4 EXISTING AND FORECAST NOISE EXPOSURE MAPS

4.1 Introduction

As discussed in Section 1.3.1, the most fundamental elements of the NEMs submission are cumulative exposure noise contours for annual operations at the airport for: (1) data representing the year of submission and (2) data representing a forecast year at least five years from the year of submission.[37] As discussed in Section 2, the noise contours presented in this submission are in terms of annual CNEL to be consistent with LAWA-adopted land use compatibility standards presented in Section 2 of this document.

The year of submission for this NEMs update is 2011. Therefore, the existing conditions noise contours are for 2011 and the five-year forecast case contours are for 2016.

- Section 4.2 presents the Noise Exposure Map figures.
- Section 4.3 documents the noncompatible land uses within the noise contours.
- Section 4.4 describes the conditions under which LAWA will prepare and submit revised NEMs.
- Chapter 5 describes the development of the noise contours, summarizes the noise modeling assumptions, and identifies data sources.

4.2 Noise Exposure Map Figures

Figure 7 and Figure 8 present the NEM figures for existing (2011) and five-year forecast conditions (2016), respectively. These are the official Noise Exposure Maps that LAWA is submitting under Part 150 for appropriate FAA review and determination of compliance, pursuant to §150.21.

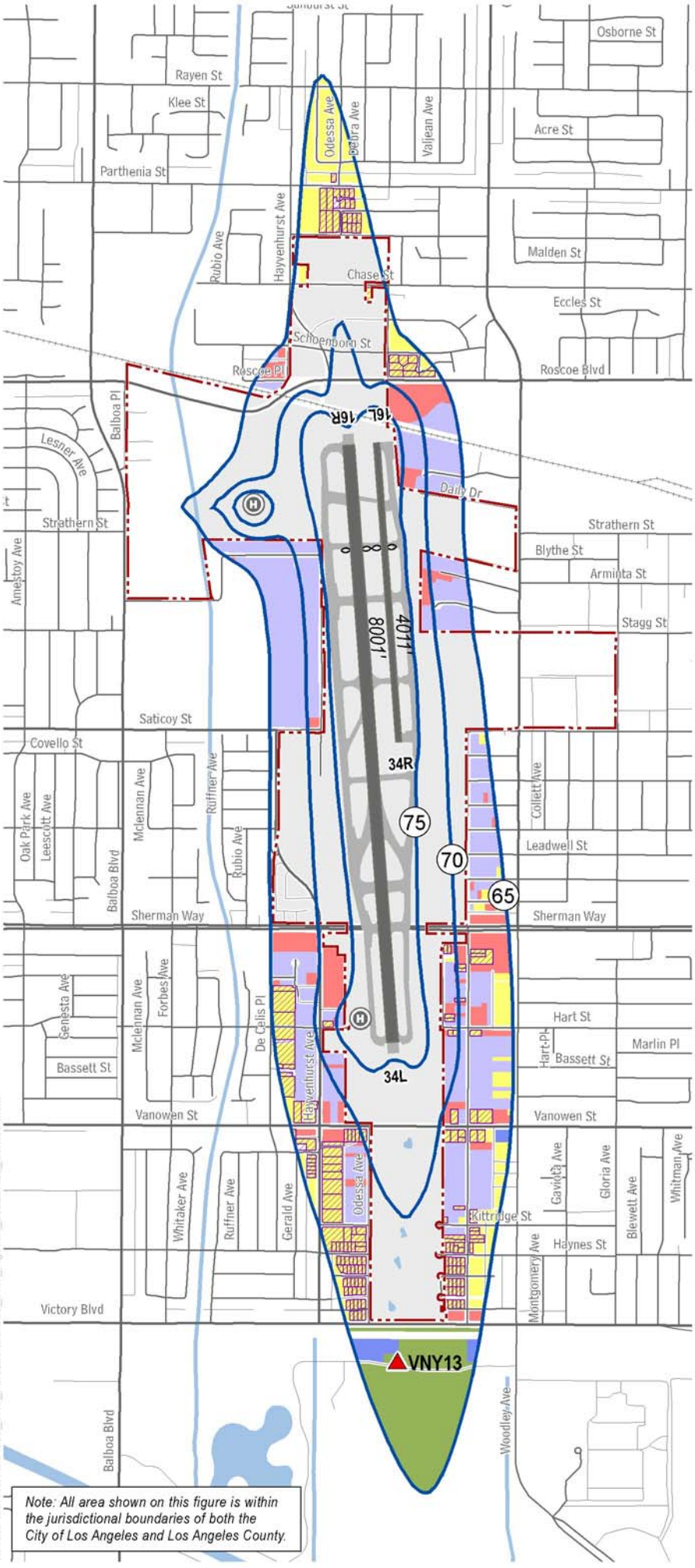
The figures are at the minimum scale permitted under §A150.103(b)(1); i.e., 1" to 2,000'. The two figures identify the following items, as required in Part 150 (in the sections cited):

