

See **Appendix D** for U.S. Department of Transportation Act, Section 4(f) resources regulations.

3.7.2 Existing Conditions

3.7.2.1 U.S. Department of Transportation Act, Section 4(f) Resources

Section B-2 of FAA Order 1050.1F states: *"Section 4(f) of the U.S. Department of Transportation Act of 1966 (now codified at 49 USC § 303) protects significant publicly owned parks, recreational areas, wildlife and waterfowl refuges, and public and private historic sites. Section 4(f) provides that the Secretary of Transportation may approve a transportation program or project that requires the use of any publicly owned land from a public park, recreation area, or wildlife or waterfowl refuge of national, state, or local significance, or land from any publicly or privately owned historic site of national, state, or local significance, only if there is no feasible and prudent alternative to the use of such land and the program or project includes all possible planning to minimize harm resulting from the use."*

FAA has included the various parks in the vicinity of the Airport to be considered as

U.S. DOT Section 4(f) properties. Additionally, as stated in FAA 1050.1F Desk Reference, any project that would use a Section 4(f) resource must also comply with Section 6(f) if that resource was purchased or developed with funds from the Land and Water Conservation Fund Act.

The closest wildlife refuge to the Detailed Study Area is Seal Beach, which is over 32 miles southeast of the General Study Area.³¹ Because there are no wildlife or waterfowl refuges within the General Study Area, no further discussion of refuges is provided.

There are no Section 6(f) resources within the General Study Area. The closest Section 6(f) resource to the General Study Area is the Angeles National Forest, located about five miles northeast.³² Because there are no Section 6(f) resources within the General Study Area, no further analysis of this topic is provided.

There are 14 U.S. DOT Act, Section 4(f) resources within the General Study Area.³³
³⁴ ³⁵ These resources are shown in **Exhibit 3.7-1** and described below.

De Garmo Park

De Garmo Park is owned and maintained by the City of Los Angeles. It is an approximately three-acre park with picnic tables and playground equipment open to the public (see Resource 1 on **Exhibit 3.7-1**).

Chandler Bikeway

The Chandler Bikeway, a 2.8-mile linear park, was converted by the City of Burbank from a former railroad track in 2004 (see Resource 2 on **Exhibit 3.7-1**). Two miles of bikeway traverse the General Study Area.

³¹ U.S. Fish and Wildlife Service. (2018). National Wildlife Refuge System, California. Retrieved June 2018, from U.S. Fish and Wildlife Service: <https://www.fws.gov/refuges/refugeLocatorMaps/California.html>.

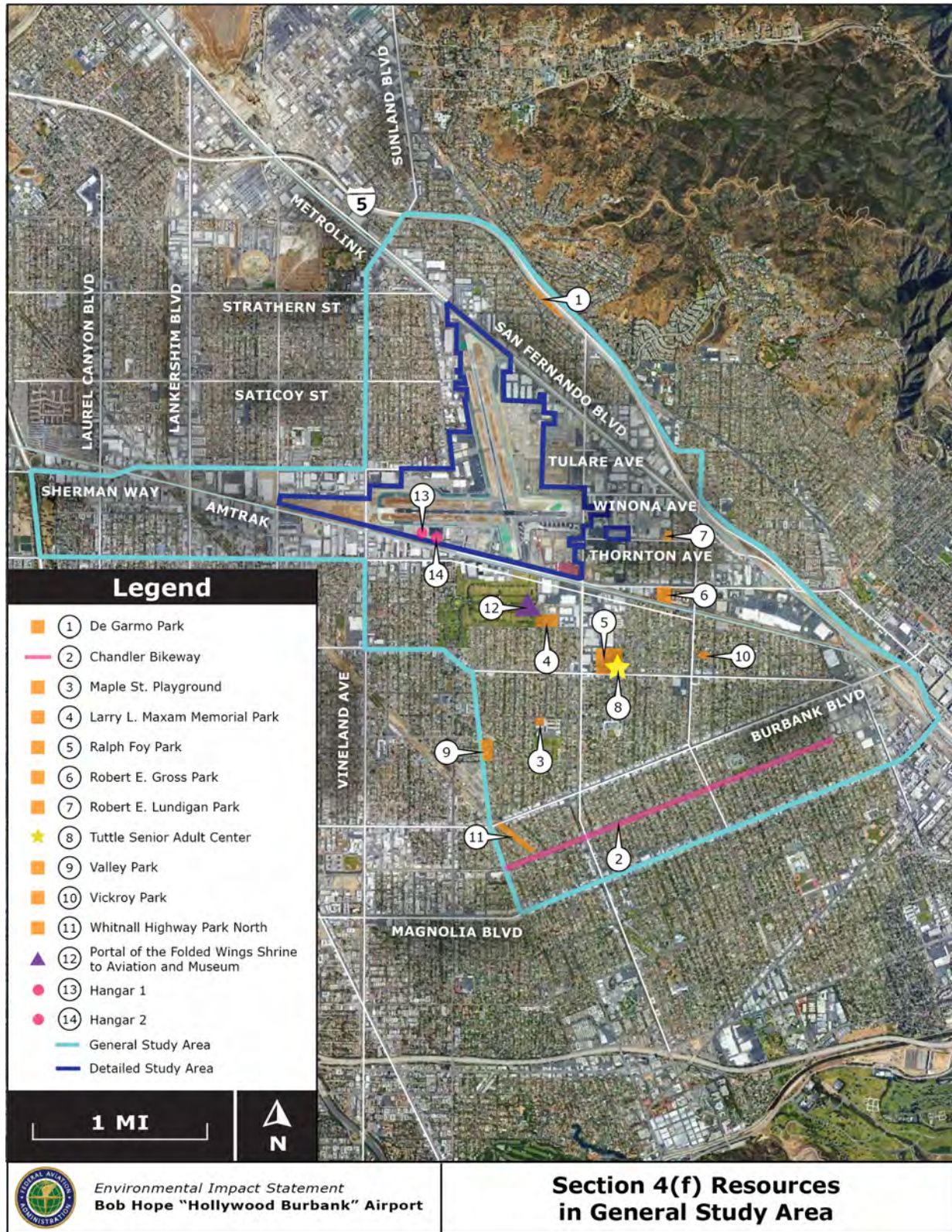
³² National Park Service. (2018). Land and Water Conservations Fund, Resources, California. Retrieved June 2018, from U.S. National Park Service: <https://static1.squarespace.com/static/58a60299ff7c508c3c05f2e1/t/5994595c59cc688311907a63/1502894429109/California+fact+sheet+8.16.17.pdf>.

³³ City of Burbank. (2018). Parks and Recreation, Parks & Facilities. Retrieved June 2018, from City of Burbank: www.burbankca.gov/departments/parks-and-recreation/parks-facilities.

³⁴ City of Los Angeles. (2018). Department of Recreation and Parks. Retrieved July 2018, from City of Los Angeles: <https://www.laparks.org/park/de-garmo>.

³⁵ U.S. EPA. (2018). NEPAassist, Bob Hope "Hollywood Burbank" Airport. Retrieved June 2018, from U.S. Environmental Protection Agency: <https://nepassisttool.epa.gov/nepassist/nepamap.aspx?wherestr=bob+hope+airport>.

EXHIBIT 3.7-1
SECTION 4(f) RESOURCES IN GENERAL STUDY AREA



Sources: City of Burbank, 2018; City of Los Angeles, 2018; RS&H, 2020.

Maple Street Playground

The Maple Street Playground is owned and maintained by the City of Burbank. It is an approximately 0.5-acre neighborhood park with playground equipment and picnic tables open to the public (see Resource 3 on **Exhibit 3.7-1**).

Larry L. Maxam Memorial Park

The Larry L. Maxam Memorial Park is owned and maintained by the City of Burbank. It is an approximately five-acre park with a basketball court, baseball field, tennis court, playground equipment, and picnic tables open to the public (see Resource 4 on **Exhibit 3.7-1**).

Ralph Foy Park

Ralph Foy Park is owned and maintained by the City of Burbank. It is an approximately 11-acre park with a baseball field, fitness equipment, playground area, and picnic tables available to the public (see Resource 5 on **Exhibit 3.7-1**).

Robert E. Gross Park

Robert E. Gross Park is owned and maintained by the City of Burbank. It is an approximately four-acre park with a baseball field, playground area, and picnic tables available to the public (see Resource 6 on **Exhibit 3.7-1**).

Robert E. Lundigan Park

Robert E. Lundigan Park is owned and maintained by the City of Burbank. It is an approximately one-acre park with a basketball court, playground area, and picnic tables available to the public (see Resource 7 on **Exhibit 3.7-1**).

Tuttle Senior Adult Center

The Tuttle Senior Adult Center is owned and operated by the City of Burbank. This recreational facility provides activities and dining services for adults over the age of 55 (see Resource 8 on **Exhibit 3.7-1**).

Valley Park

Valley Park is owned and maintained by the City of Burbank. It is an approximately four-acre park with a baseball field, playground area, and picnic tables available to the public (see Resource 9 on **Exhibit 3.7-1**).

Vickroy Park

Vickroy Park is owned and maintained by the City of Burbank. It is an approximately one-acre park with a basketball court, horseshoe pit, outdoor table tennis, playground area, and picnic tables available to the public (see Resource 10 on **Exhibit 3.7-1**).

Whitnall Highway Park North

Whitnall Highway Park North is owned and maintained by the City of Burbank. This approximately 4.5-acre park within the General Study Area provides open green space to the public (see Resource 11 on **Exhibit 3.7-1**).

Portal of the Folded Wings Shrine to Aviation and Museum

The Portal of the Folded Wings Shrine to Aviation and Museum in Burbank is listed on the National Register for Historic Places (NRHP) for architectural significance (see Resource 12 on **Exhibit 3.7-1**).³⁶ Built in 1924, this landmark was originally the entrance to the privately owned Valhalla Memorial Park, which was closed in 1930 when the Airport opened.

Hangar 1

Hangar 1, located in the southwest quadrant of the Airport, has been determined as eligible for listing on the NRHP by the FAA and concurred with by the State Historic Preservation Officer (SHPO) (see **Section 3.9** and **Section 4.8** for more details). Hangar 1 is shown as Resource 13 on **Exhibit 3.7-1**.

Hangar 2

Hangar 2, located in the southwest quadrant of the Airport, has been determined as eligible for listing on the NRHP by the FAA and concurred with by the SHPO (see **Section 3.9** and **Section 4.8** for more details). Hangar 2 is shown as Resource 14 on **Exhibit 3.7-1**.

³⁶ National Park Service. (2018). National Register of Historic Places. Retrieved June 2018, from U.S. National Park Service: <https://npgallery.nps.gov/NRHP/AssetDetail?assetID=bb710e91-517b-4612-9970-426458318361>.

3.8 HAZARDOUS MATERIALS, SOLID WASTE, AND POLLUTION PREVENTION

3.8.1 Regulatory Context

See **Appendix D** for hazardous materials, solid waste, and pollution prevention regulations.

3.8.2 Existing Conditions

This section discusses hazardous materials, solid waste, and pollution prevention within the Detailed Study Area. As discussed in **Section 1.2, Background Information**, the Detailed Study Area is divided into quadrants by the intersecting runways, commonly referred to as the northeast, southeast, southwest, and northwest quadrants (see **Exhibit 1.2-3**). **Exhibit 3.8-1** shows the Detailed Study Area and the previous locations of the Lockheed Plants A-1 North, C-1, B-5, and B-6 and the former Aviall sites, which are either part of the Airport or adjacent to it. The Detailed Study Area overlies the San Fernando Valley Groundwater Basin Superfund Site (Area 1).³⁷

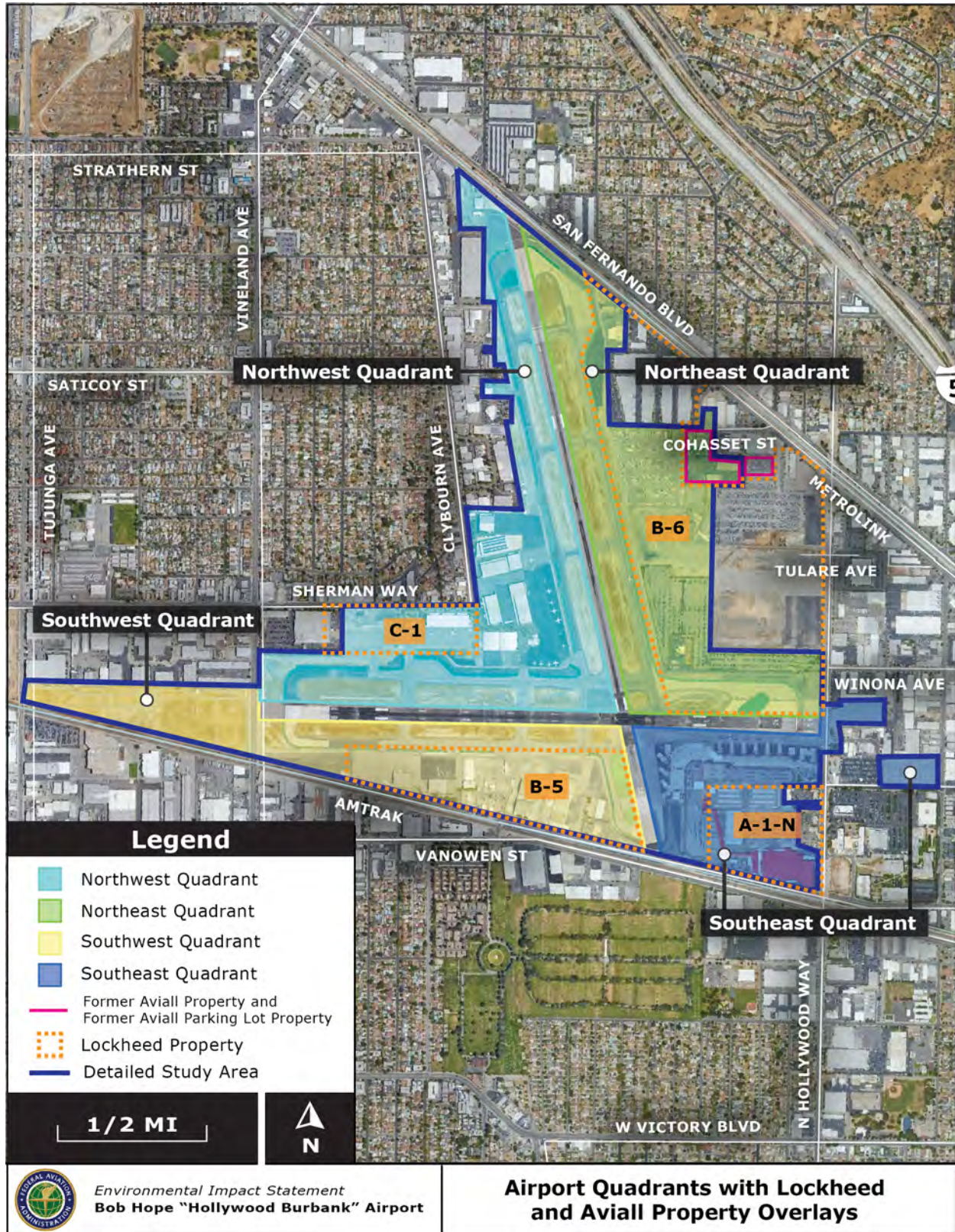
3.8.2.1 Groundwater and Soils Investigation at the Airport

Past activities on and off-site have resulted in hazardous materials contamination of soil and groundwater, primarily by VOCs and hexavalent chromium in the Detailed Study Area. As discussed in further detail below, Lockheed primarily had operations in the Detailed Study Area (Plants A-1 North, C-1, B-5 and B-6) which were determined to have caused contamination of soils and groundwater and they have been tasked, along with other potentially responsible parties, with the remediation of both soils and groundwater in the vicinity of the Airport. However, the Airport has not been listed as a potentially responsible party. The Airport overlies the San Fernando Valley Groundwater Basin Superfund Site, which is listed on several federal databases and is currently under remediation by the U.S. EPA.³⁸ The San Fernando Valley Groundwater Basin Superfund Site is divided into four separate areas: Burbank and North Hollywood, Glendale/Crystal Springs, Verdugo, and Polluck/Los Angeles. The Detailed Study Area is located within Area 1, Burbank and North Hollywood, which encompasses an area totaling 20 square miles of contaminated groundwater. As Area 1 is large, it was delineated into subareas called Operable Units (OU), to make cleanup easier and more manageable. Area 1

³⁷ See Exhibit 3.8-3 and G-1 in Appendix G for a map of the San Fernando Valley Groundwater Basin Superfund Site (Area 1).

³⁸ Ardent Environmental Group, Inc. (2015). Phase I Environmental Site Assessments (ESA) performed separately for the former Lockheed Plant B-6 and Plant B-5.

EXHIBIT 3.8-1
AIRPORT QUADRANTS WITH LOCKHEED AND AVIALL PROPERTY OVERLAYS



Sources: Ardent, 2016; RS&H, 2018.

is comprised of the Burbank OU and the North Hollywood OU.³⁹ The northeast and northwest quadrants of the Airport lie within the Burbank OU and the southwest and southeast quadrants of the Airport lie within the North Hollywood OU.

Due to the historic use of the Detailed Study Area for various aircraft manufacturing and maintenance purposes and the uses/storage of various chemicals and hazardous materials, several environmental investigations and various remedial activities have occurred in the Detailed Study Area. Primarily, the former Lockheed Plant B-6 (northeast quadrant) and Lockheed Plant B-5 (southwest quadrant) were investigated for potential groundwater and soil contamination under the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) Well Investigation Program (WIP) as part of the San Fernando Valley Groundwater Basin Superfund Site. The WIP identified Underground Storage Tanks (USTs) and other subsurface features. As a result, remedial activities were performed including UST removal and closures and demolition of subsurface features of concern. Cleanup and Abatement Order No. 87-161 was issued in 1987 by the Regional Board, on behalf of the U.S. EPA, to the responsible parties to cleanup and abate VOC contamination of soil and groundwater at the Airport.

Investigations began in 1991 with an in-depth environmental assessment presenting a comprehensive study of the historical land uses, operations, and areas of concern.⁴⁰ Groundwater investigations completed at the Proposed Project site have shown elevated concentrations of perchloroethylene (PCE), tetrachloroethylene (TCE), total chromium, and hexavalent chromium.⁴¹ Since that time, remediation has been performed at the Airport and the Regional Board has issued some closure letters to acknowledge completion of certain cleanup activities at the Airport, primarily the removal and closure of USTs, contaminated soil, and demolition of subsurface features of concern.⁴²

The former Lockheed Plant B-6 site currently contains three groundwater monitoring wells, which are sampled on an annual basis by Lockheed.⁴³ Based on information from these wells, groundwater in the area has been measured at a depth of approximately 220 feet below ground surface (bgs) and flows in a southeasterly direction. Since 1996, groundwater within the Burbank area has

³⁹ See Exhibit 3.8-3 and G-1 in Appendix G for a map of the San Fernando Valley Groundwater Basin Superfund Site (Area 1).

⁴⁰ Ardent Environmental Group, Inc. (2016, February 25). *Subsurface Investigation and Human Health Risk Assessment, Portions of Former Lockheed Plant B-6*.

⁴¹ Ardent Environmental Group, Inc. (2016, February 25). *Subsurface Investigation and Human Health Risk Assessment, Portions of Former Lockheed Plant B-6*.

⁴² California Regional Water Quality Control Board, Los Angeles Region. (1996). No Further Requirements Letters regarding the Airport Property and Properties around the Airport.

⁴³ Ninyo & Moore. (2010). *Geotechnical Evaluation Design Phase Regional Intermodal Transportation Center, Bob Hope Airport, Burbank California, E09-11*.

continued to be extracted and treated to meet California Department of Health Services standards protective of human health.

3.8.2.2 Historical and Existing Uses and Previous Environmental Assessment and Reports

Evaluation of the Detailed Study Area for hazardous materials included the review of previous reports and database listings for contaminated sites and hazardous materials for the Proposed Project site and other sites in the immediate area and the Environmental Data Record (EDR) conducted for the Proposed Project (see **Appendix G**).⁴⁴

Northeast Quadrant

Lockheed Plant B-6

The former Lockheed Plant B-6 was located within the northeast quadrant of the Detailed Study Area. From 1944 through the 1990s, Lockheed Plant B-6, also identified as the Lockheed Skunk Works, 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 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 storage 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.⁴⁵ A few tanks storing jet fuel remained in operation through the early 1990s in support of aircraft operations at the site, but no longer exist onsite.⁴⁶

As stated above, the site was investigated in the early- to mid-1990s for possible VOC source areas as part of the Regional Board WIP. Over 25 environmental

⁴⁴ Diaz Yourman & Associates. (2018). *Hazardous Materials Assessment, Proposed Burbank Airport Replacement Terminal*.

⁴⁵ 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.

⁴⁶ Ardent Environmental Group. Inc. (2015). Phase I Environmental Site Assessments (ESA) performed separately for the former Lockheed Plant B-6 and Plant B-5.

investigations and assessments have been conducted at former Plant B-6 site since the 1990's and various remedial activities took place prior to the Authority's acquisition of the property.⁴⁷

In 1997 and 1998, most of the buildings, foundations, and pavements were demolished and removed from the site by Lockheed. Lockheed demolished the remaining buildings in 2001, except for one building, Building 360 within the City of Los Angeles portion of the Airport, which the Authority demolished that same year, after Lockheed stopped work because of a dispute with Lockheed on the price of the B-6 property. 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.

Soil remedial activities were conducted from 1992 through 1996 to address the recognized environmental conditions (RECs) documented during remedial activities in the 1991 Phase I Environmental Site Assessment (ESA).⁴⁸ After evaluating the Investigation and Cleanup Action results, the Regional Board issued a No Further Requirement determinations for soil under Cleanup and Abatement Order No. 87-161, at the Lockheed B-6 Plant. Residual contaminants left in place were determined to not be a threat to groundwater quality.

