



Hawthorne Municipal Airport

Appendix D Noise Compatibility Program Review



Appendix D
NOISE COMPATIBILITY
PROGRAM REVIEW

Noise Exposure Map Update
Jack Northrup Field/Hawthorne Municipal Airport

The current Noise Compatibility Plan (NCP) for Hawthorne Municipal Airport was approved by the Federal Aviation Administration (FAA) in December 2017. The intent of the previous Part 150 study was to evaluate noise impacts within the area surrounding Hawthorne Municipal Airport. The study included Noise Exposure Maps dated 1993 and 2012, and an NCP which includes 11 measures to improve compatibility between the airport and the surrounding neighborhoods.

This appendix includes a comparison of the 2012 and 2020 aircraft operations and noise exposure contours, as well as a summary and status of the measures included in the 2017 Noise Compatibility Program.

AIRCRAFT OPERATIONS AND NOISE EXPOSURE CONTOUR COMPARISON

As indicated in **Table D1**, based on information from FAA's Air Traffic Activity System (ATADS) and the 1988 Noise Exposure Maps, the number of annual operations at Hawthorne Municipal Airport has fluctuated since the preparation of the 1988 noise exposure contours. The operations assumption for the 1988 noise exposure contours was 126,000, while the 2012 contours are based on 78,816 operations. During the years between the two Part 150 studies, operations ranged between a high of 170,259 in 1992 and a low of 51,480 in 2009.

TABLE D1
Annual Operations 1988 Through 2019

Year	Total Operations
1988	126,000 ¹
1989	Information Not Available
1990	120,387
1991	157,103
1992	170,259
1993	165,872
1994	140,543
1995	111,658
1996	90,601
1997	83,163
1998	81,172
1999	85,172
2000	78,412
2001	77,005

TABLE D1 (continued)
Annual Operations 1988 Through 2019

Year	Total Operations
2002	80,210
2003	68,752
2004	77,264
2005	70,853
2006	65,075
2007	62,462
2008	59,677
2009	51,480
2010	57,630
2011	75,051
2012 ²	78,816
2013	79,283
2014	90,944
2015	104,211
2016	92,407
2017	79,298
2018	76,933
2019	75,405

Notes:

¹ Operations from 1988 Noise Exposure Maps

² Hawthorne Municipal Airport Traffic Control Tower Reports, Calendar Year 2011 with an adjustment factor of 5.0 percent added to itinerant operations to account for when the ATCT tower is closed.

A graphic comparison of the 2012 Noise Exposure Map and the 2020 Noise Exposure Map is presented in **Exhibit D1**. Additionally, **Table D2** provides an acreage comparison of the 2012 and 2020 Noise Exposure Maps. As indicated in the exhibit and table, the 2012 noise contours, modeled with 78,816 operations, are larger than the 2020 noise contours which were modeled with 75,405 operations. The 2012 noise contours were modeled using INM Version 7.0c, while the 2020 noise contours were modeled using Airport Environmental Design Tool (AEDT), Version 3c.