- Runway lengths, alignments, landing thresholds, and takeoff start-of-roll locations, as required in §A150.103(b)(1).[38] VNY has two parallel runways – 16R/34L (8,001' long) and 16L/34R (4,011' long) – that have a roughly north-south orientation. The NEM figures indicate (with ellipses across the runway) the 1,431' displaced landing thresholds for arrivals from the north on Runways 16R and 16L. There are no displacements on the southern runway ends. Takeoff start-of-roll points are at the physical ends of the runways. Section 5.1.2 provides more detailed information on Part 150 requirements and other airfield geometry data.

[37] See §III.A and §III.B of the FAA's "Part 150 Noise Exposure Maps Checklist" presented in Table 1 starting on page 10 of this document.

[38] §A150.103(b)(1) also requires depiction of flight tracks out to 30,000' from each runway end. Because of the large size of the figures needed to present the flight tracks at the 1" to 2,000' scale, they are depicted on Figure 10 through Figure 19. As noted in the FAA's "Part 150 Noise Exposure Maps Checklist" presented in Table 1 (page 10 of this document), FAA permits such separate flight track figures, as long as they are the same scale as the NEMs.

- Helipad locations, as required in §A150.103(c). VNY helicopter operations operate primarily from the former National Guard ramp in the northwest region of the airport and from the ramp area in the southwest region of the airport.
- Calendar year 2011 and 2016 noise contours (for 65, 70, and 75 dB CNEL) resulting from aircraft operations, as required in §A150.101(e)(3).
- Outline of the airport boundaries, as required in §A150.101(e)(4) and §A150.103(b)(1).
- Noncompatible land uses within the contours, as required in §A150.101(e)(5), including Part 150 land use categories on a parcel-by-parcel basis. As noted on the figures, the only non-compatible land uses within the 65 dB CNEL contours are residential dwelling units outside of the LAWA sound insulation program boundary, within which all residential units are considered compatible, for the reasons discussed in Section 3.3.1, and a single school (day-care facility).
- Locations of noise sensitive public buildings, as required in §A150.101(e)(6); i.e., the previously mentioned day-care facility.
- A note that there are no properties within the contours that are on or eligible for inclusion in the National Register of Historic Places, as required in §A150.101(e)(6).
- A noise monitor used "for data acquisition and refinement procedures" in the development of noise contours, as required in §A150.101(e)(7).
- A note that the entire area depicted on the map (the boundaries of which extend well beyond the 65 dB CNEL contours), is within the jurisdictional boundaries of both the City of Los Angeles and Los Angeles County, as required in §A150.105



Van Nuys
Los Angeles World Airports

2011 Existing Condition Noise Exposure Map

Figure: 7

2011 Community Noise Equivalent Level (CNEL) Contours

Airport Boundary
Runway / Taxiway
Helicopter Pad
Measurement Site "VNY13" (Formerly V7)

Land Uses within 65 Decibel (dB) CNEL Contour:

Residential (Non-Compatible)
Residential (Compatible)
Public Use
Recreational / Open Space
Commercial Use
Manufacturing and Production
Airport Property
Vacant, Utility, Transportation
Water
River / Streams
Roads
Railroad

1,431' landing threshold displacements on Runways 16R and 16L; Runway 34R and 34L landing thresholds and all takeoff start-of-roll points are at the runway ends.

Note: There are no properties within the noise contours identified by the federal or state government to be on or eligible to be on the National Register of Historic Places.