The most current Lockheed Plant B-6⁴⁹ Phase I ESA report (2015)⁵⁰ summarizes the site's likely contribution to the hexavalent chromium contamination in groundwater. In 2013, the Regional Board requested investigations be completed at the Lockheed Plant B-6 site and surrounding properties to investigate possible source areas of hexavalent chromium that began appearing in monitoring wells in the area. In 2014, Tetra Tech conducted a soils investigation of on-and off-site areas of concern (AOCs) as mandated by the Regional Board.⁵¹ A number of on- and off-site AOCs were identified on surrounding Lockheed properties (Plants A-1 North, B-1, B-6, and C-1). Laboratory results of subsequent soil sampling completed in the on-site AOCs showed low concentrations of hexavalent chromium. Based on this information, the Regional Board concluded that there was a low likelihood that the site had contributed to the chromium issue. However, since additional investigation

⁴⁷ Diaz Yourman & Associates. (2018). *Hazardous Materials Assessment, Proposed Burbank Airport Replacement Terminal*.

⁴⁸ McLaren-Hart. (1991, December). *Environmental Assessment Lockheed Plant B-6, Parcel 2, Burbank, California*.

⁴⁹ The Lockheed Plant B-6 site covers 130 acres, but the Phase I ESA only looked at the 60 acres in the Northeast Quadrant that correspond to the Proposed Project site.

⁵⁰ Ardent Environmental Group, Inc. (2015, December). *Phase 1 Environmental Site Assessment Former Lockheed Plant B-6*.

⁵¹ Tetra Tech. (2014). *Additional Site Investigation Report Former Lockheed Martin Plants A-1 North, B-1, B-6 and C-1*.

are still needed at other Lockheed properties in the vicinity of the Proposed Project site, the case is still considered open with the Regional Board.

The latest investigation conducted for the northeast quadrant was performed in 2017 to assess the presence of chemical constituents in soil and soil vapor samples.⁵² In preparation for a proposed replacement passenger terminal building, a soil gas survey was conducted in 2016 and the results were used for a Human Health Risk Assessment (HHRA), which evaluated the potential for vapor intrusion at the site and the resulting cancer risk to construction workers, airport workers and passengers.⁵³ A total of 144 borings were advanced for sampling and shown on **Exhibit 3.8-2**. The field activities were conducted in accordance with the *Revised Soil and Soil Vapor Investigation Work Plan* approved by the Regional Board. The results from the sampling activities were submitted as part of the HHRA⁵⁴ for the site.

Although the results of the risk assessment indicate no unacceptable exposures for Airport workers or construction workers, the HHRA report recommended a Soil Management Plan (SMP) (see **Section 4.8.3**) to provide continued protection of human health and the environment during construction activities.⁵⁵ The SMP would:

- » present protocols and measures to protect construction workers at the northeast quadrant and nearby adjacent off-site workers from potential exposures to constituents mobilized by construction activities that may be present in soil and soil vapor;
- » a plan for management of soil disturbed during development activities at the northeast quadrant in a manner that protects human health and the environment; and
- » a plan for management of unknown conditions, if encountered.

The Regional Board approved the requirement after reviewing the HHRA.⁵⁶ In addition, the Regional Board considers the northeast quadrant compatible for the Proposed Project with the following limitation: if construction activities extend 25

⁵² EFI Global. (2017, May 15). Technical Memorandum, *Assessment of Subsurface Soil and Soil Vapor for Chemical Impacts, Burbank Airport Replacement Terminal, 2801 North Hollywood Way, Burbank, California*.

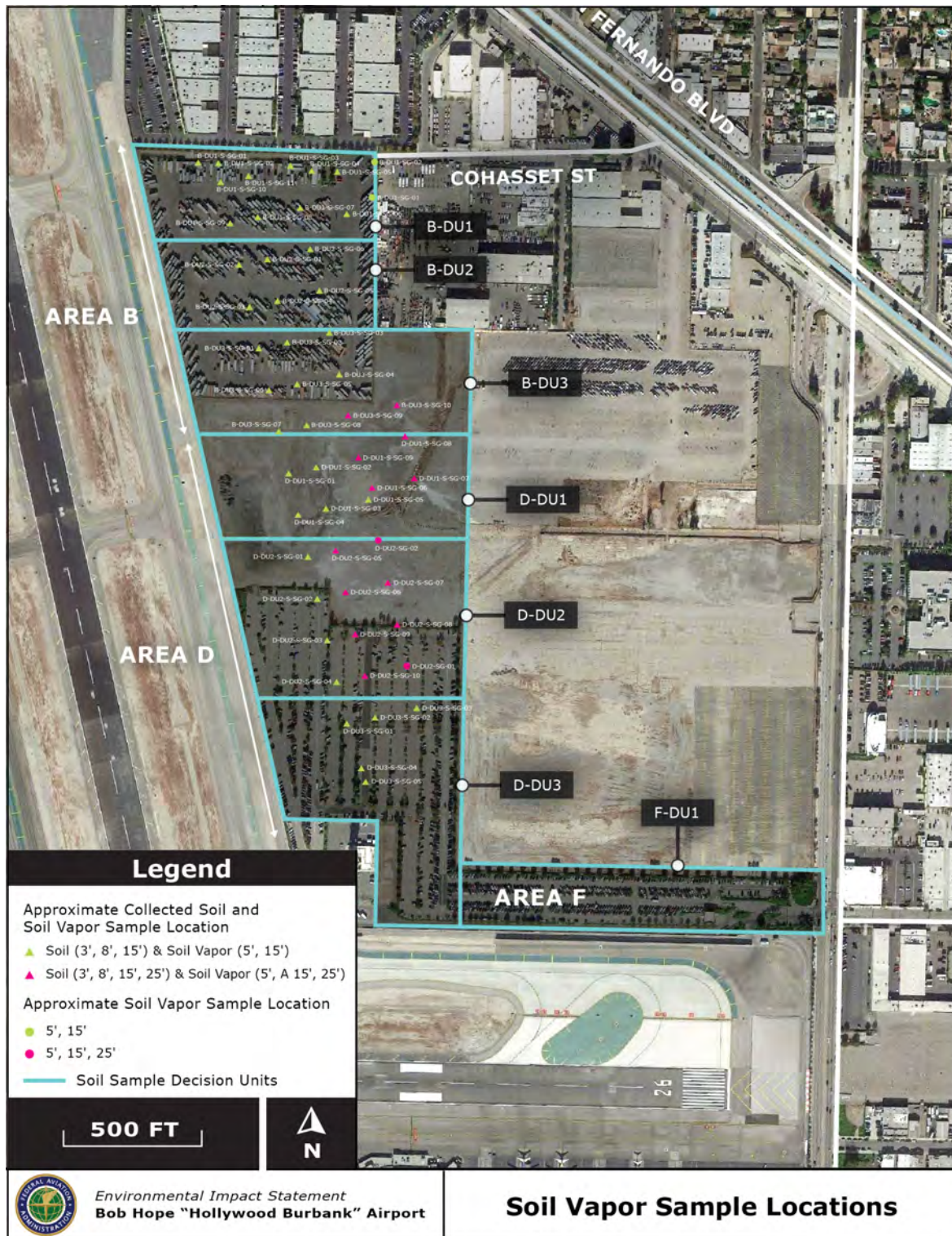
⁵³ Ardent Environmental Group, Inc. (2016, February 25). *Subsurface Investigation and Human Health Risk Assessment, Portions of Former Lockheed Plant B-6*.

⁵⁴ Geosyntec, Inc. (2017, December 21). *Final Human Health Risk Assessment*.

⁵⁵ This is provided for information purposes only as the FAA is not under a statutory or regulatory obligations to prepare an HHRA.

⁵⁶ A record of Regional Board's evaluation of the HHRA report is documented in the *Review of Draft and Final Human Health Risk Assessment- Hollywood Burbank Airport Replacement Passenger Terminal*, dated January 29, 2018.

EXHIBIT 3.8-2
SOIL VAPOR SAMPLE LOCATIONS IN NORTHEAST QUADRANT



Notes:

Areas B, D, and F represent the phases in which each sample was taken. DU - Decision units. For example, B-DU3 would be Areas B, Decision Unit 3.

Sources: Geosyntec, 2017; RS&H, 2019.

feet bgs in the areas defined as D-DU3 and F-DU1,⁵⁷ as shown on **Exhibit 3.8-2**, then the RQCB must be notified for their determination on the need for additional soil/vapor sampling.

Although the Regional Board has not issued a No Further Requirement for the entire site, the northeast quadrant is considered compatible for the construction and operation of an airport replacement passenger terminal building by the Regional Board and the site is within the scope of the Regional Board's "No Further Requirements" letters issued in 1996 for soil.

Current uses of the northeast quadrant, that include the Plant B-6 area, comprise airport passenger and employee automobile parking, movie equipment staging, and truck/recreational vehicle storage. In the northeast quadrant of the Detailed Study Area there are existing jet fuel storage tanks that are used to fuel aircraft at the Airport. Fuels used at the Airport include automobile gasoline, aviation gasoline, Jet A, Jet Propellant (JP)-4, JP-5, JP-7, JP-8, and other thermally stable jet fuels.⁵⁸

Former Aviall Property and Former Aviall Parking Lot Property

The former Aviall Property, located at 3111 North Kenwood Street, and the former Aviall Parking Lot Property, located at 3120 and 3130 North Kenwood Street, partly lie within the northeast quadrant (see **Exhibit 3.8-1**). They were vacant or used for agricultural purposes through 1928. There was sparse residential development and possibly an office from the 1930's to 1950's on the Aviall Parking Lot Property. The southern portion of the Aviall Parking Lot site (3120 North Kenwood Street) was used as a parking lot and the northern parcel (3130 North Kenwood Street) appeared to have consisted of residential development and possible commercial and/or retail buildings from 1954 to 1964. Both parcels were acquired by Aviall in 1976 and were used as a parking lot by a number of entities which operated commercial businesses west of the site since 1976. No reported manufacturing operations have been conducted on the Parking Lot property.⁵⁹ The former Aviall Property was used for a manufacturing business since 1976.⁶⁰

Currently the former Aviall Property houses Herc Entertainment Services, a premium rental equipment company. The Aviall Parking Lot Property is currently

⁵⁷ Three separate focus areas, previously designated by Lockheed as Areas B, D, and F, were identified within the northeast quadrant. Areas B and D were each subsequently divided into three decision units (DUs): Area B was divided into B-DU1, B-DU2, and B-DU3; Area D was divided into D-DU1, D-DU2, and D-DU3; and area F remained one small DU, F-DU1.

⁵⁸ Ardent Environmental Group, Inc. (2015). Phase I Environmental Site Assessments (ESA) performed separately for the former Lockheed Plant B-6 and Plant B-5.

⁵⁹ Ardent Environmental Group, Inc. (2016, February). *Phase I Environmental Site Assessment Parking Lot, 3120 and 3130 Kenwood Street, Burbank, California*.

⁶⁰ Ardent Environmental Group, Inc. (2016, February). *Phase I Environmental Site Assessment Parking Lot, 3120 and 3130 Kenwood Street, Burbank, California*.

under construction for the Avion Project, a mixed-use development consisting of an industrial component, retail uses, a hotel, and creative offices.⁶¹

Although both Aviall sites overlay the San Fernando Valley Groundwater Basin Superfund Site, there are currently no groundwater wells located on-site, and the site has not been investigated by regulatory agencies as a possible contributor to the groundwater contamination. Previously there were vadose zone (the area between the ground surface and the water table) wells at the Aviall Property but they were removed and the Regional Board issued a No Further Action determination with respect to the WIP.⁶²

Northwest Quadrant

The former Lockheed Plant C-1 is located in the northwest quadrant, as shown in **Exhibit 3.8-1**, and occupies approximately 20 acres. The site in the northwest quadrant was vacant or used for agricultural purposes prior to the 1940's when aviation operations began.⁶³ A gravel pit was operated on the northern end of the site near Valerio Street and Clybourn Avenue between the 1930's and 1970's. According to Regional Board interviews with people familiar with operations in the former gravel pit area, the pit was often used as a liquid waste disposal site.⁶⁴ Operations at the facility were conducted from the early 1940's through 1990 and included classified aircraft research, milling and machining of metal parts, and aircraft maintenance and modification. The property was sold to the Airport in 1997.

Over 30 environmental investigations and assessments have been conducted at the former Plant C-1 site, 1986 – 1993, to identify various features of environmental concern. Investigations at the Lockheed Plant C-1 confirmed the presence of petroleum hydrocarbons and VOC's in subsurface soils. Lockheed received a Cleanup and Abatement Order No. 87-161 for Plant C-1. From 1989 through 1993 cleanup actions led to UST removals and closures, demolition of other subsurface features of concern, and the removal of approximately 110,000 tons of

⁶¹ City of Burbank (2019, February). *Avion Project Final Environmental Impact Report*. Retrieved January 2020 from City of Burbank: <https://www.burbankca.gov/home/showdocument?id=48859>

⁶² Diaz Yourman & Associates. (2018). *Hazardous Materials Assessment, Proposed Burbank Airport Replacement Terminal*.

⁶³ FAA. (1995, September). *Burbank-Glendale-Pasadena Airport Land Acquisition and Replacement Terminal Project*. Retrieved January 2020, from FAA: https://books.google.com/books?id=M_g0AQAAAMAAJ&pg=SA5-PA130&lpg=SA5-PA130&dq=lockheed+plant+C-1&source=bl&ots=9FXaYX6kxC&sig=ACfU3U2mqwWYJrRMuG0ehsi6CT4LIIfIMq&hl=en&sa=X&ved=2ahUKewjduZrF9ZjnAhXnmq0KHUtvBjAQ6AEwGHoECAsQAQ#v=onepage&q=lockheed%20plant%20C-1&f=true.

⁶⁴ FAA (1995, September). *Burbank-Glendale-Pasadena Airport Land Acquisition and Replacement Terminal Project*. Retrieved January 2020, from FAA: https://books.google.com/books?id=M_g0AQAAAMAAJ&pg=SA5-PA130&lpg=SA5-PA130&dq=lockheed+plant+C-1&source=bl&ots=9FXaYX6kxC&sig=ACfU3U2mqwWYJrRMuG0ehsi6CT4LIIfIMq&hl=en&sa=X&ved=2ahUKewjduZrF9ZjnAhXnmq0KHUtvBjAQ6AEwGHoECAsQAQ#v=onepage&q=lockheed%20plant%20C-1&f=true.

contaminated soil. Based on these remedial actions, the site received a No Further Requirements determination, from the Regional Board, for soil in 1990 and 1994.⁶⁵

In 2013, the Regional Board requested investigations be completed at the Lockheed Plant C-1 site and surrounding properties to investigate possible source areas of hexavalent chromium that began appearing in monitoring wells in the area.⁶⁶ In 2014, an evaluation of on-and off-site areas of concern was completed based on historical land use data. A number of on- and off-site AOCs were identified on surrounding Lockheed properties. Laboratory results of subsequent soil sampling completed in the on-site AOCs showed low concentration of hexavalent chromium. However, the samples from Plant C-1 were negative for hexavalent chromium. Based on this information, the Regional Board concluded that there was a low likelihood that the site had contributed to the chromium issue. However, since additional investigation are still needed at other Lockheed properties in the Proposed Project vicinity, this case is still considered open with the Regional Board.

Current uses at the northwest quadrant include the Aircraft Rescue and Fire Fighting (ARFF) Station and aircraft hangars, some with offices.

Southeast Quadrant

The former Lockheed Plant A-1 North is located in the southeast quadrant as shown in **Exhibit 3.8-1**. Since 1985, more than 61 environmental investigations and assessments have been conducted at the former Plant A-1 North site, with the majority occurring pursuant to the Regional Board's Cleanup and Abatement Order No. 87-161.⁶⁷ These investigations included environmental site assessments, UST leak detection programs, and soil, soil vapor, and groundwater investigations. The purpose of the investigations was to characterize and delineate the extent of chemicals existing in the subsurface, including VOCs, chromium, and hexavalent chromium. Lockheed conducted more than 31 remedial activities at the site including UST removals and closures, delineation excavation, demolition, and removal of other subsurface features of concern, and soil vapor extraction. Lockheed removed more than 32,000 pounds of VOCs and 13,000 tons of metal (including chromium and hexavalent chromium, total petroleum hydrocarbons

⁶⁵ U.S. EPA. (2009, September). *EPA Superfund Interim Action Record of Decision North Hollywood Operable Unit (Area 1) Superfund Site* Los Angeles County, California EPA ID: CAD98089483. Retrieved January 2020, from U.S. Environmental Protection Agency: <https://semspub.epa.gov/work/09/1118042.pdf>.

⁶⁶ Tetra Tech. (2014, December). *Additional Site Investigation Report Former Lockheed Martin Plants A-1 North, B-1, B-6, and C-1, Burbank, CA*.

⁶⁷ California State Water Resources Control Board. (2013, May). Petition for Review of Los Angeles Water Quality Control Board Order No. R4-2013-0063. Retrieved on January 2020, from California State Water Resources Control Board: https://www.waterboards.ca.gov/public_notices/petitions/water_quality/docs/a2250/a2250petitionpart1.pdf.

(TPHs), or VOC impacted soil.⁶⁸ These remedial actions resulted in a total of 130 No Further Requirements letters from the Regional Board and a site-wide No Further Action determination for Plant A-1 North.⁶⁹

Current uses at the southeast quadrant includes the existing passenger terminal building, surface parking lots, parking structures, and the Terminal Loop Road.

Southwest Quadrant

The southwest quadrant includes a portion of the former Lockheed Plant B-5 as shown in **Exhibit 3.8-1**. Lockheed occupied the approximately 60-acre former Plant B-5 site from 1936 to 1975. In the 1940s, the site was owned by the Federal government and various aircraft-related companies. In 1947, Lockheed purchased the entire southwest quadrant. The 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. Between 1976 and 1978, the buildings were leased to various tenants. In 1978, the property was purchased by the Authority.

In the area west of former Lockheed 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.⁷⁰

Within the former Lockheed Plant B-5, the Wash Rack was used 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 Polychlorinated Biphenyls (PCBs).

From 1986 through 1993 environmental investigations and assessments were conducted at the former Plant B-5 site, to identify various features of environmental

⁶⁸ California State Water Resources Control Board. (2013, May). Petition for Review of Los Angeles Water Quality Control Board Order No. R4-2013-0063. Retrieved on January 2020, from California State Water Resources Control Board:

https://www.waterboards.ca.gov/public_notices/petitions/water_quality/docs/a2250/a2250petitionpart1.pdf.

⁶⁹ California State Water Resources Control Board. (2013, May). Petition for Review of Los Angeles Water Quality Control Board Order No. R4-2013-0063. Retrieved on January 2020, from California State Water Resources Control Board:

https://www.waterboards.ca.gov/public_notices/petitions/water_quality/docs/a2250/a2250petitionpart1.pdf.

⁷⁰ The use of this area for burn pits was during the period when Lockheed owned the property and was prior to the Aircraft Rescue and Fire Fighting (ARFF) station currently located in the northwest quadrant. The ARFF does not use burn pits.

concern. These investigations indicated that VOC contamination had occurred at the site. In 1987, Cleanup and Abatement Order No. 87-161 was issued to Lockheed for the Plant B-5 site from the Regional Board. Corrective actions were taken at the site and VOC were continuously monitored from 1989–1998. In 1998, the Regional Board determined that the site was not contributing to further VOC contamination.⁷¹ Another soils investigation was performed for the southeast and southwest quadrants, which included the Plant B-5 site.⁷² As part of this investigation, soil sampling and vapor monitoring was performed at various locations within the B-5 site through 2002, and in 2004 the Regional Board issued a No Further Requirements determination for soil.⁷³ This site continues to be monitored for heavy metals and VOCs as part of the U.S. EPA's Superfund program.

The southwest quadrant 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 tenants, Hertz and Avis. The ground support equipment (GSE) building is located in the existing air cargo building, which will be demolished under the Proposed Project. A new GSE building would be constructed in the northeast quadrant which will house maintenance functions and be used for equipment and tool storage and office space for maintenance personnel. GSE activities use hazardous materials petrochemical and chemical products such as aviation gasoline, Jet A fuel, diesel, oils, hydraulic fluids, solvents, adhesives, hot and cold asphalt patches, cleaning products, and other various lubricants. Hazardous waste generated from maintenance activities is waste oil and fuel, used solvents, and used maintenance fluids.

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

⁷¹ U.S. EPA. (2009, September). *EPA Superfund Interim Action Record of Decision North Hollywood Operable Unit (Area 1) Superfund Site* Los Angeles County, California EPA ID: CAD98089483. Retrieved January 2020, from U.S. EPA: <https://semspub.epa.gov/work/09/1118042.pdf>.

⁷² A.L. Burke Engineers, Inc. (1990). *Site Characterization Phase I: Soil Sampling Burbank-Glendale-Pasadena Airport Authority*.

⁷³ Ardent Environmental Group, Inc. (2015, December). *Phase 1 Environmental Site Assessment Former Lockheed Plant B-6*.

airborne. Asbestos has been linked with lung diseases caused by inhalation of airborne asbestos fibers, and its use in building materials was banned by 1978.

Asbestos testing was performed at various locations of the existing passenger terminal building between 1998 and 2015.^{74 75} 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 asbestos containing materials (ACMs) found at the existing passenger terminal building appear to be in good to fair condition or encapsulated.

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. Lead based paint (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.^{76 77} Paint chip bulk sampling was performed at the “Bird Cage” room, (Hangar 34, Building 10) and yellow traffic paint throughout the existing Detailed Study Area. 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 the drywall, metal hangar frame, walls, and pipes of Hangar 34. LBP paint was also found in yellow traffic striping paint. LBP was not observed in other surveyed locations.

Polychlorinated Biphenyls

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

⁷⁴ Geocon West Inc. (2012). *Limited Asbestos and Lead Containing Paint Survey Report*.

⁷⁵ Geocon Inc. (2011). *Asbestos, Lead, and Miscellaneous Toxic Materials (Universal Wastes) Survey Report*.

⁷⁶ Geocon West Inc. (2012). *Limited Asbestos and Lead Containing Paint Survey Report*.

