

*Los Angeles World Airports  
Van Nuys Airport  
Noisier Aircraft Phaseout  
Final Environmental Impact Report*

*Volume 1 of 2*

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*Los Angeles  
World Airports*





**Los Angeles World Airports  
Van Nuys Airport  
Noisier Aircraft Phaseout  
Final Environmental Impact Report**

**VOLUME 1**

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# PREFACE TO THE FINAL EIR

This document constitutes the Final Environmental Impact Report (Final EIR) for the Los Angeles World Airports proposed Van Nuys Airport Noisier Aircraft Phaseout Project. The body of this document contains the Draft EIR, which was circulated for a 60-day public review period (beginning October 2, 2008, and ending December 1, 2008), incorporating responses to comments on the Draft EIR and revisions and corrections to the text, as discussed below.

Changes and corrections have been incorporated into to the text of the Executive Summary and Chapters 1 through 6 of the EIR, as necessary to respond to agency and public comments received during the public review period and to make clarifications to minor errors recognized after publication of the Draft EIR. These revisions are indicated in the body of the document by underline text (text) for additions and strikethrough text (~~text~~) for deletions. None of the figures appearing in the Draft EIR have been changed in the Final EIR.

Chapter 7 is a new addition to this Final EIR, and presents the written comments on the Draft EIR received from agencies, organizations, and individuals during the public review process, followed by responses to those comments. This fulfils a requirement stated in Section 15088 of the State Guidelines for the California Environmental Quality Act (California Code of Regulations Title 14, Chapter 3). Chapter 7 is entirely new and, therefore, does not feature strikethrough/underline text as do the previous sections.

The Draft EIR was published with a volume of appendices presenting background documents related to the project and the EIR, and technical information supporting analyses conducted for the project. Paper copies of the Draft EIR included a CD volume of these appendices attached to the inside of the front cover of the Draft EIR. A similar CD has been included for most copies of the Final EIR, with the appendices incorporating revisions to those appearing in the Draft EIR. Appendix A has been revised to incorporate a minor typographical error and to update the name of the City Clerk of Los Angeles. Appendix B has been revised to respond to agency and public comments received during the public review process and to incorporate minor typographical and formatting revisions, all of which are shown in strikethrough/underline text. Appendix D has been revised to show updated input and output of computer modeling made in response to comments on the Draft EIR, and the changes to this appendix are too numerous and minute to feasibly show in strikethrough/underline text. There are no changes to Appendix C as it appeared in the Draft EIR.





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## ACRONYMS

$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
AB	Assembly Bill
AC	Advisory Circular
AEM	Area Equivalent Method
ANSI	American National Standards Institute
APU	auxiliary power unit
AQMP	Air Quality Management Plan
ARTS	Automated Radar Terminal System
ASA	Air Service Area
ATADS	Air Traffic Activity Data System
AVAPCD	Antelope Valley Air Pollution Control District
BOAC	Board of Airport Commissioners
BUR	Bob Hope Airport in Burbank
CalEPA	California Environmental Protection Agency
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CMA	Camarillo Airport
CNEL	Community Noise Equivalent Level
CNO	Chino Airport
CO	carbon monoxide
dB	decibel
dBA	A-weighted decibel
EDMS	Emissions and Dispersion Modeling System
EIR	Environmental Impact Report
EPRI	Electric Power Research Institute
ETMSC	Enhanced Traffic Management System Counts

FAA	Federal Aviation Administration
FAR	Federal Aviation Regulation
FY	Fiscal Year
GA	General aviation
GHG	greenhouse gases
GIS	geographical information system
GSE	Ground support equipment
HAP	Hazardous air pollutants
HARP	Hot Spots Assessment and Reporting Program
HRA	Health Risk Assessment
Hz	hertz
I-405	Interstate 405
ICAO	International Civil Aviation Organization
INM	Integrated Noise Model
LAWA	Los Angeles World Airports
LAX	Los Angeles International Airport
LTO	landing and takeoff
mg/m <sup>3</sup>	milligrams per cubic meter
MPO	metropolitan planning organization
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NO <sub>2</sub>	nitrogen dioxide
NOC	Notice of Completion
NOP	Notice of Preparation
NO <sub>x</sub>	nitrogen oxide
OEHHA	Office of Environmental Health Hazard Assessment
ONT	Ontario International Airport
Pb	lead
PM <sub>10</sub>	particulate matter of 10 microns or less
PM <sub>2.5</sub>	particulate matter of 2.5 microns or less
PMD	Palmdale Regional Airport
ppm	parts per million
project	Van Nuys Airport Noisier Aircraft Phaseout Project
SB	Senate Bill
SCAG	Southern California Association of Governments

SCAQMD	South Coast Air Quality Management District
SEL	Sound exposure level
SIP	State Implementation Plan
SO <sub>2</sub>	sulfur dioxide
SO <sub>x</sub>	sulfur oxide
TACs	toxic air contaminant
TCT	Trade, Commerce and Tourism
U.S.C.	United States Code
VCAPCD	Ventura County Air Pollution Control District
VNDS	Van Nuys Database System
VNY	Van Nuys Airport
VOC	volatile organic compound
WJF	William J. Fox Airfield
WP	With Project
YTD	year to date



# EXECUTIVE SUMMARY

## S.1 Project Setting

The Van Nuys Airport Noisier Aircraft Phaseout Project (project) proposes changes in airplane operations at the Van Nuys Airport (VNY), which is located in a developed area in the western end of the San Fernando Valley, within the northwestern portion of the City of Los Angeles. Changes proposed at VNY as part of the project would also affect operations (i.e., takeoffs and landings) at five other airports in the region: Bob Hope Airport (BUR) in the City of Burbank, Los Angeles County; Camarillo Airport (CMA) in the City of Camarillo, Ventura County; Los Angeles International Airport (LAX) on the western edge of the City of Los Angeles; Chino Airport (CNO) near the City of Chino, western San Bernardino County; and William J. Fox Airfield (WJF) near the City of Lancaster, northern Los Angeles County.

## S.2 Project Summary & Alternatives

The project would establish noise limits at VNY, prohibiting operations by aircraft that exceed specified takeoff noise levels, according to a four-phase program implemented between 2009 and 2016. The noise limits would reduce aircraft operations at VNY and, in turn, would lead to a minimal increase in operations at five identified “diversion” airports—airports located in the regional vicinity of VNY to where aircraft no longer able to operate at VNY are anticipated to shift. The project proposes no physical development or change in land use at any of the affected airports.

The phased reduction in maximum takeoff noise levels at VNY would occur as follows:

- On or after January 1, 2009: No aircraft may arrive or depart VNY whose takeoff noise level equals or exceeds 85A-weighted decibels (dBA).
- On or after January 1, 2011: No aircraft may arrive or depart VNY whose takeoff noise level equals or exceeds 83 dBA.
- On or after January 1, 2014: No aircraft may arrive or depart VNY whose takeoff noise level equals or exceeds 80 dBA.
- On or after January 1, 2016: No aircraft may arrive or depart VNY whose takeoff noise level equals or exceeds 77 dBA.

Military, government, medical, and emergency operations would not be subject to the project's aircraft noise limits. The project also includes exemptions for aircraft that are permanently departing VNY, for aircraft types first flown before 1950, for historic former military aircraft that are now privately owned, and for operations related to major maintenance and repairs. The latter two exemptions would expire in 2016.

LAWA predicts that some of the aircraft affected by the project's proposed phaseout would be retired and taken out of service following the adoption of the ordinance, some would be modified with "hushkits" that reduce aircraft noise, and others would continue operating at other Southern California regional airports. Five airports in the region were identified as the most likely to receive the diverted VNY traffic: BUR, LAX, CMA, CNO, and WJF.

In addition to the project and the No Project Alternative (Alternative 1), under which the proposed phaseout program would not be implemented, the EIR considers the environmental effects of one project alternative. Alternative 2 is the Phaseout with Stage 3 and Stage 4 Exemptions Alternative, under which a phaseout program similar to that of the project would be implemented, but also including an additional exemption for Stage 3 and Stage 4 aircraft. The Alternative 2 ordinance would be slightly less restrictive than the project, leading to fewer aircraft operations being diverted from VNY. All of the aircraft operations affected by the Alternative 2 exemptions, an estimated 32 annual operations during the 2014 planning year, are anticipated to operate at LAX under the proposed project, but would remain at VNY under Alternative 2.

## **S.3 Summary of Known Areas of Controversy**

Prior to conducting the analysis for this EIR, a Notice of Preparation was prepared and submitted for a 30-day public review period. A total of 12 written comment letters were received during the review period. Though many comments were supportive of the project's efforts to reduce noise in the vicinity of VNY, some parties expressed concern over the air quality and noise impacts the project could produce at diversion airports. In addition, the primary areas of controversy arising during the NOP scoping period are non-CEQA-related suggestions that the project conflicts with policy of the Federal Aviation Administration and is contrary to the interests of the business aviation community.



## S.4 Summary of Significant Impacts and Mitigation Measures

This EIR identifies significant project-level and cumulative air quality impacts. These impacts result from increasing aircraft operations at certain diversion airports, which would increase pollutant emissions in their respective locations. There is no feasible mitigation to reduce these significant impacts to less-than-significant levels, and significant and unmitigated impacts are identified. The project and alternatives would result in noise increases at the five diversion airports, but no significant noise impacts are identified for the project or either of the alternatives.

Because the project does not propose or require any development or other physical modification at VNY or the diversion airports, most of the environmental issue areas typically evaluated as part of the CEQA process are not applicable to this project and have not been analyzed in detail in this Draft EIR, in accordance with Section 15128 of the State CEQA Guidelines. The following environmental issue areas were eliminated from detailed consideration in this Draft EIR: aesthetics, agricultural resources, biological resources, cultural resources, geology/soils, hazards and hazardous materials, hydrology/water quality, land use/planning, mineral resources, population/housing, public services, recreation, transportation/traffic, and utilities/service systems. As explained in Section 4.1, the project would not result in significant impacts on any of these issue areas.

### S.4.1 Significant Project-Level Air Quality Impacts

The modeling analysis performed for the project indicates that project-related increases in aircraft operations at CMA would result in air pollutant emissions at that location that exceed the daily ~~thresholds~~ threshold of the Ventura County Air Quality Management Pollution Control District. ~~Emissions that are exceeded are volatile organic compounds and~~ for oxides of nitrogen. Because the relevant ~~thresholds are~~ threshold is exceeded, a significant impact was identified at this airport.

#### S.4.1.1 Mitigation Measures and the Effect of Alternatives

There are no feasible mitigation measures to avoid or substantially lessen this air quality impact.

Alternative 1 (No Project) would avoid this significant impact by avoiding the project-related increase of emissions at CMA. Alternative 2 would not affect the project's shift of emissions to CMA, and this significant impact would result at CMA under Alternative 2.

## **S.4.2 Significant Cumulative Air Quality Impacts**

The project-level impact noted above is also identified as a considerable contribution to a significant cumulative impact. The project also results in considerable contributions to significant cumulative impacts because it would transfer emissions from the South Coast Air Basin to two other air basins that are in non-attainment of certain pollutants. The Mojave Desert Air Basin and the South Central Coast Air Basin are both in non-attainment of ozone and particulate-matter standards. The project would transfer emissions of particulate matter and ozone precursors (i.e., volatile organic compounds and oxides of nitrogen) from the South Coast Air Basin to these two neighboring basins. This would combine with future anticipated increases of these gases within the respective regions and contribute to the basins' continued non-attainment status.

### **S.4.2.1 Mitigation Measures and the Effect of Alternatives**

There are no feasible mitigation measures to avoid or substantially lessen the project's contribution to these cumulative air quality impacts.

Alternative 1 (No Project) would avoid these significant contributions to air quality impacts by avoiding the project-related increase of emissions to the Mojave Desert Air Basin and the South Central Coast Air Basin, and by avoiding emissions increases at CMA. Alternative 2 (Phaseout with Stage 3 and Stage 4 Exemptions) would not affect the project's shift of emissions to the basins; therefore, these significant cumulative impacts would occur with implementation of Alternative 2.

The significant impacts and mitigation measures associated with the project and alternatives are summarized in Table S-1.

**Table S-1.** Summary Matrix of Significant Impacts and Mitigation Measures Associated with the Project and Alternatives

<b>Significant Impact</b>	<b>Alternative</b>	<b>Level of Significance without Mitigation</b>	<b>Mitigation</b>	<b>Level of Significance After Mitigation</b>
<p>AQ-1: Exceedance of Ventura County Air Quality Management Pollution Control District Daily Emissions Thresholds at CMA</p> <p>The project would result in emissions of volatile organic compounds and oxides of nitrogen at Camarillo Airport in excess of Ventura County Air Quality Management Pollution Control District daily thresholds.</p>	Proposed Project	Significant	There is no feasible mitigation that would avoid or substantially lessen this impact.	Significant
	Alternative 1	No Impact	N/A	N/A
	Alternative 2	Significant	There is no feasible mitigation that would avoid or substantially lessen this impact.	Significant
<p>CAQ-1: New cumulatively considerable contribution of air pollutants to the Mojave Desert Air Basin</p> <p>The project would add emissions of ozone precursors (volatile organic compounds and oxides of nitrogen) and particulate matter to the Mojave Desert Air Basin, which is in non-attainment status for ozone and particulate matter.</p>	Proposed Project	Significant	There is no feasible mitigation that would avoid or substantially lessen this impact.	Significant
	Alternative 1	No Impact	N/A	N/A
	Alternative 2	Significant	There is no feasible mitigation that would avoid or substantially lessen this impact.	Significant
<p>CAQ-2: New cumulatively considerable contribution of air pollutants to the South Central Coast Air Basin</p> <p>The project would add emissions of ozone precursors (volatile organic compounds and oxides of nitrogen) and particulate matter to the South Central Coast Air Basin, which is in non-attainment status for ozone and particulate matter.</p>	Proposed Project	Significant	There is no feasible mitigation that would avoid or substantially lessen this impact.	Significant
	Alternative 1	No Impact	N/A	N/A
	Alternative 2	Significant	There is no feasible mitigation that would avoid or substantially lessen this impact.	Significant

Significant Impact	Alternative	Level of Significance without Mitigation	Mitigation	Level of Significance After Mitigation
CAQ-3: Cumulatively Considerable Emissions at CMA, causing exceedance of Ventura County Air Pollution Control District Thresholds	Proposed Project	Significant	There is no feasible mitigation that would avoid or substantially lessen this impact.	Significant
The project would result in emissions of volatile organic compounds and oxides of nitrogen at Camarillo Airport in excess of Ventura County Air Quality Management <del>Pollution Control</del> District daily thresholds, thereby presenting a considerable contribution to cumulative impacts in the South Central Coast Air Basin.	Alternative 1	No Impact	N/A	N/A
	Alternative 2	Significant	There is no feasible mitigation that would avoid or substantially lessen this impact.	Significant

# 1.0

## INTRODUCTION

This Environmental Impact Report (EIR) has been prepared by Los Angeles World Airports (LAWA) to evaluate the environmental impacts resulting from the proposed project. LAWA is the lead agency for the project pursuant to the California Environmental Quality Act (CEQA). The EIR is intended to assist LAWA and the City of Los Angeles in deciding the content and potential adoption of an ordinance to phase out operations of noisier aircraft at VNY.<sup>1</sup> The EIR would be considered by the LAWA Board of Airport Commissioners (BOAC) prior to making a recommendation on the proposed ordinance and forwarded to the Trade, Commerce and Tourism (TCT) Committee of the Los Angeles City Council for approval. The TCT Committee would review the EIR prior to making a recommendation to the full City Council for approval or denial of the proposed ordinance. The City Council has the ultimate responsibility of considering the environmental impacts of the project and making decisions on whether to certify the EIR and adopt the ordinance.

## 1.1 Project Background

### 1.1.1 Background on Proposed Phaseout

On September 27, 1989, the BOAC requested that the Executive Director investigate and prepare proposals to phase out Stage 2 aircraft from VNY.<sup>2</sup> On June 13, 1990, BOAC approved Resolution No. 17154, which proposed three noise abatement regulations for VNY: (1) a 1-hour extension of the starting time of an existing nighttime departure curfew; (2) a limit on operations of certain noisier aircraft (known as the Non-Addition Rule and described further below); and, (3) a 7-year

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<sup>1</sup> Operations, as used throughout this EIR, are defined as takeoffs and landings.

