



# Hawthorne Municipal Airport

## Chapter One Inventory





## Chapter One Inventory

Federal, state, and local governments each have specific responsibilities to reduce or limit aviation noise impacts. The following sections provide an overview of each level of government's responsibility in airport land use compatibility planning. Additional information on this topic is included in the Federal Aviation Noise Regulations of the Resource Library, located in **Appendix C**.

### **FEDERAL GOVERNMENT**

The FAA's statutory mission is to ensure the safe and efficient use of navigable airspace in the United States. Additionally, the FAA provides noise reduction support through the following efforts:

- Implementation and Enforcement of Aircraft Operational Procedures – Where and how aircraft are operated is under the complete authority of the FAA. This includes pilot responsibilities, compliance with air traffic control instructions, flight restrictions, and monitoring the careless and reckless operation of aircraft.
- Management of the Air Traffic Control System – The FAA is responsible for the control of navigable airspace and review of any proposed alterations in-flight procedures for noise abatement.
- Pilot Licensing – Individuals licensed as pilots are trained under strict guidelines concentrating on safe and courteous aircraft operating procedures.

- Certification of Aircraft – The FAA requires the reduction of aircraft noise through certification, modification of engines, or aircraft replacement as defined in 14 Code of Federal Regulations (CFR) Part 36. Additionally, 14 CFR Part 91 outlines the phase-out of aircraft not meeting requirements under Part 36.
- Airport Noise Compatibility Planning – The FAA collaborates with aircraft sponsors to fund and evaluate Noise Compatibility Studies and Noise Exposure Map Updates in accordance with 14 CFR Part 150 regulations.

## 14 CFR PART 36, FEDERAL AIRCRAFT NOISE REGULATIONS

The FAA requires the reduction of aircraft noise with the regulations adopted under 14 CFR Part 36. Part 36 prohibits the escalation of noise levels from small, piston-driven aircraft, civil turbojet, and transport aircraft. Part 36 also requires new aircraft types to be markedly quieter than earlier models by limiting the noise emissions allowed by newly certified aircraft. To achieve this, Part 36 has a four-stage certification process, each with a progressively more stringent noise threshold. These regulations apply only to civilian fixed-wing aircraft and helicopters, and do not address noise generated by military aircraft or other non-stage aircraft (for example, former military aircraft, such as jet warbirds and other World War II-era aircraft).

The 1977 Amendment to Part 36 introduced a three-stage classification system to provide terminology that differentiates between the original and revised standards. The stages are classified as follows:

- Stage 1: aircraft have never been shown to meet any noise standards, either because they have never been tested, or because they have been tested and failed
- Stage 2: aircraft meet original noise limits, set in 1969
- Stage 3: aircraft meet more stringent limits, established in 1977

Amendments in 2005 created a fourth stage of certification. Stage 4 noise limits are defined as a cumulative 10 effective perceived noise level (EPNdB) less than those for Stage 3. Additionally, FAA published a Final Rule on November 3, 2017, created Stage 5 noise standards. Stage 5 noise standards apply to new aircraft designs with a maximum certified takeoff weight of 121,254 lbs or more submitted on or after December 31, 2017, or with a maximum certified takeoff weight of less than 121,254 lbs on or after December 21, 2020. As noted in the Final Rule, the change sets a lower noise limit for these aircraft and does not affect either the operation of the current U.S. fleet or new type designs submitted before the applicable compliance date for Stage 5.<sup>1</sup>

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<sup>1</sup> Federal Register Vol. 82, No. 191, October 4, 2017, Pages 46123-46132 (<https://www.federalregister.gov/documents/2017/10/04/2017-21092/stage-5-airplane-noise-standards>); October 2019.



Federal law required the phase-out of civil subsonic jet aircraft with a maximum weight of 75,000 lbs or less that do not comply with Stage 3 standards by December 31, 2015.<sup>2</sup> Additional restrictions or phase-out dates have not been adopted for Stage 3, Stage 4, or Stage 5 aircraft. **Exhibit 1A** illustrates examples of common aircraft that operate at Hawthorne Municipal Airport.

Helicopter noise is also addressed within Part 36; however, these aircraft are only classified as Stage 1 and Stage 2. The Stage 2 certification date for helicopters was March 6, 1986. In contrast to fixed-wing aircraft, the Part 36 noise requirements for helicopters has not been reduced in a similar manner.

The 1974 amendment to Part 36 added noise standards for propeller-driven small aircraft (ie., less than 12,500 lbs), which is prior to the creation of the aforementioned stages. To this day, these small aircraft, such as a Cessna 172 or PC 12 aircraft, are only termed certified or uncertified versus being assigned a noise stage. The noise standards for small aircraft are evaluated in terms of A-weighted decibel (dBA) limits for level flyover 1,000 feet above ground level (AGL).

#### 14 CFR PART 91, SUBPART I, OPERATING NOISE LIMITS

14 CFR Part 91, Subpart I prescribes operating noise limits and related requirements to the operation of civilian aircraft in the U.S. This section of the Federal Code ties back to 14 CFR Part 36, previously discussed, and specifically applies to civil subsonic jet (turbojet) aircraft with a maximum weight of 75,000 pounds (lbs) operating within the U.S. Also known as the “Fleet Noise Rule,” 14 CFR Part 91, Subpart I mandated that Stage 1 aircraft were to be retired, retrofitted with hush kits, or have engines replaced for quieter ones by January 1, 1988.

Amendments passed in 1990 established a deadline of December 31, 1999, requiring Stage 2 aircraft exceeding 75,000 lbs to be discontinued from service. Per § 91.858 of 14 CFR Part 91<sup>3</sup>, Stage 2 aircraft over 75,000 lbs may continue nonrevenue service under the following circumstances:

- Sell, lease, or scrap of the aircraft;
- modify aircraft to comply with Stage 3, Stage 4, or Stage 5 noise levels;
- obtain scheduled heavy maintenance or significant modifications;
- deliver the aircraft to a lessee or return to seller;
- to park or store aircraft;
- prepare the aircraft for any of the aforementioned events; and
- operate under an experimental airworthiness certificate.

<sup>2</sup> 49 USC §47534, February 14, 2012

<sup>3</sup> 14 CFR 91, Subpart I, § 91.858 *Special Flight Authorizations for Non-Revenue Stage 2 Operations* (July 15, 2002, amended October 4, 2017).





### SINGLE ENGINE PISTON

**C172 - Cessna  
Skyhawk172/Cutlass**



**S22T - Cirrus SR-22 Turbo  
SR22 -Cirruc SR 22**



**BE36 - Beech Bonanza 36**



### SINGLE ENGINE PISTON

**SR20 - Cirrus SR-20**



### SINGLE ENGINE TURBOPROP

**PC12 - Pilatus PC-12**



**C182 - Cessna Skylane 182**



### TWIN ENGINE TURBOPROP

**B350 - Beech Super King Air 350**



**BE20 - Beech 200 Super King**



### Helicopter

**R22 - Robinson R-22  
Mariner (helicopter)**



### JET

**E55P - Embraer Phenom 300**



**CL30 - Bombardier (Canadair)  
Challenger 300**



**C25B - Cessna Citation CJ3**



**C56X - Cessna Excel/XLS  
C525 - Cessna CitationJet/CJ1**



**PRM1 - Raytheon Premier  
1/390 Premier 1**



**LJ45 - Bombardier Learjet 41**



**CL60 - Bombardier  
Challenger 600/601/604**



**LJ75 - Learjet 75**



**E50P - Embraer Phenom 100**



**C560 - Cessna  
Citation V/Ultra/Encore**



**C680 - Cessna Citation Sovereign**



A phase-out date of December 31, 2015, was established for Stage 2 aircraft weighing less than 75,000 lbs within the *FAA Modernization and Reform Act of 2012*. No additional restrictions or phase-out dates have been established for Stage 3 or Stage 4 aircraft.

## 14 CFR PART 150, AIRPORT NOISE COMPATIBILITY PLANNING

A 14 CFR Part 150 Noise Compatibility Planning Study (Part 150 Study) is a voluntary process which results in the preparation of two official documents for participating airports: Noise Exposure Maps (NEM) and Noise Compatibility Program (NCP). The NEM document is the baseline analysis for the noise conditions at the airport and includes existing and forecast noise exposure contours. The NCP is the second phase of a complete Part 150 study that provides an analysis of alternatives to reduce or eliminate airport noise impacts identified in the NEM and concludes with a plan to effectively mitigate noise impacts. Additional information regarding the responsibilities of the airport operator and local, state, and federal governments to reduce airport impacts can be found in the Federal Aviation Noise Regulation section of the Resource Library, located in **Appendix C**.

### Noise Exposure Maps

In addition to the baseline information included in this chapter, a Part 150 Study details the existing and projected noise conditions (i.e., the NEMs) based on operational variables discussed in Chapter Two. The scope of the noise environment at the airport is defined as those areas within the noise exposure maps for the existing condition and at least a five-year forecast. These noise contours are overlain on local land use maps to identify areas of existing or potential non-compatible land uses. Supporting information is provided within the document to explain the methods used to develop noise exposure contours and land use analysis.

14 CFR Part 150 outlines the methodology and noise metrics to be used in analyzing and describing airport noise. It also establishes guidelines to identify land uses that are incompatible with varying noise levels. Airport proprietors are required to update noise exposure contours when changes in the operations at the airport would create any new, substantial, non-compatible use. The most widely used measure to determine this change is an increase in the yearly day-night average sound level (DNL) of 1.5 decibels (dB), over non-compatible land uses. In California, the Community Noise Equivalent Level (CNEL) metric is used in place of DNL.

A limited degree of legal protection can be afforded to the airport proprietor through the preparation of NEMs. The re-codified *Aviation Safety and Noise Abatement Act of 1979* (ASNA), provides that:

*A person acquiring an interest in property...in an area surrounding an airport for which a noise exposure map has been submitted...and having actual or constructive knowledge of the existence of the map may recover damages for noise attributable to the airport only if, in addition to any other elements for recovery of damages the person shows that:*

- (1) after acquiring the interest, there was a significant
  - (A) change in the type or frequency of aircraft operations at the airport;*
  - (B) change in the airport layout;*
  - (C) change in flight patterns;*
  - (D) increase in nighttime operations; and**
- (2) the damages resulted from the change or increase.<sup>4, 5</sup>*

Additionally, Part 150 defines a change in the operation of an airport as an increase in the yearly DNL or 1.5 dB (or, in California, 1.5 CNEL) or greater in either a land area which was formerly compatible but is thereby made incompatible under 14 CFR Part 150 Appendix A, Table 1, or in a land area which was previously determined to be incompatible under that table and whose incompatibility is now significantly increased.<sup>6</sup>

Upon completion of the NEM document and local adoption, it is submitted to the FAA for review. FAA review concludes with a determination as to whether the NEMs were prepared in a manner consistent with Part 150 regulations. The NEMs produced with this study will be the fourth iteration for Hawthorne Municipal Airport. Previous NEMs were completed in 1988, 1993, and 2012.

Pursuant to FAA regulations, the revised NEM maps are subject to public review and comment. Public comments regarding this study are located in **Appendix B** and are on file with the Los Angeles FAA Airport District Office manager.

## Noise Compatibility Program

A Noise Compatibility Program includes an evaluation of various noise abatement and land use alternatives. The result of this planning effort can include a plan with recommendations for the abatement of aircraft noise through aircraft operating procedures, air traffic control procedures, airport regulations, or airport facility modifications. The plan may also include recommendations for land use compatibility planning and actions to mitigate the impact of noise on non-compatible land uses. Additionally, regulations state that the program should contain provisions for updates and periodic revisions. Two criteria are of particular importance when considering noise abatement recommendations: the airport proprietor may take no action that imposes an undue burden on interstate or foreign commerce; nor may the proprietor unjustly discriminate between different categories of airport users.

In a similar process to the NEM document review, the NCP is submitted to the FAA for evaluation. The FAA responds with a Record of Approval stating which program measures comply with Part 150 criteria.

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<sup>4</sup> "Constructive knowledge" shall be attributed to any person if a copy of the noise exposure map was provided to him or her at the time of property acquisition, or notice of the existence of the noise exposure map was published three times in a newspaper of general circulation in the airport area.

<sup>5</sup> 49 USC §47506, the re-codified *Aviation Safety and Noise Abatement Act of 1979* (ASNA)

<sup>6</sup> 47 USC §47506



With an approved Noise Compatibility Program, an airport proprietor becomes eligible for funding through the federal Airport Improvement Program (AIP) to implement the qualified components of the program. In some cases, a Part 150 Study will not have qualified components due to a lack of impacts within federally prescribed noise thresholds. In these situations, measures are frequently adopted which ensures future impact does not occur.

FAA policy discourages development of new non-compatible land uses within the airport environs. The FAA will not approve Noise Compatibility Program measures proposing correcting noise mitigation actions for non-compatible development that could occur in the vicinity of airports after October 1, 1998. Additionally, funding for these projects will not be available from the AIP noise set-aside fund.

The current NCP for Hawthorne Municipal Airport was finalized and approved by the FAA in 2017.<sup>7</sup> The first NCP for the airport was completed in 1994.

## STATE AND LOCAL

Control of land use in noise-impact areas around airports is a key tool in limiting the number of land uses exposed to noise. The federal government has no direct legal authority to regulate land use; this responsibility rests exclusively with state and local governments. However, as outlined in FAA Order 5190.6B, *FAA Airport Compliance Manual*, the airport sponsor's role with regard to noise abatement and land use planning is "to reduce the effect of noise on residents of the surrounding area. Such actions include optimal site location, improvements in airport design, noise abatement ground procedures, land acquisition, and restrictions on airport use that do not unjustly discriminate against any user, impede the federal interest in safety and management of the air navigation system, or unreasonably interfere with interstate or foreign commerce."<sup>8</sup> Additionally, upon receipt of FAA grant funding, the airport sponsor agrees to take appropriate action, including the adoption of zoning laws, to the extent reasonable to restrict the use of land next to or near the airport to uses that are compatible with normal airport operations in accordance with FAA Grant Assurance 21, *Compatible Land Use*.<sup>9</sup>

The State of California legislates the authority of land use regulation to local governments. This regulation is accomplished through zoning ordinances and General Plans. The state has also established airport noise standards, noise insulation standards, and requirements for the establishment of Airport Land Use Commissions (ALUCs).

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<sup>7</sup> Coffman Associates, Inc 14 CFR Part 150 Airport Noise Compatibility Study for Hawthorne Municipal Airport Noise Compatibility Program (June 2017).