⁷⁷ Geocon Inc. (2011). *Asbestos, Lead, and Miscellaneous Toxic Materials (Universal Wastes) Survey Report*.

containing more than 500 ppm PCBs must register the transformer with the local fire department, provide exterior labeling, and remove combustible materials within 16 feet.⁷⁸

Previous Phase I ESAs were conducted for both the northeast and southwest quadrants of the Detailed Study Area as discussed above. The Phase I ESAs identified transformers and transformer yards on-site potentially containing PCBs. However, since the Phase I ESAs were prepared, the identified transformers were removed and are no longer at the Airport. Surveys of the southwest quadrant also identified a number of transformers and transformer yards. However, these transformers were also removed and are no longer at the Airport.

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 passenger terminal building were observed to be in good conditions without any signs of leakage. It is possible that some PCB-containing ballasts are present. Any ballast not specifically labeled as “No PCBs” is presumed to contain them and requires special disposal practices when discarded.

3.8.2.3 Identification of Contaminated Sites

As discussed above, the Detailed Study Area has been used for various aircraft manufacturing and maintenance purposes which would have involved chemicals and materials usage and/or storage. Evaluation of the Detailed Study Area for hazardous materials included the review of previous reports and database listings for the Proposed Project site and other sites in the immediate area. A Hazardous Materials Assessment (HMA) was conducted for the Proposed Project to assess the likelihood of encountering hazardous substances during construction of the Proposed Project. The complete HMA report is included in **Appendix G**.⁷⁹

The Hazardous Materials Assessment was completed, in accordance with ASTM Standard E1527-13, in order to identify recognized environmental conditions (RECs), Historical RECs, and Controlled RECs in the area to be directly and indirectly affected by the Proposed Project. A REC is defined as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property due to the following conditions:

- » any release to the environment,

⁷⁸ 40 CFR Part 761, 2015.

⁷⁹ Diaz Yourman & Associates. (2018). *Hazardous Materials Assessment, Proposed Burbank Airport Replacement Terminal*.

- » conditions indicative of a release to the environment, or
- » conditions that pose a material threat of a future release to the environment.

In order to identify these REC areas, an environmental database review was conducted in August 2018 for the Detailed Study Area and included the area within a 1-mile radius of the Proposed Project site. This 1-mile radius followed the standard search distances for each environmental database specified by ASTM Standard E1527-13,⁸⁰ to generate sites registered under hazardous materials/wastes databases that could potentially affect the Proposed Project.⁸¹

The HMA included the review of 827 databases, including the National Priorities List, Superfund Enterprise Management System, Corrective Action Sites, Resource Conservation and Recovery Act, US Institutional Controls (Brownfields), and Emergency Response Notification System, to identify sites with RECs of potential significance to the Proposed Project. Each site was evaluated for levels of risk (low, moderate, or high) commensurate with findings in corresponding technical documents on record. The HMA report defines Low Risk as “property which uses or stores hazardous materials, but with no significant violations, known releases, or evidence of chemical handling practices,” Moderate Risk as a “property with potential or suspected contamination within the Project area,” and High Risk as a “property with known or likely contamination within the Detailed Study Area.

The five sites (see **Table 3.8-1** and **Exhibit 3.8-3**) and designated risk class are as follows:

- » San Fernando Valley (Area 1), Moderate;
- » Former Lockheed Plant B-6, Low;
- » Former Lockheed Plant B-5, Low;
- » Former Lockheed Plant C-1, Moderate; and
- » Physicians Clinical Laboratory (formerly known as the Aviall property located at 3111 North Kenwood), Moderate.

⁸⁰ Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM D 1527-13).

⁸¹ Code of Federal Regulation, 40, part 312, 1980.

TABLE 3.8-1
RECOGNIZED ENVIRONMENTAL CONDITIONS (RECs) SITES IN DETAILED STUDY AREA

Site	REC Site Name	Risk	Status
1	San Fernando Valley Groundwater Basin Superfund Site (Area 1)	Moderate	Currently overseen by U.S. EPA
2	Former Lockheed Plant B-5	Low	Regional Board issued a No Further Requirements Determination
3	Former Lockheed Plant C-1	Moderate	Case is still open with the Regional Board
4	Former Lockheed Plant B-6	Low	Case is still open with the Regional Board; however, the Regional Board considers the site compatible for construction of a replacement passenger terminal building. ^{/a/}
5	Physicians Clinical Laboratory (Aviall Property) ^{/b/}	Moderate	Regional Board issued a No Further Action Determination

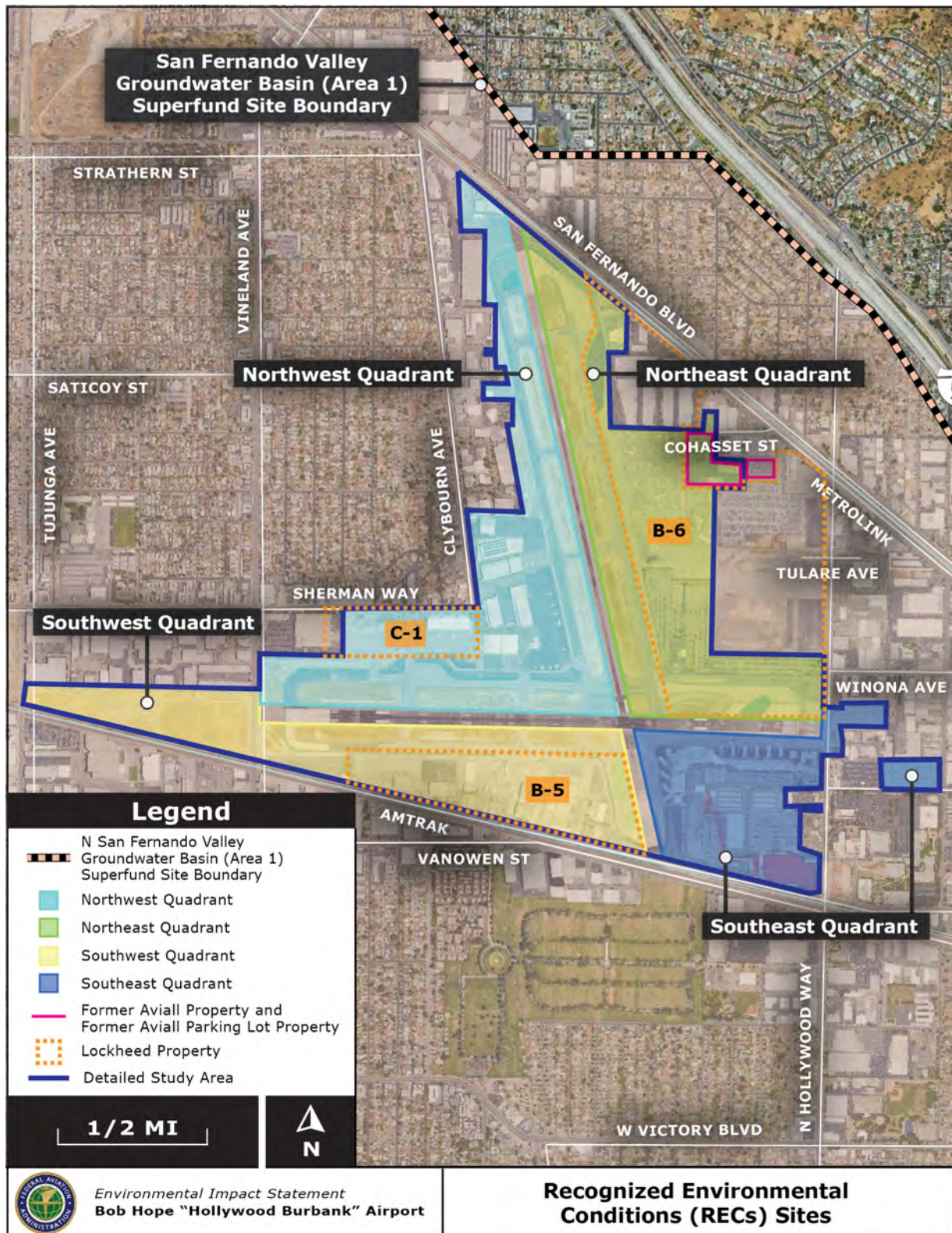
Notes:

/a/ - California Regional Water Quality Control Board, Los Angeles Region. (2018). Letter – Review of Draft and Final Human Health Risk Assessment, Hollywood Burbank Airport Replacement Terminal, 2801 North Hollywood Way, Burbank, California, (SCP No. 104.0674A, Site ID No. 2040502), Assessor's Parcel Numbers (APNs): 2466-011-914, 2466-011-916, January 29, 2018.

/b/ - The Physicians Clinical Laboratory also has been known as the Aviall Property. As evidenced in the Regional Board database, GeoTracker (<https://geotracker.waterboards.ca.gov/>, Accessed on July 29, 2020), Physicians Clinical Laboratory and the Aviall Property are one site, sharing both the same identification number (SL603798596) and physical address.

Sources: Diaz Yourman & Associates, 2018.

EXHIBIT 3.8-3
RECOGNIZED ENVIRONMENTAL CONDITIONS (RECs) SITES IN DETAILED STUDY AREA



Sources: Ardent, 2016; RS&H, 2020.

Table 3.8-2 summarizes the regulatory status, contaminants, and media of concern for each of the five sites located at either the Proposed Project site or in its vicinity.

A list of the evaluation criteria for selecting the sites listed above may be found in the environmental database report.⁸²

Activities required by regulatory agencies prior to commencement of construction at each identified site are listed in **Appendix D**.

3.8.2.4 Identification of Solid and Hazardous Waste Disposal Capacity

Waste streams related to demolition and construction of the Proposed Project are expected to generate waste, which could potentially contain asbestos containing materials, lead-based paint, and PCB containing materials. In addition, due to grading and excavation construction activities there is the potential to encounter contaminated soil. Disposal facilities and known capacity for hazardous and solid waste streams are summarized in **Table 3.8-3**.

Solid Waste Disposal Facilities

The City of Burbank owns and operates the Burbank Landfill, located in the Verdugo Hills at the eastern edge of the City. 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 December 31, 2018, has a remaining capacity of 4,117,147 cubic yards, with 35 years of remaining life.⁸³ The maximum permitted throughput is 240 tons per day. The 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 as the City has little control over which landfills private haulers may contract with to collect solid waste. As shown in **Table 3.8-4**, solid waste generated in Burbank is primarily hauled to three landfills: Burbank Landfill Site No. 3, Chiquita Canyon Sanitary Landfill, and the Sunshine Canyon City/County Landfill.

⁸² EDR. (2018, August 15). *The EDR Radius Map, Report with GeoCheck, for BGPAA BUR Replacement Terminal, Inquire Number: 5393437.2s*.

⁸³ Los Angeles County. (2018, December). *2018 Annual Report Countywide Integrated Waste Management Plan*. Retrieved January 2020 ,from Los Angeles County: <https://pw.lacounty.gov/epd/swims/ShowDoc.aspx?id=6530&hp=yes&type=PDF>.

**TABLE 3.8-2
ENVIRONMENTAL DATABASE REVIEW SUMMARY**

Facility Information	Regulatory Status	Assessment and Cleanup Activities	Contaminant and Media of Concern	Extent of Contamination	On Site/Off Site	Distance and Direction from Proposed Project Site ^{a/}	Database
San Fernando Valley (Area 1) North Hollywood Wellfield Area in North Hollywood, CA 91601 Owner/Operator: Not Applicable	Active	Ongoing cleanup, O&M activities, and monitoring	TCE, PCE, 1,4 dioxane, hexavalent chromium, and 1,2,3-TCP in groundwater	20 square mile area; approximately 220 feet below ground surface of Proposed Project area	Portion located on site below ground surface	0	Superfund NPL
Physicians Clinical Laboratory (Former Aviall Services, Inc.) 3111 N. Kenwood Street, Burbank, CA 91505 Owner/Operator: Aviall, Inc.	Open, Remediation	Human Health Risk Assessment (2017); Site Assessment (2014 and 2015); Phase II, soil excavation and removal (1992)	Chromium VI Groundwater and Soil	Maximum concentration found in soil at 130 feet below ground surface and decreases at deeper depths	Off Site	0.125 mi, NNE	CPS-SLIC
Former Lockheed Plant B-5 (Certified Aviation Svcs) 4207 Empire Avenue, Burbank, CA 91352 Owner/Operator: C A S INC.	Completed - Case Closed (Soil); Ongoing groundwater monitoring as part of BOU	No Further Action for Soil (2014) Cleanup and Abatement Order (1987) Multi-phase Assessments	Chromium and Volatile Organic Compounds in Groundwater	Latest sampling results do not show contaminants exceeding cleanup levels in groundwater	On Site (SW portion of airport)	0.016 miles, South	CPS-SLIC

Facility Information	Regulatory Status	Assessment and Cleanup Activities	Contaminant and Media of Concern	Extent of Contamination	On Site/Off Site	Distance and Direction from Proposed Project Site ^{/a/}	Database
Former Lockheed Plant B-5 (Certified Aviation Svcs) 4207 Empire Avenue, Burbank, CA 91352 Owner/Operator: C A S INC.	Completed - Case Closed (Soil); Ongoing groundwater monitoring as part of BOU	No Further Action for Soil (2014) Cleanup and Abatement Order (1987) Multi-phase Assessments	Chromium and Volatile Organic Compounds in Groundwater	Latest sampling results do not show contaminants exceeding cleanup levels in groundwater	On Site (SW portion of airport)	0.016 miles, South	CPS-SLIC
Former Lockheed Plant B-6 East 2960 Hollywood, Burbank, CA 91505	Open - Site Assessment	OEHHA; Vapor Intrusion Risk and Hazard Estimates Review (2015); Human Health Risk Assessment and Soil Vapor Investigation (2014); Soil Vapor Extraction System (2001-2014); Cleanup and Abatement Order (1992)	Tetrachloroethylene (PCE, Trichloroethylene (TCE) in Soil, Soil Vapor	Vapor intrusion risk and hazards are estimated to be less than the commercial/indust rial land use threshold	Off Site	0.274 miles, ENE	CPS-SLIC
Former Lockheed Plant C-1 10720 Sherman Way, Burbank, CA 91504	Open - Remediation	Additional Site Investigation (2014); Remedial excavations (1989-1993); Cleanup and Abatement Order (1987)	Chromium, Volatile Organic Compounds in Groundwater	Assessment pending from the California Waters of the 2014 Site Investigation	On Site	0.080 miles, WNW	CPS-SLIC

Notes:

/a/ - Distance and direction are measured from the nearest edge of the Proposed Project Site to the location of the identified REC.

Source: ESA, 2018.

**TABLE 3.8-3
HAZARDOUS WASTE PERMITTED DISPOSAL FACILITIES**

Facility Name	Landfill Class^{/a/}	Maximum Daily Permitted Throughput (tons per day)	Permitted/Constructed Landfill Capacity (cubic yards)	Estimated Landfill Closure Date
Clean Harbors Buttonwillow	Non-hazardous and hazardous, Class 1	10,500	10,000,000 / 950,000	2045
Clean Harbors Westmorland ⁸⁴	RCRA Class 1 (hazardous), APHIS soils, and CA-regulated waste materials	Annual receiving capacity 440,000 cubic yards	No maximum reported at this time	N/A
Chemical Waste Management Kettleman Hills Facility	Non-hazardous and hazardous	8,000	10,700,000 / 4,700,000	2045
Waste Management Inc. Azusa ⁸⁵	Unclassified (Inert) Asbestos accepted	8,000	80,571,760 / 29,059,559	2046

Notes:

/a/ Class I sites may accept hazardous and non-hazardous wastes; Class II sites may accept "designated" and non-hazardous wastes; and Class III sites may accept non-hazardous wastes.

Source: CalRecycle, 2019.

According to the most recent data available by CalRecycle, the City of Burbank disposed of a total of 98,550 tons of solid waste in 2016. As outlined in the California Integrated Waste Management Act of 1989, also known as Assembly Bill 939, jurisdictions must meet a diversion goal of 50 percent by the year 2000, and thereafter. Currently, CalRecycle uses a 65 percent diversion rate since the state is recycling more of its waste.

⁸⁴ Clean Harbors. (2018). Transportation and Disposal, Westmorland, California Facility Facts. Retrieved October 2018 from Clean Harbors: https://s3-us-west-2.amazonaws.com/wastebits-marketing-assets-1/facility-locator/downloads/clean-harbors-westmorland-llc/FINAL_Westmorland_CA_Facility_FS_010507.pdf.

⁸⁵ Waste Management. (2018). Azusa Land Reclamation Fact Sheet. Retrieved October 2018, from Waste Management: https://www.wmsolutions.com/pdf/factsheet/Azusa_Land_Reclamation.pdf.

**TABLE 3.8-4
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
Antelope Valley Public Landfill	2,296	2.59%	17,911,225	2044
Azusa Land Reclamation Co. Landfill	1,187	1.34%	51,512,201	2045
Burbank Landfill Site No. 3	32,486	36.69%	5,174,362	2053
Chiquita Canyon Sanitary Landfill	33,031	37.31%	8,617,126	2019
El Sobrante Landfill	1,225	1.38%	145,530,000	2051
Frank R. Bowerman Sanitary LF	452	0.51%	205,000,000	2053
Lancaster Landfill and Recycling Center	313	0.35%	14,514,648	2044
McKittrick Waste Treatment Site	1,130	1.28%	769,790	2059
Mid-Valley Sanitary Landfill	1,453	1.64%	67,520,000	2033
Monterey Peninsula Landfill	3,135	3.54%	48,560,000	2017
Olinda Alpha Sanitary Landfill	1,821	2.06%	34,200,000	2021
San Timoteo Sanitary Landfill	12	0.01%	11,402,000	2043
Simi Valley Landfill & Recycling Center	923	1.04%	88,300,000	2052
Sunshine Canyon City/County Landfill	9,059	10.23%	96,800,000	2037
Victorville Sanitary Landfill	16	0.02%	81,510,000	2047
Total	88,540	100.00%	877,321,352	

Sources: City of Burbank, 2013, CalRecycle, 2017.

3.9 HISTORICAL, ARCHITECTURAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

3.9.1 Regulatory Context

See **Appendix D** for historical, architectural, archaeological, and cultural resources regulations.

3.9.2 Existing Conditions

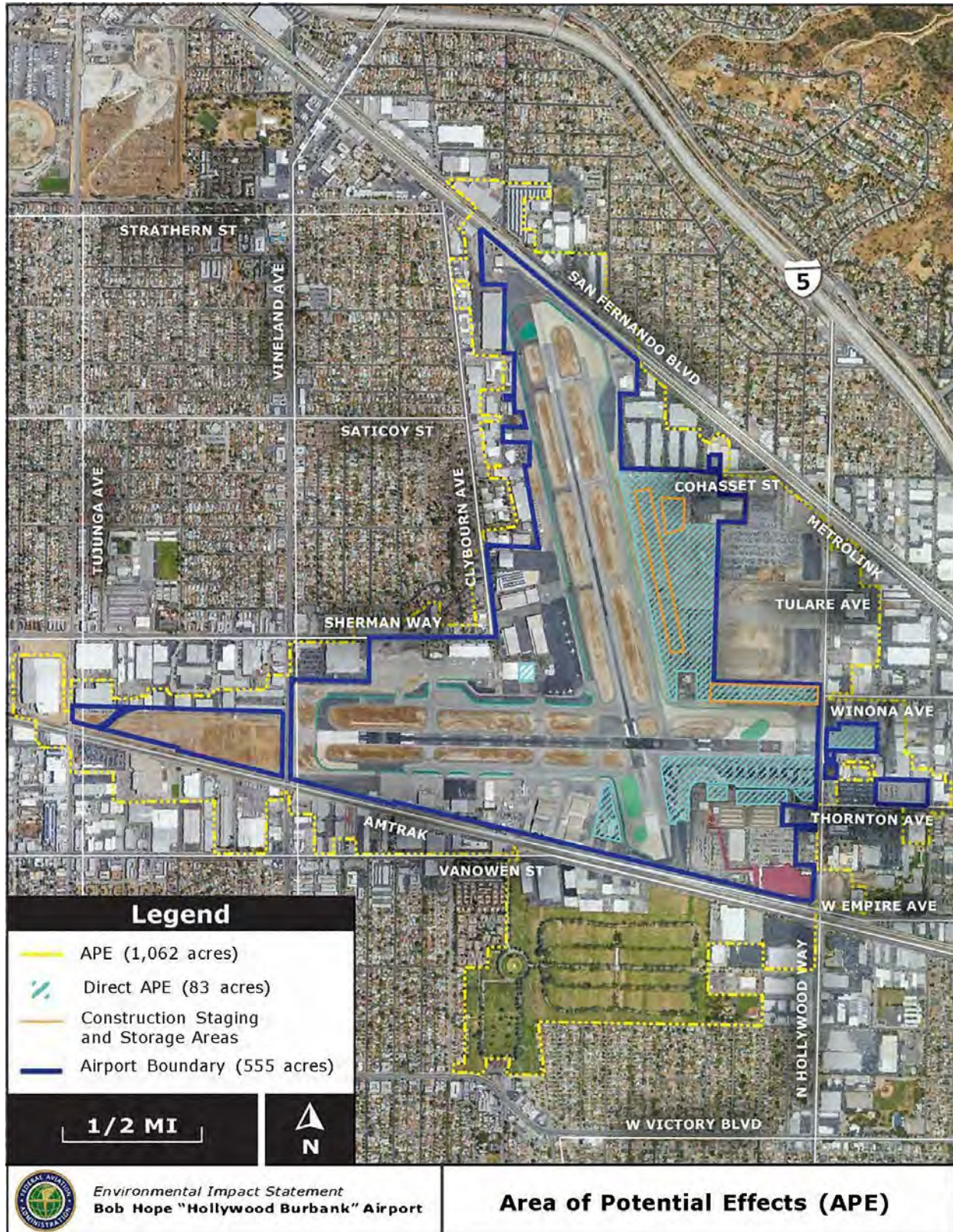
3.9.2.1 Area of Potential Effects

The FAA established an Area of Potential Effects (APE) for this undertaking (the Proposed Project) in accordance with Section 106 guidelines and in coordination with the State Historic Preservation Officer (SHPO). Per 36 CFR § 800.4:

“Area of potential effects means the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.”