<sup>2</sup> The Federal Aviation Administration (FAA) has established noise standards that aircraft must meet to receive new or revised "type" or "airworthiness" certificates. These standards are defined in 14 Code of Federal Regulations (CFR) Part 36, Noise Standards: Aircraft Type and Airworthiness Certification (Part 36). For aircraft with maximum takeoff weights of 12,500 pounds or more and for all jet aircraft, Part 36 identifies four classes or "stages" of aircraft with respect to their relative noisiness: 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; and Stage 4 aircraft meet the most stringent limits, established in 2005. Aircraft of all stages currently operate at VNY.

phaseout of operations of noisier aircraft not affected by the Non-Addition Rule. BOAC subsequently approved, and the Los Angeles City Council adopted, the first two proposed regulations.<sup>3</sup>

Prior to adoption of these regulations, FAA confirmed in writing to LAWA that, because they were proposed prior to October 1, 1990, they were “exempt from the notice and analysis requirements of 14 Code of Federal Regulations (CFR) Part 161... Specifically, the Stage 2 restrictions in the proposal would be exempt under 49 United States Code (U.S.C.) 47533.”<sup>4</sup> (Section 47533 exempts “any proposed airport noise or access restriction at a general aviation airport if the airport proprietor has formally initiated a regulatory or legislative process before October 2, 1990.”)

All three of these regulations are based on departure noise levels published in FAA Advisory Circular ~~(AC) 36-336-3A, as amended (AC 36-3H)~~, Estimated Airplane Noise Levels in A-Weighted Decibels. The Non-Addition Rule and noisier aircraft phaseout both addressed operations of aircraft with noise levels that equal or exceed 77 dBA.<sup>5</sup> The 77 dBA limit was selected because at the time the ordinance was adopted, no Stage 3 aircraft based at VNY equaled or exceeded it. Briefly, the Non-Addition Rule prohibits additional non-Stage 3 aircraft with noise levels that equal or exceed 77 dBA from being parked, tied-down, or hangared at the airport for more than 30 days in any calendar year, subject to exceptions for major maintenance, repair, and refurbishment.

The phaseout proposed in Resolution No. 17154 implemented a restriction on all operations of aircraft that equal or exceed 77 dBA through the following four-step schedule:

- On or after January 1, 1991: No aircraft may arrive or depart VNY whose AC 36-3 takeoff noise level equals or exceeds 85 dBA.
- On or after January 1, 1993: No aircraft may arrive or depart VNY whose AC 36-3 takeoff noise level equals or exceeds 83 dBA.
- On or after January 1, 1996: No aircraft may arrive or depart VNY whose AC 36-3 takeoff noise level equals or exceeds 80 dBA.

<sup>3</sup> Appendix B.5 describes all of the existing VNY noise management measures. The departure curfew and Non-Addition Rule are described in Sections B.5.2.6 and B.5.2.7, respectively. Appendix B.6 reproduces Ordinances 171889 and 173215, which added these two regulations to the Van Nuys Airport Noise Abatement and Curfew Regulation (Ordinance 155727).

<sup>4</sup> August 28, 1997 letter from Susan L. Kurland, FAA Associate Administrator for Airports, to Mr. Breton K. Lobner, Senior Assistant Los Angeles City Attorney. In 1990, the U.S. Congress enacted the Airport Noise and Capacity Act (ANCA) (Pub. L. No. 101-508, 104 Stat. 1388, as recodified at 49 United States Code (U.S.C.) 47521 et seq.). Certain ANCA provisions directed the FAA to establish a national program to review noise and access restriction proposals that affect operations of aircraft classified as Stage 2 and Stage 3 under federal noise standards. FAA implemented this program through Federal Aviation Regulation Part 161 (14 CFR Part 161, Notice and Approval of Airport Noise and Access Restrictions). ANCA limited the applicability of the Part 161 review process to Stage 2 restrictions proposed after October 1, 1990, and to Stage 3 restrictions that first became effective after October 1, 1990.

<sup>5</sup> The departure curfew uses a more stringent 74 dBA limit, selected when the curfew was first enacted in 1981, because that was the departure noise level of the loudest twin piston powered aircraft operating at VNY.

- On or after January 1, 1998: No aircraft may arrive or depart VNY whose AC 36-3 takeoff noise level equals or exceeds 77 dBA.

On April 17, 2006, BOAC adopted Resolution No. 22980, which readopted the proposal for the 7-year phaseout of Stage 2 aircraft originally proposed in Resolution No. 17154. Resolution No. 22980 also instructed the Executive Director to report back to BOAC on LAWA's plan for pursuing the Stage 2 phaseout independent of an ongoing Part 161 study that was initiated in 2005 to pursue several proposed noise-based operating restrictions at VNY. LAWA provided that Stage 2 phaseout report on July 17, 2006, which ultimately led to the BOAC approval of the August 20, 2007, draft ordinance language (Appendix A). The proposed ordinance is the basis of the project examined in this EIR, and proposes the following phaseout schedule:

- On or after January 1, 2009: No aircraft may arrive or depart VNY whose AC 36-3, ~~as amended~~, takeoff noise level equals or exceeds 85 dBA.
- On or after January 1, 2011: No aircraft may arrive or depart VNY whose AC 36-3<sub>2</sub> takeoff noise level equals or exceeds 83 dBA.
- On or after January 1, 2014: No aircraft may arrive or depart VNY whose AC 36-3<sub>2</sub> takeoff noise level equals or exceeds 80 dBA.
- On or after January 1, 2016: No aircraft may arrive or depart VNY whose AC 36-3<sub>2</sub> takeoff noise level equals or exceeds 77 dBA.

The dBA levels proposed for restriction by this ordinance language are identical to those proposed by Resolution No. 17154; only the dates have changed. Because the updated phaseout schedule includes a 7-year timetable, it is no more restrictive than the original proposal. Three other factors make the updated phaseout proposal less restrictive compared to the original proposal. First, in and of itself, the 18-year deferment of implementation represents a significant easing. Second, the fleet of potentially affected aircraft has shrunk since 1989 due to retirements and replacements. For example, the active North American fleet of Learjet 24 and 25 aircraft decreased from 426 in 1989 to 324 by the end of 2007, while the active North American fleet of Gulfstream II and III aircraft decreased from 372 to 357 over the same time period. As a result, the number of operations from these types of aircraft also declined. Third, LAWA has further modified the original proposal to incorporate exemptions for operations of two classes of "historic" aircraft, for operations related to major repair and maintenance, and for permanent departures of non-compliant aircraft. Chapter 2, Project Description, describes these exemptions in detail.

## 1.1.2. Alternatives to the Proposed Phaseout

In addition to the ordinance proposed in the project, this EIR also analyzes the impacts of a variation on the phaseout ordinance. This would include in the ordinance an exemption for all Stage 3 and Stage 4 aircraft, or Alternative 2.<sup>6</sup> As part of the data collection and analysis process conducted for this EIR, LAWA

<sup>6</sup> This alternative is analyzed in this EIR to an equal level of detail as the project. The full explanation of the alternative and the alternatives analysis is presented in Chapter 5.

determined that a small number of operations at VNY are conducted by Stage 3 aircraft that exceed phaseout noise limits. These aircraft are Boeing 727 aircraft that were certified as Stage 2 aircraft in 1990 when LAWA first proposed the phaseout. Subsequent to that date, operators of these aircraft made modifications to reduce their operational noise emissions that resulted in their recertification as Stage 3 aircraft. This was done to comply with another provision of ANCA that required a national phaseout of Stage 2 aircraft with maximum certificated takeoff weights over 75,000 pounds by January 1, 2000. Prior to passage of ANCA, LAWA had no basis for anticipating these Stage 2 aircraft would be recertified as Stage 3, so when LAWA proposed the noisier aircraft phaseout at VNY, there was no basis for anticipating the intended Stage 2 phaseout would also affect Stage 3 aircraft.

LAWA anticipates there will be very few operations of these Stage 3 727s at VNY in the future. According to estimates performed in preparation of the Noise Analysis Technical Report, jointly prepared by HMMH and SH&E in August 2008 (included as Appendix B of this EIR), the forecasts of *total annual operations* in these aircraft for the 4 phaseout years are as follow:

- 2009: 38 annual operations – approximately 19 arrivals and 19 departures
- 2011: 35 annual operations – approximately 18 arrivals and 18 departures
- 2014: 32 annual operations – approximately 16 arrivals and 16 departures
- 2016: 19 annual operations – approximately 10 arrivals and 10 departures

As discussed previously, ANCA and Part 161 only exempt Stage 3 restrictions that first became effective on or before October 1, 1990. The intent of the project's proposed ordinance was to achieve this Part 161 exemption, but the project's noisier aircraft phaseout would not be exempt from the Part 161 review process if it restricted Stage 3 aircraft operations, no matter how small in number. To address this situation, this EIR considers Alternative 2, which exempts Stage 3 and 4 aircraft.<sup>7</sup> The ordinance proposed in Alternative 2 is identical to that of the project, except that it includes an additional exemption that would allow all aircraft certified as either Stage 3 or Stage 4 to continue to operate out of VNY, regardless of their takeoff noise levels. The phaseout ordinance proposed in Alternative 2 is provided as Appendix A.1 of this EIR. This alternative reduces noise and air quality impacts at LAX, when compared to the project because it would result in fewer project-related diversions to LAX, but would result in greater noise and air quality impacts at VNY because it would result in more aircraft remaining at VNY than compared to the project.

The additional exemption proposed in Alternative 2 follows the precedent LAWA set when it adopted the one-hour extension of the nighttime departure curfew and the Non-Addition Rule, both of which incorporated a Stage 3 exemption that was not included in the original proposal. The addition of the Stage 3 exemption did not

<sup>7</sup> ANCA and Part 161 are silent on their applicability to Stage 4 aircraft, because that class of aircraft did not exist at the time they were adopted. There is no reason to believe that any Stage 4 aircraft would ever exceed the most stringent 77 dBA phaseout limit. However, this alternative exempts Stage 4 aircraft based on the logic that it is appropriate to exempt the quietest class of aircraft.



jeopardize the exemption of these regulations from the Part 161 review requirements. To the contrary, the FAA specially noted in the previously cited correspondence<sup>8</sup> that addition of the Stage 3 exemption “would satisfactorily resolve concerns expressed in the FAA’s letter to the President of the City Council, John Ferraro, dated July 17, 1996.”<sup>9</sup>

### 1.1.3 Additional Airports Affected by Proposed Phaseout

LAWA predicts that some of the aircraft affected by the project’s proposed phaseout would be retired following the adoption of the ordinance, while certain phased out aircraft could be expected to use other Southern California regional airports. Therefore, this EIR has been prepared to assess the environmental effects at those airports identified as the most likely recipients of the shifted operations, referred to as “diversion airports” throughout this EIR. Those airports include LAX; BUR; CMA; Chino Airport (CNO); and WJF. An explanation of the methods used to identify the diversion airports is provided in full in Section 7.2 of the Noise Report (Appendix B.7 of this EIR) and summarized in ~~Section~~ Sections 2.2 and 4.2 of the EIR.

## 1.2 CEQA Process

This environmental document has been prepared pursuant to the CEQA of 1970, as amended (Public Resources Code [PRC] §21000 *et seq.*) and the State CEQA Guidelines (14 California Code of Regulations [CCR] Chapter 3, §15000 *et seq.*) These regulations require that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority prior to taking action on those projects.

LAWA, as the lead agency, has determined that an EIR is the appropriate level of documentation for compliance with CEQA for the proposed project in accordance with the provisions of the State CEQA Guidelines.

The overall purposes of the CEQA process are to:

- Ensure that the environment and public health and safety are protected in the face of discretionary projects initiated by public agencies or private concerns;
- Fully disclose the project’s environmental effects to the public, to agency decision makers who will approve or deny the project, and to responsible and/or trustee agencies charged with managing resources that may be affected by the project; and

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8 August 28, 1997 letter from Susan L. Kurland, FAA Associate Administrator for Airports, to Mr. Breton K. Lobner, Senior Assistant Los Angeles City Attorney

9 July 17, 1996 letter from Susan L. Kurland, FAA Associate Administrator for Airports, to The Honorable John Ferraro, President, City Council of the City of Los Angeles. This letter noted that without a Stage 3 exemption, the one-hour curfew extension would be subject to Part 161 review requirements “as it applies to Stage 3 aircraft.”

- Provide a forum for public participation in the decision-making process with respect to environmental effects.

As defined by Section 15378 of the State CEQA Guidelines, a project is any action that “has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment.” Section 15093 of the State CEQA Guidelines requires the decision makers to balance the benefits of a proposed project against any unavoidable environmental risks it may have. If the benefits of the project outweigh the unavoidable adverse environmental impacts, the decision makers may adopt a statement of overriding considerations, finding that the environmental effects are acceptable in light of the project’s benefits to the public. The environmental review process as set forth under CEQA is outlined below.

## 1.2.1 Scoping Process

The process of determining the scope, focus, and content of an EIR is known as scoping. The purpose of scoping is to solicit input from members of the public and applicable local, state, and federal agencies, organizations and individuals, to identify the range of actions, alternatives, potential environmental effects, and methods of assessment to be analyzed in the EIR. Pursuant to Sections 15082 and 15083 of the state CEQA Guidelines, LAWA has completed a public noticing and scoping process for the EIR.

### 1.2.1.1 Notice of Preparation

On October 22, 2007, consultants for LAWA sent out by certified mail a written Notice of Preparation (NOP) for the project. The NOP was sent to a total of 35 interested or potentially affected parties, 7—seven of which were state or federal agencies determined to be relevant to the project.<sup>10</sup> The other 28 parties included selected regional airports and businesses at VNY. A Notice of Completion (NOC) for the NOP was also sent to the State Clearinghouse to assist in their distribution of the NOP to agencies. In a separate public outreach distribution conducted by LAWA, other interested parties, including the potential diversion airports and all other airports within a 60-mile radius from VNY, received the NOP by regular mail. The NOP and NOC are provided in Appendix C.

The intent of the NOP was to advise interested and potentially affected parties, as determined in consultation with LAWA and VNY staff, of the formal start of the CEQA process for the project, of the start of the 30-day public comment period on the NOP (November 1 through November 30, 2007) and of the public scoping meeting being held in Van Nuys on November 15, 2007. Following the close of the NOP scoping period, any comments received from interested and/or potentially affected agencies and parties were documented for use in preparing the EIR.

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<sup>10</sup> Pursuant to Section 15082(a) of the State CEQA Guidelines, the NOP was submitted to all responsible agencies and any federal agency involved in approving the project. There are no trustee agencies responsible for natural resources affected by the project; therefore, no trustee agencies were included in the NOP submittal.

Other applicable filings of the NOP for the project included the following:

- On October 23, 2007, LAWA filed the NOP with the Los Angeles County Clerk's office.
- On October 25, 2007, LAWA filed the NOP with the Los Angeles City Clerk's office.

### **1.2.1.2 Public Scoping Meeting**

On November 15, 2007, LAWA held a public scoping meeting from 6:00 PM to 8:30 PM at the Van Nuys Airtel Plaza Hotel, 7277 Valjean Avenue, Van Nuys, California. Approximately 20 members of the public and interested parties attended the meeting. Comments were not recorded at the meeting as people were free to visit various information stations and talk informally about the project with LAWA staff and consultants. Spanish-speaking interpreters were present to maximize participation. As part of LAWA's outreach effort, approximately 165 affected or interested parties were mailed a notice of the public scoping meeting, and both the NOP and public scoping meeting were noticed in *The Daily News* and *The Los Angeles Times*, two general circulation newspapers of Los Angeles County.

A total of 12 written comment letters were received during the 30-day NOP review period. Comments were primarily supportive of the project's efforts to reduce noise for affected parties in the vicinity of VNY. Other comments primarily focused on the need to evaluate the potential noise and air quality effects of the project on the potential reliever airports. The comment letters, as well as a summary table of the issues addressed, are provided in Appendix C of this EIR.

## **1.2.2 Draft EIR**

### **1.2.2.1 Contents**

After the public scoping phase has been completed, the next step in the CEQA EIR process is preparation of a Draft EIR and submission of that document to the CEQA-mandated public review process. CEQA has established requirements addressing the analyses that must be presented in an EIR. These analyses address:

- all significant effects on the environment that would result from the proposed project,
- any significant effects on the environment that cannot be avoided if the project is implemented,
- any significant effects on the environment that would be irreversible if the project is implemented,
- any growth-inducing impacts of the proposed project,
- any cumulative impacts of the proposed project,

- an explanation supporting the exclusion from analysis in the EIR of any effects that were determined to be less than significant,
- mitigation measures proposed to minimize the significant effects on the environment, and
- alternatives to the proposed project.