Basemap: Los Angeles World Airports (LAWA), Southern California Association of Governments (SCAG), Environmental Systems Research Institute (ESRI), United States Geological Survey (USGS)

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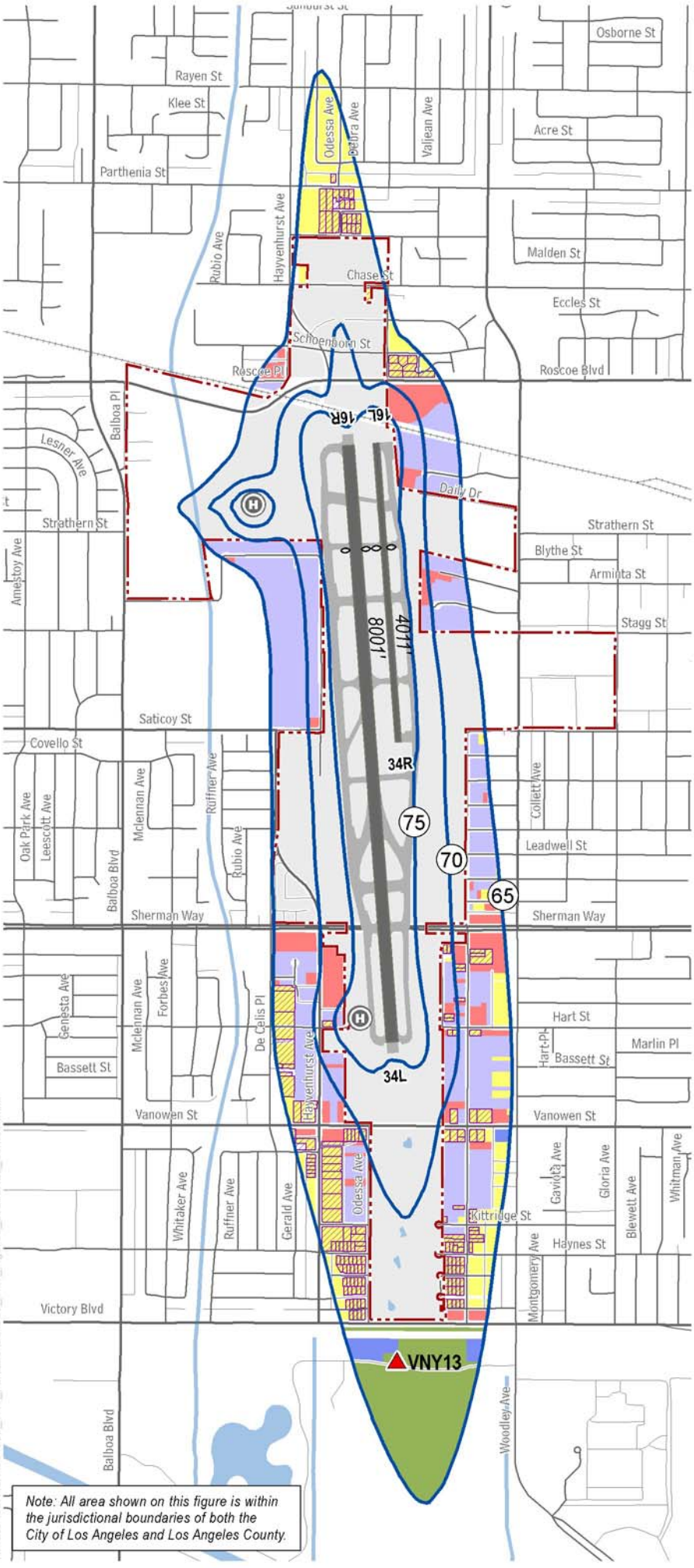

Van Nuys
Los Angeles World Airports

2016 Five-Year Forecast Condition
Noise Exposure Map

Figure: 8

2016 Community Noise Equivalent Level (CNEL) Contours

Airport Boundary
Runway / Taxiway
Helicopter Pad
Measurement Site "VNY13" (Formerly V7)

Land Uses within 65 Decibel (dB) CNEL Contour:

Residential (Non-Compatible)
Residential (Compatible)
Public Use
Recreational / Open Space
Commercial Use
Manufacturing and Production
Airport Property
Vacant, Utility, Transportation
Water
River / Streams
Roads
Railroad

1,431' landing threshold displacements on Runways 16R and 16L; Runway 34R and 34L landing thresholds and all takeoff start-of-roll points are at the runway ends.