For this undertaking, the APE for archaeological resources encompasses the Airport passenger terminal building construction/demolition footprint and all unpaved areas within the Airport boundaries, identified as the Direct APE. The APE for historic architectural resources includes the Direct APE as well as potentially affected off-Airport areas (see **Exhibit 3.9-1**). For the evaluation of on-Airport historic architectural resources, the APE encompasses the entire Airport footprint, including all buildings, structures, and infrastructure related to the Airport and associated uses that are historic in age (45 years or older). For the evaluation of off-Airport historic architectural resources, the APE includes the area immediately surrounding the Airport and all aboveground properties that comprise the overall “viewshed”—that is, the entire area within which the Proposed Project and the alternatives could cause or be subject to visual quality effects.

**EXHIBIT 3.9-1
AREA OF POTENTIAL EFFECTS**



SOURCE: RS&H, 2018.

Evaluation of Direct APE

In accordance with Section 106 of the NRHP, all properties within the Direct APE built before 1974, require formal evaluation for eligibility for inclusion into the National Register of Historic Places.⁸⁶ This evaluation for the Proposed Project involved a records search and an onsite survey of the Direct APE.

Records Search

The records search included a review to identify all previously documented cultural resources present within the Direct APE and within 0.5 miles of the Airport, and also reviewed all previously conducted cultural resource studies pertaining to this area. The records search indicated that five studies have been conducted involving cultural resources in the Direct APE, but no previously recorded archaeological sites within the Direct APE were identified.

Onsite Survey

The Direct APE was surveyed for aboveground resources that are historic in age and that could experience a change of setting under the Proposed Undertaking (i.e., the addition of new buildings or the demolition of existing buildings). On February 21, 2019, FAA delineated a direct effects APE and an Indirect Effects (architectural) APE related to land parcels immediately adjacent to the airport for the view-shed for the proposed undertaking. The California SHPO concurred with FAA's delineation of the APE by letter dated March 19, 2019 (see **Appendix H**).

Pedestrian surveys of the Direct APE were conducted to identify historic architectural resources and archaeological resources within or immediately adjacent to the Direct APE.⁸⁷ The Direct APE contains 18 buildings and/or structures, (including all buildings, structures, and infrastructure that are either historic in age (50 years or older) or approaching historic age (45 years or older) related to the airport and associated uses), which were subject to formal evaluation. The Historical Resources Assessment (see **Appendix H**) evaluated whether the former United Air Terminal in the southeast quadrant (with a significance period of 1929–1949) may be a potentially eligible historic district. The 18 buildings in the Direct APE were surveyed in 2018 in order to provide information needed to conduct the Section 106 evaluation. In order to locate any prehistoric and historic archaeological resources, a pedestrian survey of accessible areas with visible ground surface using transect intervals spaced no more than 10 meters

⁸⁶ 36 CFR 800.4(d).

⁸⁷ ESA Corporation conducted historic resources surveys on September 25, 2018 by ESA staff architectural historians, Gabrielle Harlan, Ph.D., and Ashley Brown, M.A., and on October 2, 2018 by ESA staff archaeologists, Vanessa Ortiz, M.A., RPA, and Amber-Marie Madrid, B.A.

(approximately 30 feet) apart was conducted. No archaeological resources were observed on the ground surface during the survey.

As part of the survey effort, existing onsite buildings and structures within the Direct APE and in the immediate surroundings, were photographed and recorded. Based on the results of the survey, 10 of the buildings contained within the Direct APE, including the Airport passenger terminal building, do not appear eligible for inclusion on either the National Register, either individually or as a district. However, FAA determined Hangars 1 and 2 are eligible for the National Register (see **Exhibit 3.9-2**). The survey confirmed the integrity of these two structures and their continued ability to convey historical significance.

Evaluation of the APE

After FAA delineated the APE, a review was conducted to locate available records of historic properties within the APE, including information about possible historic properties that have yet to be identified. A records search for the undertaking was conducted at the California Historical Resources Information System, South Central Coastal Information Center at California State University, Fullerton that involved reviewing previous surveys, records, and reports on file. The records search indicated that 23 prior studies pertaining to the APE have been conducted, but no previously recorded archaeological resources are present within a 0.5-mile radius of the APE. A review of the National Register, the California Register, the California Historic Landmarks, and the California Points of Historic Interest was conducted. During this review, one previously recorded National Register-listed historical resource was identified—the Portal of the Folded Wings Shrine to Aviation (Primary No. 19-180686)—which is 0.3-mile (1,690 feet) south of the southeast quadrant boundary at the entrance to the Pierce Brothers Valhalla Memorial Park Cemetery. No additional historical resources listed on the National Register were identified within a 0.5-mile radius of the northeast quadrant boundary.

EXHIBIT 3.9-2
PROPERTIES ON OR POTENTIALLY ELIGIBLE FOR THE NATIONAL REGISTER OF HISTORIC PLACES



Sources: Mooney & Associates, 2002; RS&H, 2020.

3.10 LAND USE

3.10.1 Regulatory Context

See **Appendix D** for land use regulations.

3.10.2 Existing Conditions

This section describes the existing land uses within the General Study Area.

3.10.2.1 Existing Land Use

The Airport is located in Los Angeles County, within the municipal boundaries of both Burbank and Los Angeles (see **Exhibit 1.2-2**). The General Study Area is about 4,900 acres in size and encompasses portions of the cities of Burbank and Los Angeles as well as the Airport in its entirety. The northern portion of the General Study Area includes a mix of residential, commercial, and manufacturing development, public transportation (i.e., Metrolink station and rail line), and the Golden State Freeway (Interstate 5). The eastern portion of the General Study Area consists of commercial and industrial development, open space, residential properties, and the Golden State Freeway (Interstate 5). The southern portion of the General Study Area consists mostly of residential, open space (parks and recreation facilities), and commercial development. The western portion of the General Study Area consists of commercial and manufacturing development, residential properties, the Hollywood Freeway (State Route 170), and an open space area adjacent to the freeway. **Exhibit 3.10-1** shows existing land use designations for the General Study Area.

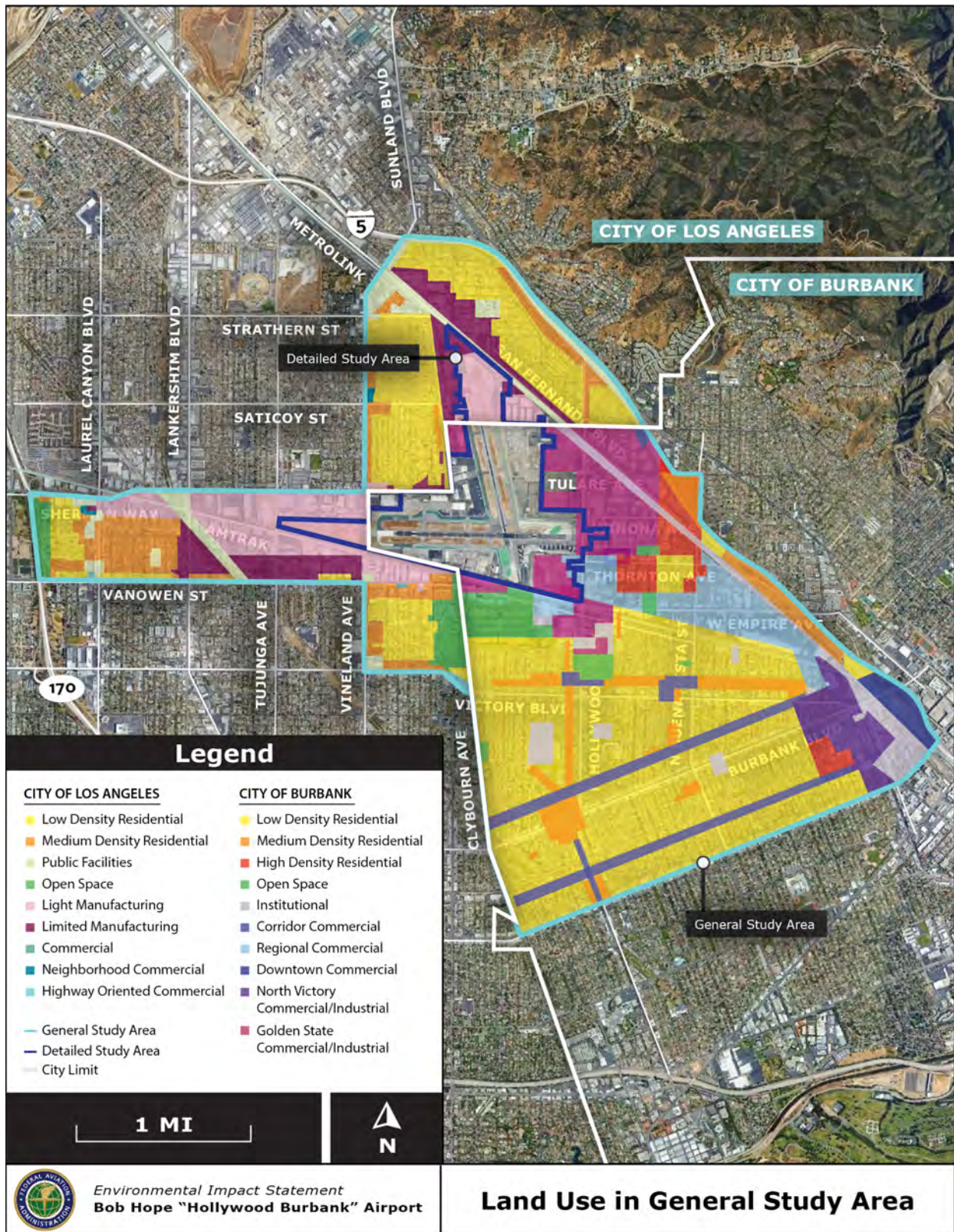
3.10.2.2 Existing Zoning

The General Study Area encompasses various zoning districts in the cities of Burbank and Los Angeles. The portions of the General Study Area within the city of Burbank include the following zoning districts: residential, industrial, cemetery, business, retail-professional, auto dealership, airport, and planned development (see **Exhibit 3.10-2**).⁸⁸ The portions of the General Study Area within the city of Los Angeles include the following zoning districts: commercial, public facilities, residential, industrial, and automobile parking (see **Exhibit 3.10-2**).⁸⁹

⁸⁸ City of Burbank. (2018). City of Burbank Zone Map. Retrieved June 2018, from City of Burbank: <http://www.burbankca.gov/home/showdocument?id=2620>.

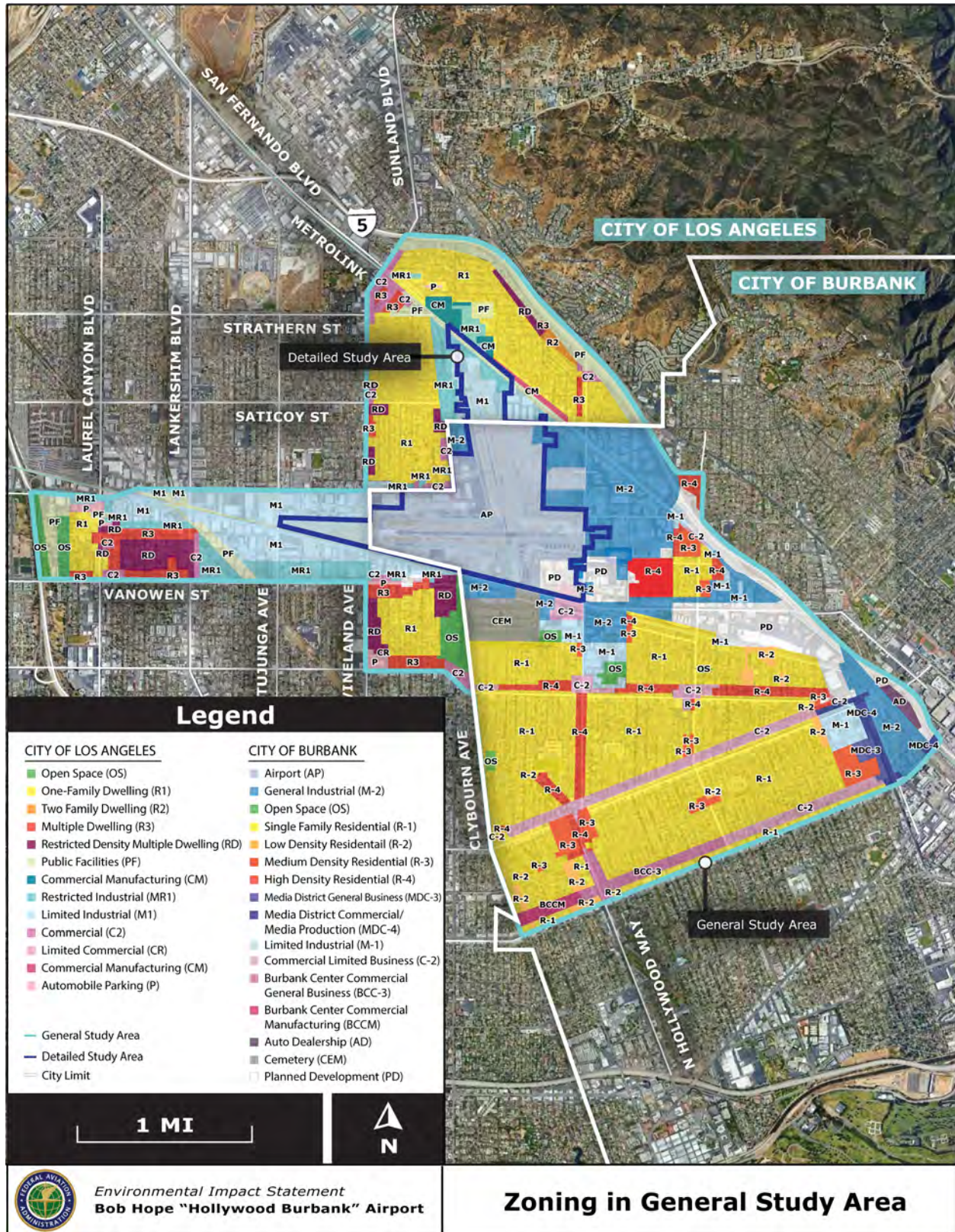
⁸⁹ City of Los Angeles. (2018). Department of City Planning, GIS Data - Department of City Planning. Retrieved June 2018, from City of Los Angeles: <http://planning.lacity.org/>.

**EXHIBIT 3.10-1
LAND USE IN GENERAL STUDY AREA**



Sources: City of Burbank, 2018; City of Los Angeles, 2018; RS&H, 2018.

EXHIBIT 3.10-2
ZONING IN GENERAL STUDY AREA



Sources: City of Burbank, 2018; City of Los Angeles, 2018; RS&H, 2018.

3.10.2.1 Planned Land Use

The *Burbank2035 General Plan* is designed to “lead Burbank into its second 100 years, continuing to advance a critical balance between quality of life, economic prosperity, and environmental sustainability.” According to the Land Use Diagram of the *Burbank2035 General Plan*, planned land uses of the City of Burbank within the General Study Area include: commercial/industrial, residential, open space, institutional, and commercial.⁹⁰ Additionally, the *Burbank2035 General Plan* specifies that future land use designations for the Airport will be adopted based off of the plan derived from voter approval of Measure B.⁹¹ However, the *Burbank2035 General Plan* has not yet been amended to include the land use designations for the Airport.

The *City of Los Angeles Citywide General Plan* provides the foundation for all land use decisions in Los Angeles. According to the Los Angeles Department of City Planning’s Zone Information and Map Access System, the portion of the General Study Area that lies within the city of Los Angeles includes planned land uses of manufacturing, commercial, public facilities, residential, and open space.⁹²

3.11 NATURAL RESOURCES AND ENERGY SUPPLY

3.11.1 Regulatory Context

See **Appendix D** for natural resources and energy supply regulations.

3.11.2 Existing Conditions

The greater Los Angeles metropolitan area is a highly developed urban area with ample natural resources to support aircraft operations, construction projects, and stationary facility operations. The Airport has access to energy sources and construction materials and these resources are not in short supply.

3.11.2.1 Electrical Power

Electricity provides critical lighting for safe and effective Airport operations. Airfield lighting within the Detailed Study Area consists of airfield navigational aids, runway and taxiway edge lighting, and aircraft parking areas. Landside lighting is essential for illuminating signage, buildings, access roadways, and automobile parking areas

⁹⁰ City of Burbank. (2018). *Burbank2035 General Plan*, Pages 3-7 and 3-8. Retrieved June 2018, from City of Burbank: <http://www.burbankca.gov/home/showdocument?id=23448>.

⁹¹ In November 2016, Burbank residents voted on and approved Measure B with a 70 percent approval rate.

⁹² City of Los Angeles. (2018). Department of City Planning, Zone Information and Map Access System (ZIMAS) GIS Map. Retrieved June 2018, from City of Los Angeles: <http://zimas.lacity.org/>.

for Airport visitors and employees. Stationary facilities also require electricity for lighting, cooling, and heating.

Burbank Water and Power (BWP) provides electricity to the Airport. BWP's electricity sources include natural gas,⁹³ coal, and municipal solid waste and landfill gas as well as nuclear, hydroelectric, geothermal, solar, and wind power. BWP's current energy supply consists of approximately 14 percent natural gas.⁹⁴ BWP's peak electricity demand is forecast to remain flat at 314 megawatts for the next several years.⁹⁵ Properties that get energy through BWP, as well as generate their own energy through alternative methods at one megawatt or less, must comply with BWP's Net Energy Metering Service, per California Public Utility Code Section 2827. All installations of energy generated through alternative methods at one megawatt or greater, must have an Interconnection Agreement with BWP.⁹⁶

The Authority has implemented numerous energy-efficiency measures to conserve electricity. Energy-efficient light bulbs are used in the short-term parking structure and the existing passenger terminal building, and light-emitting diode (LED) lighting and other "smart technology" enhancements have replaced traditional taxiway lighting systems. In addition, the Authority installed and is currently testing hybrid "ice energy" air conditioners; these units produce ice at night when power rates are low and subsequently chill the air-conditioner coolant during the day, which conserves energy while effectively reducing emissions of both carbon dioxide and oxides of nitrogen.⁹⁷

3.11.2.2 Construction Materials

Construction materials generally include asphalt, fill material, gravel, water, and wood. These resources are abundant in the Airport vicinity. Asphalt, sand, and gravel can be found 2 miles northwest of the Airport at the Vulcan Materials Company and at other vendors in Los Angeles County.

⁹⁴ City of Burbank, Water and Power. (2015). *Burbank Water and Power 2015 Integrated Resource Plan*. Retrieved December 2018, from City of Burbank: https://www.burbankwaterandpower.com/images/IRP/IRP_Presented_to_CityCouncil_Opt.pdf.

⁹⁵ City of Burbank, Water and Power. (2015). *Burbank Water and Power 2015 Integrated Resource Plan*. Retrieved December 2018, from City of Burbank: https://www.burbankwaterandpower.com/images/IRP/IRP_Presented_to_CityCouncil_Opt.pdf.

⁹⁶ City of Burbank, Water and Power. (2019, May). *Rules & Regulations for Utility Service, Section 3.25*. Retrieved July 2020, from City of Burbank: https://www.burbankwaterandpower.com/images/administrative/downloads/BWP_RulesAndRegs_May2019.pdf.

⁹⁷ Bob Hope "Hollywood Burbank" Airport. (2018). Noise & Environment, Sustainability. Retrieved December 2018, from Hollywood Burbank Airport: <http://hollywoodburbankairport.com/noise-issues/sustainability/>.

3.12 NOISE AND NOISE-COMPATIBLE LAND USE

3.12.1 Regulatory Context

See **Appendix D** for noise and noise-compatible land use regulations. For a discussion of noise terminology, see **Appendix I**.

3.12.2 Existing Conditions

Noise exposure in the vicinity of the Airport was evaluated based on the 134,008 aircraft operations that occurred during 2018 (see **Table 1.2-1**).⁹⁸ Noise contours were developed using these operational figures, fleet mix data, a pre-approved list of aircraft substitutions, and the Aviation Environmental Design Tool (AEDT) version 3b (see **Appendix J**). **Exhibit 3.12-1** presents the existing CNEL 65, 70, and 75-decibel (dB) noise contour.