The Draft EIR was completed in September 2008 and submitted for public review, as discussed below.

### 1.2.2.2 Public Review of the Draft EIR

As required under Section 15105 of the CEQA Guidelines, the Draft EIR for this project ~~is being~~ was made available for review and comment for a period ~~of that was initially planned to last 45 days, from October 2, 2008 to November 15, 2008. During the public review period, LAWA received a request to extend the public review period, and LAWA honored this request and extended the review period to December 1, 2008. Copies of the Draft EIR were sent to the State Clearinghouse in Sacramento for circulation to interested state agencies, and copies were sent directly to responsible, trustee, and local agencies. Copies ~~are~~ were also available for review by members of the public at the Los Angeles City and County Clerks' offices during normal business hours. An electronic copy of the Draft EIR ~~will be~~ was available on LAWA's website: <http://www.lawa.org/vny/vnyEnvironment.cfm>.~~

Written comments on the Draft EIR ~~will be~~ were accepted at the mailing address shown below, and ~~will be~~ were accepted electronically via a link provided in the web address shown below.

Karen Hoo  
 Los Angeles World Airports  
 Environmental Planning  
 7301 World Way West, 3rd Floor  
 Los Angeles, CA 90045  
 Phone: (310) 646-3853 x 1003  
 Website: <http://www.lawa.org/vny/vnyEnvironment.cfm>

On October 7, 2008, LAWA staff held a public workshop on the Draft EIR, pursuant to Section 15087(i) of the State CEQA Guidelines, at which LAWA received verbal and written comments on the Draft EIR. That same day, LAWA staff also made a presentation to the VNY Citizens Advisory Council on the project and the Draft EIR. LAWA held an additional public workshop on the Draft EIR on November 5, 2008, following the request to extend the public review period.

### 1.2.3 Final EIR

After the close of the Draft EIR public review period, LAWA ~~will compile~~ compiled and ~~review~~ reviewed all comments from agencies, organizations, and individuals pertaining to the Draft EIR. LAWA has written responses to the comment letters;

~~and has incorporated the letters and responses into this Final EIR as Chapter 7. They will then prepare a~~ In accordance with Section 15132 of the State CEQA Guidelines, ~~the Final EIR, which will include~~ includes the components listed below:

- comments received on the Draft EIR,
- written responses to all comments,
- a list of commenter's, and
- a discussion of revisions or additions to the Draft EIR, if any, made in response to the comments.

~~The~~ This Final EIR will be reviewed by the BOAC, the TCT Committee, and the City Council prior to a decision on certification of the EIR and potential adoption of the project.

## 1.3 Document Organization

This ~~Draft~~ Final EIR is organized as shown below:

- The Table of Contents lists the contents and page numbers of the document.
- The Executive Summary presents a brief summary of the findings of the EIR.
- Chapter 1, Introduction, introduces the proposed project and provides background and history to the project, as well as a description of the CEQA process, public scoping, and document organization.
- Chapter 2, Project Description, describes the project characteristics and identifies how the project would affect VNY and the diversion airports.
- Chapter 3, Environmental Setting, describes the setting of the proposed project and diversion airports.
- Chapter 4, Impacts and Mitigation Measures, identifies the environmental resources focused out of this EIR, analyzes potential effects of the proposed project on noise and air quality, and discusses the potential for mitigation to reduce those effects to a less-than-significant level.
- Chapter 5, Other CEQA Considerations, provides analyses of project alternatives, cumulative impacts, growth-inducing impacts, and any significant irreversible environmental changes resulting from the project.
- Chapter 6, References and List of Preparers, provides the bibliographic and expert authorities cited in the text and a list of individuals and organizations responsible for preparing this EIR.
- Chapter 7, Responses to Comments on the Draft EIR, presents the letters from agencies and jurisdictions, organizations, and individuals received by LAWA during the public review period for the Draft EIR, and LAWA's responses to those comments.

- Appendix A, VNY Phaseout Ordinance, provides a copy of the proposed ordinance approved by BOAC on August 20, 2007; Appendix A.1 provides a copy of the modified ordinance associated with Alternative 2.
- Appendix B, Noise Technical Report, provides the supporting data used to prepare the Noise analysis presented in Section 4.2 of this EIR.
- Appendix C, Notice of Preparation, Notice of Completion, and Scoping Comments, which summarizes the comments received during the 30-day public NOP review period.
- Appendix D, Air Quality Technical Materials, provides the supporting data used to prepare the air quality analysis presented in Section 4.3 of the EIR.

This Final EIR incorporates revisions to the text as it appeared in the Draft EIR that have been made in response to certain comments on the Draft EIR, or to make clarifications to minor errors recognized after publication of the Draft EIR. Deletions are shown in strikethrough text (~~text~~) and additions are shown in underline text (text). In addition to these changes, the Final EIR includes an updated version of Appendix D, Air Quality Technical Materials, which contains revised input and output sheets from computer modeling, changes to which are too minute and repetitive to feasibly show in strikethrough/underline text.

# 2.0

## PROJECT DESCRIPTION

### 2.1 Project Description

#### 2.1.1 Project Characteristics

The proposed project would prohibit certain operations at VNY by aircraft that exceed specified takeoff noise levels. The project would reduce the maximum takeoff noise levels allowed at VNY in four phases between 2009 and 2016. By 2016, the project would prohibit operations under most circumstances by aircraft whose takeoff noise level as published in the most current version of the Federal Aviation Administration (FAA) Advisory Circular (AC) 36-3 “Estimated Airplane Noise Levels in A-Weighted Decibels” is greater than or equal to 77 dBA.<sup>1</sup> The project includes exemptions for two historic aircraft types—those first flown before January 1, 1950, and those former military aircraft of types first flown on or after January 1, 1950. An exemption is also provided for operations related to major maintenance and repair work. Government, military, medical, and emergency operations would also be exempt from the project aircraft noise limits. Additional detail on the phaseout program and the exemptions proposed in the project ordinance is provided in Appendix A and below.

The project proposes no physical development or change in land use but will affect aircraft operations at VNY. The proposed project would also be expected to affect operations at several other airports in the region, referred to as “diversion airports” and described below under Section 2.2, but would not entail physical development or change in land use at those diversion airports.

VNY is located in the northwestern portion of the City of Los Angeles in the San Fernando Valley, and is generally bounded by Roscoe Boulevard to the north,

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<sup>1</sup> For aircraft types not included in the AC, Section 5.3(c) of the draft ordinance requires operators to provide evidence to the Board of Airport Commissioners (BOAC) that the departure noise of the aircraft will not exceed the limit.

Vanowen Street to the south, Balboa Boulevard to the west, and Woodley Avenue to the east. Figure 2-1 provides a regional location map of the VNY project area.

### 2.1.1.1 City of Los Angeles Ordinance

A draft ordinance amending the previously adopted City of Los Angeles Ordinance No. 155727, Van Nuys Airport Noise Abatement and Curfew Regulation, provides the basis of the proposed project (see Appendix B.6, which presents the full text of the existing Van Nuys Noise Abatement and Curfew Regulation).<sup>2</sup> The draft ordinance proposed by this project is provided in Appendix A of this Draft EIR. On August 20, 2007, the BOAC approved the language for the draft ordinance and directed staff to initiate the environmental and approval process. With approval of the draft ordinance, Sections 5.2 and 5.3 would be added to Ordinance 155727 that identify both an updated schedule for implementation of the phaseout, as well as a number of exemptions from the maximum aircraft noise levels proposed at VNY.

#### Section 5.2 Aircraft Operations – Maximum Noise Levels

The ordinance states the following implementation dates for noisier aircraft phaseout at VNY:

- On or after January 1, 2009: No aircraft may arrive or depart the Airport [i.e., VNY] whose Advisory Circular 36-3A, as amended (AC 36-3), takeoff noise level equals or exceeds 85 dBA.
- On or after January 1, 2011: No aircraft may arrive or depart the Airport whose AC 36-3 takeoff noise level equals or exceeds 83 dBA.
- On or after January 1, 2014: No aircraft may arrive or depart the Airport whose AC 36-3 takeoff noise level equals or exceeds 80 dBA.
- On or after January 1, 2016: No aircraft may arrive or depart the Airport whose AC 36-3 takeoff noise level equals or exceeds 77 dBA.

#### Section 5.3 Exemptions from Maximum Noise Levels

The ordinance provides the following categories of exemptions to the noisier aircraft phaseout at VNY:

- Military aircraft and any government-owned or operated aircraft involved in law enforcement, emergency, fire or rescue operations
- Aircraft exempted by federal or state law for a bona fide medical or lifesaving emergency

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<sup>2</sup> Section 1(b) of the existing Van Nuys Noise Abatement and Curfew Regulation defines the term “Aircraft” as “All fixed-wing aircraft driven by one or more propeller, turbojet, or turbo fan engines.” Therefore, the proposed phaseout would not apply to “rotary-wing” aircraft such as helicopters.



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### Van Nuys Airport Regional Project Location

Basemap: United States Department of Agriculture Geospatial Data Gateway, United States Geological Survey (USGS), Environmental Systems Research Institute (ESRI)



- Aircraft engaged in bona fide medical or lifesaving emergencies, as proven by acceptable evidence of such emergency
- Aircraft of a type or class not included in AC 36-3 for which evidence has been furnished that the departure noise of the aircraft will not exceed the applicable takeoff noise level restriction set forth in the proposed phaseout program
- Aircraft that have been identified by the FAA as having a lower takeoff noise level than the applicable takeoff noise level restriction set forth in the proposed phaseout program
- Historic aircraft first flown prior to January 1, 1950<sup>3</sup>
- Until January 1, 2016, historic, former military aircraft first flown on or after January 1, 1950
- Until January 1, 2016, aircraft operations associated with repair and maintenance activity at VNY, including major alterations, required maintenance inspections related to major repairs or major alterations, or systems installations and warranty work
- Permanently departing aircraft.

The proposed exemptions can be understood as falling into five categories. The first is meant to ensure that official military-related flights and emergency-response flights may continue to be carried out at VNY without repercussions. The second category of exemptions is meant to allow continued operations at VNY of any aircraft sufficiently documented as not exceeding the respective noise limits in place during the phaseout periods. The third category of exemption encompasses operations of two types of historic planes: aircraft predating 1950; and newer (1950 and after), former military planes that are now privately owned and operated for personal, non-military purposes. The fourth exemption category covers major maintenance operations, and has been proposed to limit the potential burden on aircraft repair businesses located at VNY. Finally, the exemption for permanently departing aircraft allows any noisy aircraft based at VNY to depart for the purposes of relocating to another airport.

## 2.1.2 Project Alternatives

As discussed in CEQA Guidelines Section 15126.6, the EIR must evaluate reasonable and feasible alternatives to the proposed project. Chapter 5 of this Draft EIR includes a discussion of two specific alternatives, along with an explanation of why prospective alternatives that could be considered for this project are limited. Alternative 1 (No Project) is defined as the status quo, with no project-related changes in aircraft operating restrictions at VNY. Alternative 2 (Stage 3 and 4 Exemptions) proposes the same operating restrictions at VNY as the project (including exemptions), but with an additional exemption for aircraft certificated as

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<sup>3</sup> BOAC will review exemption provisions on or before January 1, 2019, and every 10 years thereafter for these aircraft.

Stage 3 or Stage 4.<sup>4</sup> (The version of the ordinance proposed in Alternative 2 is provided in Appendix A.1 of this EIR.)

## 2.1.3 Project Phaseout Schedule

The proposed project would be implemented in four phases between 2009 and 2016, as summarized below in Table 2-1. It is anticipated that the BOAC would adopt the project ordinance or an alternative ordinance to implement the phaseout in late 2008.

**Table 2-1.** Phaseout Implementation Schedule

Date	Noise Limit for Aircraft Operation
January 1, 2009	≥ 85 dBA
January 1, 2011	≥ 83 dBA
January 1, 2014	≥ 80 dBA
January 1, 2016	≥ 77 <del>dB</del> dBA

Source: Los Angeles World Airports 2007

## 2.1.4 Affected Aircraft Operations at VNY

### 2.1.4.1 Noisier Aircraft Operations

Table 2-2 shows the estimated forecast of jet operations at VNY by aircraft whose maximum takeoff noise level is greater than or equal to the respective dBA limits proposed to be imposed during each of the project's phaseout years. These forecasts, conducted by SH&E and incorporated into the jointly prepared Noise Report (HMMH & SH&E, 2008; Appendix B of this EIR), formed the basis for analyzing the project's impacts at VNY and the diversion airports. The numbers in the tables represent the estimated operations that would no longer be allowed to operate at VNY with implementation of the project. The numbers do not take into account that the previous year's limitation is imposed. In other words, all estimated 2009 operations of Boeing 727s at VNY would be affected by the 2009 limitations; were the 2009 limitation not to be imposed, that number of Boeing 727s operations is anticipated to decrease to 35 by 2011 due to retirement and reduced usage of older aircraft that is expected to occur regardless of whether the project would be imposed.<sup>5</sup>

<sup>4</sup> Stage 3 and Stage 4 are defined in Section 1.1.1 of this Draft EIR.

<sup>5</sup> FAA data shows that VNY operations of large, hushkitted Stage 3 aircraft declined by 8.7% per year between 2004 and 2007. As time goes on and the aircraft continue to age, it is anticipated that operations of these older aircraft

**Table 2-2.** Jet Aircraft Operations (Annual) at VNY Affected by Proposed Project

Aircraft Type	2009	2011	2014	2016
Boeing 727*	38	35	32	19
Learjet 24, 25, 28	—	—	522	435
Gulfstream II/III	—	—	1,428	1,358
Falcon 20	—	—	—	63
Other	—	7	7	11
<b>Total</b>	<b>38</b>	<b>42</b>	<b>1,989</b>	<b>1,886</b>

Source: HMMH and SH&E, 2008.

\*Includes variants B727, B721, and B722

As shown in Table 2-2, the operational noise limits for 2009 and 2011 would affect only a small number of jet operations in those respective years, but would affect a larger number of operations in 2014 and 2016 because the 2014 and 2016 limits would apply to a greater number of operations—those of older Gulfstream and Learjet aircraft that operate frequently at VNY. The number of affected operations decreases from 2014 to 2016 because the decrease in the number of operations by older aircraft due to anticipated aircraft retirements and reduced usage would have a greater impact than the additional reduction in takeoff noise limits proposed by the project ordinance. As a result, 2014 is the planning year with the greatest effect on noisier jet operations at VNY, causing the greatest reduction in operations and, therefore, causing the greatest number of diversions to three of the identified diversion airports—BUR, LAX, and CMA, as described below. Analyzing the ordinance’s impacts during this year provides a worst-case scenario of project impacts at the three airports anticipated to handle the diverted traffic.

At two other diversion airports—CNO and WJF—project-related diversions from VNY are not anticipated to occur until 2016. As discussed previously, the proposed ordinance includes exemptions that would permit certain noisy jet aircraft to operate at VNY until ~~2016~~ the last day of 2015, but not thereafter. Rather than causing the affected aircraft to be taken out of service, the expiration of the exemptions is expected to move the aircraft operations to other airports in the region in 2016. Therefore, 2016 is the first year in which impacts are anticipated to occur at CNO and WJF. Diversions would continue to occur after 2016, but they are estimated to be lower as time goes on due to the retirement of older aircraft anticipated to occur independent of the project. For this reason, the EIR focuses on 2014 as the planning

would decline at a slightly faster rate of 9.3% per year. This 9.3% rate was assumed in generating the forecasts for this project analysis.

year for VNY, BUR, LAX, and CMA<sup>6</sup>; and it focuses on 2016 for CNO and WJF. These airports are described below in Section 2.2.