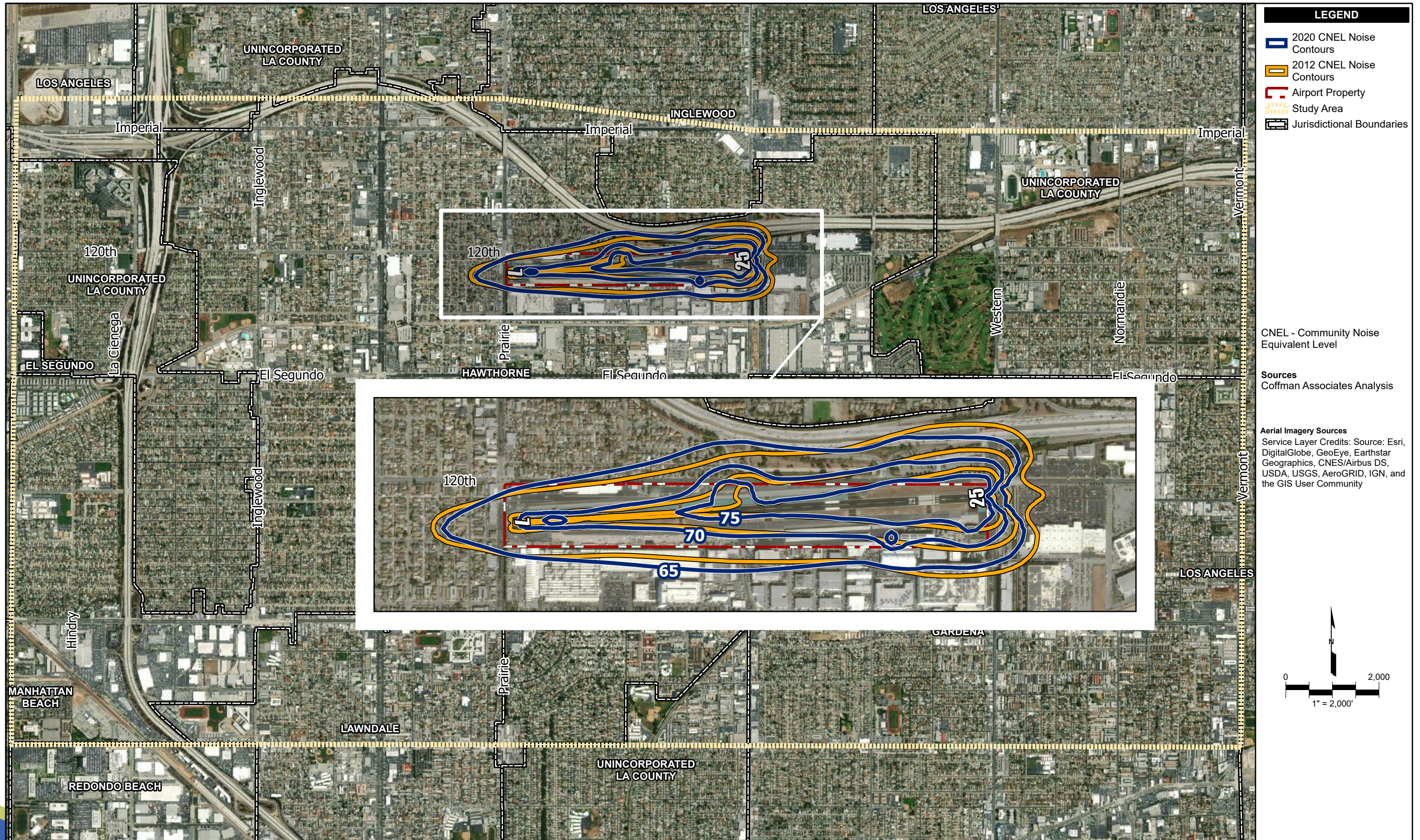
TABLE D2
Comparative Areas of Noise Exposure

	Area (Acres)	
	2012	2020
65-70 CNEL	89.1	89.3
70-75 CNEL	40.0	40.9
75+ CNEL	26.7	25.2
Total	155.8	155.4

Notes:

1. Acreages represent only those areas between the stated contour ranges.

Source: Coffman Associates analysis, 2012 Hawthorne Municipal Airport Noise Exposure Maps



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Table D3 summarizes the resulting impacts from the 2012, 2017, 2020, and 2025 noise contours to surrounding noise-sensitive land uses. The 2012 and 2017 contours were originally provided in the 2013 NEM report. At the time that the 2013 NEM report was generated, the FAA was in the process of phasing out of Stage 2 aircraft, requiring all aircraft weighing 75,000 pounds or less to be banned from flying in the United States or upgraded to comply with Stage 3 noise requirements by December 31, 2015. As noted in **Table D3**, the number of parcels affected by the 65 CNEL noise contour in 2012 was 50, which included 104 dwelling units and a population of 304. In 2017, due to the phase out of Stage 2 aircraft, the number of parcels affected in the 65 CNEL noise contour decreased to 13 parcels, which translated to 39 dwelling units and a population of 115.

For the revised NEMs in 2020, the number of parcels affected within the 65 CNEL noise contour is almost identical to the number affected in 2012. Although Stage 2 aircraft were phased out in the United States by the time of this report and the operational numbers at Hawthorne Municipal Airport has steadily decreased from its highest level in 2015, the type of aircraft operating at the airport create a noise “footprint” that generates a contour affecting almost the same number of parcels, dwelling units, and persons in 2012.

Due to the projected operational increase at the airport in 2025, the number of parcels affected by the 65 CNEL noise contour increases to 91, with 142 dwelling units and 421 persons affected.