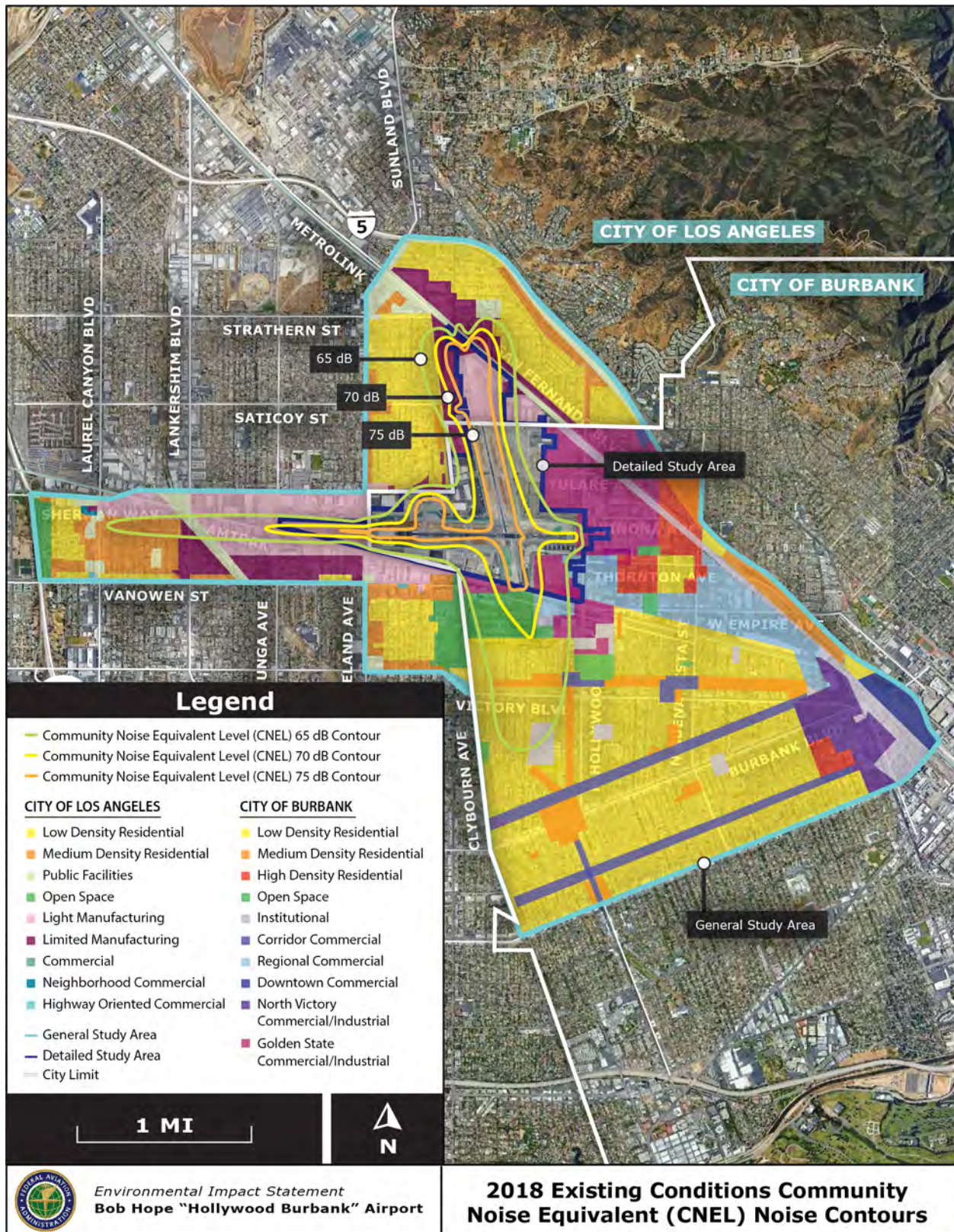
Using the established land use compatibility guidelines (see **Table 3.12-1**),⁹⁹ noise sensitive land uses in the 2018 CNEL 65 dB noise contour were identified. The only noise sensitive land uses identified were 863 residential properties and five Section 4(f) properties (Hangar 1, Hangar 2, the Portal of the Folded Wings Shrine to Aviation, Larry L. Maxam Memorial Park, and Maple Street Playground).¹⁰⁰ The 2018 CNEL 70 dB and 75 dB noise contours include no noise sensitive land uses. In aggregate, the CNEL 65 dB and greater noise contour includes 863 residential properties and five Section 4(f) properties.

⁹⁸ Preparation of this EIS began in December 2018 and the forecasts used in this EIS are based on those that existed at that time.

⁹⁹ 14 CFR Part 150, *Airport Noise Compatibility Planning*, Table 1.

¹⁰⁰ Two daycare or childcare facilities are known to be within the 65 dB noise contour. Both of these facilities are within residential land uses already identified as a noise-sensitive land use and neither is a school or an educational facility.

EXHIBIT 3.12-1
2018 EXISTING NOISE CONTOURS



Sources: AEDT, 2019; RS&H, 2020.

TABLE 3.12-1
PART 150 NOISE/LAND USE COMPATIBILITY GUIDELINES^{/a/ /b/}

	Below 65 DNL	65-70 DNL	70-75 DNL	75-80 DNL	80-85 DNL	Over 85 DNL
RESIDENTIAL						
Residential (not mobile or transient)	Y	N(1)	N(1)	N	N	N
Mobile home parks	Y	N	N	N	N	N
Transient lodgings	Y	N(1)	N(1)	N(1)	N	N
PUBLIC USE						
Schools	Y	N(1)	N(1)	N	N	N
Hospitals and nursing homes	Y	25	30	N	N	N
Churches, auditoriums, and concert halls	Y	25	30	N	N	N
Government services	Y	Y	25	30	N	N
Transportation	Y	Y	Y(2)	Y(3)	Y(4)	Y(4)
Parking	Y	Y	Y(2)	Y(3)	Y(4)	N
COMMERCIAL USE						
Offices, business and professional	Y	Y	25	30	N	N
Wholesale and retail-building materials, hardware and farm equipment	Y	Y	Y(2)	Y(3)	Y(4)	N
Retail trade-general	Y	Y	25	30	N	N
Utilities	Y	Y	Y(2)	Y(3)	Y(4)	N
Communication	Y	Y	25	30	N	N
MANUFACTURING AND PRODUCTION						
Manufacturing, general	Y	Y	Y(2)	Y(3)	Y(4)	N
Photographic and optical	Y	Y	25	30	N	N
Agriculture (except livestock) and forestry	Y	Y(6)	Y(7)	Y(8)	Y(8)	Y(8)
Livestock farming and breeding	Y	Y(6)	Y(7)	N	N	N
Mining and fishing, resource production and extraction	Y	Y	Y	Y	Y	Y
RECREATIONAL						
Outdoor sports arenas and spectator sports	Y	Y(5)	Y(5)	N	N	N
Outdoor music shells, amphitheaters	Y	N	N	N	N	N
Nature exhibits and zoos	Y	Y	N	N	N	N
Amusements, parks, resorts, and camps	Y	Y	Y	N	N	N
Golf courses, riding stables and water recreation	Y	Y	25	30	N	N

Notes:

/a/ The designations contained in this table do not constitute a Federal determination that any use of land covered

by the program is acceptable or unacceptable under Federal, State, or local law. The responsibility for determining the acceptable and permissible land uses remains with the local authorities. FAA determinations under Part 150 are not intended to substitute federally determined land uses for those determined to be appropriate by local authorities in response to locally determined needs and values in achieving noise compatible land uses.

/b/ For aviation noise analyses, the FAA has determined that the cumulative noise energy exposure of individuals to noise resulting from aviation activities is established in terms of Day Night Average Sound Level (DNL), the FAA's primary noise metric. The CNEL may be used in lieu of DNL for FAA actions needing approval in California. Y (YES) Land Use and related structures compatible without restrictions.

N (No) Land Use and related structures are not compatible and should be prohibited.

NLR Noise Level Reduction (outdoor to indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure. 25, 30, or 35 Land use and related structures generally compatible; measures to achieve NLR of 25, 30 or 35 dB must be incorporated into design and construction of the structure.

(1) Where the community determines that residential or school uses must be allowed, measures to achieve outdoor to indoor Noise Level Reduction (NLR) of at least 25 dB and 30 dB should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide a NLR of 20 dB, thus, the reduction requirements are often stated as 5, 10 or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year round. However, the use of NLR criteria will not eliminate outdoor noise problems.

(2) Measures to achieve NLR 25 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.

(3) Measures to achieve NLR of 30 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.

(4) Measures to achieve NLR 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal level is low.

(5) Land use compatible provided special sound reinforcement systems are installed.

(6) Residential buildings require an NLR of 25.

(7) Residential buildings require an NLR of 30.

(8) Residential buildings not permitted.

Source: 14 CFR 150, 2011.

3.13 SOCIOECONOMICS, ENVIRONMENTAL JUSTICE, AND CHILDREN'S ENVIRONMENTAL HEALTH AND SAFETY RISKS

This section describes the regulatory context for socioeconomics, environmental justice, and children's environmental health and safety risks, and the existing demographics in and around the General Study Area. U.S. Census Bureau information for the cities of Burbank, Los Angeles, and Los Angeles County was used for the identification of socioeconomic and environmental justice data within the General Study Area. Census tracts are small subdivisions of a county. For consistency across this section, **Table 3.13-1** and **Exhibit 3.13-1** show the 26 census tracts within the General Study Area.

3.13.1 Socioeconomics

3.13.1.1 Regulatory Context

See **Appendix D** for regulations associated with socioeconomics.

TABLE 3.13-1
U.S. CENSUS TRACTS IN THE GENERAL STUDY AREA

U.S. Census Bureau Tract	Block Group(s)^{/a/}
1021.05	1, 2
1221.20	2
1221.21	2
1221.22	1
1222.00	1, 2, 3
1224.10	2
1224.20	2
1230.10	1
1230.20	1, 2
1231.03	1, 2
1232.03	1, 2
1232.04	1
1232.05	2
1232.06	1
1233.01	1, 2
3104.00	3
3105.01	1, 2, 3
3106.01	2
3107.01	2
3108.00	1

U.S. Census Bureau Tract	Block Group(s) ^{/a/}
3109.00	1, 2, 3, 4, 5, 6
3110.00	1, 2, 3, 4
3111.00	1, 2, 3
3112.00	1, 2, 3
3113.00	1, 2, 3
9800.01	1

Notes:

/a/ Block Groups are subdivisions of Census Bureau Tracts, which split the tract into a smaller geographical area.

Sources: U.S. Census Bureau, 2018; RS&H, 2018.

3.13.1.2 Existing Conditions

Population and Housing

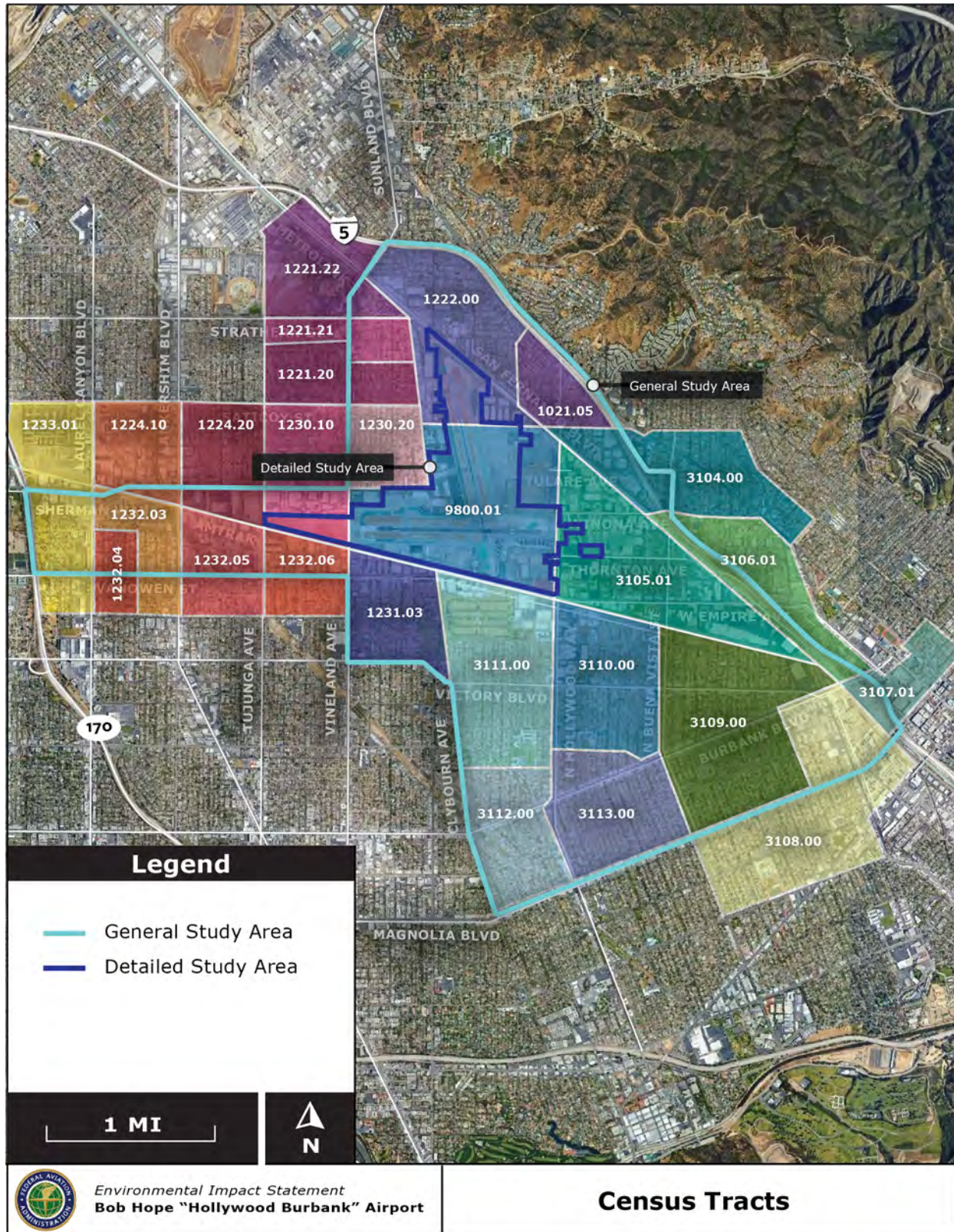
Table 3.13-2 lists the population growth from 2010 to 2017 in the U.S. Census Tracts that are within the General Study Area. Data for Burbank, Los Angeles, and Los Angeles County are included for comparison purposes. Between 2010 and 2017, the population in the General Study Area and Burbank increased by an average of 0.91 and 1.9 percent, respectively. Comparatively, the population in Los Angeles and Los Angeles County increased at a higher rate, at 4.7 and 3.6 percent, respectively. The City of Burbank's *Burbank2035 General Plan* estimates a

TABLE 3.13-2
POPULATION CHANGE BETWEEN 2010 AND 2017

Area	2010 Population	2017 Population	Percent Change
General Study Area	94,699	95,564	0.91%
Burbank	102,723	104,765	1.9%
Los Angeles	3,772,486	3,949,776	4.7%
Los Angeles County	9,758,256	10,105,722	3.6%

Sources: U.S. Census Bureau, 2017; RS&H, 2019.

EXHIBIT 3.13-1
CENSUS TRACTS IN GENERAL STUDY AREA



Sources: U.S. Census Bureau, 2018; RS&H, 2018.

total population in Burbank of 116,516 by 2035, which is a 11.2 percent increase from the 2017 population.^{101, 102}

Table 3.13-3 lists the total and vacant housing units, and average household size in the General Study Area, as well as Burbank, Los Angeles, and Los Angeles County. An average 3.3 percent of housing units are vacant in the General Study Area, which is slightly less than the 3.8 percent of housing units vacant in Burbank. Comparatively, the percentage of vacant housing units in Los Angeles and Los Angeles County are higher at 6.4 percent and 6.0 percent, respectively. The average household size in the General Study Area (3.21) is 28 percent, 13 percent, and 7 percent higher than the average household size in Burbank, Los Angeles, and Los Angeles County, respectively. The *Burbank2035 General Plan* estimates an additional total residential unit build out potential of 4,742 units in Burbank by 2035, which is an almost eleven percent increase in residential units from the total number of housing units in 2017.

**TABLE 3.13-3
HOUSING UNITS**

Area	Total Housing Units	Percentage of Vacancy	Average Household Size
General Study Area	32,057	3.3%	3.21
Burbank	43,323	3.8%	2.50
Los Angeles	1,457,762	6.4%	2.83
Los Angeles County	3,506,903	6.0%	3.01

Sources: U.S. Census Bureau, 2017; RS&H, 2019.

Employment

Table 3.13-4 summarizes the employed population in the General Study Area, Burbank, Los Angeles, and Los Angeles County. According to the U.S. Census

¹⁰¹ City of Burbank. (2013). *Burbank2035 General Plan*. Retrieved November 2018, from City of Burbank: <https://www.burbankca.gov/home/showdocument?id=23448>.

¹⁰² The City of Los Angeles has not updated their growth projections in the General Plan since 1993. Growth estimates for the City of Los Angeles were projected in 1993 for the year 2010 at a total population of 4,306,500.

**TABLE 3.13-4
OVERVIEW OF EMPLOYED POPULATION**

Trade	General Study Area	Burbank	Los Angeles	Los Angeles County
Civilian employed population 16 years and over	45,828	87,352	2,125,145	5,212,243
Unemployed	3,525	4,430	171,100	406,426
Percent Unemployed	7.7%	7.5%	8.1%	7.8%
Agriculture, forestry, fishing and hunting, and mining	0.3%	0.3%	0.4%	0.5%
Construction	6.5%	3.9%	6.1%	5.8%
Manufacturing	9.2%	7.1%	8.4%	9.9%
Wholesale trade	2.6%	2.0%	2.7%	3.4%
Retail trade	11.4%	9.5%	10.2%	10.5%
Transportation and warehousing, and utilities	4.4%	3.8%	4.6%	5.6%
Information	7.7%	13.0%	6.0%	4.5%
Finance and insurance, and real estate and rental and leasing	4.7%	6.9%	6.1%	6.1%
Professional, scientific, and management, and administrative and waste management services	11.7%	12.7%	14.2%	12.8%
Educational services, and health care and social assistance	19.1%	18.6%	19.3%	20.6%
Arts, entertainment, and recreation, and accommodation and food services	12.7%	12.8%	12.8%	11.1%
Other services, except public administration	7.5%	5.9%	7.0%	6.1%
Public administration	2.2%	3.3%	2.2%	3.2%

Note:

These employed population numbers represent pre-Pandemic numbers.

Sources: U.S. Census Bureau, 2017; RS&H, 2019.

Bureau, there are 45,828 employed civilians within the General Study Area.¹⁰³ The unemployment rate is 7.7 percent in the General Study Area, which is 2.7 percent higher than the unemployment rate in Burbank and 4.9 percent and 1.3 percent

¹⁰³ U.S. Census Bureau. (2017). 2013–2017 American Community Survey 5-Year Estimates. Retrieved January 2021, from U.S. Census Bureau:

lower than the unemployment rate in Los Angeles, and Los Angeles County, respectively. According to the U.S. Census Bureau¹⁰⁴, educational services, and health care and social assistance has the greatest percentage of employment within the General Study Area, as well as within Burbank, Los Angeles, and Los Angeles County. Comparatively, the agriculture, forestry, fishing and hunting, and mining trade group has the least percentage of employment within the General Study Area, Burbank, Los Angeles, and Los Angeles County.

Economic Activity and Income

Table 3.13-5 lists the median household income and per capita income for the General Study Area, Burbank, Los Angeles, and Los Angeles County. According to the U.S. Census Bureau, the median household income in the General Study Area is \$53,178, while the average per capita income is \$24,066. The median household income for the General Study Area is 23.1 percent, 2.4 percent, and 12.8 percent lower than the median household income for Burbank, Los Angeles, and Los Angeles County, respectively. The per capita income in the General Study Area is 36.3 percent, 23.8 percent, and 21.9 percent lower compared to the per capita income for Burbank, Los Angeles, and Los Angeles County, respectively.

TABLE 3.13-5
HOUSEHOLD INCOME AND PER CAPITA INCOME

Area	Household Median Income	Per Capita Income
General Study Area	\$53,178	\$24,066
Burbank	\$69,118	\$37,767
Los Angeles	\$54,501	\$31,563
Los Angeles County	\$61,015	\$30,798

Sources: U.S. Census Bureau, 2017; RS&H, 2019.

Table 3.13-6 describes the share of the population in poverty within the General Study Area, as well as Burbank, Los Angeles, and Los Angeles County. The percent of the population in the General Study Area below the poverty level is 17.9 percent, which is 12.2 percent lower than the population below the poverty level in Los Angeles, but 58.4 percent and 5.3 percent higher than the population below the poverty level in Burbank and Los Angeles County, respectively.

¹⁰⁴ U.S. Census Bureau. (2017). 2013–2017 American Community Survey 5-Year Estimates. Retrieved January 2021, from U.S. Census Bureau:

**TABLE 3.13-6
POPULATION BELOW THE POVERTY LEVEL**

Area	Population for Whom Poverty Status is Determined	Percent of Population Living Below the Poverty Level
General Study Area	95,213	17.9%
Burbank	104,367	11.3%
Los Angeles	3,881,668	20.4%
Los Angeles County	9,955,473	17.0%

Sources: U.S. Census Bureau, 2017; RS&H, 2019.

Surface Traffic

The General Study Area (see **Exhibit 3.2-1**) was chosen to include all facilities that could experience a change in surface traffic as a result of the Proposed Project. FAA developed the General Study Area in response to scoping comments received on the proposed Replacement Passenger Terminal Project. The identification of the General Study Area took into account Airport surface traffic patterns, project trip generation estimates, and the existing operations of nearby intersections and corridors. The General Study Area encompasses an area that is approximately 4.25 miles east-west by 3.5 miles north-south. It is generally bounded by State Route 170 (SR 170) to the west, Interstate 5 (I-5) to the east, I-5 and San Fernando Road to the north, and Magnolia Boulevard to the south. The majority of the General Study Area is located within the boundaries of the city of Burbank, and the remainder lies within the city of Los Angeles.

Existing Operating Conditions

Numerous transportation facilities in the General Study Area were analyzed using the current traffic counts to establish baseline traffic operating conditions.¹⁰⁵ This surface traffic analysis was conducted in accordance with standards from the Federal Highway Administration (FHWA).

Analysis Time Periods

For this traffic analysis, three time periods were chosen for evaluation, including the typical weekday¹⁰⁶ morning and evening peak hours and the Friday evening peak

¹⁰⁵ Surface traffic counts represent pre-Pandemic surface traffic numbers.

¹⁰⁶ Tuesdays through Thursdays are considered typical weekdays, as they tend to exhibit more consistent weekday traffic patterns than Mondays or Fridays.

hour. The peak hour at each analyzed intersection, freeway segment, or off-ramp is the busiest single hour based on the sum of traffic passing through the intersection, freeway segment, or off-ramp. The typical weekday morning and evening peak hours experience the heaviest traffic due to commuters, while the Friday evening peak hour experiences the heaviest combined level of Airport traffic and ambient traffic.

Analysis Methodologies

Facilities were analyzed in this study using the *Highway Capacity Manual Sixth Edition* (HCM)¹⁰⁷ suite of methodologies according to the FHWA guidelines. For signalized and all-way stop-controlled intersections, the HCM methodology estimates average vehicular delay for vehicles passing through the intersection. For two-way stop-controlled intersections (where the major street traffic does not stop), the HCM methodology estimates the worst-case delay experienced by any minor-street movement waiting to turn onto or cross the major street. The HCM methodology determines intersection level of service (LOS) according to the LOS definitions provided in **Table 3.13-7**.