## 2.1.4.2 VNY Operational Changes

### Aircraft Operations Subject to Maximum Noise Levels

Operators of aircraft at VNY that exceed the proposed project takeoff noise limits would respond to the proposed restriction in one of three ways: 1) retire the current aircraft and replace it with one that meets the proposed limits; 2) modify the current aircraft by installing a hushkit<sup>7</sup> that enables it to meet the proposed noise limits and continue to operate the aircraft at VNY; or 3) shift operations to another airport in the region. Aircraft owners who operate frequently at VNY are expected to replace or hushkit their aircraft so they can continue to operate at VNY. Aircraft owners who operate less frequently at VNY are expected to shift to diversion airports in the greater southern California region. According to aircraft owner and operator surveys conducted in 2006, approximately 342 general aviation jet aircraft that exceed the 2016 noise restrictions currently operate out of VNY. Of these, 205 aircraft had only one or two VNY flights during the year, 87 had between 3 and 11 flights, and 50 flew 12 or more flights at VNY, or an average of at least one flight per month.

In order to estimate how the affected operators would respond to the phaseout, LAWA consultants conducted a series of nine interviews in spring 2007 with charter aircraft operators and fixed base operators at VNY who may be affected by the proposed noise restriction. The consultants also interviewed representatives at CMA, CNO, and Santa Monica to discuss the potential for those airports to attract project-related diversion activity. During the operator interviews, the operators stated strong opinions regarding VNY's positive identity as a business jet center and VNY's favorable reputation as a popular airport for operating Gulfstream aircraft, certain types of which would be affected by the proposed phaseout. The interviewed operators also expressed uncertainty about what the future would bring in terms of the economy, fuel prices, noise restrictions at other airports, and maintenance requirements that may be instituted for certain aircraft, all of which are factors that would affect future operational activity for business jets. Given these uncertainties, operators were not able to definitively specify how they would react to the future project-related restrictions were they to be implemented. This led LAWA's consultants to use their professional judgment to develop a reasonable assumption regarding which owners would install hushkits and which would divert their operations to other airports. Based on the operators' strong affinity for operating at VNY, as expressed in the interviews, and considering the expenses associated with installing hushkits, LAWA's consultants assumed that Owners-operators of the 50

<sup>6</sup> While 2014 would be the year of the greatest number of flights affected by the noise restrictions proposed in the phaseout (see Table 2-2) and, accordingly, the year of the greatest number of diversions at BUR, LAX, and CMA, it is important to note that these airports would continue to be affected by the ordinance beyond 2014, but to a lesser extent (See Table 2-2).

<sup>7</sup> Hushkits are devices designed to reduce aircraft engine noise, typically using exhaust mixers, acoustically treated tailpipes, revised inlet nacelles and guide vanes to reduce the noise generated by older, low-bypass jet engines.



noisy aircraft that flew 12 or more annual flights (24 or more annual operations) at VNY are expected to replace or hushkit their aircraft so they can continue to operate at VNY. Operators with fewer than 12 annual flights have less incentive to assume the expense of replacing or hushkitting their aircraft in order to remain at VNY. Therefore, The-the others are expected to shift to other airports to avoid the cost of replacing or hushkitting their aircraft. Table 2-3 shows the projected operations of affected aircraft, comparing replacements or hushkit installations that remain at VNY to those operations that are anticipated to shift to another nearby airport.

**Table 2-3.** Changes in General Aviation Jet Aircraft Operations (Annual) Due to the Proposed Project

	2009	2011	2014	2016
Replace or Hushkit Aircraft	0	0	<del>1,620</del> 1,619	<del>1,350</del> 1,335
Shift to Another Airport	38 <sup>1</sup>	42 <sup>1</sup>	<del>369</del> 370 <sup>1</sup>	<del>536</del> 551 <sup>2</sup>
Total	38	42	1,989	1,886

Notes:

1: All shifts to BUR, LAX, or CMA

2: Includes ~~176-291~~ shifts to BUR, LAX, or CMA; and ~~360-260~~ shifts to CNO or WJF

Note: This table does not include operations of former military aircraft, which are not considered general aviation aircraft. Those operations are shown in Table 2-4 and Table 2-6.

Note: This table was revised in the Final EIR to correct minor clerical errors. The modifications do not affect the impact analysis.

Source: HMMH and SH&E, 2008

The operational noise limits for 2009 and 2011 would only affect a small number of operations at VNY, and these operations are expected to shift to other airports. The noise limit for 2014 would affect an estimated 1,989 operations. Operators are expected to replace or hushkit the aircraft that account for ~~1,641~~1,619 or ~~828~~1% of these operations, with ~~348-370~~ operations expected to shift to other airports. The noise limit for 2016 would affect 1,886 operations (~~not accounting for the operations reduction due to the ordinance's proposed 2014 limit~~). As would be the case in 2014, operators would replace or modify the noisy aircraft responsible for most of these operations, with ~~536-551~~ operations shifting to other airports in 2016. ~~While the number of total estimated 2016 diversions is higher than the estimate for 2014, 176 of these would be diversions to BUR, LAX, or CMA that were already accounted for in the 2014 number; the remaining 360 would be diversions to CNO or WJF newly occurring in 2016.~~ General aviation diversions projected to occur in 2016 include 260 maintenance-related operations that are anticipated to shift to WJF when the VNY maintenance exemption expires, as well as 291 diversions to BUR, LAX, and CMA. In addition to these general aviation diversions, the project would result in an estimated 100 diverted operations of former military aircraft in 2016, which are

anticipated to divert to CNO when the exemption for those aircraft expires in that year, as discussed below.

## Aircraft Operations Exempt from Maximum Noise Levels

The proposed project would allow exemptions that would permit operations at VNY by five groups of aircraft that exceed the takeoff noise limits: 1) active military- and emergency-related operations; 2) permanently departing aircraft; 3) historic aircraft first flown before 1950 (all of which are piston-powered aircraft~~—are expected to conduct all historic aircraft operations at VNY~~); 4) historic former military aircraft first flown in 1950 or later that are now privately owned; 5) aircraft being repaired or undergoing major maintenance at VNY; and 6) any aircraft sufficiently documented as not exceeding the respective noise limits in place during the phaseout periods. No expirations would be imposed on the active military- and emergency-related exemptions; or on the exemption for permanently departing aircraft. The pre-1950 historic-aircraft exemption has no expiration date but is subject to review on or before January 1, 2019, and every ten years thereafter. The exemptions for the former military aircraft (first flown in 1950 or later) and for the repair-related operations would both expire in 2016, pursuant to the proposed ordinance. Operators would require a permit from the airport to conduct repair-related operations for aircraft that exceed the project noise limits. Section 5.3(g) of the draft ordinance describes the specific provisions of this prior-permission process in detail.

Table 2-4 shows the forecast of noisy jet operations that the proposed project would permit under its privately owned former military and maintenance exemption provisions, which would continue until 2016, when the exemptions expire. Former military ~~jet-aircraft~~ operations are expected to remain constant at VNY at a low level until 2016. The maintenance exemption is not expected to begin to have an effect on shifting operations from VNY until 2014 because project noise limits would not affect older Gulfstream aircraft operations until that year. The maintenance exemption would give maintenance providers at VNY who specialize in older aircraft more time to adjust their businesses to the new restrictions, reducing any potential economic costs associated with these restrictions. Both of these exemptions would expire on January 1, 2016.

**Table 2-4.** Number of Noisier Jet Operations (Annual) Exceeding the Noise Limits and Remaining at VNY Due to Exemptions for Former Military and Maintenance Operations

Type of Exemption	2009	2011	2014	2016
Former Military	100	100	100	0
Maintenance/Repair	0	0	260	0
Total	100	100	360	0

Source: HMMH and SH&E, 2008



### 2.1.4.3 Diversion Airports

#### Operations Shifted in 2014

Based on operational trends and facilities available at existing airports, as well as highway distances and driving times in the southern California region, three airports are expected to receive the aircraft operations that shift from VNY in the peak diversion year of 2014: BUR, CMA, and LAX. Table 2-5 shows the number of operations that are expected to shift to each of these three airports as a result of the proposed project in 2014, the year with the greatest number of operations affected at VNY, (Diversion operations caused by the 2014 noise-level limitation would continue to occur at the identified airports during 2016 and thereafter, but diversions are anticipated to be fewer as time goes on because of the non-project-related retirement of older aircraft expected to occur.)

**Table 2-5.** Shifts in Jet Operations (Annual) from VNY to Other Airports in 2014

	BUR	LAX	CMA	CNO	WJF	Total
Annual	<del>492</del> 193	62	115	0	0	<del>369</del> 370
Daily Average	0.5	0.2	0.3	0	0	1.0

Source: HMMH and SH&E, 2008

Note: This table has been revised in the Final EIR to correct minor clerical errors. The modifications do not affect impact analysis.

The number of flights expected to be shifted in 2014 is limited. With the implementation of the proposed project, BUR is expected to receive an additional ~~492~~193 operations per year, CMA 115 an additional operations per year, and LAX just 62 additional operations per year. When averaged out per day, this amounts to far less than one additional daily operation at each of the airports.

#### Exemption-Related Operations Shifted in 2016

The maintenance aircraft and former military aircraft operations that would no longer be permitted after the exemptions expire are expected to shift to other airports in the region. In 2016, ~~402~~100 former military aircraft operations would be expected to shift to CNO, located approximately 60 miles east of Van Nuys in Chino because one of the historic aircraft exemptions expires that year. CNO currently has two aviation museums and a number of businesses engaged in restoring old aircraft, including former military aircraft, and is likely to attract the former military aircraft affected by the project because of the availability of facilities and personnel dedicated to the upkeep of these historic aircraft. In addition, 260 maintenance-related operations of Gulfstream 2 and Gulfstream 3 jets are expected to shift to WJF located in Lancaster, approximately 60 miles northeast of Van Nuys, when the maintenance exemption expires in 2016. When interviewed as part of environmental review for this project, one of the primary maintenance providers at VNY that conducts major maintenance

on these Gulfstream jets, and who would therefore be affected by the exemption expiration, expressed a preference to develop facilities at WJF that would accommodate aircraft no longer permitted to conduct maintenance operations at VNY. Table 2-6 shows the number of operations that are expected to shift as a result of the proposed project in 2016. As with the estimated 2014 shifts listed above in Table 2-5, the shifts of former military aircraft and maintenance aircraft operations would, on average, amount to less than one operation per day at each of the affected airports.

**Table 2-6.** Exemption-Related Shifts in Jet Operations (Annual) from VNY to Other Airports in 2016

	WJF	CNO	Total
Per Year	260	100	360
Per Day	0.7	0.3	1.0

Source: HMMH and SH&E, 2008

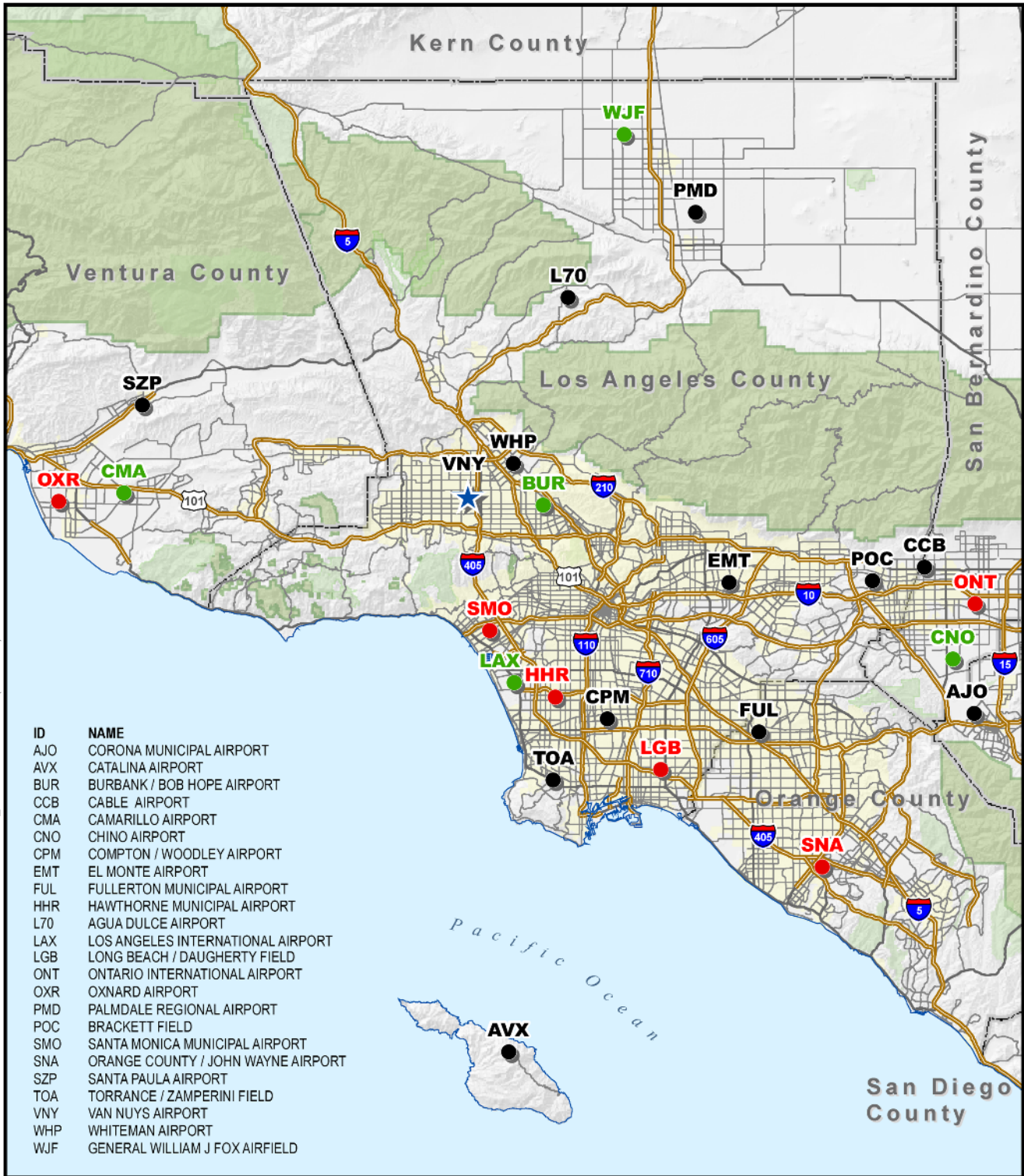
## 2.2 Project Location and Diversion Airports

While the proposed phaseout of noisier aircraft would occur at VNY, the reduction in aircraft operations at that airport is expected to shift some operations to five other airports—termed “diversion airports”—located elsewhere in the greater Southern California region, including BUR, LAX, CMA, CNO, and WJF. VNY and the five diversion airports potentially affected by the proposed project are briefly described below, while a more complete discussion of the existing conditions and environmental setting at each of these airports is presented in Chapter 3.

The process of selecting the likely diversion airports for analysis in this EIR entailed the initial identification of 16 facilities within approximately 60 driving miles of Van Nuys, as well as a review of the airports’ characteristics that would make them attractive or accommodating to aircraft phased out from operating at VNY. These characteristics include their current level of jet aircraft activity, the lengths and widths of their runways, the availability of jet fuel, driving distance and travel time from VNY, and the existence of any noise restrictions that would preclude diverted VNY aircraft from operating at the respective airports.

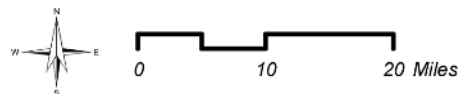
Review of these considerations led LAWA to screen out most of the initially identified facilities as unlikely to receive VNY diversions. Regional facilities that were considered unlikely to serve as diversion airports and thus were eliminated from analysis in this EIR are Hawthorne, John Wayne Orange County, Long Beach, Ontario, Oxnard, and Santa Monica. Figure 2-2 provides a regional location map of the diversion airports and those airports screened out from further consideration. Additional detail of the methodology and conclusions for identifying diversion airports can be found in Section 4.2 of this EIR and Sections 7.2 and 7.3 of the Noise Report ~~Report~~ (Appendix B of this EIR). VNY and the five airports that were

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- Diversion Airports
- Considered but Eliminated due to Airport or Phaseout Related Considerations
- Other Airports within Approximately 60 Miles of VNY

### Regional Airports Considered for Phased Out VNY Operations





considered the most likely diversion candidates to accommodate phased-out VNY aircraft are discussed below.

## 2.2.1 Van Nuys Airport (VNY)

Van Nuys Airport is located in Van Nuys, a community within the City of Los Angeles located in the San Fernando Valley. The airport is approximately 1 mile west of the Interstate-405 (I-405) freeway and 21 miles northwest of downtown Los Angeles.