<sup>8</sup> As noted in FAA Order 5190.6B, Section 13.2(2), sponsor actions are, "subject to constitutional prohibitions against creation of an undue burden on interstate and foreign commerce, and unreasonable, arbitrary, and unjust discriminatory rules that advance the local interest, other statutory requirements, and interference with exclusive federal regulatory responsibilities over safety and airspace management."

<sup>9</sup> FAA Grant Assurances ([https://www.faa.gov/airports/aip/grant\\_assurances/media/airport-sponsor-assurances-aip.pdf](https://www.faa.gov/airports/aip/grant_assurances/media/airport-sponsor-assurances-aip.pdf)); December 2019.

## ZONING ORDINANCE

The State of California gives local jurisdictions, such as cities and counties, the authority to regulate the use of buildings, structures, and land through the adoption and administration of a zoning ordinance or code.<sup>10</sup> While land use plans, such as the General Plan, are intended to establish policies and goals to guide future development and land use, municipalities control land use through zoning ordinances and development codes.

Zoning helps control development in two primary land uses: residential and non-residential. Residential zoning classifications establish the number and type of dwelling units that can be constructed on a piece of land. Density, or the number of dwelling units per acre of land, is important in airport noise and land use compatibility planning. Increased density can increase the population in an area. If that area is exposed to high levels of airport noise, a greater impact can result. Limiting the density near an airport can help improve compatibility and limit the number of impacts on surrounding land uses. Two residential categories are used in the analysis: single-family residential and multi-family residential. As indicated by the classification name, each zone limits the number of residences allowed on a parcel.

Non-residential land use classifications, such as commercial and industrial, are typically considered to be compatible with airport operations because of their inherent noise characteristics. Commercial and industrial categories include areas zoned for manufacturing, business parks, and retail services. However, some specific noise-sensitive non-residential land uses, such as hospitals, libraries, child care facilities can be permitted in residentially zoned districts. On the other hand, residential-type uses, such as senior living and group home facilities, can be permitted either by right or by conditional use in non-residential districts.

## GENERAL PLAN

The State of California requires each local jurisdiction to develop a “*long-range General Plan for the development of the city or county*” which “*shall consist of a statement of development policies and shall include diagrams and text setting forth objectives, principles, standards, and plan proposals.*” Of the seven mandatory elements in the General Plan, two are especially important to the Part 150 Study – land use and noise.<sup>11</sup>

The land use element of the General Plan typically designates the proposed general distribution and intensity of land uses. This element serves as a framework for the plan and is intended to correlate all land use issues into a set of development policies. The land use element must include standards of population density and building intensity.

<sup>10</sup> California Civil Code (CCC) Title 7, Chapter 4, §§65800-65850; October 2019.

<sup>11</sup> CCC Title 7, Chapter 4, §65302; October 2019.

The noise element identifies and evaluates the noise situation in the community. The projected noise levels are calculated and mapped for airports and other major noise sources, such as highways. Projected noise levels are used as a guide for establishing a pattern of land uses in the land use element that minimizes the exposure of residents to excessive noise.

## NOISE INSULATION STANDARDS

Part 2, volume 1, Chapter 12, Section 1206.4 of the 2019 California Code of Regulations states that “interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable room.” The California Code of Regulations uses a day-night average sound level ( $L_{dn}$ ) or the Community Noise Equivalent Level (CNEL) to be consistent with the noise element of the local general plan. According to the *California Airport Land Use Planning Handbook* (handbook),<sup>12</sup> the interior noise level resulting from exterior noise is equally important as exterior noise levels as a determinant of acceptable noise levels, which is subjective in nature. In residential circumstances, the determining factor is speech interference and sleep disruption.

The handbook states that while insulation methods are available, that should not be a mitigation measure for highly noise-impacted areas, and sound insulation should be reserved for existing land uses. For new development, the best form of noise mitigation is good land use planning and insulation measures should be used as a final course of action.

## AIRPORT LAND USE COMMISSION

The establishment of an Airport Land Use Commission (ALUC) is required for any county containing a public use airport served by regular commercial airline service. ALUCs do not have the authority to govern operations at any given airport. One role of the ALUC is to formulate a comprehensive plan that will provide for the orderly growth at each public-use airport and the area surrounding the airport within the jurisdiction of the commission.<sup>13</sup> These plans are typically referred to as Comprehensive Land Use Plan (CLUPs) or Airport Land Use Compatibility Plans (ALUCPs). Once adopted, local agencies must amend their General Plans, zoning ordinances, and other land use regulations to be consistent with the ALUCP or CLUP within 180 days as outlined in California Code §65302.3. The ALUC also reviews and provides recommendations concerning certain projects within the ALUC planning area in accordance with the policies outlined within the CLUP or ALUCP.

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<sup>12</sup> California Department of Transportation *California Airport Land Use Planning Handbook* (<https://dot.ca.gov/programs/aeronautics/airport-land-use-planning>).

<sup>13</sup> State of California Public Utilities Code §21675



## LOCAL LAND USE PLANNING POLICIES AND REGULATIONS

It is important to note the distinction between primary land use concepts used in evaluating development with the airport environs and existing land use, comprehensive plan, and zoned land use. Existing land use refers to property improvements as they exist today.

Zoning identifies the type of land use permitted on a given piece of property, according to the city and county zoning ordinances and maps. Local governments are required to regulate the subdivision of all lands within their corporate limits. Zoning ordinances should be consistent with the General Plan, where one has been prepared. In some cases, the land use prescribed in the zoning ordinance or depicted in the general plan may differ from the existing land use.

For the purpose of this study, the study area encompasses land within the following responsible jurisdictions: City of Hawthorne, City of Los Angeles, City of Inglewood, City of Gardena, City of El Segundo, City of Lawndale, and County of Los Angeles. The jurisdictional limits of each are depicted in **Exhibit 1B**. The location of Hawthorne Municipal Airport, specifically, is shown in **Exhibit 1C**.

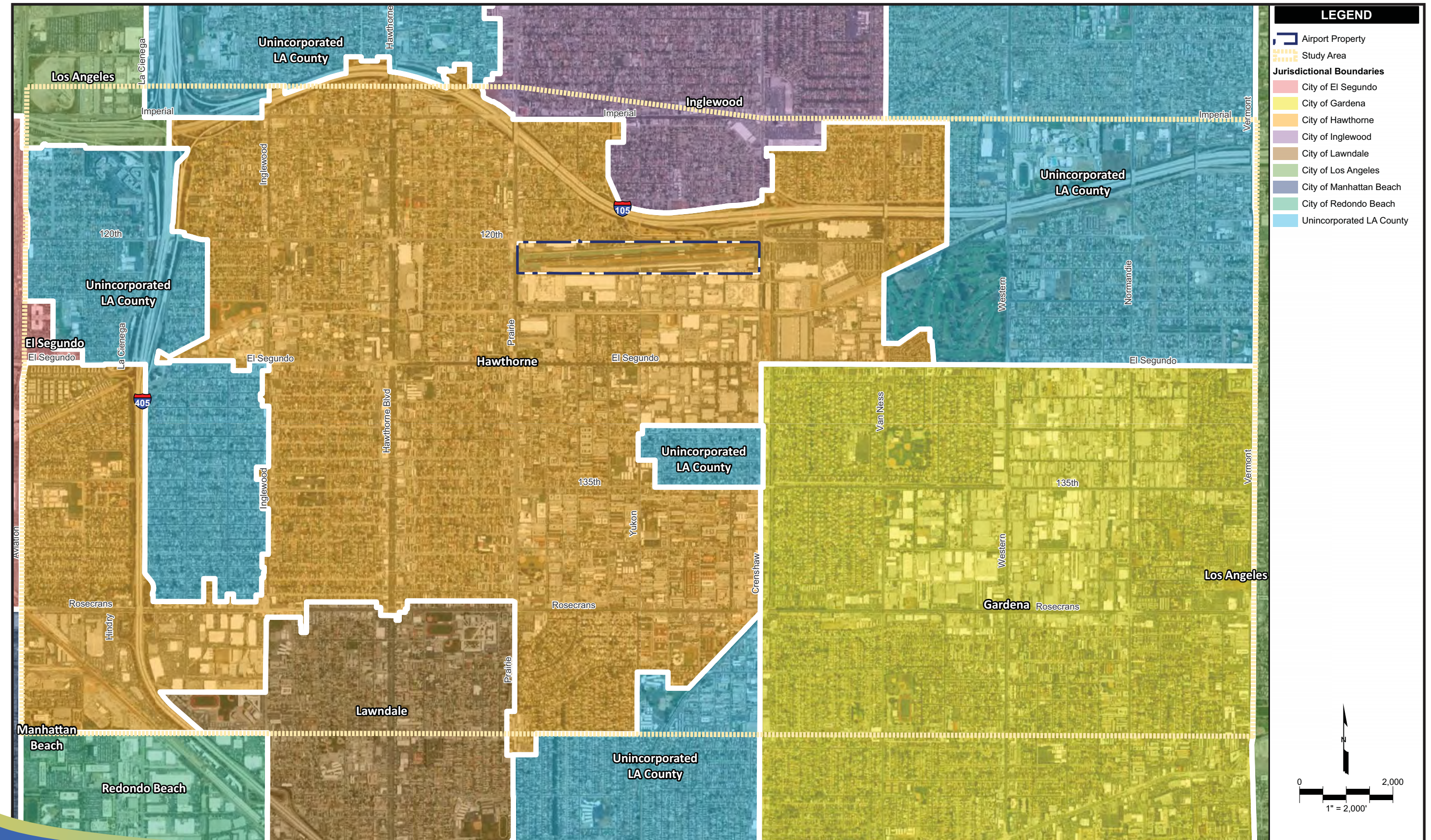
The General Plan land use identifies the projected or future land use, according to the goals and policies established in the locally adopted General Plan. This document guides future development within the city and county planning area and provides the basis for zoning designations. In some cases, the land use allowed in the zoning ordinance or depicted on the General Plan may differ from the existing land use.

## EXISTING LAND USE

An evaluation of the existing land uses surrounding the airport is necessary to understand if impacts result from noise exposure per Part 150 guidelines. **Exhibit 1D** illustrates existing land uses within the study area, including noise sensitive locations, such as schools, religious facilities, and hospitals. The study area is the property near the airport where detailed land use information has been obtained, depicted in a black dashed line on **Exhibit 1D**. For comparative purposes, the total area for each land use category is presented in **Table 1A**. The areas of each land use category are based on parcels identified in **Exhibit 1D**.

The study area, as identified in **Table 1A**, is approximately 8,201.5 acres, 80.1 acres of which belong to the airport (1.0 percent of the study area). Single-family residential comprises the largest portion of land area, covering over 28 percent of the study area. The second majority of land consists of right-of-way, which is almost 25 percent. A significant portion of the right-of-way in the study area includes Interstate 105 and Interstate 405, as well as the arterial, collector, and local roads. Over 22 percent of the study area is comprised of commercial, industrial, transportation, and utility uses. Examples of uses within this category include local and regional shopping areas, light industrial warehousing, the rail line for LA Metro regional transportation system, and utility substations. These three land use categories account for approximately 76 percent of the study area or over 6,200 acres.