TABLE D3
Noise-Sensitive Land Use Impact Summary

	65-70 CNEL	70-75 CNEL	75+ CNEL
Parcels			
2012	50	0	0
2017	13	0	0
2020	52	0	0
2025	91	1	0
Dwelling Units			
2012	104	0	0
2017	39	0	0
2020	103	0	0
2025	142	21	0
Population			
2012	304	0	0
2017	115	0	0
2020	305	0	0
2025	421	62	0

Estimated population is calculated by multiplying the number of dwelling units for residential land uses by the number of persons per household. For the 2012 and 2017 population estimates, persons per household information was based on U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2006 – 2010 for Hawthorne, CA, which was reported at 2.93 persons per household. For 2025 and 2025 populations estimates, persons per household information is based on U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2014-2018 for Hawthorne, CA which is reported as 2.96 persons per household.

Source: Coffman Associates’ analysis

NOISE COMPATIBILITY PROGRAM RECOMMENDATION STATUS

Hawthorne Municipal Airport's most recent NCP was completed in 2017 and includes 11 measures to reduce the impact of aircraft noise on the surrounding airport environment. It was submitted to the FAA for review and was approved on December 18, 2017. Following is a summary of each measure, the FAA's response, and the status of each measure.¹

NOISE ABATEMENT MEASURES

Program Measure 1

Continue to implement Hawthorne Municipal Airport Fly Quietly pilot and public education program.

Description: Originally approved in the 1994 NCP, Program Measure 1 recommends the continuation of an existing pilot education program and expanding an education program to raise the awareness of current and potential residents about the existence of the airport. As a result of the 1994 pilot education program, a handout was prepared to educate pilots of existing departure, arrival, and pattern procedures to lead to greater compliance with existing noise abatement actions. In addition to the handout, it is recommended the airport also publish an electronic version of the guide to ensure the most current version of the handout is available. Finally, it is recommended the airport use subscription services to distribute the noise abatement procedures through portable electronic devices.

The education program could also be expanded to educate surrounding residents to raise awareness of the airport. The expanded educational program should have several components, some are directed at reducing noise through pilot education and others that are intended to raise awareness of current and potential residents about the existence of the airport.

Program efforts for a cooperative approach include:

- Continue to distribute *Fly Quietly Program* information brochures and maintain on-airport noise abatement signage.
- Meetings with pilots and students to discuss safety and noise abatement issues at the airport as needed.
- A real estate agent outreach program to educate real estate agents and potential home buyers about Hawthorne Municipal Airport operations and its presence in the community.

This program measure is a continuation of Program Measure 1 of the previously FAA-approved NCP as an element in 1994 and has been updated to include the community awareness program.

FAA Action: Approved.

¹ Federal Register, Volume 59 Issue 120 (Thursday, June 23, 1994)

Status: Completed. The airport routinely provides a noise abatement procedure handout to pilots operating at Hawthorne Municipal Airport, which is also available on the City of Hawthorne's website (<http://www.cityofhawthorne.org/airport>). Additionally, the airport has incorporated signage adjacent to the runway reminding pilots to follow noise abatement procedures prior to take-off.

Program Measure 2

Continue to use the exiting ground run-up area on the south side of the airport.

Description: The previous NCP recommended the airport establish designated run-up locations to minimize existing and potential noise impacts to residents. At that time, run-ups were permitted in three locations, one of which is to the northwest of the runway and near existing residential uses located immediately across W. 120th Street. The potential for noise complaints from this area was high.

The 2017 approval from the FAA recommends the continuing of existing ground run-up locations. The current run-up location on the south side of the airport continues to be effective for reducing run-up noise impacts to noise-sensitive land uses. The south side of the airport places run-up activity at the farthest possible location from any noise-sensitive land uses. Two operators perform heavy maintenance run-ups at the airport, and airport staff will coordinate with these operators to ensure they are aware of the designated run-up area.

FAA Action: Approved.

Status: Partially completed. FAA's airport facility directory entry for Hawthorne Municipal Airport identifies an engine maintenance run-up location on the south side of the runway, 900 feet west of the runway end. Engine maintenance run-up locations are also identified in the abatement materials available on the airport's website (which can be found at http://www.cityofhawthorne.com/depts/publicworks/airport/noise_abatement.asp). No formal engine maintenance restriction has been established.

LAND USE PLANNING MEASURES

Program Measure 1

Support the land use compatibility guidelines for project review found in the City of Hawthorne and Inglewood Noise Elements of the General Plan.