The airport is owned and operated by LAWA, which also owns and operates LAX and L.A./Ontario International Airport (ONT), and which operates the passenger airline terminal at L.A./Palmdale Regional Airport (PMD).<sup>8</sup> VNY serves as a reliever airport and has no commercial service.<sup>9</sup> VNY has a control tower and two parallel runways, Runway 16R-34L (8,001 by 150 feet) and Runway 16L-34R (4,001 by 75 feet) used mainly for light piston aircraft operations.

VNY is located in an area that is fully developed, primarily with residential and commercial uses, and therefore is one of 10 “noise problem” airports in California, as defined by the provisions of the California Airport Noise Standards (California Code of Regulations [CCR], Title 21, Section 5000 *et seq.*).<sup>10</sup>

## 2.2.2 Bob Hope Airport (BUR)

Bob Hope Airport is located approximately 9 miles east of VNY in the City of Burbank. BUR is classified by the FAA as a medium hub airport<sup>11</sup> and provides passenger airline, all-cargo, and general aviation service. The airport is owned and operated by the Burbank-Glendale-Pasadena Airport Authority. BUR has two intersecting runways, Runway 15-33 (6,886 by 150 feet) and Runway 8-26 (5,801 by 150 feet).

Like VNY, BUR is located in a developed area, and is also considered to have a noise problem as defined by the provisions of the California Airport Noise Standards. BUR is in the process of submitting a Part 161 Study to the FAA requesting approval for a nighttime curfew. BUR was identified as a potential receptor of project-related VNY aircraft diversions because of a combination of BUR’s short driving distance to VNY and the presence of facilities and fuel that would accommodate diverted general aviation aircraft.

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<sup>8</sup> Since preparation of the Draft EIR, commercial operations have ceased at PMD’s passenger airline terminal.

<sup>9</sup> A reliever airport is an FAA category identifying general-aviation facilities that serve to offload small-aircraft traffic from larger hub airports, such as LAX and BUR.

<sup>10</sup> Available on the California Department of Transportation Aeronautics Division website: <http://www.dot.ca.gov/hq/planning/aeronaut/htmlfile/avnoise.php> (accessed June 2008).

<sup>11</sup> Medium hub airports enplane between 0.25% and 1% of total US revenue passenger traffic.

### 2.2.3 Los Angeles International Airport (LAX)

Los Angeles International Airport is located approximately 22 miles south of VNY and 15 miles southwest of downtown Los Angeles. It is classified by the FAA as a large hub airport<sup>12</sup> and provides passenger airline, all-cargo, and general aviation service. The airport is owned and operated by LAWA. LAX has four parallel runways: Runway 7L-25R (12,091 by 150 feet); Runway 7R-25L (11,095 by 200 feet); Runway 6R-24L (10,285 by 150 feet) and Runway 6L-24R (8,925 by 150 feet).

Like VNY and BUR, its proximity to development means that LAX is listed by the state as a noise-problem airport. LAX is conducting a Part 161 Study to analyze the benefits and costs of restricting certain nighttime aircraft departure operations. LAX was identified as a potential receptor of project-related VNY aircraft diversions because of a combination of LAX's short driving distance to VNY and the presence of facilities and fuel that would accommodate diverted general aviation aircraft.

### 2.2.4 Camarillo Airport (CMA)

Camarillo Airport is a general aviation facility owned and operated by the County of Ventura Department of Airports. CMA is located in the City of Camarillo approximately 43 miles west of VNY and is classified by the FAA as a reliever airport.

The airport has a control tower and a single runway, Runway 8-26 (6,013 by 150 feet). Airport noise abatement procedures do not permit aircraft departures between midnight and 5:00 AM without prior approval from the facility's Airport Director. CMA was identified as a potential receptor of project-related VNY aircraft diversions because of a combination of CMA's short driving distance to VNY and the presence of facilities (e.g., adequate runways) and fuel that would accommodate diverted general aviation aircraft.

### 2.2.5 Chino Airport (CNO)

Chino Airport is a general aviation facility owned and operated by the San Bernardino County Department of Airports. It is located 3 miles southeast of the City of Chino approximately 60 miles east of VNY. CNO is classified by the FAA as a reliever airport. The airport has a control tower and three runways: Runway 8R-26L (7,000 by 150 feet), Runway 8L-26R (4,858 by 150 feet), and Runway 3-21 (4,919 by 150 feet). CNO was identified as a potential receptor of the project-related diversions of former military aircraft operations from VNY (when the ordinance's proposed exemption expires in 2016) because CNO currently has two aviation museums and a number of businesses engaged in restoring old aircraft, including former military aircraft, creating an inviting atmosphere for these project-related diversions.

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<sup>12</sup> Large hub airports enplane at least 1% of total US revenue passenger traffic.

## 2.2.6 General William J. Fox Airfield (WJF)

General William J. Fox Airfield is a general aviation facility located in Lancaster approximately 60 miles northeast of VNY. WJF is owned by the County of Los Angeles Department of Public Works and is operated under contract by American Airports Corporation. The airport has a control tower and single runway, Runway 6-24 (7,201 by 150 feet). WJF was identified as a likely receptor of the project-related diversions of operations from VNY related to major maintenance and repairs (when the ordinances' proposed exemption expires in 2016) because one of the primary maintenance providers at VNY that services the Gulfstream jets potentially affected by the exemption's expiration expressed a preference to develop facilities at WJF that would accommodate aircraft no longer permitted to conduct maintenance operations at VNY. WJF would be regionally accessible to aircraft operators needing major maintenance and repairs for these jets.

## 2.3 Project Objectives

Pursuant to CEQA Guidelines Section 15124(b), LAWA has identified the following objectives for the project:

- Reduce aircraft noise impacts on areas near VNY, particularly the impacts on residential areas.
- Limit the burden on aircraft owners and operators by reducing takeoff noise limits incrementally over the span of several years.
- Limit the burden on maintenance providers at VNY by providing exemptions for maintenance-related operations until 2016.
- Reinforce compliance with noise limitations by providing a feasible program of penalties for violators.
- Support the goal of the VNY Master Plan to accommodate military aircraft older than 1950 by including an exemption for historic aircraft.

## 2.4 Required Approvals

Implementing the proposed phaseout program requires review or approval by the following bodies and agencies. The bodies listed below will use this EIR to consider the project's potential environmental effects prior to taking action on approving or denying the project.

- LAWA Board of Airport Commissioners
- Los Angeles City Council
- Mayor of Los Angeles





# 3.0

## ENVIRONMENTAL SETTING

This chapter provides a general description of the physical setting at VNY and each of the five diversion airports. For this general discussion, the physical setting is described in terms of conditions as they were known to exist when the NOP was filed and submitted in October 2007. Where aircraft operational data is given, in some cases the most current data available is from 2006. Additional detail of the existing conditions at VNY and the diversion airports as they relate to noise and air quality impact analysis is provided in Sections 4.2 and 4.3, respectively.

### 3.1 Van Nuys Airport

VNY is a 740-acre general aviation facility owned and operated by LAWA. The airport is located in the west-central portion of the City of Los Angeles' incorporated boundaries, approximately 25 miles northwest of downtown Los Angeles in the center of the San Fernando Valley. The airport is generally bounded by Roscoe Boulevard on the north, Victory Boulevard on the south, Balboa Boulevard on the west, and Woodley Avenue on the east.

The area surrounding VNY is built out—developed with a combination of residential, commercial, industrial, and public uses, single-family residential being the predominant use. Much of the land immediately surrounding the airport is developed with light industrial and commercial manufacturing uses, with golf courses and public park land located immediately to the south.

VNY has been cited as the world's busiest general aviation airport, averaging approximately 400,000 aircraft operations per year. Between 2000 and 2006, business jet operations at VNY increased by an annual average of 8.1%, which is comparable to the 8.7% annual average seen throughout the Los Angeles area. A total of 764 aircraft were based at VNY in 2006. Airport facilities include two runways—an 8,001-foot primary runway (Runway 16R-34L) and a 4,000-foot training runway (Runway 16L-24R). There are approximately 100 businesses located within the airport property, including five major fixed-base operators that provide aircraft storage and parking, aviation fuel, aircraft sales, flight instruction, aircraft charter and aircraft maintenance.

A partial nighttime curfew is in place at VNY that affects operations by some fixed-wing aircraft~~Stage 2 and Stage 3 jets. Stage 2 jets~~ Fixed-wing aircraft whose takeoff noise levels are greater than 74 dBA, as set forth in the FAA's AC 36-3, are prohibited from departing between ~~of~~ 10 p.m. and 7 a.m.; Stage 3 aircraft jets are prohibited from departing are exempt from this restriction between 10 p.m. and 11 p.m. and 7 a.m., unless their certificated departure noise rating is below 74 dBA. Medical life flights, military aircraft, and government-owned aircraft involved in emergency operations (fire, law enforcement, and search & rescue) are exempt from the curfew. There is no curfew on arrivals.

Figure 3.1 shows the FAA Airport Diagram for VNY.

## 3.2 Diversion Airports

### 3.2.1 Bob Hope Airport

BUR—also known as Burbank-Glendale-Pasadena Airport—is a commercial and general aviation facility owned and operated by the Burbank-Glendale-Pasadena Airport Authority, a government agency operating under a joint-powers agreement between those three cities. BUR is located approximately nine miles east of VNY in the northwestern corner of the City of Burbank corporate limits and adjacent to the City of Los Angeles communities of Sun Valley and North Hollywood.

Aircraft operations at BUR include commercial passenger and cargo flights, as well as general aviation flights, with a recent count indicating 107 general aviation aircraft are based there. Approximately 125,700 total operations occurred at BUR during the 12-month period ending in October 2007, and approximately 19,900 business-jet operations (17% of Los Angeles-area operations) occurred in 2006. Within its approximately 610-acre footprint, the airport features two runways, two commercial terminals, and two general aviation terminals. A voluntary noise curfew is imposed at BUR between 10:00 pm and 7:00 am.

BUR is located in an area that is primarily developed, and the airport is immediately surrounded by industrial and commercial development to the east, residential development to the west, industrial development and a cemetery to the south, and industrial and residential development to north. Figure 3.2 shows the FAA Airport Diagram for BUR.

### 3.2.2 Los Angeles International Airport

LAX is a major commercial and general aviation facility that like VNY is owned and operated by LAWA. It is located along the Pacific coast within the boundaries of the City of Los Angeles, approximately 20 miles south of VNY. The 3,900-acre facility features nine terminals and four runways, and accommodates a large volume of passenger and cargo flights; the airport is the world's fifth busiest in terms of

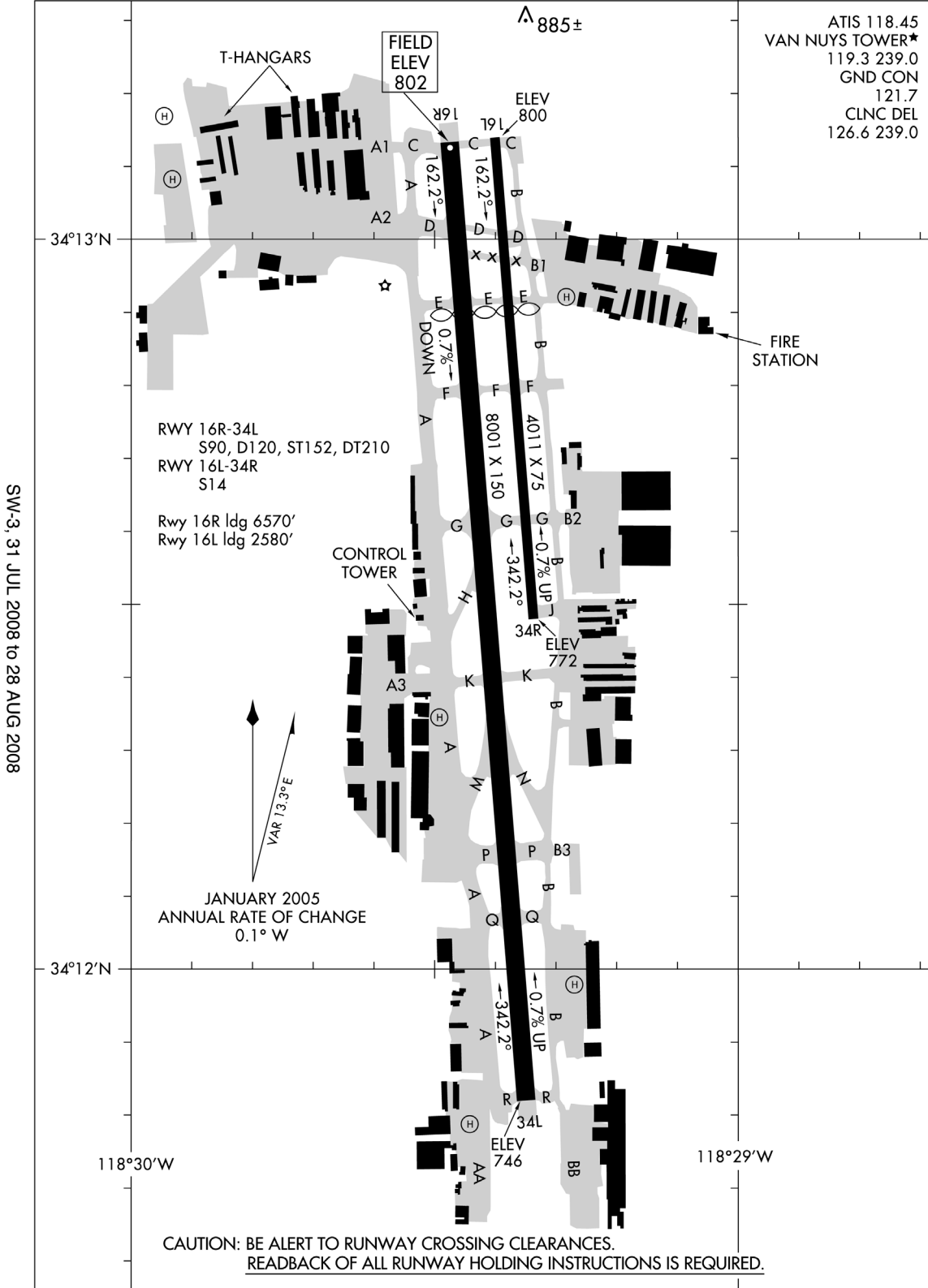
06327

# AIRPORT DIAGRAM

AL-552 (FAA)

VAN NUYS (VNY)  
VAN NUYS, CALIFORNIA

ATIS 118.45  
 VAN NUYS TOWER\*  
 119.3 239.0  
 GND CON  
 121.7  
 CLNC DEL  
 126.6 239.0



SW-3, 31 JUL 2008 to 28 AUG 2008

SW-3, 31 JUL 2008 to 28 AUG 2008

# AIRPORT DIAGRAM

06327

VAN NUYS, CALIFORNIA  
VAN NUYS (VNY)

05795.05 (08/08)