Facilities controlled by the California Department of Transportation (Caltrans), including mainline freeway segments and ramp queue lengths, were also analyzed using applicable HCM methodologies.

Transportation Facilities Analyzed

A total of 42 intersections were selected for detailed analysis within the General Study Area, including 32 signalized intersections and 10 unsignalized intersections. These intersections are listed in **Table 3.13-8** and shown in **Exhibit 3.13-2**. Intersections #31 and #32 (the I-5 southbound and northbound ramps at Empire Avenue) were under construction as part of the Empire Avenue Interchange Project until September 2019 and therefore, were only included in future analyses.

¹⁰⁷ Transportation Research Board. (2016). *Highway Capacity Manual 6th Edition: A guide for Multimodal Mobility Analysis*.

TABLE 3.13-7
LEVEL OF SERVICE DEFINITIONS FOR INTERSECTIONS

Level of Service	Signalized Delay (seconds)	Unsignalized Delay (seconds)	Definition
A	0.0 – 10.0	0.0 – 10.0	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	10.1 – 20.0	10.1 – 15.0	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	20.1 – 35.0	15.1 – 25.0	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	35.1 – 55.0	25.1 – 35.0	FAIR. Delays may be substantial during portions of the rush hours, but enough lower-volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	55.1 – 80.0	35.1 – 50.0	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 80.0	> 50.0	FAILURE. Backups from nearby locations or on cross-streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

Sources: Transportation Research Board, 2016; Gibson, 2018.

TABLE 3.13-8
LIST OF ANALYZED INTERSECTIONS

No.	North/South Street	East/West Street	Jurisdiction
<i>Signalized Intersections</i>			
1.	SR 170 Southbound Ramps	Sherman Way	City of Los Angeles / Caltrans
2.	Laurel Canyon Boulevard	Sherman Way	City of Los Angeles
3.	Laurel Canyon Boulevard	Vanowen Street	City of Los Angeles
4.	Sunland Boulevard	San Fernando Road	City of Los Angeles
5.	Vineland Avenue	Sherman Way	City of Burbank / City of Los Angeles
6.	Vineland Avenue	Vanowen Street	City of Los Angeles
7.	Vineland Avenue	Victory Boulevard	City of Los Angeles
8.	San Fernando Road	Strathern Street / Clybourn Avenue	City of Los Angeles
9.	Clybourn Avenue	Vanowen Street	City of Burbank / City of Los Angeles
10.	Arvilla Avenue	San Fernando Road	City of Los Angeles
11.	Airport Terminal Driveway	Empire Avenue	City of Burbank
12.	Hollywood Way	I-5 Northbound Ramps	City of Los Angeles / Caltrans
13.	Hollywood Way Southbound Ramps	San Fernando Boulevard	City of Burbank
14.	Hollywood Way Northbound Ramps	San Fernando Boulevard	City of Burbank
15.	Hollywood Way	Tulare Avenue	City of Burbank
16.	Hollywood Way	Winona Avenue	City of Burbank
17.	Hollywood Way	Airport / Thornton Avenue	City of Burbank
18.	Hollywood Way	Airport / Avon Avenue	City of Burbank
19.	Hollywood Way Southbound Off-ramp	Empire Avenue	City of Burbank
20.	Avon Street	Empire Avenue	City of Burbank
21.	Hollywood Way	Victory Boulevard	City of Burbank
22.	Hollywood Way	Burbank Boulevard	City of Burbank
23.	Hollywood Way	Magnolia Boulevard	City of Burbank

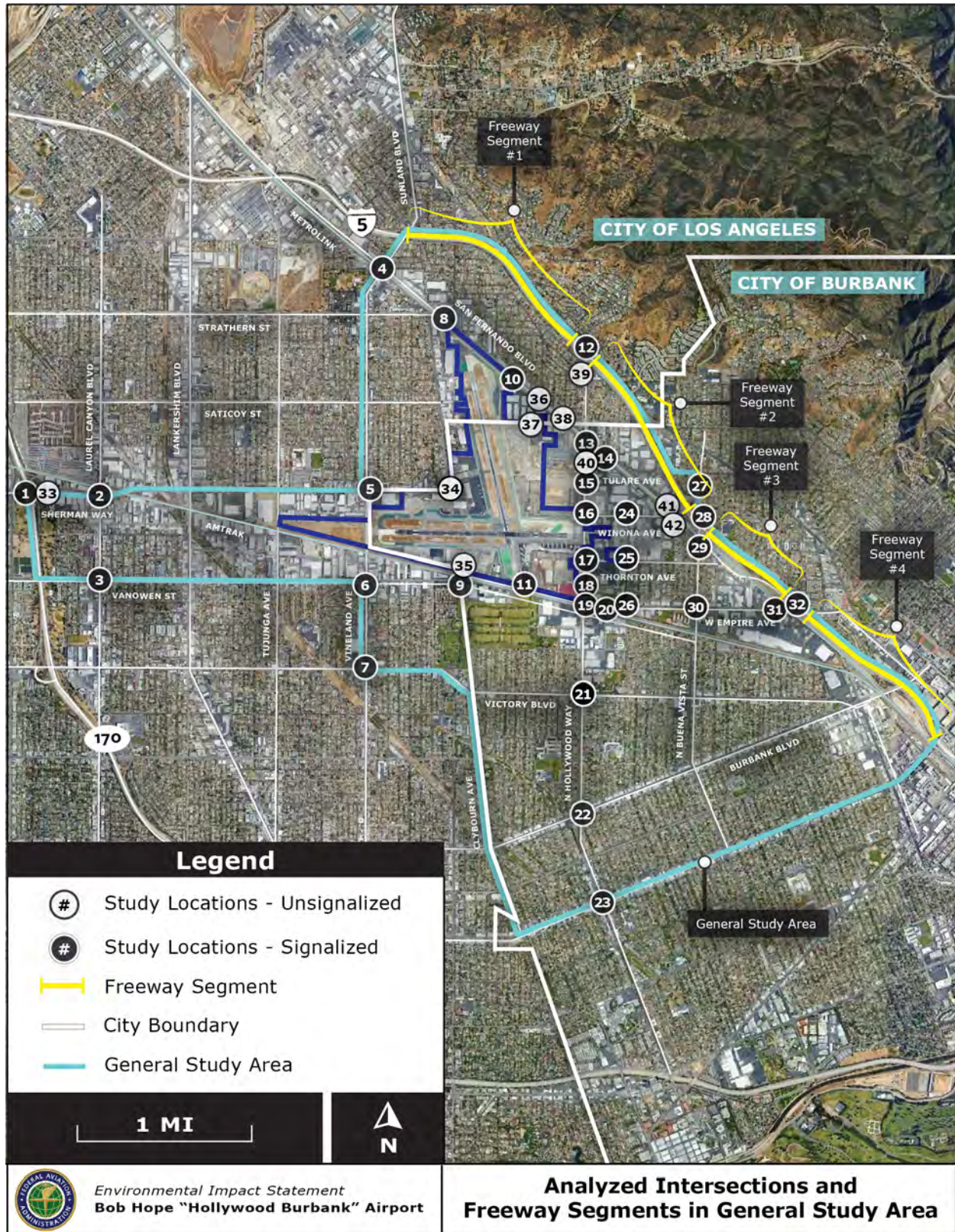
No.	North/South Street	East/West Street	Jurisdiction
24.	Ontario Street	Winona Avenue	City of Burbank
25.	Ontario Street	Thornton Avenue	City of Burbank
26.	Ontario Street	Empire Avenue	City of Burbank
27.	Buena Vista Street	I-5 Northbound Ramps	City of Burbank / Caltrans
28.	Buena Vista Street	Winona Avenue	City of Burbank
29.	Buena Vista Street	San Fernando Boulevard	City of Burbank
30.	Buena Vista Street	Empire Avenue	City of Burbank
31. /a/	I-5 Southbound Ramps	Empire Avenue	City of Burbank / Caltrans
32. /a/	I-5 Northbound Ramps	Empire Avenue	City of Burbank / Caltrans
Unsignalized Intersections			
33.	SR 170 Northbound Ramps	Sherman Way	City of Los Angeles / Caltrans
34.	Clybourn Avenue	Sherman Way	City of Burbank / City of Los Angeles
35.	Clybourn Avenue	Empire Avenue	City of Burbank / City of Los Angeles
36.	Lockheed Drive	San Fernando Road	City of Los Angeles
37.	Lockheed Drive	Cohasset Street	City of Burbank / City of Los Angeles
38.	San Fernando Boulevard	Cohasset Street	City of Burbank / City of Los Angeles
39.	Hollywood Way	I-5 Southbound Ramps	City of Los Angeles / Caltrans
40.	Hollywood Way	San Fernando Boulevard Ramps	City of Burbank
41.	I-5 Southbound Ramps	San Fernando Boulevard	City of Burbank / Caltrans
42.	San Fernando Boulevard / Naomi Street	Winona Avenue	City of Burbank

Notes:

/a/ Intersection was under construction until completion and opening in September 2019 as part of the Empire Avenue Interchange Project. It was only analyzed under Future Conditions.

Source: Gibson, 2018.

EXHIBIT 3.13-2
ANALYZED INTERSECTIONS AND FREEWAY SEGMENTS IN GENERAL STUDY AREA



Sources: Gibson, 2019; RS&H, 2019.

Detailed analysis was also conducted at several Caltrans facilities within the General Study Area, including four freeway mainline segments along I-5 and eight freeway off-ramps from among the 42 analyzed intersections. **Table 3.13-9** lists these Caltrans facilities.

TABLE 3.13-9
LIST OF ANALYZED CALTRANS FACILITIES

No.	Location
<i>Freeway Mainline Segments</i>	
1.	I-5 north of Hollywood Way
2.	I-5 between Hollywood Way & Buena Vista Street
3.	I-5 between Buena Vista Street & Empire Avenue
4.	I-5 south of Empire Avenue
<i>Off-ramp Queues</i>	
1.	SR 170 Southbound Off-ramp to Sherman Way (Intersection #1)
2.	I-5 Northbound Off-ramp to Hollywood Way (Intersection #12)
3.	I-5 Northbound Off-ramp to Buena Vista Street (Intersection #27)
4. /a/	I-5 Southbound Off-ramp to Empire Avenue (Intersection #31)
5. /a/	I-5 Northbound Off-ramp to Empire Avenue (Intersection #32)
6.	SR 170 Northbound Off-ramp to Sherman Way (Intersection #33)
7.	I-5 Southbound Off-ramp to Hollywood Way (Intersection #39)
8.	I-5 Southbound Off-ramp to San Fernando Boulevard (Intersection #41)

Notes:

/a/ Intersection or ramp was under construction until completion and opening in September 2019 as part of the Empire Avenue Interchange Project. It was only analyzed under Future Conditions.

Source: Gibson, 2018.

Traffic Data Collection

Intersection turning movement counts were collected at 38 of the 42 study intersections during the weekday morning peak periods and the weekday and Friday evening peak periods in May 2018. Turning-movement counts were taken at Intersection #19 (Hollywood Way Southbound off-ramp / Empire Avenue) and Intersection #29 (Buena Vista Street / San Fernando Boulevard) in August 2018. Intersections #31 and #32 (the I-5 freeway ramps to Empire Avenue) were under construction and not open to the public until September 2019 and therefore, were

not counted as part of the existing conditions analysis. In total, 40 of the 42 study intersections were open to the public during the traffic study.

For the four freeway mainline segments on I-5 selected for evaluation, peak-hour traffic volume data was collected from Caltrans's *2016 Traffic Volumes on California State Highways*¹⁰⁸ for the weekday morning and evening peak hours. Because Caltrans-published count data are not separated by day of the week, this analysis assumes that Friday evening peak-hour data is equivalent to weekday evening peak-hour data. The intersection traffic counts described above were used to evaluate Caltrans ramp intersections and queuing.

Levels of Service

Intersection Levels of Service

All 30 signalized intersections and 10 unsignalized intersections currently operate at LOS D or better during all three analyzed peak hours.

Freeway Mainline Segment Levels of Service

Traffic flow on the freeways in the Airport vicinity is substantially heavier in the southbound direction during the morning peak hour and in the northbound direction during the evening peak hour. The freeway segments are identified on **Exhibit 3.13-2**. The freeway segments currently affected by construction of the I-5 Widening Project (Segments #3, I-5 between Buena Vista Street and Empire Avenue, and #4, I-5 south of Empire Avenue) would each operate at LOS E or F in the peak direction during the peak hours. Once complete, the I-5 Widening Project will improve conditions on those two freeway segments.

Freeway Off-ramp Queues

The freeway off-ramps are identified as intersections in **Table 3.13-9** and are shown in **Exhibit 3.13-2**. Two of the six freeway off-ramps in the Airport vicinity currently experience queues that exceed the length of one or more approach lanes during one or more peak hours (Ramp #1, SR 170 Southbound Off-ramp to Sherman Way [Intersection #1]), and Ramp #2, I-5 Northbound Off-ramp to Hollywood Way [Intersection #12]). However, neither of these two queues would extend into the mainline freeway.

¹⁰⁸ Caltrans. (2017). *2016 Traffic Volumes on California State Highways*. Retrieved June 2018, from Caltrans: https://dot.ca.gov/trafficops/census/docs/2016_aadt_volumes.pdf.

Existing Airport Operations

Airport Access

Access to the existing passenger terminal building is provided by a terminal loop road that connects to Hollywood Way at Thornton Avenue and to Empire Avenue to the south. Avenue A, the terminal loop road, also provides access to several adjacent parking facilities and to the Regional Intermodal Transportation Center (RITC), which contains the Airport's rental car operations and a transit center on the ground floor for public buses. Numerous smaller driveways provide access to general aviation facilities along Empire Avenue, Sherman Way, and Clybourn Avenue. Offsite parking lots, described below, are accessed from Hollywood Way and Thornton Avenue.

Airport Parking

Two parking structures in the vicinity of the existing passenger terminal building (the Short-Term Parking Structure and the Replacement Parking Structure) and several surface parking lots (the Valet Parking Lot, Parking Lot D, Parking Lot E, and Parking Lot G) provide short- and long-term Airport parking. In total, these lots and structures provide approximately 3,890 publicly available parking spaces in the vicinity of the existing passenger terminal building, although Parking Lot D, located in the northeast quadrant, is currently leased out to local car dealerships for vehicle storage. Additional public parking is provided at several locations away from the existing passenger terminal building. Parking Lot A is in the northeast quadrant and is accessed from Hollywood Way at Winona Avenue. Parking Lot B, which is currently unused, provides 638 spaces east of Hollywood Way south of Winona Avenue in the southeast quadrant. Parking Lot C is located on the north side of Thornton Avenue east of Hollywood Way in the southeast quadrant. These three lots provide 2,747 parking spaces, bringing the total number of public-use spaces provided by the Airport to 6,637—of which 5,387 are currently used for Airport parking. Additionally, there are two staff parking lots with a total of 612 spaces: the East Authority Staff Parking Lot adjacent to the existing passenger terminal building and the Employee Parking Lot adjacent to Parking Lot A.

Airport Shuttles

The Airport provides free passenger shuttles between the existing passenger terminal building and the following locations: Parking Lot A, Parking Lot C, and the Burbank Airport North Metrolink Station, which is north of the Airport on North San Fernando Road. The shuttle circulates to the two parking lots approximately every 10 minutes between 4:00 a.m. and midnight. It travels to the Burbank Airport North Metrolink Station five minutes prior to the arrival of a train and returns to the

existing passenger terminal building five minutes after the departure of a train. Additionally, a shuttle may be dispatched to the Burbank Airport South Metrolink Station, which is south of the Airport on West Empire Avenue, upon request by phone.

Travel Mode Split

Passengers travel to and from the Airport using a variety of modes, including:

- » Driving and parking private automobiles (self-park or valet)
- » Being dropped off or picked up by family or friends
- » Driving rental cars
- » Traveling by taxi
- » Traveling by Transportation Network Company (TNC) services such as Uber or Lyft
- » Traveling by airport shuttle or shared ride van
- » Traveling by hotel shuttle
- » Traveling by public transit

Recent and precise data on passenger travel modes to and from the Airport are not available. Mode split and average vehicle occupancy assumptions were developed based on data provided by Airport staff as well as the results of a 2012 Airport survey of passengers and employees (see **Table 3.13-10**).¹⁰⁹ As shown, an estimated 36 percent of passengers drive alone whereas 63 percent get a ride (including 30 percent driven by a friend or family member in a private automobile). Only one percent of passengers take public transit to the Airport. It is estimated that all passenger automobiles carry an average of 1.2 passengers, while hotel shuttles are assumed to carry 3 passengers and shared vans to carry 5 passengers.

Surface Traffic Volumes

Existing peak hour traffic volumes to the Airport were totaled based on traffic counts at parking lot entrances and adjacent intersections. The traffic volumes were separately totaled for the existing passenger terminal building, the offsite parking lots, and general aviation facilities. The existing passenger terminal building generates 1,722 vehicle trips during the morning peak hour (912 inbound,

¹⁰⁹ Unison Consulting, Inc., Maroon Society, Montbury Consulting, Inc., and David Brownstone, Ph.D. (2012, August). *Bob Hope Airport Ground Access Study Data Collection and Analysis: Surveys of Airport Passengers and Employees*.

TABLE 3.13-10
GROUND-BASED PASSENGER TRANSPORTATION MODE SPLIT SUMMARY

Travel Mode	Travel Mode Share	Average Vehicle Occupancy
Drive Self		
Self-Park at Existing Passenger Terminal Building	4%	1.2
Self-Park at Remote Lot (On- or Off-Airport)	15%	1.2
Valet Park	2%	1.2
Rental Car	15%	1.2
Total Drive Self	36%	
Get a Ride		
Friend or Family	30%	1.2
Taxi	3%	1.2
Transportation Network Company (Uber or Lyft)	25%	1.2
Hotel Shuttle	1%	3.0
Airport Shuttle / Shared Van	4%	5.0
Total Get a Ride	63%	
Other		
Public Transit	1%	N/A
Total Other	1%	
OVERALL TOTAL	100%	

Source: Gibson, 2018.

810 outbound), 1,578 vehicle trips during the typical evening peak hour (745 inbound, 833 outbound), and 2,024 vehicle trips during the Friday evening peak hour (941 inbound, 1,083 outbound) on average. Combining vehicle traffic to the existing passenger terminal building with offsite parking traffic and general aviation traffic, the Airport generates 1,975 vehicle trips during the morning peak hour, 1,818 vehicle trips during the typical evening peak hour, and 2,332 vehicle trips during the Friday evening peak hour.

3.13.2 Environmental Justice

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respects to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental, and commercial operations or policies. Meaningful Involvement means that:

- » people have an opportunity to participate in decisions about activities that may affect their environment and/or health;
- » the public's contribution can influence the regulatory agency's decision;
- » their concerns will be considered in the decision making process; and
- » the decision makers seek out and facilitate the involvement of those potentially affected.

Requirements for meaningful public involvement by minority and low-income populations are addressed in Paragraph 2-5.2.b of FAA Order 1050.1F. Executive Order 12898, signed by President Clinton on February 16, 1994, addresses Environmental Justice in Minority Populations and Low-Income Populations. Its purpose is to focus federal attention on the environmental and human health effects of federal actions on minority and low-income populations with the goal of achieving environmental protection for all communities. Environmental justice applies to all environmental resource topics evaluated in this EIS. This section identifies the minority and/or low-income populations that could be adversely affected by the Proposed Project.

3.13.2.1 Regulatory Context

See **Appendix D** environmental justice regulations.

3.13.2.2 Existing Conditions

The General Study Area encompasses the area where the Proposed Project could result in environmental justice impacts. For this analysis, minority populations and low-income populations are defined as follows:

- » Minorities are people of Hispanic or Latino origin of any race, African Americans, American Indian/Alaska Native, and Asian or Pacific Islanders (without double-counting people of Hispanic/Latino origin who are also contained in the racial categories).

- » Minority populations are identified where the percentage of minorities in the affected area exceeds 50 percent or the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate geographic analysis.
- » Low-income people are individuals in a family or household living at or below the poverty levels set by the Department of Health and Human Services.

For this impact evaluation, the U.S. Census Bureau's American Community Survey 2013–2017 5-Year Estimate¹¹⁰ and geographic information system (GIS) data was used to identify U.S. census tracts within the General Study Area that contain 50 percent or more minority and/or low-income populations. Additionally, the Department of Health and Human Services Poverty Guidelines¹¹¹ were reviewed to establish the criteria to identify of low-income populations.

As described in **Section 3.13**, the General Study Area contains 26 U.S. census tracts. **Table 3.13-11** shows the U.S. census tracts in the General Study Area, the percentage of minority and low-income individuals within each U.S. census tract, and whether those tracts are considered as having minority or low-income populations.

As shown in the table, two U.S. census tracts in the General Study Area contains a minority population because the percentage of minorities within the U.S. Census tract exceeds 50% (U.S. Census Tracts 1232.03 and 1232.04, at 53.8 percent and 52.8 percent, respectively). Census Tract 1232.03 is within the 2018 existing CNEL 65 dB noise contour.

The U.S. Department of Health and Human Services poverty guideline level in 2018 for a family/household of four was \$25,100.¹¹² U.S. Census Tract 3110 has a median income of \$105,987, which is the highest median income level of all U.S. census tracts in the General Study Area. The lowest median income level in the General Study Area—\$25,801—is in U.S. Census Tract 3107.01 and is slightly above the U.S. Department of Health and Human Services poverty guideline. No U.S. census tracts in the General Study Area exceed the 50 percent or more

¹¹⁰ U.S. Census Bureau, American Fact Finder. (2017). 2013–2017 American Community Survey 5-Year Estimates. Retrieved January 2021, from U.S. Census Bureau: [Census Data for Race](#) and [Census Data for Poverty](#).