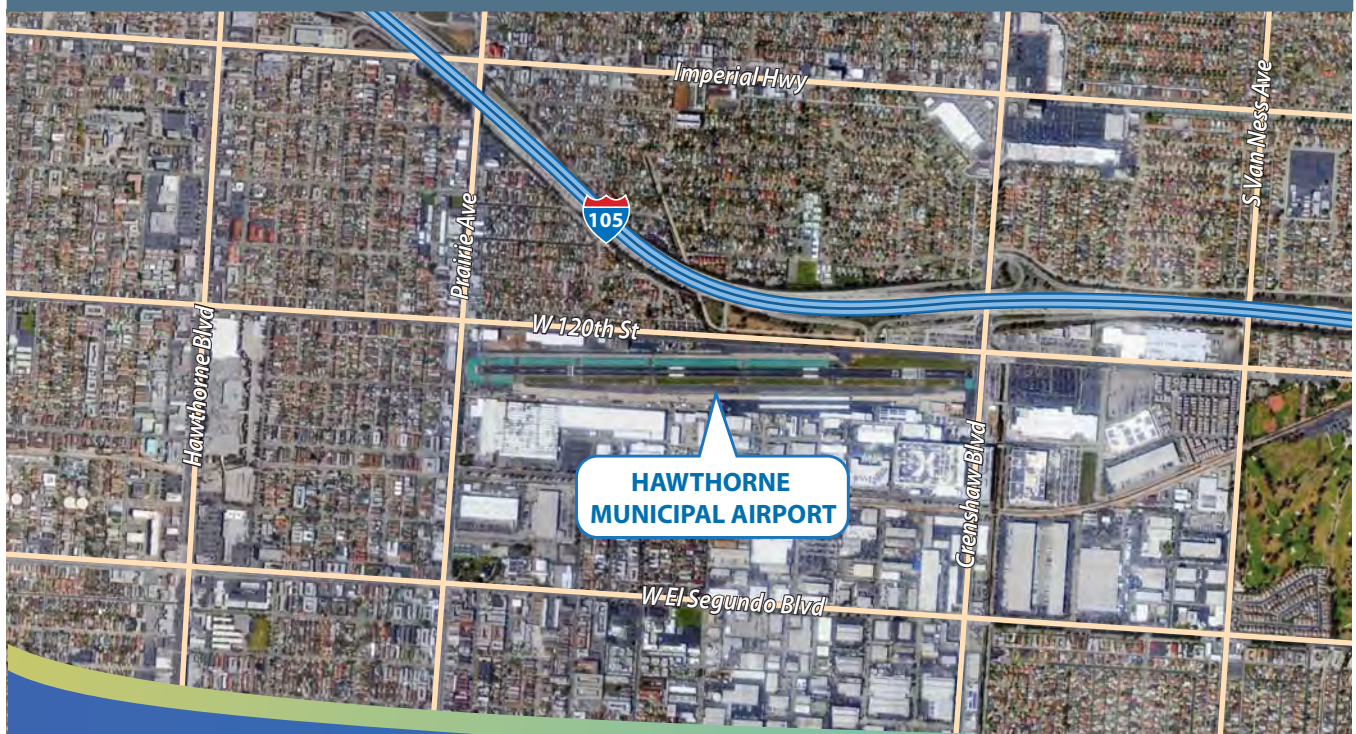


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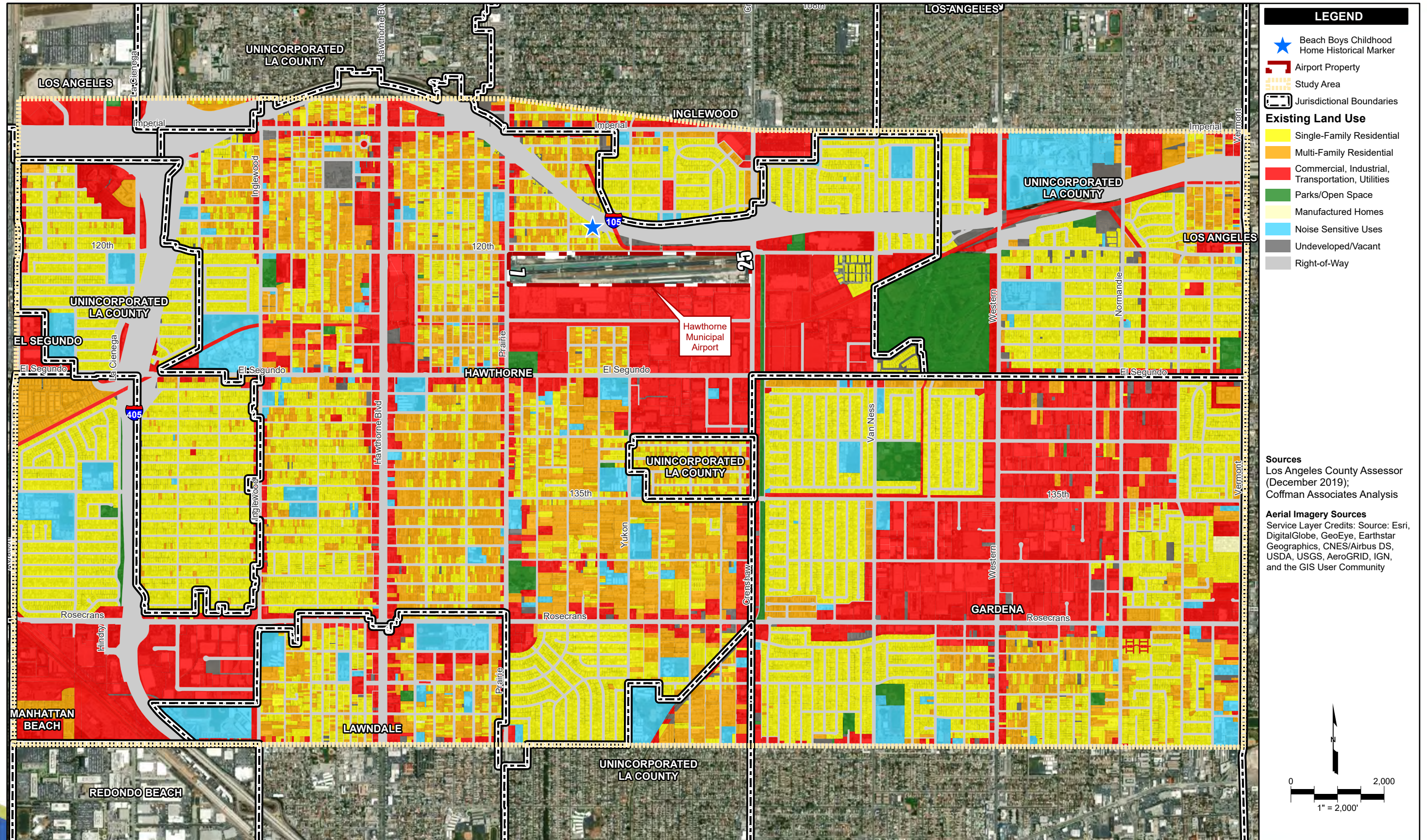


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**TABLE 1A**  
**Existing Land Uses**

Land Use Type	Area (Acres)	Percentage of Study Area
Airport Property	80.1	1.0%
Single-Family Residential	2,321.8	28.3%
Multi-Family Residential	1,126.5	13.7%
Commercial, Industrial, Transportation, and Utilities	1,869.5	22.8%
Parks/Open Space	204.5	2.5%
Manufactured Homes	6.9	0.1%
Noise-Sensitive Uses	439.5	5.4%
Undeveloped/Vacant Parcels	106.7	1.3%
Right-of-Way	2,046.0	24.9%
<b>Total</b>	<b>8,201.5</b>	<b>100.0%</b>

*Source: Los Angeles County Assessor's Office Local Tax Roll database (November 2019); Google Earth aerial photography (May 2019); Coffman Associates analysis and windshield survey from November 2019.*

## Historic Resources

According to the National Park Service's National Register of Historic Places (NRHP) database, there are no sites listed on the NRHP within the Part 150 Study area.<sup>14</sup> The California State Park's Office of Historic Preservation database was also consulted to determine if there are any California Historic Landmarks present within the study area. A review of the database determined that the site of the childhood home of the Beach Boys (Site No. 1041)<sup>15</sup> is located 0.10 miles north of the airport adjacent to Interstate 105. While the home is no longer standing, a historic marker has been placed identifying the former home location.

## ZONING

The cities of Hawthorne, Gardena, Inglewood, Lawndale, El Segundo, and Los Angeles, as well as Los Angeles County, have authority over the land uses in the study area around Hawthorne Municipal Airport and have adopted zoning ordinances which establish a variety of zones to control land use within all areas of their respective jurisdictions.

For the purpose of this Part 150 Study, the zoning districts have been generalized to provide a uniform display of the zoning districts from the communities affected by Hawthorne Municipal Airport air traffic. **Table 1B** represents the classification of zoning districts for each jurisdiction and how those zoning districts fit into a generalized zoning land use category.

<sup>14</sup> National Park Service's National Register of Historic Places (<https://www.nps.gov/subjects/nationalregister/database-research.htm>); October 2019).

<sup>15</sup> California State Parks Office of Historic Preservation (<http://ohp.parks.ca.gov/>); October 2019.

**TABLE 1B**  
**Classification of Zoning Districts**

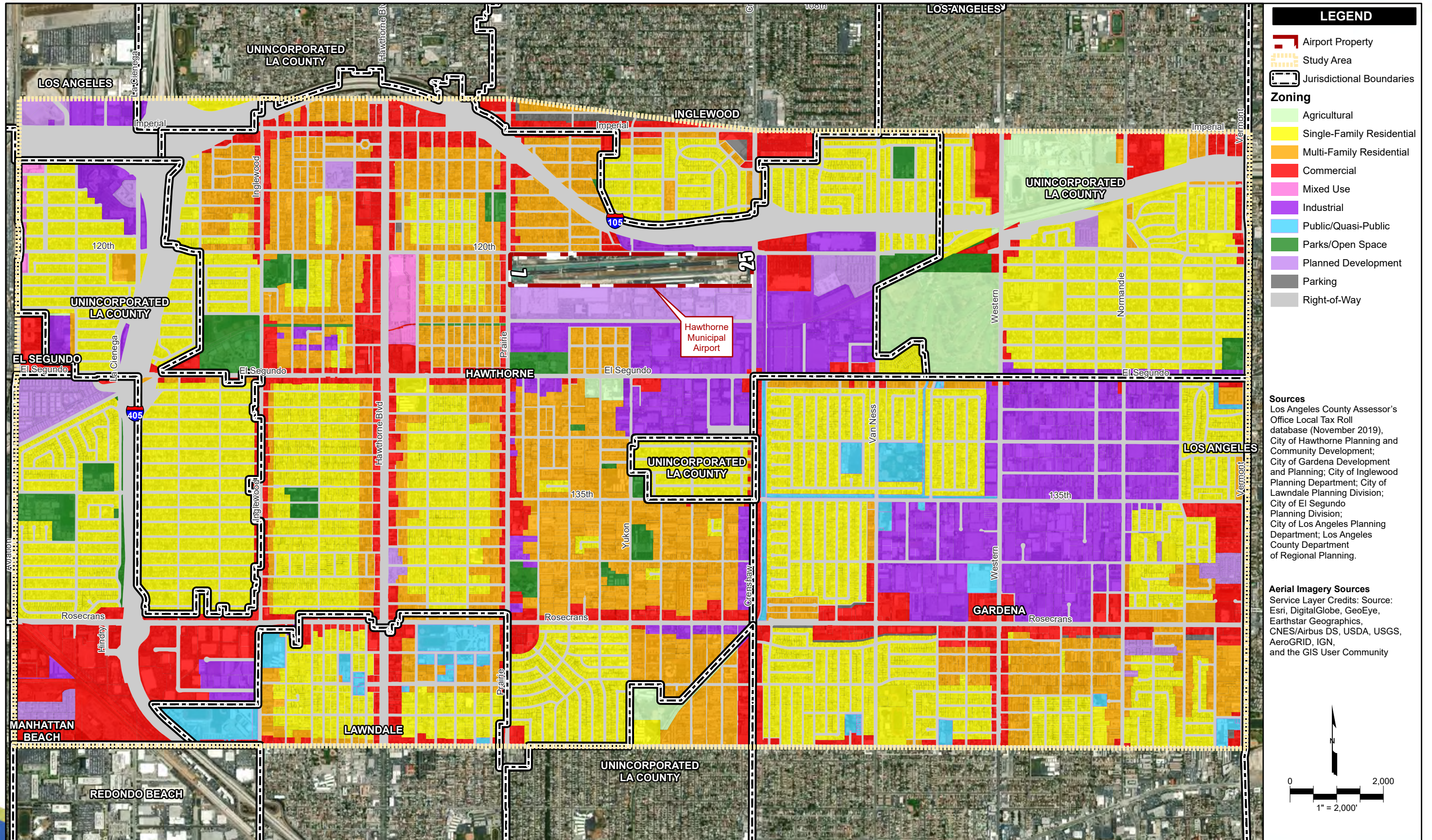
Generalized Zoning Category	City of Hawthorne	City of Gardena	City of Inglewood	City of Lawndale	City of El Segundo	City of Los Angeles	Los Angeles County
Agricultural	H						A-1
Single-Family Residential (Low-Density)	R-1	R1	R-1	R-1			R-1
Multi-Family Residential (Medium-Density)	R-2	R2, R3	R-2, R-3	R-2, R-3			R-2, R-3
Multi-family Residential – Apartment/Condo Residential (High-Density)	R-3, R-4	R4		R-4			
Commercial (including Office and Professional)	C-2, C-3, CR	C2, C3, C4, CP	C-2		C-3, CO		C-1, C-2, C-3, C-3-DP
Mixed-Use	CM						MXD
Planned Development	SP						RPD
Industrial	M-1, M-2	M1, M2		M-1		LAX, M-2	C-M, C-M-DP, M-1, MPD, B-1
Public/Quasi-Public		O		I		PF	
Parks/Open Space	UOS						O-S, C-R
Parking	P		P-1				

Sources: City of Hawthorne Planning and Community Development; City of Gardena Development and Planning; City of Inglewood Planning Department; City of Lawndale Planning Division; City of El Segundo Planning Division; City of Los Angeles Planning Department; Los Angeles County Department of Regional Planning; Coffman Associates analysis.

**Table 1C** and **Exhibit 1E** present the generalized zoning districts in the study area.

Single-family residential accounts for over 28 percent of the study area (28.3 percent). Another one-quarter of the study area is the rights-of-way, which consists of Interstates 105 and 405, as well as the arterial, collector, and local road network. Other predominant zoning districts include multi-family residential (13.9 percent), commercial (10.8 percent), and industrial zoning districts (10.7 percent). Other zoning districts include agricultural (2.9 percent), mixed-use (0.4 percent), public/quasi-public (2.0 percent), parks/open space (2.2 percent), planned development (2.6 percent), and parking (0.3 percent). Note that there are no areas zoned to be vacant.







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**TABLE 1C**  
**Generalized Zoning within the Study Area**

Land Use Type	Acreage	Percentage of Study Area
Hawthorne Municipal Airport Property	80.1	1.0%
Agricultural	237.7	2.9%
Single-Family Residential	2,321.8	28.3%
Multi-Family Residential	1,137.6	13.9%
Commercial	889.1	10.8%
Mixed-Use	33.6	0.4%
Industrial	874.1	10.7%
Public/Quasi-Public	163.4	2.0%
Parks/Open Space	181.2	2.2%
Planned Development	216.4	2.6%
Parking	21.4	0.3%
Right-of-Way	2044.9	24.9%
<b>Total</b>	<b>8,201.5</b>	<b>100.0%</b>

Sources: Los Angeles County Assessor's Office Local Tax Roll database (November 2019), City of Hawthorne Planning and Community Development; City of Gardena Development and Planning; City of Inglewood Planning Department; City of Lawndale Planning Division; City of El Segundo Planning Division; City of Los Angeles Planning Department; Los Angeles County Department of Regional Planning; Coffman Associates analysis.

## GENERAL PLAN

The land use element of a General Plan designates the proposed general land use distribution and intensity in a jurisdiction. The land use element serves as a framework for the plan and is intended to correlate all land use issues into a set of development policies. The land use element should reflect the community's vision on the distribution of land use and align with other general plan elements.<sup>16</sup>

The future land use designations from the following sources are identified on **Exhibit 1F** with the total area for each land use category presented in **Table 1D**.

- City of Hawthorne – *City of Hawthorne General Plan* (Amended May 2018)
- City of El Segundo – *The City of El Segundo General Plan* (1992)
- City of Gardena – *Gardena General Plan 2006* (April 2006)
- City of Inglewood – *City of Inglewood General Plan* (Amended September 2016)
- City of Lawndale – *City of Lawndale General Plan* (Amended August 2016)
- City of Los Angeles – *The Los Angeles City General Plan* (February 1999)
- Los Angeles County – *Los Angeles County 2035 General Plan* (October 6, 2015)

<sup>16</sup> *State of California General Plan Guidelines 2017*, Chapter 4, State of California Governor's Office of Planning and Research (<http://www.opr.ca.gov/planning/general-plan/guidelines.html>).