**Figure 3-1**  
**FAA Airport Diagram for VNY**  
**Van Nuis Airport Noisier Aircraft Phaseout EIR**



08157

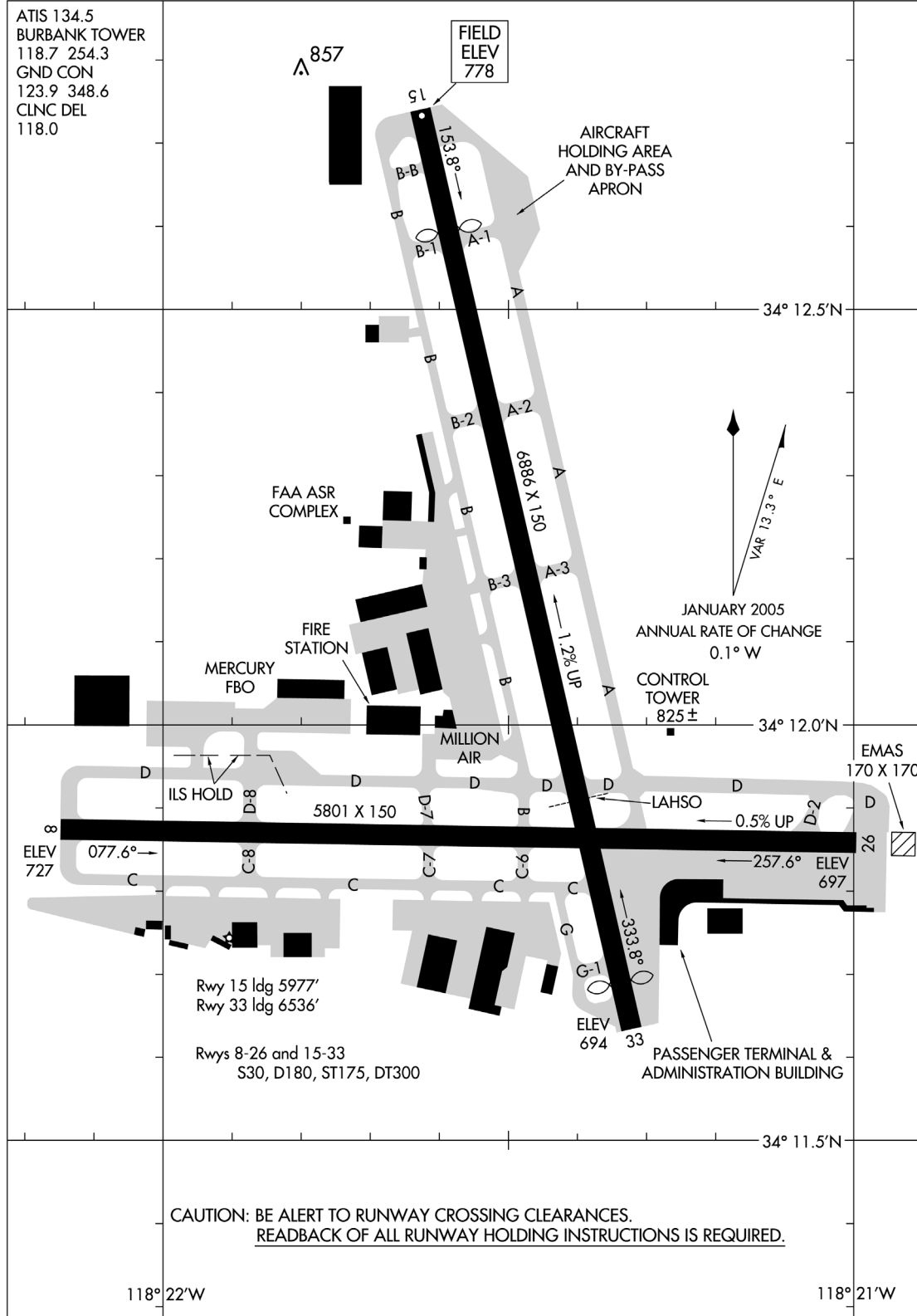
# AIRPORT DIAGRAM

BURBANK/ BOB HOPE (BUR)  
BURBANK, CALIFORNIA

AL-67 (FAA)

ATIS 134.5  
BURBANK TOWER  
118.7 254.3  
GND CON  
123.9 348.6  
CLNC DEL  
118.0

SW-3, 31 JUL 2008 to 28 AUG 2008



SW-3, 31 JUL 2008 to 28 AUG 2008

# AIRPORT DIAGRAM

08157

BURBANK, CALIFORNIA  
BURBANK/ BOB HOPE (BUR)

057995.05 (08/08)



passenger service and ranks 11th internationally in cargo tonnage. LAX handled just under 657,000 total airport operations in 2006, including an estimated 20,250 business jet operations, or approximately 17% of such operations occurring within the Los Angeles area.

LAX is located in a primarily built out area, with the surrounding lands developed with a mixture of residential, commercial, industrial, and public uses, and the undeveloped Los Angeles/El Segundo dunes located directly to the west of the airport. The airport is surrounded by the community of Westchester to the north, the City of El Segundo to the south, the City of Inglewood to the east, and the Pacific Ocean to the west. Figure 3.3 shows the FAA Airport Diagram for LAX.

### 3.2.3 Camarillo Airport

CMA is located in the southwestern corner of the City of Camarillo corporate limits, bordering unincorporated Ventura County land, and is approximately 40 miles west of VNY. It is a general aviation facility owned and operated by the County of Ventura Department of Airports. The airport does not accommodate commercial passenger flights, but the airport is classified by the FAA as a reliever airport for the Los Angeles area, meaning that it serves to relieve congestion at commercial service airports located in the region.

A recent count indicates there are 564 general aviation aircraft based at CMA. Approximately 154,000 aircraft operations occurred during the 12-month period ending in June 2006, and the airport had 4,650 business jet operations during 2006 (approximately 4% of such operations throughout the region). The airport features two runways and encompasses a 670-acre footprint. Takeoffs are prohibited at CMA between midnight and 5:00 am.

CMA is located just south of U.S. Highway 101 in an area that is partially developed. Agricultural land in active row-crop production surrounds CMA to the west, south, and east. The western and southern agricultural land is within the jurisdiction of the County of Ventura, while the eastern agricultural land is within the jurisdiction of the City of Camarillo. Land immediately north of the site is developed for industrial and commercial uses, and single-family development is located further northeast of the airport. Figure 3.4 shows the FAA Airport Diagram for CMA.

### 3.2.4 Chino Airport

CNO is located in the southern portion of the City of Chino corporate limits in southwestern San Bernardino County, approximately 60 miles east of VNY. It is a general aviation facility owned and operated by the County Department of Airports, with no commercial passenger operations, and is categorized as a reliever airport for the nearby Ontario International Airport.

By recent count, 620 general aviation aircraft are based at CNO. Approximately 165,000 total aircraft operations occurred there during the 12-month period ending June 2007, with approximately 1,480 business jet operations (1% of business operations throughout the region). CNO covers approximately 1,100 acres and maintains three runways. Two aviation museums are associated with the airport, which is a popular center for restoration of older and historic aircraft. There are no noise restrictions in effect at CNO.

CNO is located approximately three miles southeast of central Chino, within an area characterized by open space, active agricultural land, and industrial development, with some residential development located south of the airport. Land south and southeast of the airport is designated for future residential and commercial development. Figure 3.5 shows the FAA Airport Diagram for CNO.

### **3.2.5 William J. Fox Airfield**

WJF is a one-runway, general aviation facility located on approximately 1,200 acres in the incorporated boundaries of the City of Lancaster in northern Los Angeles County, approximately 60 miles northeast of VNY. It is owned and operated by the County of Los Angeles Department of Public Works. No commercial passenger service is available at WJF.

WJF has approximately 195 general aviation based aircraft, and approximately 82,000 total aircraft operations occurred there during the 12-month period ending in May 2007. Business jet operations totaled approximately 500 during 2006, or less than 1% of the region's business jet operations. The U. S. Forest Service also maintains an air tanker base at the airport. No noise restrictions are in effect at WJF.

WJF is located in an undeveloped area designated for industrial use, and is approximately 3 miles northeast of the developed center of Lancaster. The western boundary of Edwards Air Force Base is located approximately 2 miles northeast of WJF. Figure 3.6 shows the FAA Airport Diagram for WJF.





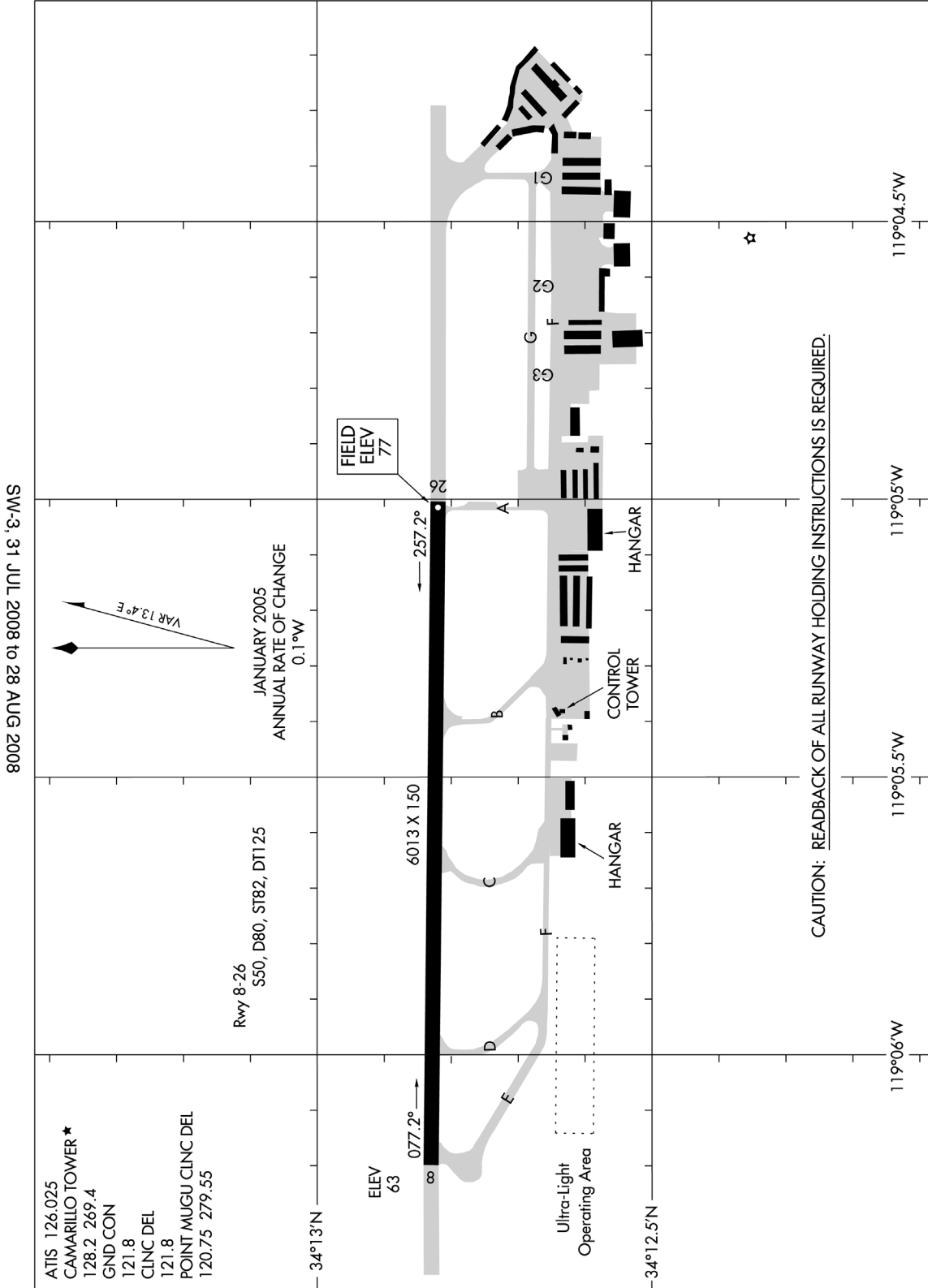


08157

# AIRPORT DIAGRAM

AL-680 (FAA)

CAMARILLO (CMA)  
CAMARILLO, CALIFORNIA



SW-3, 31 JUL 2008 to 28 AUG 2008

- ATIS 126.025
- CAMARILLO TOWER ★
- 128.2 269.4
- GND CON
- 121.8
- CLNC DEL
- 121.8
- POINT MUGU CLNC DEL
- 120.75 279.55

Rwy 8-26  
550, D80, ST82, DT125

FIELD  
ELEV  
77

ELEV  
63

6013 X 150

257.2°

077.2°

HANGAR

HANGAR

CONTROL TOWER

Ultra-Light  
Operating Area

CAUTION: READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

# AIRPORT DIAGRAM

08157

CAMARILLO, CALIFORNIA  
CAMARILLO (CMA)

SW-3, 31 JUL 2008 to 28 AUG 2008

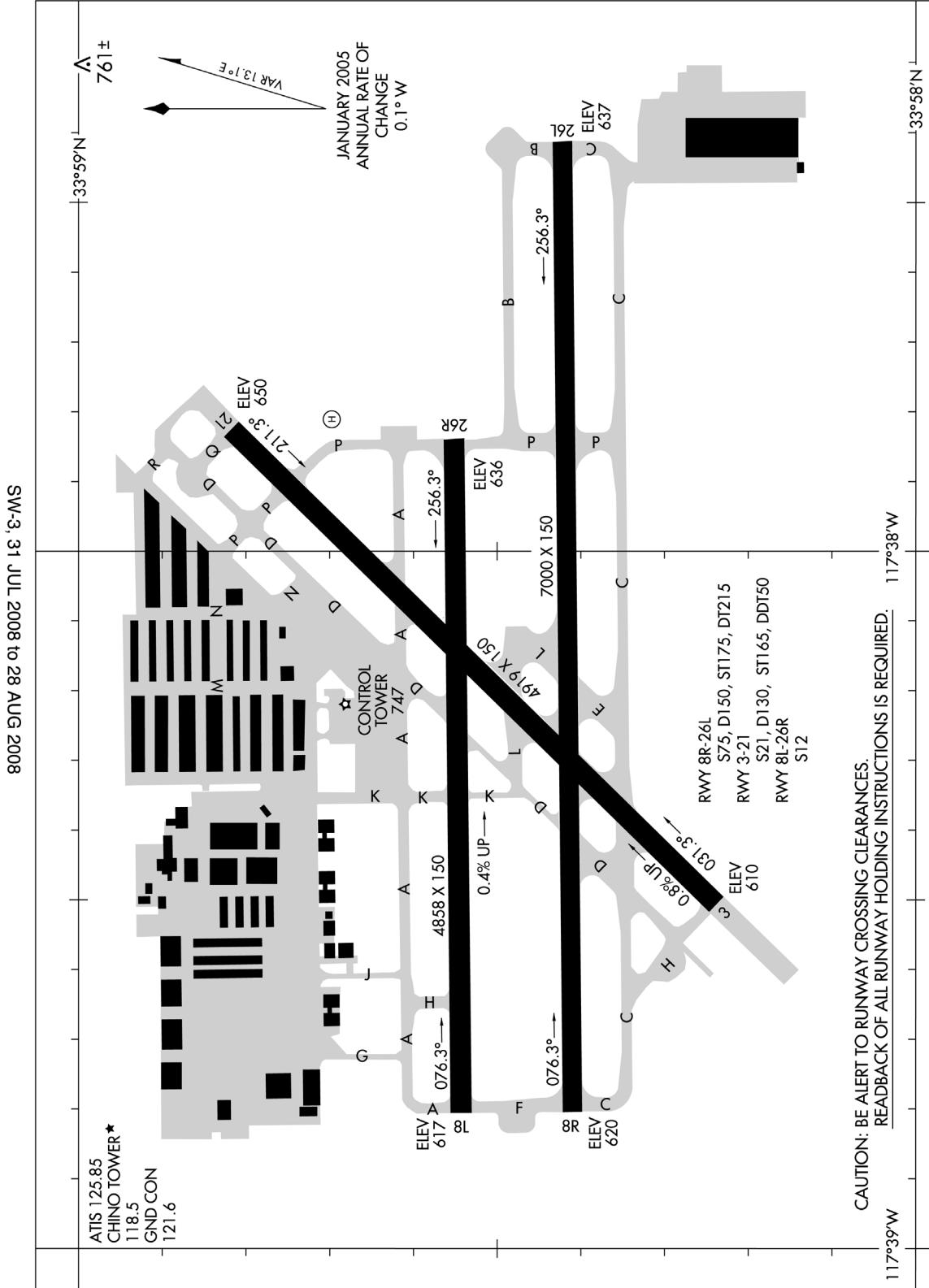
05795.05 (08/08)



07354  
**AIRPORT DIAGRAM**

AL-5599 (FAA)

CHINO (CNO)  
 CHINO, CALIFORNIA



07354  
**AIRPORT DIAGRAM**

CHINO, CALIFORNIA  
 CHINO (CNO)