Description: The Cities of Hawthorne and Inglewood have adopted Noise Elements in their General Plans that identify land use compatibility guidelines for evaluating noise impacts to proposed land uses. The noise and land use compatibility criteria of both jurisdictions are identical and consistent with state and federal guidelines. The Cities of Hawthorne and Inglewood's Noise Element include the following goals:

- reduce noise impacts from transportation noise sources;
- incorporate noise considerations into land use planning decisions; and
- provide sufficient information concerning the community noise levels so that noise can be objectively considered in land use planning decisions.

This program measure is a continuation of Program Measure 4 of the previously FAA-approved NCP as an element in 1994.

FAA Action: Approved. This measure would assist the city and the City of Inglewood in preventing the introduction of incompatible land uses around the airport.

Status: Completed. Both the City of Hawthorne and City of Inglewood have incorporated into the Noise Element of their respective General Plans a Land Use Compatibility Matrix and a Land Use Compatibility table outlining those land uses compatible to acceptable noise levels.

Program Measure 2

The City of Hawthorne should amend its Noise Element to include monitoring and updating the Part 150 Noise Compatibility Study.

Description: To ensure that airport land use compatibility is given consideration within the City of Hawthorne's General Plan, the city should amend its Noise Element to state that the airport should monitor and update its Part 150 Noise Compatibility Study. To accomplish this, the following text should be added to the City of Hawthorne General Plan, Noise Element, Section IV, Goal 1.0, Policy 1.1:

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 change 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.

This is a new program measure.

FAA Action: Approved, contingent upon an update of the city's Noise Exposure Maps under 14 CFR § 150.21.

Status: Completed. In May 2018, Goal 1.0, Policy 1.1 of the General Plan Noise Element was updated to incorporate the recommended text.

Program Measure 3

Incorporate the Hawthorne Municipal Airport 65 CNEL noise contour into the City of Hawthorne General Plan Map.

Description: The City of Hawthorne should consider incorporating the 2012 and 2017 65 CNEL noise contour as part of the general plan map to aid decision-makers when considering potential general plan map revisions. The City of Hawthorne should replace the City of Hawthorne General Plan, Noise Element, Figure Five with Exhibits 7A and 7B. Additionally, adopting a compatibility threshold, expressed in 65 CNEL, would allow the city to establish long-range airport noise compatibility policies in the general plan that are consistent with the Part 150 Noise Compatibility Program. To accomplish this, the following text should be added to the City of Hawthorne General Plan, Noise Element, Section IV, Goal 3.0, as Policy 3.5:

The city shall evaluate the development of noise-sensitive uses within the vicinity of 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 presented in Exhibit 7C.

This is a new program measure.

FAA Action: Approved, contingent upon an update of the city's Noise Exposure Maps under 14 CFR § 150.21.

Status: Completed. In May 2018, the 2017 65 CNEL noise contour was incorporated into the Noise Element of the City of Hawthorne General Plan map (Figure 5B, Noise Element).

Program Measure 4

The City of Hawthorne should adopt formal project review guidelines addressing noise compatibility issues.

Description: The City of Hawthorne does not have formal project review guidelines to address noise compatibility issues. A checklist addressing the following criteria could be adopted for proposed projects within the airport vicinity:

- Advise the airport management of development proposals that include noise-sensitive uses within the airport vicinity.
- Determine the sensitivity of the subject land use to aircraft noise based on their location within the overlay zones or noise exposure contours.
- Locate noise-sensitive public facilities outside the 65 CNEL noise contour and away from approach and departure paths whenever possible.
- Discourage the approval of rezonings, exceptions, variances, and conditional uses which introduce noise-sensitive development into areas located near noise-impacted areas.

This is a new program measure.

FAA Action: Approved.

Status: Completed. In May 2018, the following policy (Policy 3.5) was incorporated into Goal 3.0: *“The City shall evaluate the development of noise-sensitive uses within the vicinity of Hawthorne Municipal Airport using the 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 presented in Exhibit 7c.”*

Program Measure 5

The City of Hawthorne should establish an Airport Overlay Zone.

Description: The City of Hawthorne should establish an Airport Overlay Zone to create a cohesive noise and land use compatibility policy which is consistent with state laws and FAA regulations.

The State of California adopted a sound insulation standard for interior room noise attributable to outside noise sources for residential buildings. These minimum noise insulation performance standards require that the CNEL is not to exceed 45 dB in any habitable room, with all doors and windows closed. Additionally, the State of California adopted a fair disclosure law which states that when a property is located within an Airport Influence Area (AIA), a disclosure notice must be provided as part of the real property transaction. Both of these measures were considered in the 2012 NCP but have been combined with the Airport Overlay Zone alternative for implementation measures.