**TABLE 1D**
**General Plan Land Use**

Land Use Type	Acreage	Percentage of Study Area
Airport Property	80.1	1.0%
Single-Family Residential	2,514.5	30.7%
Multi-Family Residential	1,028.9	12.5%
Commercial	970.3	11.8%
Mixed-Use	23.6	0.3%
Industrial	922.0	11.2%
Public/Quasi-Public	583.9	7.1%
Parks/Open Space	192.1	2.3%
Right-of-Way	1,886.2	23.0%
<b>Total</b>	<b>8,201.5</b>	<b>100.0%</b>

Sources: Los Angeles County Assessor's Office Local Tax Roll database (November 2019), City of Hawthorne Planning and Community Development; City of Gardena Development and Planning; City of Inglewood Planning Department; City of Lawndale Planning Division; City of El Segundo Planning Division; City of Los Angeles Planning Department; Los Angeles County Department of Regional Planning; Coffman Associates analysis.

In the general plan land use designations of the above jurisdictions, single-family residential accounts for over 30 percent of the planned land use within the study area (30.7 percent). The right-of-way accounts for an additional 23 percent of planned land use, although not all jurisdictions will include rights-of-way in the future land use. Single-family residential and rights-of-way combined account for over 50 percent of the planned land use in the study area (53.7 percent). Other significant general plan land uses include multi-family residential (12.5 percent), commercial (11.8 percent), industrial (11.2 percent), and public/quasi-public (7.1 percent). Mixed-use and parks/open space account for less than five percent each. The airport is not anticipated to change in acreage in the general plan land use designation. Note that no areas are planned to be vacant.

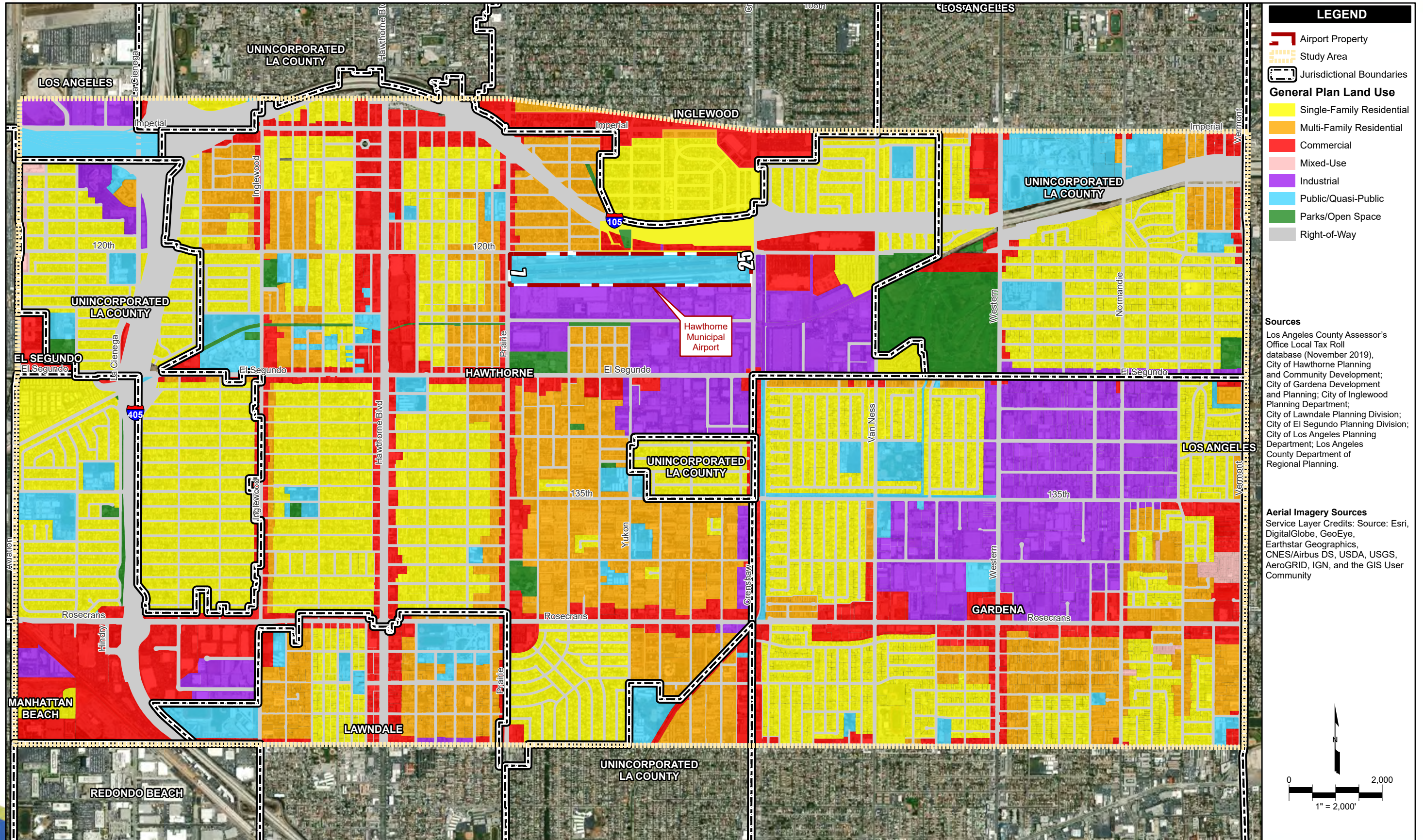
## AREA SPECIFIC PLANS

### Downtown Hawthorne Specific Plan

The Downtown Hawthorne Specific Plan (DHSP) was approved by the City Council on February 3, 2016 in an attempt to solidify a conception of the corridor as it rebuilds after the impacts of the 2008 Recession and is the vision for how the corridor will function in the future. Hawthorne Boulevard is a north/south arterial located approximately 0.50 miles west of the airport and was part of the original town established in the 1880s. The DHSP centers around the mix of uses along a two-mile road segment starting at Interstate 105 south to the City of Lawndale city limits. The plan addresses goals, strategies, projects, and implementation actions for retail, office, hospitality, employment, housing, and civic/public spaces along the boulevard. A set of six goals were vetted, to which strategies of the DHSP were identified.

- **Goal 1:** Provide a clear vision and flexible strategies framework that will help spur the future evolution of Downtown Hawthorne.







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- **Goal 2:** Ensure an economically vibrant, safe, healthy, and sustainable Downtown Hawthorne that supports a range of users, including residents, business owners, workers, and visitors.
- **Goal 3:** Capitalize on key transformative projects that will be catalysts for future public and private investment and positive change.
- **Goal 4:** Identify opportunities to develop and expand plazas, parks, and open space areas to support a livable and healthy downtown.
- **Goal 5:** Foster strong connectivity, access, and circulation for pedestrians, bicyclists, transit, and automobiles.
- **Goal 6:** Engage the entire community in robust, creative, and ongoing engagement and participation process.

The DHSP planning area is illustrated in **Exhibit 1G**.

### **Westchester – Playa del Rey Community Plan (2004)**

Currently, the City of Los Angeles maintains 35 community plans, which are neighborhood-specific goals and implementation strategies to achieve *The Los Angeles City General Plan*. These community plans compile the overall General Plan's land use element for the City of Los Angeles. The *Westchester-Playa del Rey Community Plan* (WPRCP) includes a limited portion of the Part 150 Study area (**Exhibit 1G**), located in the western portion of the Los Angeles Basin adjacent to the cities of Culver City, Inglewood, El Segundo, and the unincorporated areas of Del Aire, Ladera Heights, Lennox, and Marina del Rey. The WPRCP is approximately 5,766 net acres, of which 2,357 net acres (or about 41 percent) is residential. The portion of the WPRCP planning area that falls within this Part 150 Study area is planned to be light industrial and public/quasi-public (as a major transportation corridor for public right-of-way and the Los Angeles Metro rail line). Goals outlined in the WPRCP with respect to these two land uses are as follow:

- **Goal 3:** Provide sufficient land for limited and light industrial uses with employment opportunities that are safe for the environment and workers, and which have minimal adverse impact on adjacent uses.
- **Goal 11:** To the extent feasible and consistent with the *Mobility Plan 2035*'s and Community Plan's policies promoting multi-modal transportation and safety, a system of freeways and streets that provides a circulation system which supports existing, approved, and planned land uses while maintaining acceptable levels of service at intersections, where feasible.
- **Goal 14:** Develop additional public transit services which improve mobility with efficient, reliable, safe, convenient alternatives to automobile travel.
- **Goal 15:** Encourage alternative modes of transportation to reduce single-occupancy vehicular trips.

The WPRCP, along with three other community plans (Palms - Mar Vista - Del Rey, Venice, and West Los Angeles) impacting west Los Angeles, is currently undergoing a plan update and anticipated to be completed in late 2020 or early 2021. The WPRCP is currently in the second stage of the planning process.

### West Athens/Westmont Community Plan (1990)

Adopted in March 1990, the *West Athens/Westmont Community Plan* (WAW) is an area community plan incorporated into the Los Angeles County's land use element of the General Plan. The purpose of this plan is to establish a framework of goals, policies, and programs on a local scale to direct the pattern, density, and character of development in the West Athens and Westmont communities. The WAW planning area (identified on **Exhibit 1G**) is located in unincorporated Los Angeles County and is comprised of approximately 3.1 square miles (approximately 1,984.09 acres) east of the Hawthorne Municipal Airport. The WAW planning area consists primarily of residential land uses. The portion of the planning area that falls in the Part 150 Study area is planned to be primarily single-family residential, commercial, recreational, and public/quasi-public uses.

Some of the general land use policies identified in the plan include:

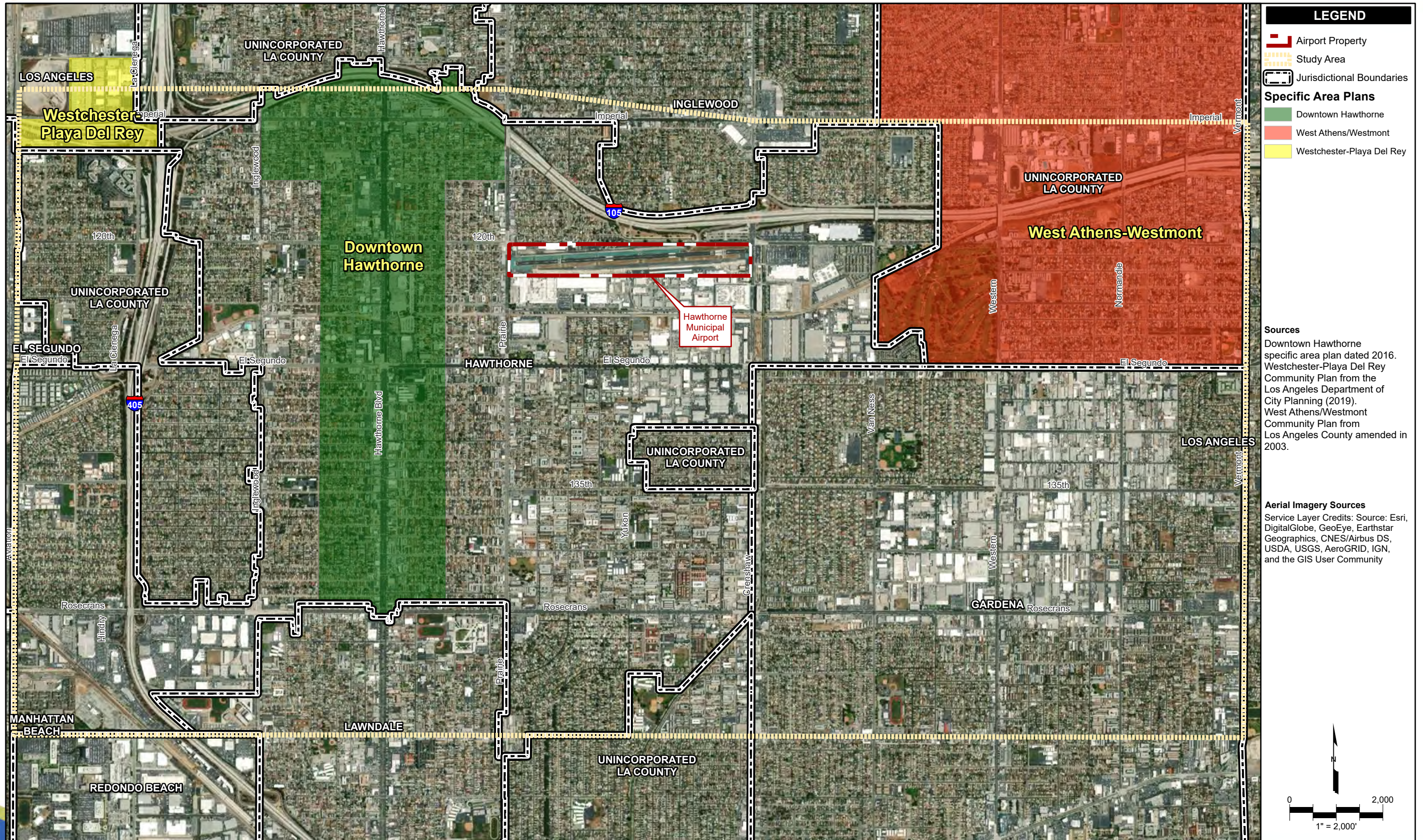
- Allow for the development of residential, commercial, recreational, public and supportive land uses, at varying densities and intensities.
- Encourage the elimination of nonconforming use and buildings.
- Coordinate and monitor the impact and intensity of land uses on the existing transportation and circulation systems so they are able to provide for the efficient movement of people and goods with the least interference.
- Foster inter-governmental cooperation and coordination in order to maximize the effectiveness of land use policies.
- Promote the preservation, maintenance, and enhancement of existing residential neighborhoods.
- Mitigate traffic congestion and unacceptable levels of noise, odors, and dust which affect residential use.

### STUDY AREA GENERAL PLANS

In 1976, the State of California required a noise element addressing specific guidelines to be incorporated into local general plans. These guidelines are outlined in Appendix D of the *State of California General Plan Guidelines*<sup>17</sup>, issued by the Governor's Office of Planning and Research (OPR). The essential goals of the noise element outlined in Appendix D of OPR's *General Plan Guidelines* are:

<sup>17</sup> *State of California General Plan Guidelines 2017*, Chapter 4, State of California Governor's Office of Planning and Research (<http://www.opr.ca.gov/planning/general-plan/guidelines.html>); November 2019.