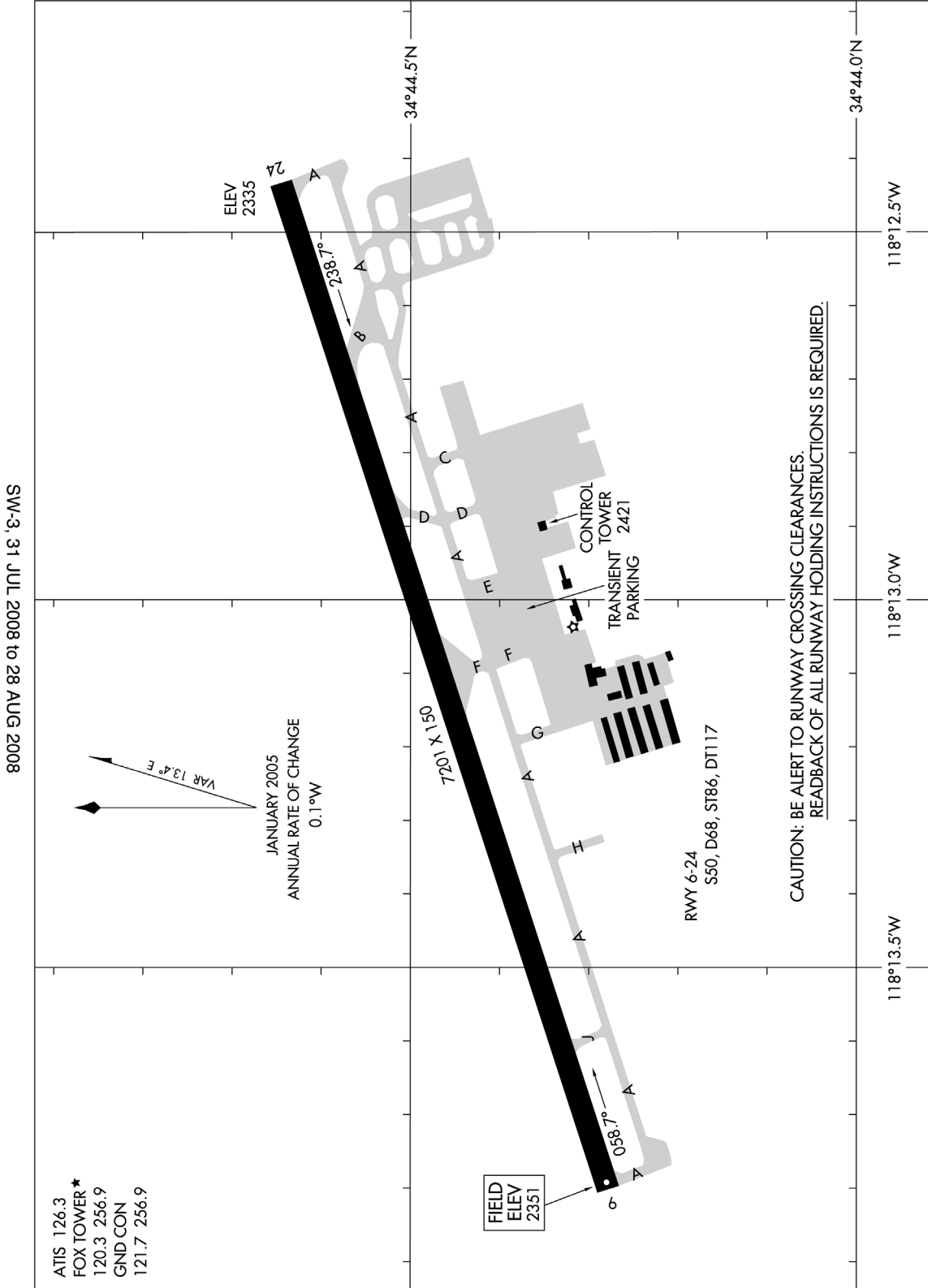
057995.05 (08/08)



07186

# AIRPORT DIAGRAM

LANCASTER/ GENERAL WILLIAM J. FOX AIRFIELD (WJF)  
AL-5065 (FAA)  
LANCASTER, CALIFORNIA



SW-3, 31 JUL 2008 to 28 AUG 2008

# AIRPORT DIAGRAM

LANCASTER, CALIFORNIA  
LANCASTER/ GENERAL WILLIAM J. FOX AIRFIELD (WJF)

07186

ATIS 126.3  
 FOX TOWER\* 120.3 256.9  
 GND CON 121.7 256.9

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

SW-3, 31 JUL 2008 to 28 AUG 2008

057995.05 (08/08)

**Figure 3-6**  
**FAA Airport Diagram for WJF**  
**Van Nuys Airport Noisier Aircraft Phaseout EIR**





# 4.0

## ENVIRONMENTAL IMPACTS OF THE PROJECT

Chapter 4 provides a discussion of the environmental effects resulting from project implementation, in accordance with Section 15120 of the State CEQA Guidelines. Section 4.1 addresses the environmental impact issue areas for which, during the scoping process, the project was identified as having either no impact or a less-than-significant impact. These include the following:

- 4.1.1 Aesthetics
- 4.1.2 Agricultural Resources
- 4.1.3 Biological Resources
- 4.1.4 Cultural Resources
- 4.1.5 Geology/Soil
- 4.1.6 Hazards and Hazardous Materials
- 4.1.7 Hydrology/Water Quality
- 4.1.8 Land Use/Planning
- 4.1.9 Mineral Resources
- 4.1.10 Population and Housing
- 4.1.11 Public services
- 4.1.12 Recreation
- 4.1.13 Transportation/Traffic
- 4.1.14 Utilities/Service Systems

Noise and air quality were determined during the scoping process to be the issue areas where the project would potentially have significant impacts, and therefore warranted detailed technical analysis in preparation of this EIR. The following sections present these project analyses:

- 4.2 Noise
- 4.3 Air Quality



# 4.1

## ENVIRONMENTAL RESOURCES DETERMINED TO BE LESS THAN SIGNIFICANT

Section 15128 of the CEQA Guidelines states that an EIR “shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and [are] therefore not discussed in detail in the EIR.” The following section presents a discussion of the environmental resource areas that were identified as not having the potential for significant impacts as a result of the VNY Noisier Aircraft Phaseout project during the initial review of the project by the CEQA lead agency, LAWA, the CEQA lead agency. In addition, the scoping process for the project, described in Chapter 1 of this EIR, did not indicate the need to address the environmental resources discussed below.

Because the project does not propose or require any development or other physical modification at VNY or the other airports anticipated to receive diverted aircraft over time, many of the environmental considerations that are typically evaluated as part of the CEQA process are not applicable to this project. For the reasons stated below, the proposed project would have no impact or a less-than-significant impact on aesthetics, agricultural resources, biological resources, cultural resources, geology/soils, hazards and hazardous materials, hydrology/water quality, land use/planning, mineral resources, population/housing, public services, recreation, transportation/ traffic, and utilities/service systems.

### 4.1.1 Aesthetics

Appendix G of the State CEQA Guidelines states that a project would have a significant environmental impact if it would

- Have a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway.
- Substantially degrade the existing visual character or quality of the site and its surroundings.

- Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area.

The project proposes no physical development; modification of land, structures, or features; or other prominently visible elements. Therefore, the project would have no effect on scenic vistas, scenic resources, or visual character, and there would be no impact pursuant to the first three criteria listed above. Changes to the visual environment resulting from project implementation would be limited to a slight reduction in aircraft takeoffs and landings at VNY and a very minimal increase in takeoffs and landings at the diversion airports. On average, the increase is anticipated to be less than one aircraft operation per day at each of the diversion airports, which would not be noticeable to viewers in the vicinity of the airports, who are already accustomed to views of aircraft operations in their vicinity. Additional aircraft operating at the diversion airports would not create a substantial new source of light or glare. Some activity may occur at night time, including in the vicinity of residences. Aircraft are equipped with headlamps and other lights for safety purposes, but nighttime aircraft activity would be extremely seldom and, furthermore, would not result in lights being shined into residential receptors. Therefore, there would be no aesthetic impacts.

## 4.1.2 Agricultural Resources

Appendix G of the State CEQA Guidelines states that a project would have a significant environmental impact if it would

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use.
- Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract.
- Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use.

The project proposes no development, change in land use, or other component that would affect agricultural resources. Therefore, the project would not result in direct conversion of Farmland to non-agricultural uses or conflict with agricultural zoning or a Williamson Act contract. Of the affected airports, CMA, CNO, and WJF are located in areas that support agricultural operations, with row crops grown adjacent to the airport sites at CMA and CNO. However, the minimal increase in operations projected at those airports (forecasted at less than one per day at each of the diversion airports) would have no direct or indirect effect on agricultural operations, and would not result in changes that could indirectly result in conversion of farmland to non-agricultural uses. Therefore, there would be no agricultural resources impacts.

### 4.1.3 Biological Resources

Appendix G of the State CEQA Guidelines states that a project would have a significant environmental impact if it would

- Have a substantial adverse effect on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

The project proposes no development, clearing, excavation, or other components that would affect vegetation, plants, or wildlife. None of the diversion airports is located adjacent to open space preserves or other areas featuring sensitive biological resources that could be affected by the minimal increase in flight operations, and the associated aircraft activity would have no effect on any such resources. Therefore, the project would have no impact on candidate, sensitive, or special-status species; would have no impact on riparian or other sensitive habitat; would have no impact on wetlands; would not interfere with wildlife movement, migration, or nursery sites; and would not conflict with local plans—including habitat conservation plans—related to biological resources. There would be no biological resources impacts.

### 4.1.4 Cultural Resources

Appendix G of the State CEQA Guidelines states that a project would have a significant environmental impact if it would

- Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?
- Disturb any human remains, including those interred outside of formal cemeteries?

The project proposes no excavation, construction, or other work that would potentially affect archeological resources that may be present above or below the ground surface at any of the airports. Therefore, there is no potential for the project to affect archaeological resources, paleontological resources, or human remains. The project would not demolish or modify any structures, or entail any other work that would potentially affect any historical resources that may exist at the airports, and there is no potential for the project to affect historical resources. Therefore, there would be no cultural resources impacts.

## 4.1.5 Geology/Soils

Appendix G of the State CEQA Guidelines states that a project would have a significant environmental impact if it would

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic groundshaking, seismic-related ground failure, and landslides.
- Result in substantial soil erosion or the loss of topsoil.
- Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse.
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater.

The project would not entail any earthwork, erection of structures, or other components that could affect or be affected by the local geological conditions and on-site soils. Because there are no structures proposed by the project, seismic rupture, ground shaking, and ground failure have no bearing on the project, nor do landslides, unstable geologic units, expansive soil. Because the project proposes no earthwork, there would be no impacts with respect to top soil. Because the project proposes no septic tanks, there would be no impacts related to such facilities. Therefore, there would be no geology/soils impacts.

## 4.1.6 Hazards and Hazardous Materials

Appendix G of the State CEQA Guidelines states that a project would have a significant environmental impact if it would

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.
- Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project area.
- Be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project area.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

Hazardous materials related to the project are limited to the fuel and other common petroleum products used to power and maintain the aircraft that currently operate at VNY. By shifting aircraft operations from VNY to the diversion airports, the project would slightly reduce the volumes of these chemicals transported, used, and stored at VNY, while minimally increasing such transportation, use, and storage at the diversion airports, in order to accommodate additional operations. No new storage tanks or fueling facilities would be necessary to accommodate this minimal increase in usage, and on-site use and storage of hazardous materials would continue to conform to all relevant federal and state regulations. The proposed project would not entail the use, transport, storage, or disposal of any other hazardous materials, and the minimal increases in materials storage and uses would not create a significant hazard through foreseeable upsets or accidents. Therefore, the impact would be less than significant.

As discussed in Section 4.3.3.5 of this EIR, there are no schools or other sensitive receptors located within ¼ mile of any diversion airports. Therefore, there will be no impact related to hazardous emissions within ¼ mile of a school. The project does not propose any significant source of hazardous emissions or entail handling acute

hazardous substances. The project would result in minimal increases in jet exhaust at the diversion airports, but, as discussed in Section 4.3.5.2 of this EIR, this emission would not constitute a significant health risk. Therefore, the hazardous emissions impact is less than significant.

The project proposes no development or land modification and, therefore, would have no bearing on any hazardous materials location that may be located on or around VNY or the diversion airports. Therefore, there would be no impact.

The project entails a reduction in air traffic volume at VNY and a very minor increase in operations at the receiving airports, all within or in the vicinity of airport land use plans. The project-related increase at the receiving airports, as projected for the 2014 and 2016 planning periods, averages less than one flight per day at each airport—a minimal increase that would not be enough to cause a significant hazards impact due to operation in proximity to existing or planned development.<sup>1</sup> Therefore, this impact would be less than significant. The project is not located in the vicinity of any private air strips, and would have no related impact.

The project proposes no development or other physical components that would affect any emergency response plans existing or place persons or structures in proximity to areas prone to wildfires. Therefore, there would be no impact.

## 4.1.7 Hydrology/Water Quality

Appendix G of the State CEQA Guidelines states that a project would have a significant environmental impact if it would

- Violate any water quality standards or waste discharge requirements.
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in a net deficit in aquifer volume or a lowering of the local groundwater table level.
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation onsite or offsite.
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or offsite.
- Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.
- Otherwise substantially degrade water quality.

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<sup>1</sup> See Tables 2-5 and 2-6 and associated discussion (Chapter 2 of this EIR) for greater detail on the estimates of annual and daily flight increases at the diversion airports.



- Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.
- Place within a 100-year flood hazard area structures that impede or redirect floodflows.
- Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee/dam.
- Cause inundation by seiche, tsunami, or mudflow.

The project proposes no development, earthwork, alteration of waterways, drainage patterns, or floodplains, or other components that would affect hydrology and water quality in the vicinity of the affected airports. No increases in the amount of impervious surfaces would occur with the proposed project at any of the affected airports. No aspect of the project would result in surface or groundwater pollution or affect groundwater supplies. Because the project entails no construction, it would not place structures within a floodplain, increase flood risk, or cause inundation. Aircraft operations have no bearing on risks related to floods, seiches, tsunamis, or mudflow. Therefore, there would be no hydrology and water quality impacts.

## 4.1.8 Land Use/Planning

Appendix G of the State CEQA Guidelines states that a project would have a significant environmental impact if it would

- Physically divide an established community.
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.
- Conflict with any applicable habitat conservation plan or natural community conservation plan.

The project does not propose development at VNY or any of the diversion airports, and therefore would not conflict with existing land use plans for any of the affected airports. The proposed project was contemplated in the 2006 VNY Master Plan.<sup>2</sup> The VNY master plan sets out a noise policy which states: “Establish a maximum daytime noise level for all aircraft operating at Van Nuys Airport of 77 d.b.a., based on takeoff noise levels for each aircraft reported in the most current FAA Advisory Circular 36-3. This measure would effectively eliminate all Stage 2 jets and some Stage 3 jets. Analyze separately the application of a maximum daytime noise limit to Stage 2 and Stage 3 jets to properly assess the costs and benefits of these measures. In addition, evaluate the impact on historic planes” (2006 VNY Master Plan page 12). The proposed project would be consistent with this policy. Consistency with applicable Air Quality Plans is addressed in section 4.3 of this EIR.

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<sup>2</sup> [http://www.vnymasterplan.org/docs/vny\\_draft\\_mp.pdf](http://www.vnymasterplan.org/docs/vny_draft_mp.pdf)

A slight increase in aircraft operations is anticipated at the five diversion airports, averaging less than one aircraft operation per day at each airport. This increase is not large enough to necessitate construction of new facilities to accommodate the redirected aircraft or its passengers, require revision of airport land use plans, or otherwise generate growth at the affected airports or in their surrounding areas. Therefore, there would be no land use and planning impacts.

The project proposes no development or other component that would physically divide a community, and the project would have no bearing on any habitat conservation plan or natural community conservation plan that may apply to the area surrounding VNY or other alternative airports in the region. Therefore, there would be no related impacts.

### 4.1.9 Mineral Resources

Appendix G of the State CEQA Guidelines states that a project would have a significant environmental impact if it would

- Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.
- Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

The project proposes no development, excavation, or other components that would deplete mineral resources, nor does it propose development or any other components that would prevent future extraction of any mineral resources that may be present in the vicinity of the affected airports. Therefore, there would be no mineral resource impacts.

### 4.1.10 Population and Housing

Appendix G of the State CEQA Guidelines states that a project would have a significant environmental impact if it would

- Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure).
- Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere.
- Displace a substantial number of people, necessitating the construction of replacement housing elsewhere.

The project proposes no demolition of existing development or any other component that would displace any people or housing units, nor does it propose new jobs, extension of infrastructure, or other features that would directly or indirectly induce

growth and require accommodation of future population. Therefore, there would be no population and housing impacts.

## 4.1.11 Public Services

Appendix G of the State CEQA Guidelines states that a project would have a significant environmental impact if it would

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection, police protection, schools, parks, or other public facilities.