If the Overlay Zone described above is implemented, it is also recommended the city coordinate with the Los Angeles County Airport Land Use Commission to update the airport influence area map to reflect the overlay zone map as the official AIA for Hawthorne Municipal Airport.

This is a new program measure.

FAA Action: Approved.

Status: Completed. The zoning map for the City of Hawthorne has been amended to include an Airport Overlay Zone (AOZ).

NOISE MITIGATION MEASURE

Program Measure 1

Establish a voluntary residential property acquisition and redevelopment program to remove noise-sensitive land uses within the 2017 65 CNEL contour.

Description: The intent of a voluntary property acquisition and redevelopment program is to remove residences from noise-impacted areas north of the airport. As discussed in the 2012 NCP, there are 43 dwelling units eligible within the 2017 65 CNEL noise contours and proposed

voluntary acquisition boundary. There are 39 dwelling units within the 2017 65 CNEL noise exposure contour and four additional dwelling units identified within the squared-off voluntary acquisition boundary.

Several components of a voluntary acquisition program must be worked out, including the pace and phasing of acquisition, what to do with residents who want to stay, and the proper care and management of vacant lots.

This is a new program measure.

FAA Action: Approved, contingent upon an update of the city's Noise Exposure Maps under 14 CFR § 150.21.

Status: Ongoing. A voluntary residential property acquisition and redevelopment program will be addressed upon completion of the Part 150 Study Noise Exposure Map update.

PROGRAM MANAGEMENT MEASURES

Program Measure 1

Continue use of the airport's noise complaint handling system.

Description: Originally an approved program measure in 1994, this program measure is a continuation of that effort. Hawthorne Municipal Airport staff has a formal system to receive, track, record, and respond to airport noise complaints. The complaint handling process is initiated when a telephone call is received regarding airport noise. The airport administrator received the complaint and records the details of the call on a noise complain form. The noise complaint report includes any follow-up actions taken by the airport. This system helps to identify problem aircraft and noise-sensitive areas for the purpose of implementing noise mitigation measures. It also helps to ensure that the noise abatement procedures are being followed. To expand on this system, the airport should coordinate with the city to produce an internet-based complain submittal system. This would allow area residents to submit noise complaints through the airport's website and will also provide an option, in addition to the voicemail system, to submit complaints during times when the airport administrative offices are closed.

FAA Action: Approved. For reasons of aviation safety, this approval does not extend to the use of the noise monitoring equipment for enforcement purposes by in situ measurements of any predetermined noise thresholds.

Status: Ongoing. Hawthorne Municipal Airport Staff has a formal system to receive, track, record, and respond to airport noise complaints.

Program Measure 2

Update Noise Exposure Maps and Noise Compatibility Program.

Description: The airport management should review the NCP and consider revision and refinements as necessary. A complete plan update will be needed periodically to respond to changing local conditions and the aviation industry. By law (49 USC 47503), the FAA must rely on only those noise exposure contour maps that reflect current or reasonable projected conditions. FAA Order 5100-38D, *Airport Improvement Program Handbook* (September 2014), addresses the requirements for current valid noise exposure contours. In general, NEMs less than five years old are considered current, unless conditions have created a significant change that would affect noise contours. NEM noise exposure contours older than five years must be certified by the sponsor and updated as required by the FAA. An update may be needed sooner if major changes to the airport occur. An update may not be needed until later if conditions at the airport and surrounding area remain stable. The FAA interprets this to mean an increase in noise levels of 1.5 CNEL or more above 65 CNEL, over noncompatible areas that have formerly been compatible. Proposed changes to the NCP should be reviewed by the FAA and all affected aircraft operators and local agencies. Proposed changes should be submitted to the FAA for approval after local consultation and a public hearing to comply with Part 150.

This is a new program measure.

FAA Action: Approved, contingent upon an update of the city's Noise Exposure Maps under 14 CFR § 150.21.

Status: Ongoing. New noise exposure maps will be generated upon completion of the Part 150 Study Noise Exposure Map update.

Program Measure 3

Monitor implementation of updated Part 150 Noise Compatibility Program.

Description: Airport management must monitor compliance with the Noise Abatement Element. This involves checking periodically with airport users and local tower management regarding compliance with the procedures. An annual summary report should be prepared to indicate the status of each item on the checklist.

This is a new program measure.

FAA Action: Approved.

Status: Ongoing. Upon completion of the Part 150 Study Noise Exposure Map update, the airport will monitor compliance with the NCP.