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- To provide sufficient information concerning the community noise environment so that noise may be effectively considered in the land use planning process, therefore lending a foundation for a community noise ordinance to address noise complaints.
- To develop strategies for abating excessive noise exposure through cost-effective mitigation techniques combined with zoning ordinances to avoid incompatible land uses.
- To protect existing regions of a planning area where the noise environment is determined to be acceptable, while also protecting those locations determined to be “noise sensitive.”
- To utilize the definition of the CNEL or  $L_{dn}$  noise contour for local compliance with the State Noise Insulation Standards, which require specified levels of outdoor-to-indoor noise reduction for new multi-family residential construction in locations where the outdoor noise exposure exceeds CNEL 60 dB.<sup>18</sup>

According to the OPR *General Plan Guidelines*, the noise element of a general plan should apply the most up-to-date and detailed information available to reflect that community’s noise environment, including stationary sources, predicted levels of noise, and the impacts of noise to local residents. California Government Code (CGC) §65302(f)(1)<sup>19</sup> requires a noise element to “identify and appraise noise problems in the community and shall analyze and quantify, to the extent practicable, as determined by the legislative body, current and projected noise levels...” for several sources outlined in the code, including “commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test standards, and all other ground facilities and maintenance functions related to airport operations” (CGC §65302(f)(1)(F)).

The following sections provide excerpts from the previously discussed planning documents that offer land use planning guidance addressing noise for areas around the airport.

### City of Hawthorne General Plan

The City of Hawthorne General Plan discusses Hawthorne Municipal Airport and noise in the Circulation Element and the Noise Element of the plan.

#### *Circulation Element*

**Policy 1.7:** The city shall encourage that adequate mitigation measures be pursued with regard to the potential noise and safety impacts associated near Hawthorne Municipal Airport.

<sup>18</sup> Title 24, California Code of Regulations and Chapter 35 of the Uniform Building Code

<sup>19</sup> California Government Code Title 7, Division 1, Chapter 3, Article 5 *Authority for and Scope of General Plans* (<https://leginfo.legislature.ca.gov>); November 2019.



## Noise Element

**Policy 1.1:** Provide for measures to reduce noise impact from transportation noise sources. These measures include:

- Reduce transportation noise through proper design and coordination of routing.
- Mitigate potential impact for existing or proposed helicopter operations.
- Explore noise control programs as part of the Hawthorne Municipal Airport Master Plan to minimize noise levels from these operations.
- The City of Hawthorne completed a 14 CFR Part 150 Study (Part 150) Noise Compatibility Study in 1990; the Part 150 Study was updated in 2016. A complete study update is needed periodically to respond to changing conditions in the local area and in the aviation industry. The Hawthorne Municipal Airport Part 150 Study should be updated every seven to 10 years or as noise conditions warrant.

**Policy 2.1:** Incorporate noise considerations into land use planning decisions. These measures will be achieved through the following programs:

- Establish acceptable limits of noise for various land uses throughout the community. Zoning changes should be consistent with the compatibility of the projected noise environment.
- Ensure acceptable noise levels near schools, hospitals, convalescent homes, and other noise-sensitive areas.
- Establish standards for all types of noise not already governed by local ordinances or permitted by state or federal law.
- Encourage acoustical design in new construction.




**Policy 3.2:** The city shall establish a new Community Noise Ordinance to mitigate noise conflicts.

**Policy 3.4:** Establish and maintain coordination among the city agencies involved in noise abatement.

**Policy 3.5:** The city shall evaluate the development of noise-sensitive uses within the vicinity of the Hawthorne Municipal Airport using noise exposure contours developed as part of the airport's 14 CFR Part 150 Study and the compatibility criteria presented in the land use compatibility guidelines. See **Table 1E** below for the City of Hawthorne's land use compatibility table found in the General Plan.

**TABLE 1E**  
**Hawthorne Municipal Airport Land Use Compatibility Table**

Land Use Category	Community Noise Exposure Level				
	55	60	65	70	75
Residential					
Educational Facilities					
Commercial					
Industrial					
Agriculture					
Recreation					

-  Satisfactory.
-  Caution. Review noise insulation needs.
-  Avoid land use unless related to airport services.

*Source: Table 3, Noise Element of The City of Hawthorne General Plan (Amended May 2016)*

The Noise element provides a list of standards deemed as acceptable limits of noise for various land uses. These standards are designed to provide the basis of development in the city to ensure there is no conflict between land uses and acceptable noise levels. **Exhibit 1H** outlines the land use and what CNEL noise level is compatible. The city policies, depicted in **Exhibit 1J**, relate to land uses and acceptable interior and exterior noise levels.

## The City of El Segundo General Plan














The City of El Segundo General Plan addresses noise in two elements: land use element and noise element. In the Land Use element, new commercial development is required to meet seismic standards and air quality, noise, water, and environmental regulations. The Noise Element generally focuses on noise abatement for Los Angeles International Airport (LAX), and the goals and policies identified in the plan focus mitigating noise impacts attributed to LAX. **Goal N1** and subsequent objectives and policies are derived from the Noise Element section of the General Plan that potentially address Hawthorne Municipal Airport.

### Noise Element

- **Goal N1: Provision of a Noise-Safe Environment**
  - **Objective N1-1:** It is the objective of the City of El Segundo to ensure that city residents are not exposed to mobile noise levels in excess of the interior and exterior noise standards or the single event noise standards specified in the El Segundo Municipal Code.





LAND USE		COMMUNITY NOISE EQUIVALENT LEVEL (CNEL)						
		Below 55	55-60	60-65	65-70	70-75	Over 75-80	Over 80
<b>Residential</b>								
	Single Family, Duplex, Multiple Family	A	A	B	B	C	D	D
	Mobile home	A	A	B	C	C	D	D
<b>Commercial Use</b>								
	Hotel, Motel, Transient Lodging	A	A	B	B	C	C	D
	Commercial Retail, Bank, Restaurant, Movie Theater	A	A	A	A	B	B	C
	Office Building, Research and Development, Professional Offices, City Office Building	A	A	A	B	B	C	D
	Automobile Service Station, Auto Dealership, Manufacturing, Warehousing, Wholesale, Utilities	A	A	A	A	B	B	B
<b>Institutional</b>								
	Auditorium, Meeting Hall	B	B	C	C	D	D	D
	Hospital, Church, Library, School Classroom	A	A	B	C	C	D	D
<b>Agriculture</b>								
	Agriculture	A	A	A	A	A	A	A
<b>Recreational</b>								
	Amphitheater, Concert Hall	B	B	C	C	D	D	D
	Children's Amusement Park, Miniature Golf Course, Go-Cart Track, Equestrian Center, Sports Club	A	A	A	B	B	D	D
<b>Open Space</b>								
	Parks	A	A	A	B	C	D	D
	Golf Course, Cemetery, Nature Center, Wildlife Reserve, Wildlife Habitat	A	A	A	A	B	C	C
<b>Interpretation</b>								
<b>Zone A</b> Clearly Compatible		Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.						
<b>Zone B</b> Normally Compatible		New construction or development should be undertaken only after detailed analysis of noise reduction requirements are made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will suffice.						
<b>Zone C</b> Normally Incompatible		New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and necessary noise insulation features included in the design.						
<b>Zone D</b> Clearly Incompatible		New construction or development should generally not be undertaken.						

Source: City of Hawthorne, CA General Plan (amended May 2018) - Noise Element





LAND USE CATEGORIES		Energy Average CNEL	
Categories	Uses	Interior <sup>1</sup>	Exterior <sup>2</sup>
<b>Residential</b>	Single Family, Duplex, Multiple Family	45 <sup>3</sup>	65
	Mobile home	--	65 <sup>4</sup>
<b>Commercial Industrial Institutional</b>	Hotel, Motel, Transient Lodging	45	65 <sup>5</sup>
	Commercial Retail, Bank, Restaurant	55	--
	Office Building, Research and Development, Professional Offices, City Office Building	50	--
	Amphitheater, Concert Hall Auditorium, Meeting Hall	45	--
	Gymnasium (Multipurpose)	50	--
	Sports Club	55	--
	Manufacturing, Warehousing, Wholesale, Utilities	65	--
	Movie Theaters	45	--
<b>Institutional</b>	Hospital, School Classroom	45	65
	Church, Library	45	--
<b>Open Space</b>	Parks	--	65

### Interpretation

1. Indoor environmental excluding: bathrooms, toilets, closets, corridors.
2. Outdoor environment limited to: Private yard of single family, multi-family private patio or balcony served by a means of exit from inside, mobile home park, hospital patio, park picnic area, school playground, hotel and motel recreation area.
3. Noise level requirement with closed windows. Mechanical ventilating system or other means of natural ventilation shall be provided as of Chapter 12, Section 1205 of the Uniform Building Code.
4. Exterior noise level should be such that interior noise level will not exceed 45 CNEL.
5. Except those areas affected by aircraft noise.

Source: City of Hawthorne, CA General Plan (amended May 2018) - Noise Element





- Policy N1-1.1: Continue to work for the elimination of adverse noise sources, especially from LAX West Imperial Terminal, and from helicopter and aircraft flyovers.
  - Policy N1-1.4: Consider noise impacts from traffic arterials and railroads, as well as aircraft, when identifying potential new areas for residential land use.
  - Policy N1-1.9: Require review of all new development projects in the city for conformance with California Airport Noise Regulations and California Noise Insulation Standards (CCR Title 24) to ensure interior noise will not exceed acceptable levels.
  - Policy N1-1.10: Continue to develop and implement city programs to incorporate noise reduction measures into existing residential development where interior noise levels exceed acceptable standards.
- **Objective N1-3:** It is the objective of the City of El Segundo that the city maintains inter-governmental coordination and public information programs which are highly efficient in their noise abatement efforts.
- Policy N1-3.1: Encourage site planning to be consistent with the existing and future noise environment and promote development standards in which noise-sensitive projects and residences are mitigated from major noise sources. Short-term and long-term noise control measures should be formulated in a manner compatible with community needs and expectations.
  - Policy N1-3.2: Work to remove non-conforming land uses (mixed usage such as residential uses in commercial or industrial land use designations) which result in noise incompatibility.
  - Policy N1-3.3: Employ effective noise mitigation techniques through appropriate provisions in the building code, subdivision procedures, and zoning and noise ordinances.
  - Policy N1-3.5: Support a continuous effort to evaluate noise levels in the City of El Segundo and to reduce unacceptable noise levels through the planning process.
    - Program N1-3.5A: The city shall join adjacent jurisdictions (e.g. City of Los Angeles, City of Hawthorne, City of Manhattan Beach) and other agencies involved in noise mitigation in a cooperative effort to lessen adverse impacts and reduce noise incompatibilities across city boundaries.

### Gardena General Plan 2006

The City of Gardena last updated the General Plan in 2006 which is anticipated to guide the city through the vision of development over the next 15-20 years. The *Gardena General Plan 2006* addresses noise in the Noise Element, Land Use, and Circulation elements of the plan. Noise goals and policies addressed in the Land Use and Circulation elements; however, focus on minimizing truck traffic and commercial/industrial development.

The following goals and policies are included in the Noise Element of the General Plan.

#### *Noise Element*

- **N Goal 1:** Use noise control measures to reduce the impact from transportation noise sources.
  - Policy N1.14: Participate in the planning and impact assessment activities of the County Airport Land Use Commission and other regional or state agencies relative to any proposed expansion or change in flight patterns at the Hawthorne Municipal Airport or the Compton Airport.
- **N Goal 2:** Incorporate noise considerations into land use planning decisions.
  - Policy N2.1: Promote noise regulations that establish acceptable noise standards for various land uses throughout Gardena.
  - Policy N 2.2: Require noise/land use compatibility standards to guide future planning and development.
  - Policy N2.3: Promote compliance with the state's noise insulation standards in the conversion of existing apartments into condominiums wherever feasible.

#### **City of Inglewood General Plan**

The City of Inglewood's General Plan Noise Element was last updated in 1987. The concerns regarding noise addressed in the Noise Element pertain to LAX, but those concerns are indicative regarding general aviation-related noise. The following goal statements establish the city's vision to control community noise:

- **Goal 1:** *Provide for the reduction of noise where the noise environment represents a threat to public health and welfare.* In those areas where the environment represents a threat to the public health and welfare, it is the objective of the city to reduce environmental hazards to levels consistent with the protection of the public health and welfare.
- **Goal 2:** *Reduce noise impact in degraded areas.* In those areas where the environment is degraded, but not to an extent that represents an immediate hazard to public health and welfare, it is the objective of the city to reduce environmental degradation as much as feasible and practical within the limits imposed by conflicting objectives.
- **Goal 3:** *Protect and maintain those areas having acceptable noise environments.* In those areas where a quality environment now exists, it is the objective of the city to prevent degradation of that environment.
- **Goal 4:** *Provide sufficient information concerning the community noise levels so that noise can be objectively considered in land use planning decisions.* Noise and land use incompatibilities can be avoided for new developments when noise is properly considered in the planning and design of the project. It is the objective of the city to prevent future land use and noise conflicts through the planning process.



Important policies as a result of these goals include the following:

- **Policy 4.2:** *Incorporate noise considerations into land use planning decisions*, by establishing acceptable limits of noise for land uses in the community and ensuring acceptable noise levels for noise-sensitive land uses.
- **Policy 4.5:** *Reduce noise conflicts at the receiver*, such as encourage development patterns to minimize conflicts through the long-range planning process and extending state insulation requirements to single-family residential development to establish a 45 dB CNEL as an indoor noise standard.

### City of Lawndale General Plan

The closest airport to the City of Lawndale is Hawthorne Municipal Airport, which is located approximately 1.5 miles north of the city limits. According to the *City of Lawndale General Plan*, the city is well outside the 60 dB CNEL contour and is not significantly impacted by airport noise. Additionally, the city's *General Plan* does not address airport noise specifically in the Noise Element's goals and policies.

### Noise Element

- **Noise Goal 1:** To achieve and maintain an environment which is free from excessive or harmful noise through identification, control, and abatement.
  - Policy 1a: Control and abate undesirable sounds through the development of land use compatibility guidelines and a noise ordinance.
  - Policy 1c: Discourage development of noise-sensitive land uses in areas impacted by high noise levels.
  - Policy 1d: Ensure that sensitive land uses are not subjected to inappropriate noise levels resulting from transportation systems.
  - Policy 1e: Maintain coordination of noise control policies and standards with surrounding cities and the California Department of Transportation (Caltrans).

### Land Use Element

- **Goal 4 – Public Health and Safety.** The distribution and uses of land should consider the health, safety, and welfare of the community
  - Policy 4b: The use of land shall not subject people to potential sources of objectionable noise, light, or other emissions or to exposure to toxic or other dangerous materials.