¹¹¹ U.S. Department of Health and Human Services. (2017). Health and Human Services Poverty Guidelines for 2017. Retrieved September 2019, from U.S. Department of Health and Human Services: <https://aspe.hhs.gov/2017-poverty-guidelines>.

¹¹² U.S. Department of Health and Human Services. (2018). Health and Human Services Poverty Guidelines for 2018. Retrieved July 2020, from U.S. Department of Health and Human Services: <https://aspe.hhs.gov/2018-poverty-guidelines>.

poverty guideline.¹¹³ Therefore, no low-income populations exist in the General Study Area.

TABLE 3.13-11
MINORITY AND/OR LOW-INCOME POPULATIONS WITHIN THE GENERAL STUDY AREA

U.S. Census Tract	Total Percent Minority	Minority Population >50 Percent	Total Percent Below Poverty Guideline Level	Low-Income Population >50 Percent
1021.05	37.0%	No	16.9%	No
1221.20	22.3%	No	13.5%	No
1221.21	28.7%	No	2.6%	No
1221.22	46.9%	No	16.7%	No
1222.00	21.7%	No	14.3%	No
1224.10	28.6%	No	30.9%	No
1224.20	48.5%	No	22.8%	No
1230.10	13.1%	No	35.5%	No
1230.20	33.6%	No	22.1%	No
1231.03	36.1%	No	20.7%	No
1232.03	53.8%	Yes	36.8%	No
1232.04	52.8%	Yes	36.8%	No
1232.05	26.7%	No	24.0%	No
1232.06	49.2%	No	33.0%	No
1233.01	39.9%	No	18.6%	No
3104.00	18.6%	No	8.4%	No
3105.01	45.5%	No	8.1%	No
3106.01	30.5%	No	9.7%	No
3107.01	5.8%	No	34.5%	No
3108.00	27.6%	No	19.9%	No

¹¹³ U.S. Census Bureau, American Fact Finder. (2017). 2013–2017 American Community Survey 5-Year Estimates. Retrieved January 2021, from U.S. Census Bureau:

U.S. Census Tract	Total Percent Minority	Minority Population >50 Percent	Total Percent Below Poverty Guideline Level	Low-Income Population >50 Percent
3109.00	26.5%	No	8.0%	No
3110.00	40.1%	No	6.7%	No
3111.00	36.2%	No	6.4%	No
3112.00	19.4%	No	3.7%	No
3113.00	27.9%	No	16.3%	No
9800.01	0.0%	No	0.0%	No

Sources: U.S. Census Bureau, American Fact Finder 2013–2017 5-Year Estimate; RS&H, 2021.

Table 3.13-12 shows the total minority presence and the population living in poverty in the General Study Area, the city of Burbank, city of Los Angeles, Los Angeles County, and the state of California based on the U.S. Census Bureau's 2013–2017 American Community Survey 5-Year Estimates. The General Study Area has a minority population of 33.9 percent compared to 31.3 percent for Burbank, 47.8 percent for Los Angeles, 50.3 percent for Los Angeles County, and 41.4 percent for the state of California. For this project, the relevant comparison is between the General Study Area and Los Angeles County. Although two census tracts within the General Study Area (Census Tracts 1232.03 and 1232.04,) have a higher percentage of minority population than Los Angeles County, the average minority population percentage of all of the census tracts within the General Study Area is lower than Los Angeles County.

Table 3.13-12 also shows that Los Angeles has the highest percentage of people living below the poverty line (20.4 percent) when compared to the city of Burbank (11.3 percent) and General Study Area (17.1 percent).

TABLE 3.13-12
ENVIRONMENTAL JUSTICE CHARACTERISTICS

Environmental Justice Characteristic	General Study Area	City of Burbank	City of Los Angeles	Los Angeles County	California
Percent Minority	33.9%	31.3%	47.8%	50.3%	41.4%

Percent Living Below Poverty Line	17.1%	11.3%	20.4%	17%	15.1%
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Sources: U.S. Census Bureau, American Fact Finder 2013–2017 5-Year Estimate; RS&H, 2021.

3.13.3 Children's Environmental Health and Safety Risks

3.13.3.1 Regulatory Context

See **Appendix D** for children's environmental health and safety risks regulations.

3.13.3.2 Existing Conditions

About 23 percent of the population that resides within the General Study Area are under the age of 18. Within the population that is under age 18, the largest age group is made up of children between fifteen and seventeen years old (18.1 percent). **Table 3.13-13** shows the population of children under eighteen by each age group.

TABLE 3.13-13
POPULATION BY AGE GROUP IN GENERAL STUDY AREA

Age Group	Population Under 18	Percentage of Population Under 18
Under 3 years	3,170	14.3%
3 and 4 years	2,810	12.7%
5 years	1,272	5.7%
6-8 years	3,701	16.7%
9-11 years	3,382	15.3%
12-14 years	3,784	17.1%
15-17 years	3,995	18.1%
Total	22,124	100%

Sources: U.S. Census Bureau, 2018; RS&H, 2019.

In addition to the residential areas discussed in **Section 3.13.1.2**, areas of particular concern for children's environmental health risks and safety include schools and recreational facilities. Schools, day cares, parks, and children health centers are all locations with high concentrations of children. There are nine schools located within the General Study Area. These schools include, Glenwood

Elementary School, Roscoe Elementary School, Our Lady of the Holy Rosary School, Benjamin Franklin School, Providencia Elementary School, Monterey High School, Luther Burbank Middle School, Harte Elementary School, and Thomas Edison Elementary School.

There are thirteen Day Care/Child Care centers located within the General Study Area. These include New Generation, Miles of Smiles Montessori Child Care, Nilu's Day Care, Creative Kidz Family Preschool Child Care, Bret Harte Children's Center, ABC School House, Qvezada Family Child Care Inc, Village Toddler Center, A Rainbow School, Burbank Edu-Care Preschool, and Montessori Children's Academie.

As mentioned in **Section 3.7** there are also nine parks/playgrounds located within the General Study Area.

3.14 VISUAL EFFECTS

3.14.1 Regulatory Context

See **Appendix D** for visual effects regulations.

3.14.2 Existing Conditions

3.14.2.1 Light Emissions

Detailed Study Area

Current Airport facilities produce light and glare typical of urban areas. Airside and landside facilities such as the existing passenger terminal building, Aircraft Rescue and Fire Fighting facility, Airport Traffic Control Tower, and other buildings require internal and external lighting for safety and security reasons. Additionally, on-Airport roadways, access roads, aircraft parking apron areas, and automobile parking areas produce light and glare emissions.

The Airport also operates lighting infrastructure required for aircraft navigation and safety purposes during night hours and times of inclement weather. The approach and lighting system at the Airport is composed of a variety of systems approved for the safe movement of aircraft including:

- » airport rotating beacon (white-green)
- » medium intensity approach lighting system with runway alignment indicator lights (MALSR)
- » medium and high intensity runway edge lighting

- » runway end identifier lights (REIL)
- » Precision Approach Path Indicator (PAPI)¹¹⁴

General Study Area

The General Study Area contains various sources of light and glare, which include streetlights along roadways and highways, and in parking lots, lighted recreation facilities, lighted landscaping, and light illuminating the interior and exterior of various residential and non-residential buildings. Current Airport facilities are illuminated for safety and security reasons by various types of landside lighting for buildings, access roadways, apron areas, and automobile parking areas, as well as various airside lighting for runways, taxiways, apron areas, and aircraft. City of Burbank Municipal Code¹¹⁵ and City of Los Angeles Municipal Code¹¹⁶ governs the protection against nuisances, which includes glare and light emissions. The design of light standards within the General Study Area located in the City of Burbank is expected to be compatible with the building architecture and adjacent light standards in the public right-of-way and adjacent projects, and the design of light standards specified by municipal code, while areas of the General Study Area located in the City of Los Angeles are not expected to receive direct glare from a light source due to insufficient light shielding and also be compatible with other light standards specified by municipal code.

3.14.2.2 Visual Resources and Visual Character

Detailed Study Area

The visual character of the Airport consists of various airside and landside facilities and structures, including: runways, taxiways, the passenger terminal building, Airport Traffic Control Tower, surface automobile parking lots and parking structures, aircraft parking apron areas, hangars, maintenance areas, and the Regional Intermodal Transportation Center.

General Study Area

The visual character of the General Study Area can be described as urban due to the amount of development within the area (commercial, industrial, residential).

¹¹⁴ AirNav. (2018). FAA Information, Effective 21 June 2018 for KBUR Bob Hope Airport. Retrieved June 2018, from AirNav.com: <http://www.airnav.com/airport/KBUR>.

¹¹⁵ City of Burbank. (2020). City of Burbank Municipal Code, Article 17, §10-1-1706. Retrieved May 2020, from City of Burbank: <https://www.codepublishing.com/CA/Burbank/?BurbankOT.html&?f>.

¹¹⁶ City of Los Angeles. (2020). City of Los Angeles Municipal Code, Article 3, Division 1, §93.0107. Retrieved May 2020, from City of Los Angeles: [http://library.amlegal.com/nxt/gateway.dll/California/lamc/municipalcode?f=templates\\$fn=default.htm\\$3.0\\$vid=amlegal:losangeles_ca_mc](http://library.amlegal.com/nxt/gateway.dll/California/lamc/municipalcode?f=templates$fn=default.htm$3.0$vid=amlegal:losangeles_ca_mc).

The General Study Area is characterized with roadways, sidewalks, highways, railroads, buildings, and open space. Burbank has several scenic vistas and scenic resources within the vicinity of the Airport and within the General Study Area. Scenic vistas are generally defined as viewpoints that provide expansive views of a highly valued landscape for the benefit of the general public.¹¹⁷ The Verdugo Mountains, northeast of the Airport, and the Santa Monica Mountains, southeast of the Airport, are considered scenic vistas with aesthetic value for Burbank.¹¹⁸

Scenic resources in Burbank include public parks and open space, along with historic resources. There are open space land uses within the General Study Area. The largest open space area, directly south of the Airport, is the Pierce Brothers Valhalla Memorial Park. The park spans 101 acres in Burbank and North Hollywood. The Portal of the Folded Wings Shrine to Aviation, located 0.3-mile (1,690 feet) south of the southeast quadrant, in Valhalla Memorial Park is listed as a California Historical Resource.¹¹⁹

3.15 WATER RESOURCES

The following subsections describe the water resources in and around the Detailed Study Area. Water resources include floodplains, surface waters, and groundwater. As **Section 3.3** describes, there are no wetlands or wild and scenic rivers in or around the Detailed Study Area; therefore, those resources are not further discussed in this section.

3.15.1 Floodplains

Floodplains are lowland areas adjacent to inland or coastal waters that experience periodic inundation by floodwaters. Floodplains include flood-prone areas such as offshore islands or low-lying areas bordering a river. Floodplains are valued for their natural flood and erosion control, enhancement of biological productivity, and socioeconomic benefits and functions.

3.15.1.1 Regulatory Context

See **Appendix D** for floodplains regulations.

¹¹⁷ City of Burbank. (2018). *Burbank2035 General Plan*, page 6-15. Retrieved June 2018, from the City of Burbank: <http://www.burbankca.gov/home/showdocument?id=23448>.

¹¹⁸ City of Burbank. (2018). *Burbank2035 General Plan*, page 6-15. Retrieved February 2020, from the City of Burbank: <http://www.burbankca.gov/home/showdocument?id=23448>.

¹¹⁹ State of California. (2018). Office of Historic Preservation, Listed California Historical Resources. Retrieved June 2018, from the State of California: <http://ohp.parks.ca.gov/ListedResources/?view=county&criteria=19>.

3.15.1.2 Existing Conditions

Floodplain Management for the Airport

Responsibility for floodplain management at the Airport is shared by the city of Burbank, the city of Los Angeles, and Los Angeles County. The City of Burbank Land Development regulations require that any new development in Federal Emergency Management Agency (FEMA) Zones A1-30 and AE¹²⁰ may not increase the base-flood elevation at any location within the city by more than 1 foot.¹²¹ Zones A1-30 and AE are areas subject to inundation by the 100-year flood event. The City and County of Los Angeles do not allow development in the floodplain without a Conditional Letter of Map Revision.¹²²

Detailed Study Area

Portions of the Detailed Study Area lie within the 100-year floodplain (see **Exhibit 3.15-1**).¹²³ The majority of the Detailed Study Area is in Zone X, which is outside of the 500-year floodplain.¹²⁴ FEMA has designated areas within the western tip of the Detailed Study Area—west of Runway 8 end—as special flood hazard areas subject to inundation by the 100-year flood. These areas are zoned AE, with base-flood elevations ranging from 724 feet to 734 feet. The southern boundary of the Detailed Study Area is another Zone AE flood hazard area, with base elevations ranging from 675 feet to 714 feet. As shown in **Exhibit 3.15-1**, the Detailed Study Area experiences flooding during the 100-year flood that is not contained by the flood control channels—primarily along areas of the Lockheed Drain Channel (Panel 1328) as well as a portion of West Empire Avenue adjacent to the channel.

3.15.2 Surface Waters

3.15.2.1 Regulatory Context

See **Appendix D** for surface waters regulations.

¹²⁰ AE refers to areas at high risk for flooding and provides the base flood elevations for those areas.

¹²¹ Burbank City Code § 9-1-1-G103.10.2.

¹²² Los Angeles County Department of Public Works. (2006, January). *Hydrology Manual*.

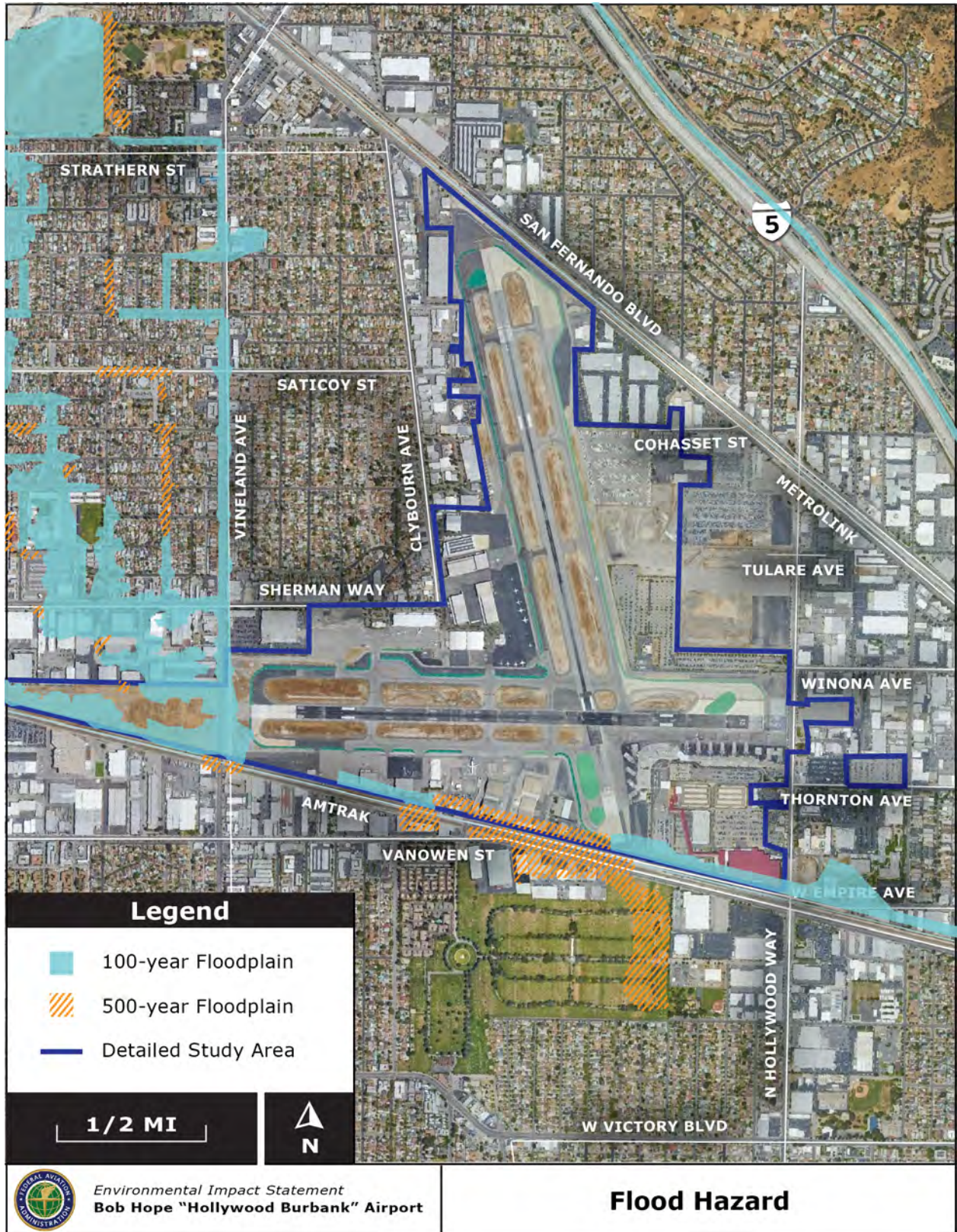
¹²³ The Detailed Study Area is covered by FEMA FIRM map numbers 06037C1310F and 06037C1328F. Federal Emergency Management Agency. (2008). September 26. Retrieved September 2018, from Federal Emergency Management Agency: <https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd&extent=-118.35813219037483,34.1933190274942,-118.34774667707005,34.19775606826416>.

¹²⁴ The 500-year flood zone is a designated area that has a 1 in 500 chance of being met or exceeded in any given year.

3.15.2.2 Existing Conditions

The Airport is in the San Fernando Valley within the Los Angeles River Watershed, which covers 834 square miles and is one of 19 major watersheds in the South Coast Hydrologic Region. The Los Angeles River and its tributaries drain the San Fernando Valley's surface water. The Los Angeles River, which flows from its headwaters in the Santa Monica Mountains, through the San Fernando Valley, south through the Glendale Narrows, and across the coastal plain into San Pedro Bay, defines the eastern boundary of the General Study Area and serves as a major flood control channel. The river has seven major tributaries: the Burbank Western Channel, Pacoima Wash, Tujunga Wash, Verdugo Wash, Arroyo Seco, Rio Hondo, and Compton Creek. The Los Angeles River is hydraulically connected to the San Gabriel River through the Whittier Narrows via the Rio Hondo, primarily during large storm events. Although the Los Angeles River once flowed freely over the coastal plain, it now flows in a channel that was constructed between 1914 and 1970 to

**EXHIBIT 3.15-1
FLOOD HAZARDS IN THE DETAILED STUDY AREA**



Sources: FEMA, 2008; RS&H, 2019.

control runoff and reduce the effects of major regional flood events. Today, over 90 percent of the Los Angeles River is lined with concrete, including the reach in and adjacent to the General Study Area.

Detailed Study Area

According to the Airport's 2015 Stormwater Pollution Prevention Plan (SWPPP), stormwater runoff flows over pavement and grassed areas prior to entering storm drain systems. The Airport is divided into five main drainage basins that collect and convey stormwater runoff to discharge points at the boundary of the Detailed Study Area. **Exhibit 3.15-2** depicts these drainage basins and **Exhibit 3.15-3** depicts the flow patterns present on the site.

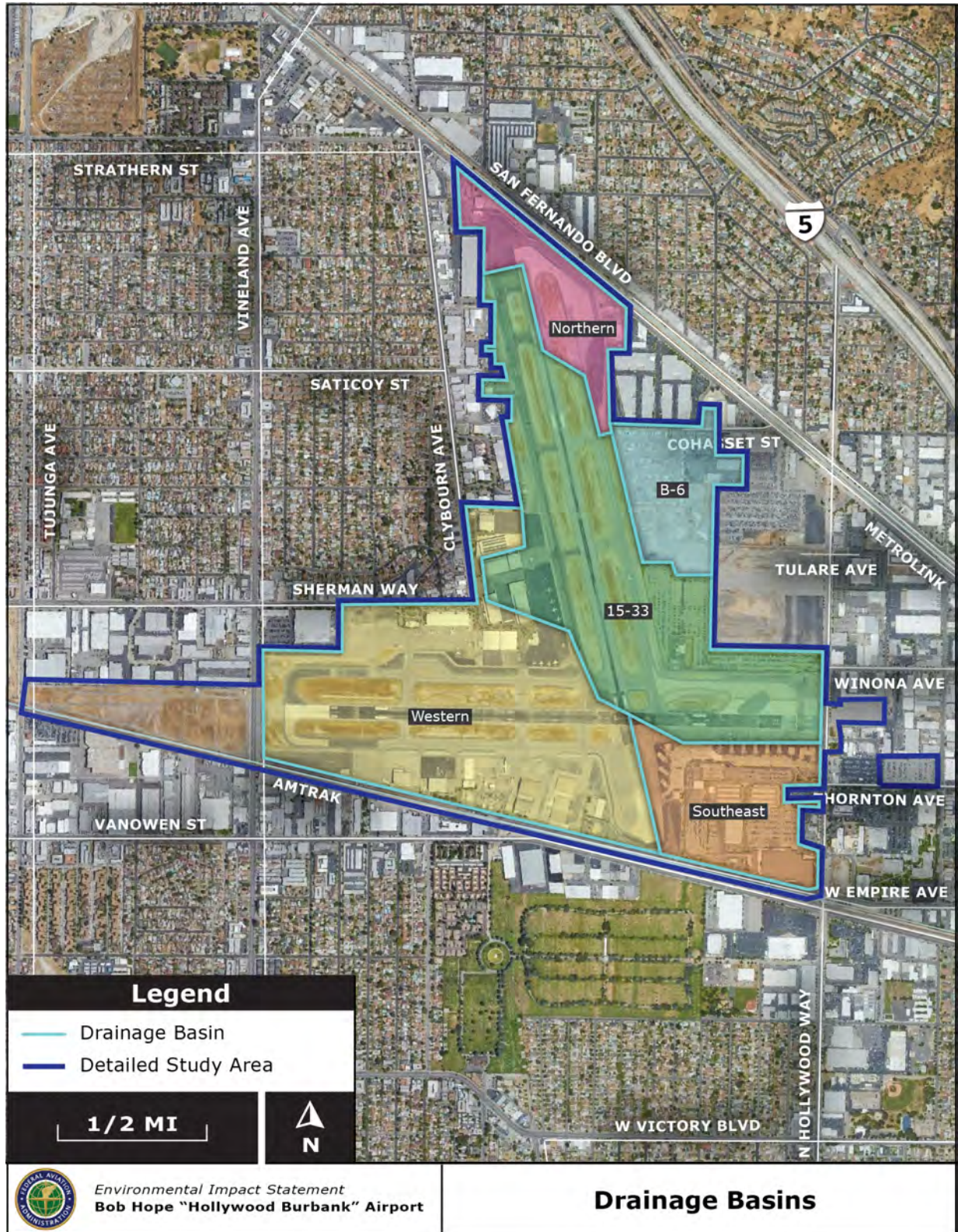
The only surface water feature within the Detailed Study Area is the Lockheed Channel, which is located on the southern edge of the Airport property (see **Exhibit 3.15-3**). This channel is concrete lined and does not hold water between storms. Lockheed Channel discharges to the Burbank Western Channel and ultimately to the Los Angeles River.