Note: There are no properties within the noise contours identified by the federal or state government to be on or eligible to be on the National Register of Historic Places.

Basemap: Los Angeles World Airports (LAWA), Southern California Association of Governments (SCAG), Environmental Systems Research Institute (ESRI), United States Geological Survey (USGS)

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4.3 Noncompatible Land Uses within the Noise Contours

The NEM figures depict land uses within the noise contours. As noted on the NEM figures, there is only one type of non-compatible land use within the 65 dB CNEL contours, based on the land use compatibility criteria discussed in Section 2; i.e., residential dwelling units outside the current LAWA sound insulation program boundary discussed in Section 3.3.1.

As discussed in Section 2, this NEMs submission applies land use compatibility criteria based on FAA's Part 150 guidelines that are consistent with California airport noise standards presented in Section 2.2.

Neither the 2011 nor the 2016 NEM contours encompass any noise sensitive public buildings (such as schools, hospitals, and health care facilities), or any properties on or eligible for inclusion in the National Register of Historic Places.

Table 3 presents the estimated noncompatible dwelling units and associated residential population within the 2011 and 2016 NEM contours, for the 65-70 and 70-75 dB contour intervals and for the total area within the 65 dB CNEL contours. *There is no residential land use or population within the 75 dB and higher CNEL contour.*

Table 3 Estimated Compatible, Noncompatible, and Total Dwelling Units and Population within 2011 and 2016 Noise Exposure Map Contours
Source: HMMH, 2011

NEM Year	Category	65-70 dB CNEL		70-75 dB CNEL		Total within 65 dB CNEL	
		Dwellings	Population	Dwellings	Population	Dwellings	Population
2011	Compatible	1,093	2,952	30	68	1,123	3,020
	Noncompatible	877	2,764	1	2	878	2,766
	Total	1,970	5,716	31	70	2,001	5,786
2016	Compatible	1,095	2,955	28	65	1,123	3,020
	Noncompatible	898	2,829	1	1	899	2,830
	Total	1,993	5,784	29	66	2,022	5,850

Table 3 takes into account the status of LAWA's sound insulation program. As discussed in Section 3.3.1, dwelling units are considered compatible where one of the following conditions applies:

- LAWA has sound insulated the dwelling unit.
- The property owner has declined a sound insulation offer from LAWA.
- The property owner has not responded to multiple LAWA offers to apply for participation in the sound insulation program, which LAWA interprets as a de facto decline of the offer.
- The unit was determined to be ineligible for sound insulation due to code deficiency because of substandard construction (which LAWA has determined applies to a single property within LAWA's current sound insulation program boundary).
- Dwelling units constructed since LAWA initiated its sound insulation program, which also is after the October 1, 1998 cut-off date for federal funding of noise mitigation.

4.4 Effects of Forecast Changes on Future Land Use Compatibility

As discussed in Section 5, the forecast 2011 and 2016 noise modeling assumptions (including airport layout and operations) differ only in terms of the level and mix of aircraft activity in the two years, since there are no known reasons for assuming changes in any other modeling inputs.

Comparison of Figure 7 and Figure 8 shows that the forecast changes in aircraft activity slightly increase the area encompassed by the 65 dB CNEL contour in 2016 compared to 2011. As shown in Table 3, the contour growth slightly increases the *noncompatible* and *total* residential population within the 65 dB CNEL contour. There is no increase in the total *compatible* population (i.e., residents within the LAWA sound insulation program boundary, as discussed in Section 3.3.1). There are slight shifts between the two contour intervals that contain residential land use (i.e., the 65-70 dB and 70-75 dB) over the five-year forecast period. The total estimated population within the higher (70-75 dB CNEL) contour interval is forecast to decline by four residents; within the lower (65-70 dB CNEL) contour interval, the total encompassed population is estimated to increase by 68 residents, for an overall increase within the entire 65 dB and higher CNEL contours of 64 residents.

The contour growth does not affect land use compatibility in any other land use category; as the figures indicate, neither the 2011 nor the 2016 NEM contours encompass any noise sensitive public buildings (such as schools, hospitals, and health care facilities), or historic properties.