## The Los Angeles City General Plan

Due to the complexity of the Los Angeles metroplex, *The Los Angeles City General Plan* is continually updated to reflect the city's ever-changing needs and demographics. The Los Angeles General Plan includes 11 elements: air quality, conservation, health, housing, infrastructure systems, land use, mobility, noise, public facilities and services, open space, and safety. The Land Use element incorporates 35 community plans to establish neighborhood-specific goals and implementation strategies to achieve the broad objective of the city's general plan. The *Westchester-Playa del Ray Community Plan* was addressed in a previous section.

### Noise Element

In 1975, the City of Los Angeles added the noise element to the general plan to provide noise management strategies. The plan generally addresses noise generated by the aviation industry as it relates to LAX and other regional airports within the city. Hawthorne Municipal Airport is outside of the Los Angeles city limits, and due to flight patterns in and out of the airport, it is unlikely the City of Los Angeles is impacted by aircraft noise generated by Hawthorne Municipal Airport. However, the following goal, objective, and policy are generalized as they relate to aviation.

- **Goal:** A city where noise does not reduce the quality of life.
  - Objective 1: Reduce airport and harbor related noise impacts.
    - Policy 1.1: Incompatibility of airports declared by Los Angeles County to be “noise problem airports” (identified as LAX, Van Nuys, and Burbank in the general plan) and land uses shall be reduced to achieve zero incompatible uses within the 65 CNEL airport noise exposure area.

## Los Angeles County General Plan 2035

Unincorporated areas of Los Angeles County consist of over 2,500 square miles and over one million people. The *Los Angeles County General Plan 2035* (LACGP) is the base document for providing foundational principles for the county and community plans. The LACGP identifies 11 area community plans for the county. The Del Aire opportunity area<sup>20</sup> is located along the western boundary of the Hawthorne Municipal Airport study area. There is no community plan in place for Del Aire, although it is identified with a transit center and corridor.<sup>21</sup>

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<sup>20</sup> An “opportunity area” is significant activity node in Los Angeles County, such as a transit center, a neighborhood center, a corridor, an industrial flex district or industrial opportunity area, or a rural town center; *Los Angeles County General Plan 2035*, Part II, Department of Regional Planning (<http://planning.lacounty.gov/generalplan/generalplan>); November 2019.

<sup>21</sup> *Los Angeles County General Plan 2035*, Figure 5.37; Department of Regional Planning - November 2014 (<http://planning.lacounty.gov/generalplan/figures2015>); November 2019.



In the LACGP, noise is addressed in three elements: Noise Element, Land Use Element, and Mobility Element.

### *Noise Element*

- **Goal N 1:** The reduction of excessive noise impacts.
  - Policy N1.1: Utilize land uses to buffer noise-sensitive uses from sources of adverse noise impacts.
  - Policy N1.2: Reduct exposure to noise impacts by promoting land use compatibility.
  - Policy N1.4: Enhance and promote noise abatement programs in an effort to maintain acceptable levels of noise as defined by the Los Angeles County Exterior Noise Standards and other applicable noise standards.
  - Policy N1.5: Ensure compliance with the jurisdictions of State Noise Insulation Standards, such as noise insulation of new multifamily dwellings constructed within the 60 dB (CNEL or L<sub>dn</sub>) noise exposure contours.
  - Policy N1.9: Require construction of suitable noise attenuation barriers on noise-sensitive uses that would be exposed to exterior noise levels of 65 dBA CNEL and above, when unavoidable impacts are identified.
  - Policy N1.10: Orient residential units away from major noise sources (in conjunction with applicable building codes).
  - Policy N1.12: Decisions on land adjacent to transportation facilities, such as the airports, freeways and other major highways, must consider both existing and future noise levels of these transportation facilities to assure the compatibility of proposed uses.

### *Land Use Element*

- **Goal LU 1:** A General Plan that serves as the constitution for development and a Land Use Policy Map that implements the General Plan's Goals, Policies, and Guiding Principles.
  - Policy LU 1.6: In the review of a project-specific amendment(s) to convert lands within the Employment Protection District Overlay to non-industrial land use designations, ensure that the project-specific amendment(s):
    - Is located on a parcel that adjoins a parcel with a comparable use, at a comparable scale and intensity;
    - Will not negatively impact the productivity of neighboring industrial activities;
    - Is necessary to promote the economic value and the long-term viability of the site; and
    - Will not subject future residents to potential noxious impacts, such as noise, odors or dust or pose significant health and safety risks.



- **Goal LU 7:** Compatible land uses that complement neighborhood character and the natural environment.
  - Policy LU 7.6: Ensure that proposed land uses located within Airport Influence Areas are compatible with airport operations through compliance with airport land use compatibility plans.
  - Policy LU 7.7: Review all proposed projects located within Airport Influence Areas for consistency with policies of the applicable airport land use compatibility plan.

### *Mobility Element*

- **Goal M 6:** The safe and efficient movement of goods.
  - Policy M 6.2: Support the modernization of aviation systems, including LAX.
  - Policy M 6.4: Minimize noise and other impacts of goods movement, truck traffic, deliveries, and staging in residential and mixed-use neighborhoods.
  - Policy M 6.6: Preserve property for planned roadway and railroad rights-of-way, marine and air terminals, and other needed transportation facilities.

## ZONING

### **Runway Protection Zone Overlay – Chapter 17.22(B) City of Hawthorne Municipal Code**

Chapter 17.22(B) of the City of Hawthorne Municipal Code<sup>22</sup> introduces a Runway Protection Zone Overlay (RPZ), approved in 2017, a trapezoid-shaped area off the east end of the runway to minimize exposure to safety hazards that could result from new or redeveloped land uses and structures within the runway protection zone (RPZ) east of the airport. The overlay zone was also established to protect the airport from potential encroachment of land uses and structures that impair the planned use and development of the airport, to create consistency with the Airport Master Plan, and to establish permitted uses and development standards within the RPZ. Prohibited uses include:

- |  |  |
|--|--|
| • Churches                             | • Schools  |
| • Hospitals                            | • Shopping centers   |
| • Office and retail buildings          | • Major above-ground utilities                                     |
| • Parking meters and charging stations | • Any use or structure that conflicts with the Airport Master Plan |
| • Public assembly uses                 |  |

<sup>22</sup> City of Hawthorne, California Municipal Code, Chapter 17.22(B) *Runway Protection Overlay Zone* (<http://www.cityofhawthorne.org/zoning-information>); November 2019.



## Airport Overlay Zone – Chapter 17.22(C) City of Hawthorne Municipal Code

The Airport Overlay Zone (AOZ) was added to the Hawthorne Municipal Code in 2018 to implement the airport’s master plan and Noise Compatibility Program approved by the FAA. The purpose of the AOZ is to ensure proposed land uses and development around the airport within the AOZ are consistent with the NCP. Additionally, the AOZ is to prohibit the introduction of new noise-sensitive development and require noise attenuated construction. Noise-sensitive development includes:

- Residential dwellings (both single- and multi-family)
- Hotels or motels
- Hospitals and nursing homes
- Places of worship
- Meeting halls
- Mortuaries
- Schools and libraries
- Museums

Within the AOZ, real estate disclosures are required to be provided by the seller of real property at the time a sales contract is executed, alerting the purchaser that the property is subject to some of the “annoyances and inconveniences associated with airport operations, such as noise, vibration, or odors.”

## AIRPORT FACILITY INVENTORY

### AIRSIDE FACILITIES

Hawthorne Municipal Airport has a single runway (oriented at 73/253 degrees magnetic) measuring 4,884 feet (ft) long by 100 ft wide. Runway 25 is characterized by a 460 ft displaced landing threshold, non-precision runway markings, omni-directional approach lighting, and both VASI-4 and REIL visual approach aids. Runway 7 has a 905 ft displaced landing threshold, basic runway markings, and a VASI-2 visual approach aid. The runway is outfitted with medium intensity runway lights (MIRL).

The taxiway system consists of full-length parallel Taxiway S located 150 ft south of the runway (centerline-to-centerline separation), and partial parallel Taxiway N located 150 ft north of the runway centerline.

There are eight entrance/exit taxiways (A through H) between the runway and parallel Taxiway S providing access to the airfield system and apron areas. The convergence of Taxiways A-4, A-5, and A-6 at midfield is considered a “hot spot” by the FAA under its current airfield design standards. There are six taxiway exits between the runway and partial parallel Taxiway N.

Three published instrument approaches are available for Runway 25. These include a localizer (LOC), RNAV (GPS), and VOR. None of the approaches are available if/when in certain weather conditions and only the RNAV (GPS) is available when the Hawthorne ATCT is closed. Each approach provides visibility minimum down to one mile and cloud ceilings of 600 ft. **Table 1F** below summarizes the basic airfield facility information.<sup>23</sup>

<sup>23</sup> Coffman Associates, Inc *Hawthorne Municipal Airport Airport Layout Plan Update and Narrative Report* (December 2019)

**TABLE 1F**  
**Airside Facilities Data**  
**Hawthorne Municipal Airport**

	Runway 7	Runway 25
Length (ft)	4,884	4,884
Width (ft)	100	100
Displaced Thresholds (ft)	905	460
Pavement Surface	Asphalt	Asphalt
<b>Pavement Strength (lbs)</b>		
Single-Wheel Loading	30,000	
Dual-Wheel Loading	60,000	
Dual Tandem	90,000	
Edge Lighting	MIRL	MIRL
Pavement Markings	Basic	Non-Precision
Visual Approach Aids	VASI-2	VASI-4 REILs ODALS
Instrument Approach Procedures	Circling Only	VOR RNAV (GPS) LOC
Air Traffic Control	ATCT (6:00 a.m. – 10:00 p.m.)	
Weather Reporting	ASOS-3	ASOS-3
Fixed-Wing Aircraft Traffic Pattern	Right	Left

Acronyms:

ASOS - Automated Surface Observation Station  
ATCT - Air Traffic Control Tower  
GPS - Global Positioning System  
LOC - Localizer  
MIRL - Medium Intensity Runway Lighting  
ODALS - Omni-Directional Approach Lighting Systems  
REILs - Runway End Identifier Lights  
RNAV - Area Navigation  
VASI - Visual Approach Slope Indicators  
VOR - Very High-Frequency Omni-Directional Range

## LANDSIDE FACILITIES

Landside facilities include all airport elements other than the runway/taxiway system and navigational aids: terminal, storage hangars, apron, vehicle parking lots, and fuel farms.

Hawthorne Municipal Airport has a two-story, 19,500 square-foot terminal building located in the south-east corner of the airport. The terminal houses airport administration, a meeting room, flight planning room, pilot's lounge, lobby/waiting area, aviation business offices, restaurant, restrooms, line service, storage, and equipment. JetCenter leases space in the building and Surf Air maintains a small passenger check-in counter located in the lobby/waiting area.

The airport has a wide mix of aircraft hangars including large conventional hangars, box hangars, and T-hangars. A portion of the north side of the airfield was recently redeveloped with 73,440 square feet of new hangar space. Aircraft apron parking is provided in multiple locations around the airfield totaling approximately 31,000 square yards.

The ATCT is located near midfield on the north side of the airfield. The tower is open daily from 6:00 a.m. to 10:00 p.m. and is operated through the FAA's Contract Tower Program.

## AIRPORT OPERATIONS

Due to the close proximity to LAX, departing flights using Runway 25 use a left-handed traffic pattern to not encroach into LAX airspace. Because Hawthorne Municipal Airport is less than three miles southeast of LAX, Hawthorne Municipal Airport typically operate in the same traffic flow direction as LAX. If LAX must reverse flow due to emergency or weather, Hawthorne Municipal Airport will also reverse flow and use Runway 7 for departures to the east. For typical visual departures, aircraft are directed to fly to the west until either an attitude of 500 ft AGL is achieved or to Hawthorne Mall, located  $\frac{1}{4}$  mile west of the airport. To proceed to the south, pilots are to make a 205 degree turn to the southwest to stay out of LAX airspace. To go to the east, aircraft make the same turn over the Hawthorne Mall, turn south down Hawthorne Boulevard, and then east over El Segundo Boulevard.

To aid with noise abatement over sensitive land uses, visual flight rules (VFR) flights below 2,500 ft mean sea level (MSL) are discouraged west of Interstate 405 and Hawthorne Boulevard, and VFR flights below 1,500 ft MSL are discouraged east of Interstate 405 and Hawthorne Boulevard, with the exception to take-off and landing movements.

Touch-and-go operations are available between 10:00 a.m. and 5:00 p.m. daily, depending on the tower workload. Touch-and-goes or stop-and-goes are not permitted after 6:00 p.m. Tower authorization is requested for touch-and-goes and these operations are typically only approved for single-engine aircraft. Multi-engine aircraft must make full-stop landings.