The largest drainage basin in the Detailed Study Area, the Western Basin, encompasses the southwest quadrant of the Airport and a large portion of the northwest quadrant. This drainage basin is approximately 200 acres and 38 percent of the total Airport property. Stormwater runoff drains from paved and grassed surfaces into storm inlet and pipe systems that discharge directly into the Lockheed Channel to the south. Prior to discharging to the Lockheed Channel, the stormwater is treated as it passes through hydrodynamic separators¹²⁵ at two discharge points located off the end of Runway 15-33. This basin also receives offsite stormwater run-on from surrounding properties.

The second largest drainage basin, 15-33, encompasses portions of the northwest and northeast quadrants of the airport. This drainage basin is approximately 180 acres and 34 percent of the total Airport property. Stormwater runoff drains from paved and grassed surfaces in the northwest into storm inlet and pipe systems that discharge to offsite storm pipes beneath Hollywood Way, then east to the Burbank Western Channel. Prior to discharging to the storm system, the stormwater runoff passes through a hydrodynamic separator east of the existing Concourse A.

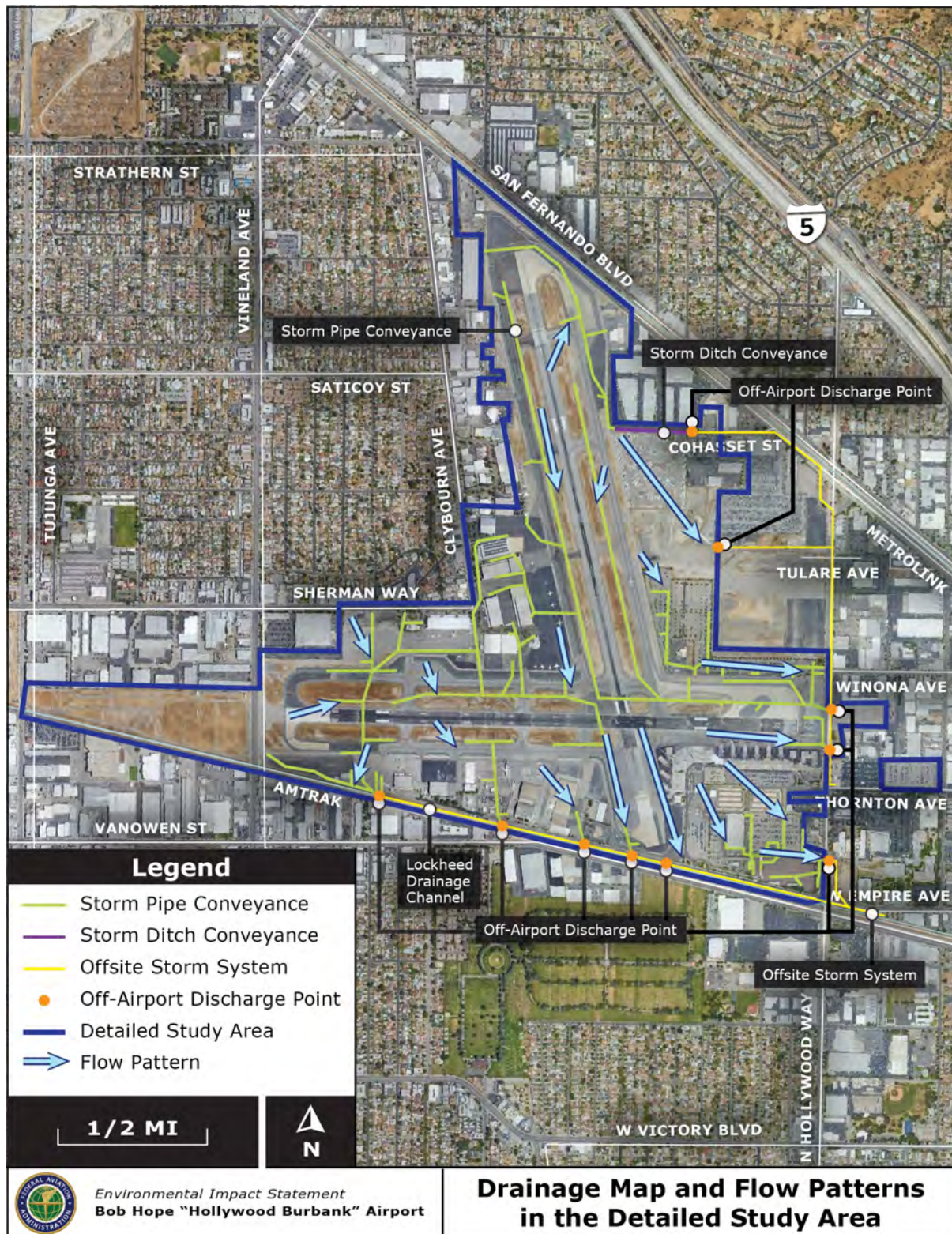
¹²⁵ Hydrodynamic separators are stormwater management devices that use cyclonic separation to control water pollution. They are designed as flow-through structures with a settling or separation unit to remove sediment and other pollutants.

EXHIBIT 3.15-2
DRAINAGE BASINS IN THE DETAILED STUDY AREA



Sources: Authority, 2015; RS&H, 2020.

EXHIBIT 3.15-3
DRAINAGE MAP AND FLOW PATTERNS IN THE DETAILED STUDY AREA



Sources: Authority, 2015; RS&H, 2020.

The Southeast drainage basin encompasses the southeast quadrant of the Airport. This drainage basin is approximately 63 acres and 12 percent of the total Airport property. Stormwater runoff drains from mostly paved surfaces into storm inlet and pipe systems to the northwest of the basin that discharge to offsite storm pipes beneath Hollywood Way, then east to the Burbank Western Channel.

The Northern drainage basin on the north end of the Detailed Study Area encompasses portions of the northwest and northeast quadrants of the Airport. This drainage basin is approximately 39 acres and 8 percent of the total Airport property. Stormwater runoff drains from paved and grassed surfaces into storm inlet and pipe systems that discharge to an open ditch conveyance to an offsite storm pipe beneath Cohasset Street to Hollywood Way, then east to the Burbank Western Channel. This basin also receives offsite stormwater runoff from surrounding properties.

The B-6 drainage basin encompasses a portion of the northeast quadrant of the Airport. This drainage basin is approximately 39 acres and 8 percent of the total Airport property. Stormwater runoff drains from mostly paved and gravel surfaces to the northwest of the basin into storm inlet and pipe systems that discharge to an offsite storm pipe beneath Hollywood Way, then east to the Burbank Western Channel.¹²⁶

General Study Area

Within the General Study Area, there are three highly modified, waterways: the Burbank Western Channel to the west, the Los Angeles River to the south, and the Lockheed Channel to the south.

The Burbank Western Channel is lined with concrete in the General Study Area to the Los Angeles River confluence. The water way is listed under Section 303(d) as impaired for pollutants, including copper, cyanide, indicator bacteria, lead, selenium, and trash.¹²⁷ The reaches of the Los Angeles River near the Proposed Project are Section 303(d)-listed as impaired for pollutants, including ammonia, high coliform count, lead, nutrients (algae), odors, oil, and unnatural scum/foam.¹²⁸ The Los Angeles River also contains Tier 3 pollutants of concern, including pH, E.

¹²⁶ Airport California Monitoring Group (2015, November). Stormwater Pollution Prevention Plan (SWPPP) for Bob Hope Airport.

¹²⁷ California State Water Resources Control Board. (2016). *Final 2014/2016 California Integrated Report (Clean Water Act Section 303(d) List/305(b) Report)*. Retrieved August 2018, from California State Water Resources Control Board: https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml.

¹²⁸ California State Water Resources Control Board. (2016). *Final 2014/2016 California Integrated Report (Clean Water Act Section 303(d) List/305(b) Report)*. Retrieved August 2018, from California State Water Resources Control Board: https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml.

coli bacteria, chloride, total nitrogen, sulfate, total dissolved solids, turbidity, aluminum, cyanide, copper, mercury, and selenium.¹²⁹

The Regional Board develops Total Maximum Daily Loads (TMDLs) for contaminants in Section 303(d)-listed water bodies. The Regional Board has established a number of TMDLs for the Los Angeles River Watershed, including total loads for bacteria, metals, trash, and nutrients. Because the Burbank Western Channel is part of the Los Angeles River Watershed, runoff associated with the Proposed Project is subject to these TMDLs.

Due to the urban setting of the General Study Area, stormwater runoff is expected to contain pollutants commonly found in runoff from commercial, industrial, and residential sites. Such pollutants include suspended solids, total phosphorous, total nitrogen, total copper, total lead, total zinc, bacteria/viruses/protozoa, herbicides/insecticides/fungicides, trash/debris, and oil/grease/polynuclear aromatic hydrocarbons.¹³⁰

3.15.3 Groundwater

3.15.3.1 Regulatory Context

See **Appendix D** for groundwater regulations.

3.15.3.2 Existing Conditions

Detailed Study Area

Depth to groundwater, in the Detailed Study Area, was obtained by reviewing groundwater monitoring well data from the State Water Resources Control Board GeoTracker website. The closest wells, located offsite adjacent to the northeast quadrant of the Airport, indicate groundwater is approximately 250 feet below ground surface (bgs). Historically high groundwater levels beneath the Detailed Study Area are mapped at depths of approximately 70 to 100 feet bgs. In addition, historical groundwater monitoring data, from the Los Angeles County Department of Public Works Historical Well Measurement Data website, was evaluated for wells located on properties adjacent to the Airport. Groundwater measurements from

¹²⁹ DRC Engineering, Inc. (DRC). (2018, July). *Preliminary LID Plan for Burbank Town Center, 600 North San Fernando Boulevard, Burbank, CA 91502*.

¹³⁰ DRC Engineering, Inc. (DRC). (2018, July). *Preliminary LID Plan for Burbank Town Center, 600 North San Fernando Boulevard, Burbank, CA 91502*.

1957 to 2008, in a well approximately 0.6 mile southwest of the Airport, indicate groundwater levels ranged from 168 to 248 feet below ground surface.¹³¹

BWP supplies water to the Airport. This water supply is derived from a combination of import return credit¹³² (20 percent), Metropolitan Water District of Southern California (MWD) untreated spreading water¹³³ (38 percent), MWD treated water (25 percent), and recycled water (17 percent).¹³⁴

General Study Area

The General Study Area and Airport property sit atop the San Fernando Valley Groundwater Basin (Basin 4-12), which covers 226 square miles and includes the water-bearing sediments beneath the San Fernando Valley, Tujunga Valley, and Browns Canyon, and the alluvial areas surrounding the Verdugo Mountains near La Crescenta and Eagle Rock.¹³⁵ The Los Angeles River and its tributaries drain the valley. The groundwater basin is bounded on the north and northwest by the Santa Susana Mountains, on the north and northeast by the San Gabriel Mountains, on the east by the San Rafael Hills, on the south by the Santa Monica Mountains and Chalk Hills, and on the west by the Simi Hills.¹³⁶ The depth to groundwater in the San Fernando Basin ranges between 24 and 400 feet.

Groundwater recharge is part of the hydrologic cycle in which water from the surface works its way into the subsurface. The primary inflows to the groundwater basin are imported water (surface or groundwater coming into the basin from outside of the local watersheds) and natural precipitation and runoff during the rainy season. Precipitation in the San Fernando Valley ranges from 15 to 23 inches per year and averages about 17 inches. The General Study Area sits atop an unconfined aquifer (an aquifer with a relatively permeable upper boundary that readily transmits water toward the surface). However, the General Study Area is

¹³¹ Ninyo & Moore. (2016, March 10). *Updated Preliminary Geotechnical Evaluation Replacement Terminal Project Bob Hope Airport, Burbank California*.

¹³² Import Return Credit – The City of Burbank receives a credit to pump up groundwater equivalent to 20 percent of the total amount of water used citywide because imported water used on landscapes eventually percolates down to the aquifers underneath the City.

¹³³ Untreated Spreading Water – The City of Burbank receives an untreated spreading water credit by buying lower-cost untreated water from MWD that they put directly into the ground via the Pacoima and Lopez Spreading Grounds. The City uses the aquifer below the ground as a storage facility; for every gallon of untreated water the City deposits into the ground they receive a credit to withdraw the equivalent amount of water back out of the aquifer. The City was able to pump up to 38 percent of Burbank's water supply because of credits earned from putting untreated water into the ground.

¹³⁴ Burbank Water and Power. (2017, June). *Water Quality Report 2018*. Retrieved September 2018, from Burbank Water and Power: https://www.burbankwaterandpower.com/images/Currents/BWP_Currents_June2018.pdf.

¹³⁵ California Water Resources Board. (2004). California's Groundwater Bulletin 118, South Coast Hydrologic Region, San Fernando Valley Groundwater Basin. Retrieved September 2019, from California Water Resources Board: <https://water.ca.gov/LegacyFiles/groundwater/bulletin118/basindescriptions/4-12.pdf>.

¹³⁶ California Water Resources Board. (2004). California's Groundwater Bulletin 118, South Coast Hydrologic Region, San Fernando Valley Groundwater Basin. Retrieved September 2018, from California Water Resources Board: <https://water.ca.gov/LegacyFiles/groundwater/bulletin118/basindescriptions/4-12.pdf>.

primarily built out with industrial, commercial, and residential uses (i.e., impervious surfaces generally cover the area), and few pervious surfaces remain through which groundwater can infiltrate to recharge the aquifer.

Groundwater in the General Study Area has been contaminated by past industrial-related activities at and in the vicinity of the Airport. The General Study Area is within the San Fernando Valley Groundwater Superfund Site, where groundwater remediation is currently underway; thus, groundwater in the general area is not suitable for use.

3.16 CUMULATIVE IMPACTS

The CEQ¹³⁷ defines a cumulative impact as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.”

This section identifies past, present, and reasonably foreseeable actions that, when considered in combination with the Proposed Project, could contribute to potentially significant cumulative impacts. In accordance with FAA Order 1050.1F, Section 2-3.2(b), none of these projects are considered to be connected actions.¹³⁸ Projects described below only include those that had or have the potential to affect the environmental resources that construction and/or operation of the Proposed Project could affect. The following summary of past, present, and reasonably foreseeable projects include those undertaken or regulated by the Airport, the City of Los Angeles, or the City of Burbank within the General Study Area.^{139 140 141 142}

Table 3.161 identifies the past, present, and reasonably foreseeable actions that

¹³⁷ 40 CFR Part 1508.7 (1978).

¹³⁸ In accordance with FAA Order 1050.1F, Section 2-3.2(b), a connected action is defined as “closely related actions that:

- (a) automatically trigger other actions,
- (b) cannot or will not proceed unless other actions are taken previously or simultaneously, and
- (c) are independent parts of a larger action and depend on the larger action for their justification.”

A project has independent utility when the project has logical starting and end points and would have a useful purpose without relying on other transportation improvements or projects.

¹³⁹ City of Los Angeles (2018). Department of City Planning, Major Project Story Map. Retrieved December 2018, from City of Los Angeles:

<https://ladcp.maps.arcgis.com/apps/MapJournal/index.html?appid=b06f97ccf94741fdaad27443013eead1>

¹⁴⁰ City of Los Angeles (2018). Department of Engineering, Projects. Retrieved December 2018, from City of Los Angeles: <http://eng2.lacity.org/techdocs/emg/projects.htm>.

¹⁴¹ City of Burbank (2018). Department of City Planning, Projects. Retrieved December 2018, from City of Burbank: <https://www.burbankca.gov/departments/community-development/planning/current-planning>

¹⁴² City of Burbank (2018). Public Works Current Construction Projects. Retrieved December 2018, from City of Burbank: <https://www.burbankca.gov/what-s-new/public-works-current-construction-projects>.

have occurred, are currently taking place, or will occur on- and off-Airport property within the General Study Area. Because of the development agreement between the Authority and City of Burbank that was approved in 2005, the only projects at the Airport in the years prior to 2015 were associated with maintenance of existing facilities.

TABLE 3.16-1
PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE PROJECTS IN THE GENERAL STUDY AREA

Project	Project Location	Project Description	Project Status
Runway 8-26 and Runway 15-33 Rehabilitation	Airport Property	The project rehabilitated pavement sections of Runway 8-26 and Runway 15-33	Completed 2015
Hangar 2 Ramp Paving Phase 2	Airport Property	The project involved paving ramp areas near Hangar 2	Completed 2015
Million Air Parking Lot Rehabilitation	Airport Property	The project rehabilitated the pavement of the Million Air Parking Lot	Completed 2015
Gate 145 Area Pavement Rehabilitation	Airport Property	The project rehabilitated pavement in the area of Gate 145	Completed 2015
Hangar 2 Landside Parking Repairs	Airport Property	The project involved pavement work near Hangar 2	Completed 2015
Hangar 42 Blast Fence	Airport Property	The project involved the installation of blast fence near Hangar 42	Completed 2015
Lot A Paving Rehabilitation	Airport Property	The project rehabilitated sections of pavement in parking lot A	Completed 2016
Runway 8-26 EMAS Rehabilitation	Airport Property	The project rehabilitated the EMAS on Runway 8-26	Completed 2016
Empire St and Clybourn Ave Paving	Intersection of Empire St and Clybourn Ave	The project involved pavement work at the intersection of Empire St and Clybourn Ave	Completed 2016

Project	Project Location	Project Description	Project Status
Washrack Paving	Airport Property	The project included pavement work near the washrack	Completed 2016
Runway 15-33 rehabilitation	Airport Property	The project rehabilitated sections of pavement on Runway 15-33	Completed 2016
ALV Area Paving	Airport Property	The project involved pavement work in the ALV parking area	Completed 2017
Staff Lot Pavement	Airport Property	The project involved pavement work in the staff parking lot	Completed 2017
FAA Road Pavement Rehabilitation	Airport Property	The project involved pavement work on road to FAA building	Completed 2018
Lot A Pavement Rehabilitation	Airport Property	The project rehabilitated sections of pavement in parking lot A	Completed 2018
South of Area 13 Pavement	Airport Property	The project involved pavement work south of Area 13	Completed 2018
Taxiway A Rehabilitation	Airport Property	This project rehabilitated sections of pavement on Taxiway A	Completed 2019
Taxiway C and D and General Aviation Ramp Rehabilitation	Airport Property	The project rehabilitated sections of pavement on Taxiways C and D and the general aviation ramp	Completed 2019
FAA Air Traffic Organization (ATO) SLAPP Area Navigation (RNAV) Two Departure	Bob Hope "Hollywood Burbank" Airport	The project includes amending the SLAPP RNAV two departure.	Completed 2020

FAA Air Traffic Organization (ATO) RNAV Visual Runway 15 and RNAV Visual Runway 33	Bob Hope "Hollywood Burbank" Airport	The project includes two Southwest Airlines procedures amendments to the Visual Flight Rule (VFR) for RNAV Visual Runway 15 and Runway 33.	Completed 2021
Interstate-5 Widening	I-5 between Magnolia boulevard and Buena Vista Street	The project includes the construction of new high-occupancy-vehicle lanes in each direction	In Progress
Empire Ave Interchange Project	I-5 interchange at Empire Ave	The project includes reconstruction of the I-5 interchange at Empire Ave	In Progress
Burbank Airport South Metrolink Station Pedestrian Bridge	Over Empire Ave between the South Metrolink Station and RITC	The project includes the construction of a pedestrian bridge over Empire Ave	In Progress
FAA Air Traffic Organization (ATO) OROSZ Three Departure (RNAV) and SLAPP Two Departure (RNAV) Proposed Procedure Amendments Project	Bob Hope "Hollywood Burbank" Airport	The project includes amending the OROSZ and SLAPP departure routes as part of the FAA's Southern California Metroplex project.	In Progress
Delta Ramp Expansion	Airport Property	The project would expand the Delta ramp north towards Sherman Way by 87,000 square feet.	In progress
Avion Business Park Construction	3001 North Hollywood Way	This project would develop a 61-acre parcel of land adjacent to the northeast quadrant of Airport property. The Amazon distribution station is part of this development project.	Proposed 2021

California High Speed Rail	Proposed station east of proposed replacement passenger terminal building and proposed tunnel under the airport property	This project is included but construction of this project will be determined following the completion of the environmental review process, receipt of funding, and final decisions by the CHSR Authority Board; therefore, it is for informational purposes only	Proposed 2029 ^{/a/}
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Notes:

/a/ - The FAA has been advised by California High Speed Rail Authority (CHSRA) that Phase I operation is proposed to start in 2029. According to the CHSRA, the precise timing of construction for the CHSRA's Burbank Airport Station and the Burbank to Los Angeles Project Section as a whole will be determined after completion of the environmental review process, final decisions by the CHSRA's Board, and receipt of funding for the project construction.

Sources: Authority, 2018; City of Burbank, 2018; City of Los Angeles, 2018; RS&H, 2021.