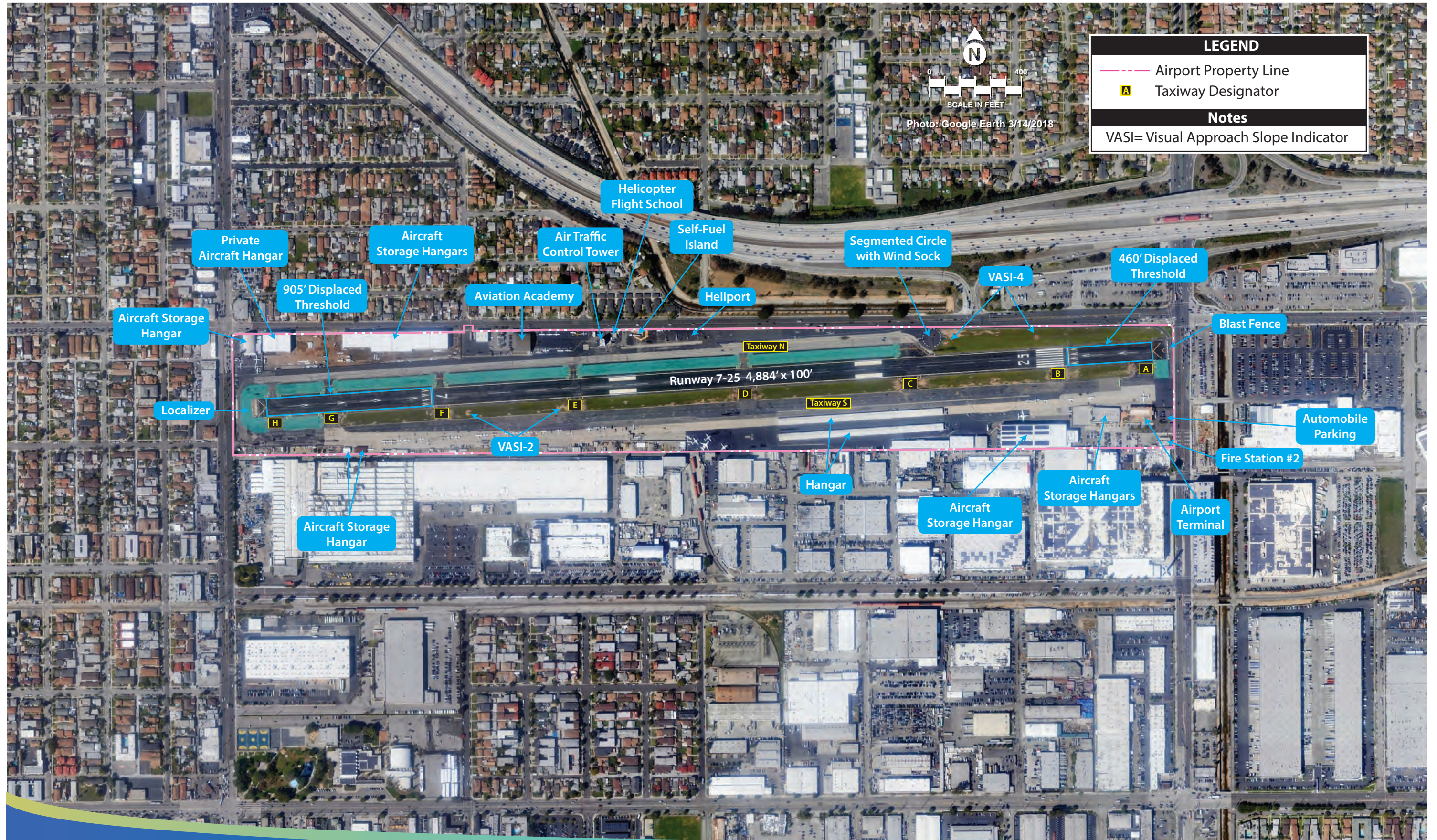
Both airside and landside facilities are depicted in **Exhibit 1K**.

## NOISE ABATEMENT PROCEDURES

Due to the proximity of noise-sensitive land uses to Hawthorne Municipal Airport, voluntary Noise Abatement Procedures have been adopted that provides several recommended noise abatement measures. Those measures include:

- Touch-and-go operations available 10:00 a.m. to 5:00 p.m. local daily, and on a Hawthorne tower workload basis. Tower authorization required. No touch-and-go's or stop-and-go's for any reason after 6:00 p.m. local.







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- Touch-and-go's are restricted to single-engine aircraft. Runway 7 and Runway 25 pilots should be airborne prior to Taxiway D intersection. Multi-engine aircraft must make full-stop landings.
- All takeoffs shall be made from the beginning of the active runway using the approved takeoff surface prior to the displaced threshold.
- Runway 25 intersection takeoffs are only authorized from Taxiway B and Taxiway C intersections and only available at tower's discretion.
- No intersection takeoffs are authorized from Runway 7.
- Helicopter hover practice on the runway nor north taxiway, when approved by the tower, should be conducted east of Taxiway D and west of Taxiway C intersections.
- Helicopter takeoffs and landing should be from the area prior to the fixed distance markers of each runway. Exceptions must be approved by the tower.
- During non-tower hours of operation, the helicopter traffic should be flown over the 105 Freeway north of the airport to avoid the flow of fixed-wing aircraft, and at an altitude of at least 700 ft MSL (634 ft AGL).
- No pattern work from 10:00 p.m. local to 8:00 a.m. local weekdays, and 10:00 p.m. to 10:00 a.m. local weekends and holidays.
- Jet and high-performance turboprop aircraft are requested to use manufacturer's best noise abatement takeoff performance procedures.
- When possible, and at a safe altitude, pilots are requested to adjust propeller pitch to reduce propeller noise.
- Formation takeoffs and landings are prohibited unless authorized in writing by the Hawthorne Airport Manager.
- On crosswind departures Runway 25, avoid flying over homes west or east of Hawthorne Boulevard until above 1,500 ft AGL.
- All IFR departures on the HHR Obstacle Departure Procedure (ODP) must turn to the assigned heading at 400 ft AGL, and should climb at best angle, or Blue Line<sup>24</sup> until above 1,000 ft AGL.

Additional flight pattern information is provided on a pilot guide available in print and online line by the airport (**Exhibit 1L**). The pilot guide also outlines the noise abatement procedures previously listed. The airport requests that all pilots adhere to the noise abatement program outlined above. The flight schools at the airport stick to a flight schedule to ensure no early or late flights impact neighboring noise-sensitive uses. The voluntary noise abatement procedures are published both in print and on the city's website, and pilots are routinely directed to both and requested to abide by them.

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<sup>24</sup> The "blue line" refers a blue mark on the airspeed indicator depicting the best rate-of-climb for single-engine aircraft or minimum rate-of-sink in light twin-engine aircraft with one engine inoperative – Federal Aviation Administration *Pilot's Handbook of Aeronautical Knowledge* (2016).



The airport has established a noise complaint form on the City of Hawthorne website where complaints can be filed, logged, and tracked.

## INSTRUMENT APPROACH PROCEDURES

Instrument approach procedures are a series of predetermined maneuvers established by the FAA using electronic navigational aids to assist pilots in locating and landing at an airport. The capability of an instrument approach is defined by the visibility and cloud ceiling minimums associated with the approach. Visibility minimums define the horizontal distance that the pilot must be able to see to initiate the approach. Cloud ceilings, in some cases, define the lowest level of cloud layer (defined in feet above the ground) can be situated for a pilot to initiate the approach.

Instrument approach procedures are only available to Runway 25, the details of which are shown in **Table 1G**. The best LNAV approach to Runway 25 provides for 580-ft cloud ceiling heights and  $\frac{3}{4}$ -mile visibility minimums. These procedure minimums, however, are only available to Category A and B aircraft. The lowest minimums available to Category C and D aircraft are 571-ft cloud ceilings and 1.5-mile visibility.

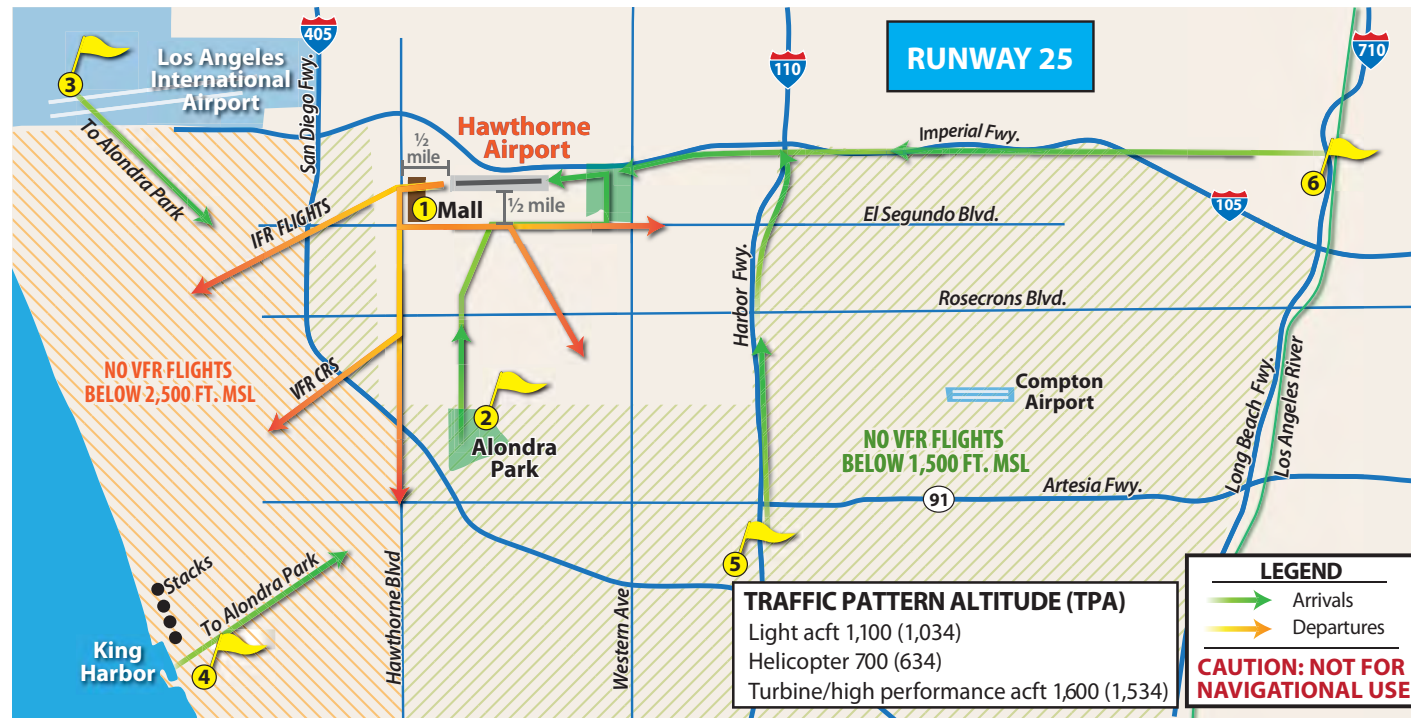
**TABLE 1G**  
**Instrument Approach Data**  
**Hawthorne Municipal Airport**

	Weather Minimum by Aircraft Approach Category					
	Category A & B		Category C		Category D	
	Cloud Ht.	Visibility	Cloud Ht.	Visibility	Cloud Ht.	Visibility
<b>RNAV (GPS) RWY 25</b>						
LPV DA	571'	1.5 mi	571'	1.5 mi	571'	1.5 mi
LNAV/VNAV DA	653'	1.875 mi	653'	1.875 mi	653'	1.875 mi
LNAV MDA	580'	0.75 mi	580'	1.375 mi	580'	1.375 mi
Circling	620'	1.0 mi	780'	2 mi	780'	2.25 mi
<b>LOC RWY 25</b>						
Straight-in	580'	0.75 mi	580'	1.375 mi	580'	1.375 mi
Circling	620'	1.0 mi	780'	2 mi	780'	2.25 mi
<b>VOR RWY 25</b>						
Straight-in	600'	1.0 mi	600'	1.5 mi	600'	1.75 m
Circling	600'	1.0 mi	620'	1.5 mi	620'	2.0 mi

Source: U.S. Terminal Procedures effective October 10, 2019 through December 5, 2019.

## AIRSPACE AND AIR TRAFFIC CONTROL

The *Federal Aviation Administration Act of 1958* established the FAA as the responsible agency for the control and use of navigable airspace within the United States. The FAA has established the National Airspace System (NAS) to protect persons and property on the ground and to establish a safe and



**NOISE ABATEMENT PROCEDURES SHOULD BE USED ONLY WHEN CONSISTENT WITH THE SAFE OPERATION OF AIRCRAFT.**

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## DEPARTURE

### Standard:

#### IFR

- The IFR obstacle departure procedure for Runway 25 is a published immediate left turn to the heading issued in the IFR clearance. Turns should be made at 400 ft. AGL. Failure to follow this procedure may result in a loss of separation with arrivals to LAX Runway 25L, and possible pilot deviation.

#### VFR

- Fly runway heading until reaching the Hawthorne Mall 1 1/4 mile west of the airport. Closed traffic should turn downwind parallel to and over El Segundo Blvd. VFR Standard departures should turn southwest-bound prior to reaching Alondra Park, 2 climbing above 1,000 ft. prior to turning.

#### Crosswind:

- Turn 90° left, remain over Hawthorne Blvd.
- After crossing Rosecrans 2 miles south of Airport at or above 1,500 ft. MSL, turn to exit Hawthorne Class D southwest bound.
- No south-bound turns before reaching the runway end.

#### Downwind:

- Climb downwind until reaching 1,500 ft. MSL or the east boundary of the airport.
- No turns before passing the east boundary of the airport.

## TRAFFIC PATTERN

### Procedure:

- Fly runway heading until reaching 500 ft. AGL or the Hawthorne Mall 1 1/4 mile west of the airport.
- Crosswind, remain over Hawthorne Blvd.
- Downwind, remain over El Segundo Blvd. at 1,100 ft. MSL.
- Turn base to fly and remain over golf course within 1 mile of the east boundary of the airport (traffic permitting).

## ARRIVAL

### From 2:

- Cross Alondra Park at or above 1,500 ft. MSL.
- Descend to 1,100 ft. MSL prior to entering downwind.

### From 3 and 4:

- Proceed directly to Alondra Park and remain at or above 2,500 ft. MSL until east of the 405 Fwy. During Tower hours of operation, contact HHR Tower as soon as practical after leaving the transition routes over LAX and departing King Harbor.

### From 5:

- Remain east of the 110 Fwy at or above 1,500 ft. MSL until turning final.

### From 6:

- Remain at or above 1,500 ft. MSL until crossing the 110 Fwy. Remain south of the 105 Fwy.

## DEPARTURE

### Standard:

#### IFR

- The IFR obstacle departure procedure for Runway 7 includes a published immediate right turn to the heading issued in the IFR clearance. Turns should be made at 400 ft. AGL. If possible and still in visual conditions, plan to turn mid golf course.

#### VFR

- After takeoff, adjust upwind to the right to remain over the Lowe's parking lot east of the airport.
- Above 500 ft. AGL and over the golf course, turn right 45° and depart southeast-bound to avoid possible IFR arrivals from the east. Closed traffic should turn downwind upon reaching El Segundo Blvd. to a course of 250° and fly parallel to Runway 25.

#### Downwind:

- Departing the pattern on the downwind should begin midfield southwest-bound on a course of 210°.
- Above 1,500 ft. MSL, resume own navigation or as directed by the Hawthorne Tower. Avoid flying over the homes in the southwest corner of the golf course. Use caution for aircraft transiting the 110 Fwy at 1,500 ft. MSL.
- Climb downwind to 1,500 ft. MSL at best rate of climb.
- Abeam midfield, depart southwest toward King Harbor (210).

## TRAFFIC PATTERN

### Procedure:

- After takeoff, adjust upwind to the right to remain over the Lowe's parking lot east of the airport and remain south of 120th Street until mid golf course.
- Turn crosswind over the golf course and fly on the east edge of the golf course.
- Closed traffic should turn downwind upon reaching El Segundo Blvd. to a course of 250° and fly parallel to Runway 25.
- Right base should be flown over Hawthorne Blvd. to mask noise, and turn should not be over Hawthorne High School located 1 mile west of Hawthorne Blvd.
- If unable to fly over Hawthorne Blvd. and align with Runway 7, pilots should climb immediately and go around east-bound over Runway 7, continue in the traffic pattern, and return for another attempt.
- Under no circumstances should pilots fly over Hawthorne High School 1 mile west of the Airport.
- Fly downwind after crossing El Segundo Blvd. parallel to the runway.
- Turn base leg to fly over Hawthorne Blvd. and the Hawthorne Mall 1 west of the airport.

## ARRIVAL

### From 2:

- Cross Alondra Park at or above 1,500 ft. MSL.
- Expect to fly east to arrive on a 45° entry leg.
- Descend to 1,100 ft. MSL prior to entering downwind.

### From 3 and 4:

- Proceed directly to Alondra Park and remain at or above 2,500 ft. MSL until east of the 405 Fwy.

### From 5:

- Proceed on a 45° entry leg to midfield downwind.
- Descend to 1,100 ft. MSL prior to entering a right downwind over El Segundo Blvd. south of the airport.

### From 6:

- Remain at or above 1,500 ft. MSL until crossing the 110 Fwy.
- Enter downwind directly parallel to the runway.
- VFR arrivals from the east should plan to arrive from over the I-710 and I-105 intersection and contact HHR Tower prior to the intersection, using caution to avoid IFR arrivals on the HHR LOC and RNAV 25 approaches. HHR Tower will sequence VFR and IFR traffic from the east during Tower hours of operation.
- When the Tower is closed, VFR traffic should proceed to the I-405 and I-110 5 intersection and plan to enter right standard traffic, landing to the east on Runway 7, and follow uncontrolled airport procedures.

Source: Hawthorne Municipal Airport Pilot's Guide

*Please... Fly Friendly, Fly Quietly*



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efficient airspace environment for civil, commercial, and military aviation. The NAS covers the common network of U.S. airspace, including air navigation facilities; airports and landing areas; aeronautical charts; associated rules, regulations, and procedures; technical information; and personnel and material. Hawthorne Municipal Airport has no direct control over airspace management or ATCT for aircraft operating at the airport. These functions are handled by the FAA and the local ATCT staff.

The Hawthorne ATCT is located north of Runway 7-25, just west of midfield. The tower is open 16 hours daily, from 6:00 a.m. – 10:00 p.m. Operating conditions for aircraft at Hawthorne Municipal Airport are also influenced by aircraft at other airports within the Los Angeles basin, most notably LAX. **Exhibit 1M** shows radar flight track data for arrivals and departures over a 24-hour period for the following airports within the Los Angeles basin:

- Bob Hope Airport
- John Wayne-Orange County Airport
- Los Angeles International Airport
- Ontario International Airport
- San Bernardino International Airport
- Van Nuys Airport

## AIRSPACE STRUCTURE

FAA has established a standardized airspace system to regulate the use of airspace for all airports within the U.S. Within the FAA's system, airspace is broadly classified as either controlled or uncontrolled. The difference between controlled and uncontrolled airspace relates primarily to requirements for pilot qualifications, ground-to-air communications, navigation and air traffic services, and weather conditions. Six classes of airspace have been designated in the U.S. **Exhibit 1N** shows the airspace structure classifications and terminology established by the FAA. Airspace designated as Classes A, B, C, D, or E is considered controlled airspace. Aircraft operating within controlled airspace are subject to varying requirements for positive air traffic control. **Exhibit 1P** illustrates the airspace within the Los Angeles basin, including Hawthorne Municipal Airport and other surrounding airports.

- Class A airspace is controlled airspace and includes all airspace from 18,000 feet mean sea level (MSL) to Flight Level 600 (approximately 60,000 feet MSL).
- Class B airspace is controlled airspace surrounding high activity commercial service airports, such as Los Angeles International Airport. Class B airspace is individually tailored and consists of a surface area and two or more layers. Immediately east of Hawthorne Municipal Airport, airspace is classified as Class B from the surface to 10,000 feet MSL. Class B exists north of the airport, influencing where aircraft turn when departing to the north.
- Class C airspace is airspace that is within 30 nautical miles (nm) of primary airports of Class B airspace and within 10 nm of designated airports. The normal radius of the outer limits of Class C airspace is 10 nm.





- Class D airspace is controlled airspace surrounding low-activity commercial service or general aviation airports with an ATCT. Hawthorne Municipal Airport airspace is classified as Class D from the surface to 2,500 feet MSL for approximately five nautical miles to the west and south of the airport. Class D airspace is only effective during the time that the ATCT is operational (6:00 a.m. to 10:00 p.m.).
- Class E airspace is controlled airspace surrounding an airport that encompasses all instrument approach procedures and low altitude federal airways. Only aircraft conducting instrument flights are required to be in contact with air traffic control when operating in Class E airspace. While aircraft conducting visual flights in Class E airspace are not required to be in radio contact with air traffic control, visual flight can only be conducted if minimum visibility and cloud ceilings exist.
- Class G airspace is uncontrolled airspace that does not require communication with an ATCT. Since the Class D airspace for Hawthorne Municipal Airport is only effective when the ATCT is operational, when the tower is closed between 10:00 p.m. and 6:00 a.m., the Class D airspace reverts to Class G airspace.

## SUMMARY

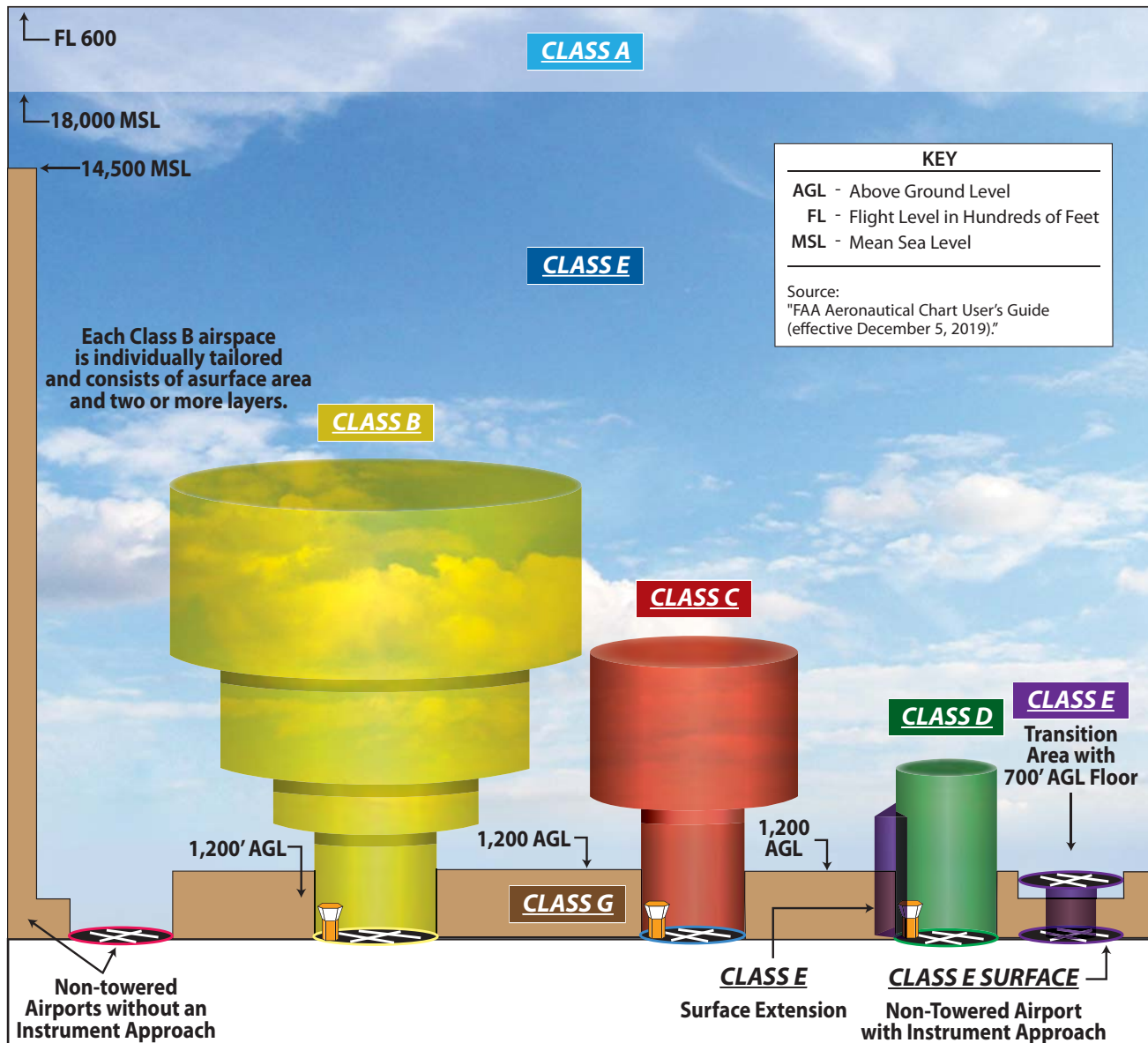
The information presented in this chapter provides a foundation upon which the remaining elements of the planning process will be constructed. Information on current airport facilities and utilization serves as a basis for the development of the aircraft noise analysis during the next phase of the study. The information found of the airport environs in this inventory section will allow the assessment of airport noise impacts.







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## DEFINITION OF AIRSPACE CLASSIFICATIONS

### CLASS A

Generally airspace above 18,000 feet MSL up to and including FL 600.

### CLASS B

Generally multi-layered airspace from the surface up to 10,000 feet MSL surrounding the nation's busiest airports. Each Class B airspace is individually tailored and consists of a surface area and two or more layers.

### CLASS C

Generally airspace from the surface to 4,000 feet AGL surrounding towered airports with service by radar approach control.

### CLASS D

Generally airspace from the surface to 2,500 feet AGL surrounding towered airports.

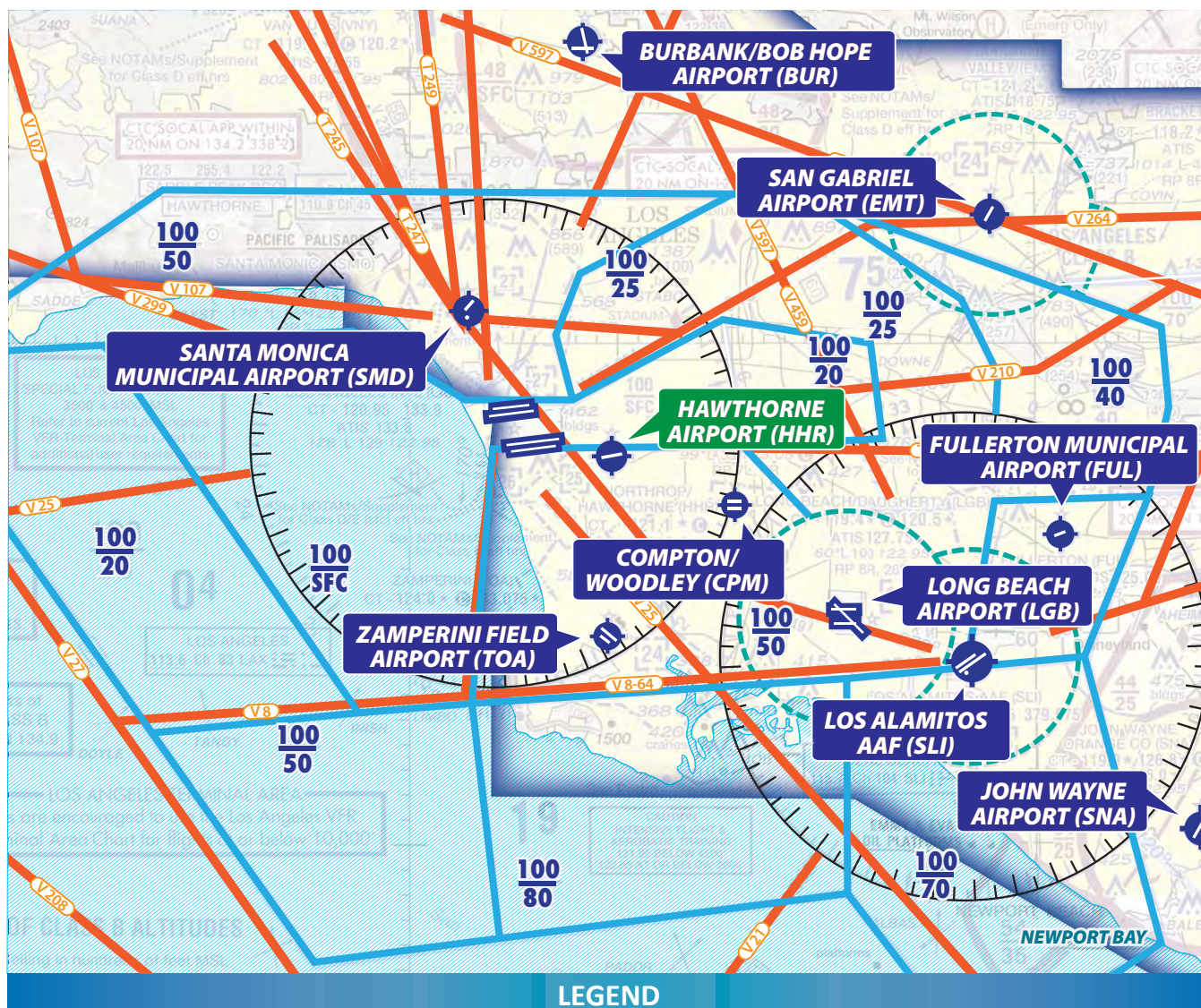
### CLASS E










Generally controlled airspace below 14,500 feet MSL that is not Class B, Class C, or Class D.

### CLASS G

Generally uncontrolled airspace below 14,500 feet MSL that is not Class B, Class C, Class D, or Class E.





- |   |   |   |   |
|---|---|---|---|
|  | Airport with hard-surfaced runways<br>1,500' to 8,069' in length  |  | Class B Airspace                                  |
|  | Airports with hard-surfaced runways<br>greater than 8,069' or some multiple<br>runways less than 8,069' |  | Class D Airspace                                  |
|  | Compass Rose  |  | Class E (sfc) Airspace                            |
|  | Victor Airways  |  | Class E Airspace with floor 700'<br>above surface |
|  | Wilderness Areas  |   |   |



NOT TO SCALE

Source: Los Angeles Sectional Charts, US Department of Commerce, National Oceanic and Atmospheric Administration June 20, 2019