The project includes no physical elements that would alter existing facilities for fire, police, schools, parks, or other public facilities. The slight increase in aircraft activity at the five diversion airports—an average of less than one more operation per day at each of the airports—would translate into a very minor increase in activity on the ground at these facilities. This, in turn, would present an indiscernible increase in demand for emergency response and police protection services provided by local agencies, including:

- BUR: Burbank Fire Department, Burbank-Glendale-Pasadena Airport Authority Police Department
- LAX: Los Angeles Airport Fire Department, Airport Police Division of LAWA
- CMA: Ventura County Fire Protection District, Ventura County Sheriff's Department
- CNO: Chino Valley Independent Fire District, Chino Police Department
- WJF: Los Angeles County Fire Department, Los Angeles County Police Department

The increase in airport activity would occur at facilities already served by these respective agencies, and would not be of a scale that would overburden the police and fire departments or cause the need for new or expanded facilities. Therefore, there would be no impact on fire and police protection services.

The project proposes no new development that would increase population and subsequent demand on local schools or parks. Therefore, there would be no impact on schools and parks services.

## 4.1.12 Recreation

Appendix G of the State CEQA Guidelines states that a project would have a significant environmental impact if it would

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

The project proposes no new development that would increase population and resultant demand on local parks in the vicinity of VNY or any of the diversion airports, nor does the project propose new recreational facilities in these locations. Therefore, there would be no recreation impacts.

## 4.1.13 Transportation/Traffic

Appendix G of the State CEQA Guidelines states that a project would have a significant environmental impact if it would

- Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system.
- Cause, either individually or cumulatively, exceedance of a level-of-service standard established by the county congestion management agency for designated roads or highways.
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
- Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.
- Result in inadequate parking capacity.
- Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

The project would result in a slight shift in regional air-traffic patterns, but not of a scale that would present hazardous conditions, overload the diversion airports' facilities, or cause other significant air-traffic impacts.

The project's impact on ground-based traffic would also be very minor. Project-related decrease in aircraft operations at VNY would result in a minimal, unnoticeable reduction in automobile trips in the vicinity of the airport. For instance, it is estimated that during the planning year 2014, approximately ~~369~~370 aircraft

operations would shift from VNY to other airports (Table 2-3 in Chapter 2, Project Description). Averaged out over the entire year, that is a reduction of slightly more than one operation per day. By the assumption that one aircraft operation equates to one vehicle trip, the project would result in a similar reduction in vehicle trips of slightly more than one per day. This unnoticeable decrease in the amount of vehicle traffic using the local circulation system is a minor beneficial impact of the project. The projected increase of approximately ~~369~~ 370 aircraft operations at the three diversion airports would be less than one per day at each of the facilities during the 2014 planning year (Table 2-5 in Chapter 2, Project Description). In 2016, operations would be even less. This would constitute an unnoticeable increase in roadway traffic around the diversion airports, and not one that would substantially increase the amount of traffic in the vicinity of the airports relative to street system capacity or degrade level of service. Increases in 2016 traffic to CNO and WJF would be similarly inconsequential, with an average of 0.7 additional daily operations at CNO and an average of 0.3 daily operations at WJF.

Small increases in vehicular traffic at the diversion airports would not present a strain on existing parking facilities or require expansion of existing parking areas, and would not affect public transportation service or bike routes that may exist in the respective areas. Therefore, there would be no ground-based vehicular traffic impacts.

The very small increase of less than one aircraft operation per day at each of the diversion airports would not represent a significant hazard to existing or planned development in the areas. The project proposes no physical development or physical changes at VNY or the diversion airports; there would be no design features or incompatible uses that could pose hazardous traffic conditions or result in inadequate emergency access. Therefore, there would be no traffic hazard impacts.

## 4.1.14 Utilities/Service Systems

Appendix G of the State CEQA Guidelines states that a project would have a significant environmental impact if it would

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
- Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
- Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?

- Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
- Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?
- Comply with federal, state, and local statutes and regulations related to solid waste?

The decrease in aircraft operations at VNY would result in a minor decrease in demand on existing utilities and services provided at the airport, including water, wastewater, and solid waste facilities. The increase in operations at the diversion airports, estimated at less than one per day at each airport, would result in a minor increase in demand on existing utilities and services at the respective facilities, but this demand increase would not be noticeable, and would not burden the existing utilities or cause the need for new or expanded facilities. The project entails no component that would apply to wastewater treatment requirements, require construction or expansion of water or wastewater treatment facilities, require construction or expansion of stormwater drainage facilities. The project would not generate solid waste. Therefore, the utilities and service systems impacts would be less than significant.

# 4.2

## NOISE ANALYSIS

### 4.2.1 Introduction

This section provides the analysis of the noise impacts that would result from implementing the project. The project would not involve any physical development or change in land use, and would not affect the manner in which operations are conducted at VNY (e.g., runway used, flight path followed, power settings, rates of climb or descent, or other factors that affect the noise exposure associated with a specific operation). Therefore, the only project-related changes in noise exposure at VNY would result from changes in aircraft operations undertaken to comply with the proposed ordinance (Appendix A). As discussed in Chapter 2, these responses would include cancelling operations, moving operations to another regional airport, or substituting quieter aircraft that comply with the limit. As a result the project would decrease aircraft noise levels around VNY. Noise increases at the airports to which operations would be diverted are quantified and assessed.

This section summarizes the analysis and conclusions presented in the Noise Report jointly prepared by HMMH and SH&E in August 2008 (Appendix B of this EIR). Unless otherwise noted, the Noise Report is the source for all technical information presented in this section.

#### 4.2.1.1 Noise Definitions

Noise is generally defined as *unwanted sound*. It may be loud, unpleasant, unexpected, or undesired sound typically associated with human activity that interferes with or disrupts others' activities. Although exposure to high noise levels has been demonstrated to cause hearing loss, the principal human response to environmental noise is annoyance. The response of individuals to similar noise events is diverse and influenced by the type of noise, the perceived importance and suitability of the noise in a particular setting, the time of day and type of activity during which the noise occurs, and the sensitivity of the individual.

Sound is generally characterized by frequency and intensity. Frequency describes the sound's pitch and is measured in hertz (Hz); intensity describes the sound's level, volume, or loudness and is measured in decibels (dB). Sound frequency is a measure of how many times the crest of a sound pressure wave passes a fixed point each second. For example, when a drummer beats a drum, the skin of the drum vibrates at a certain number of times per second. Sound frequencies between 20 Hz and 20,000 Hz are within the range of perception for a sensitive human ear.

The method commonly used to quantify environmental sounds consists of evaluating all the frequencies of a sound according to a weighting system that reflects the reduced sensitivity of human hearing to low frequencies and extremely high frequencies. This frequency-dependent modification is called A-weighting, and the decibel level measured is called the dBA. In practice, the level of a noise source is conveniently measured using a sound level meter that includes a filter corresponding to the dBA curve. A sound level of 0 dBA is approximately the threshold of human hearing and is barely audible under extremely quiet listening conditions. Normal conversational speech has a sound level of approximately 60 dBA. Sound levels above about 120 dBA begin to be felt inside the human ear as discomfort and eventually pain at still higher levels.

In general, human sound perception in a community environment is such that a change in sound level of 3 dB is just noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving sound level. Because of the logarithmic scale of the decibel unit, sound levels cannot be added or subtracted arithmetically. A simple rule of thumb is useful in dealing with sound levels: if a sound's physical intensity is doubled, the sound level increases by 3 dB, regardless of the initial sound level. For example, 60 dB plus 60 dB equals 63 dB, 80 dB plus 80 dB equals 83 dB. When 60 dB and 70 dB sources are added, the resulting noise level equals 70.4 dB.

California regulations require use of a decibel-based measure called Community Noise Equivalent Level (CNEL) to describe cumulative noise exposure resulting from aircraft operations.<sup>1</sup> In very simple terms, CNEL is a measure of long-term noise exposure that includes adjustments for increased sensitivity to noise during the evening (7 p.m. to 10 p.m.) and night (10 p.m. to 7 a.m.) time periods. Appendix B.1 of the Noise Report (Appendix B) provides an introduction to CNEL and other noise-related terms used in this EIR. CNEL projections have two principal functions:

- to provide a quantitative basis for assessing land use compatibility with aircraft noise exposure, pursuant to the guidelines of airport proprietors and the respective local jurisdictions, and
- to provide a means for determining the significance of changes in noise exposure that might result from changes in airport layout, operations, or activity levels.

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<sup>1</sup> Title 21, California Code of Regulations (CCR), California Airport Noise Standards, Subchapter 6, Noise Standards, Article 1, General, Section 5001, Definitions, p 220.



Noise-sensitive uses are those in which the activities of residents or other occupants require a lower noise level. These include residences, schools, libraries, convalescent homes, transient lodgings, churches, and auditoriums.

## 4.2.2 Regulatory Setting

The FAA maintains general oversight of airport operations in the United States, but defers to local land use jurisdictions for determination of the noise exposure that is acceptable for any given land use. Despite that deference, most local land use control jurisdictions and airport proprietors (including California, Los Angeles, and LAWA) base aircraft noise and land use compatibility decisions on federal guidelines set forth in Federal Aviation Regulation (FAR) Part 150.<sup>2</sup> Appendix B.3 presents the federal, state, city, and LAWA noise guidelines.

Part 150 defines a two-step process for airport proprietors to follow in order to comply with these noise guidelines: first, identifying land uses that are incompatible with aircraft noise, and then implementing noise reduction (abatement) or noise mitigation measures. While the program is voluntary, there is a significant incentive for airport proprietors to participate, since federal funding is available to assist proprietors in implementing FAA-approved abatement or mitigation measures. Additional explanation of Part 150 is found in Appendix B.3. Table B.3.1 in Appendix B.3 presents a detailed table of noise and land use compatibility criteria adopted by LAWA, which are consistent with City of Los Angeles, state, and federal guidelines, and with all applicable CEQA requirements. At the most basic level, all of these government agencies consider all land uses to be compatible with cumulative noise exposure below 65 dB CNEL.

Lead Agencies typically use a significance threshold to determine whether a project would result in a significant environmental impact. “A threshold of significance is an identifiable quantitative, qualitative, or performance level of a particular environmental effect, non-compliance with which means the effects will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant.” (CEQA Guidelines § 15064.7.) The City of Los Angeles CEQA Threshold Guide defines a significance threshold for airport-related project impacts on noise levels as follows: “A significant impact on ambient noise levels would normally occur if noise levels at a noise sensitive use attributable to airport operations exceed 65 dB and the project increases ambient noise levels by 1.5 dB CNEL or greater.”<sup>3</sup> This threshold is generally consistent with the FAA policies and procedures for compliance with the

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<sup>2</sup> 14 CFR Part 150, Airport Noise Compatibility Planning.

<sup>3</sup> City of Los Angeles. 2006. L.A. CEQA Thresholds Guide. Environmental Affairs Department. Los Angeles, CA, p. I.4-3–I.4-5.

National Environmental Policy Act (NEPA) as they apply to noise-sensitive land uses, which read:<sup>4</sup>

- a significant impact would occur if the project-related action would cause noise-sensitive areas already at or above CNEL 65 dB to experience an increase in noise of CNEL 1.5 dB or greater; and
- if noise-sensitive areas at or above CNEL 65 dB will have an increase of CNEL 1.5 dB or more, noise-sensitive areas lying between CNEL 60 and 65 dB should be examined to identify whether increases of CNEL of 3 dB or more occur in these areas due to the proposed project. If so, noise mitigation measures should be considered.

As discussed in Section 4.2.4.1, the noise analysis conducted for this project utilized these thresholds for identifying significant noise impacts.

The City of Los Angeles's CEQA Guidelines permits use of FAA's Area Equivalent Method (AEM) a screening tool for airport noise impacts. If preliminary analysis indicates that a project would result in a 1.5 dB or higher increase in CNEL, then a more detailed analysis using FAA's Integrated Noise Model (INM) is required. INM is more complex than AEM and entails extensive local data collection, processing, and entry.

## 4.2.3 Environmental Setting

Existing noise conditions at VNY and each of the five diversion airports were determined by noise modeling that is fully explained in the Noise Report (Appendix B, pg. 4-6) and summarized in the subsections below. Existing conditions include estimations of noise levels for the baseline (2007) and forecast (2014 for VNY, BUR, LAX, and CNO; 2016 for CMA and WJF) timeframes. Existing noise receptors in the vicinity of the airports include residences and other land uses, as shown in Figures 4.3-1 through 4.3-6, included in the following section of this EIR.

### 4.2.3.1 VNY: Baseline and Forecast Aircraft Operations

This section presents the 2007 baseline estimate and 2014 forecasts of aircraft operations at VNY, and provides the basis for the analysis of the impacts of the project and Alternatives 1 and 2 on VNY noise contours.<sup>5</sup> As discussed in Section

<sup>4</sup>Federal Aviation Administration. 2004. Environmental Impacts: Policies and Procedures. Order 1050.1E. Washington, DC. Appendix A, Section 14.4, p. A-61–A-63. This order refers to the yearly day/night average sound level (DNL) as FAA's primary metric. However, Section 14.1a of the order recognizes CNEL as an alternative metric for California.

<sup>5</sup> The noise impacts of Alternative 1 and 2 are analyzed quantitatively in this section, with additional discussion in the Alternatives section of this EIR (see Section 5.1 below).

2.1.4 of this EIR, 2014 was identified as the planning year for VNY impacts (and for those of BUR, LAX, and CMA) because it is the phase-out year during which the most aircraft operations would be shifted from VNY to those other airports. Therefore, 2014 is the year in which the greatest environmental effects would result from project implementation at these airports. Diversions from VNY would continue after 2014, but the number of diversions is anticipated to reduce due to the retirement and reduced usage of older aircraft that is expected to occur independent of the project. CNO and WJF will not be affected until 2016, when exemptions to the proposed noise limitation program expire.

The forecast of aircraft operations is based on previously developed forecasts for the ongoing VNY FAR Part 161 study. For that study, a detailed analysis of VNY aircraft operations was performed for the 2004 base year, and operations were projected for future analysis years, 2009 and 2014. The Part 161 base year was projected out to 2007 by reviewing trends that occurred between 2004 and 2007 (see Appendix B, pg. 10-19), These recent trends and additional historic trends were compiled to determine a forecast of aircraft operation for 2014, which is utilized as the basis for future-year impact analysis at VNY in this EIR. 2016 operations estimates were also projected in order to provide a basis for the diversions that would occur in that year.

General aviation (GA) activity at VNY encompasses a wide range of users and aircraft types, from pilot training schools using single-engine fixed- or rotary-wing aircraft to corporate flight departments and fractional jet operators flying long-range, high-performance business jets. To reflect the trends and operating profiles associated with these varied user groups, aircraft operations were projected for six distinct categories of activity: business jets, turboprops, pistons, helicopters, active military, and touch-and-go training.

Several available data sources were compiled to formulate an estimated 2004 fleet mix on which to determine the 2007 baseline, including (1) FAA air traffic control tower (FAA Tower) counts, (2) LAWA curfew counts at VNY, (3) FAA Automated Radar Terminal System (ARTS) data, (4) the Van Nuys Database System (VNDS), (5) FAA Enhanced Traffic Management System counts; (6) data from helicopter count surveys conducted at VNY in December 2005 and April 2006, (7) the 2001 baseline fleet mix for the Part 150 study, and (8) the fleet mix used by LAWA to produce the 2002 through 2004 noise contours for VNY. Determining this fleet mix enabled projections of annual growth for each of the categories, which enabled an estimate of the composite noise levels emitted at VNY for the 2007 baseline and 2014 and 2016 planning years.

Table 4.2-1 describes the total arriving and departing aircraft operations at VNY in 2004. Overflights recorded by the FAA Tower at VNY were excluded from the base year 2004 operation counts so that the base year data would reflect only the number of aircraft arriving at or departing from the VNY airfield. Actual changes in aircraft operations were reviewed to update the 2004 operations to 2007. VNY operations, including overflights, declined by approximately 16.2% from 2004 to 2007. A detailed discussion of the fleet mix and estimate of the baseline aircraft operations at

VNY used to determine 2007 baseline and 2014 noise conditions is provided in the Noise Report (Appendix B, Section 5).

**Table 4.2-1.** Total Aircraft Operations at VNY, 2004

<b>Data Source</b>	<b>Operations</b>
FAA Tower Counts (0:700–22:45)	<b>372,291</b>
LAWA Curfew Counts (22:45–06:59)	<b>8,192</b>
<b>Total VNY Arriving and Departing Aircraft</b>	<b>380,483</b>
Source: HMMH & SH&E, 200	

### Estimated 2007 Baseline Aircraft Operations

The estimated 2007 FAA Tower counts and LAWA curfew counts were used to develop the 2007 baseline level of operations by aircraft category using methodology and assumptions similar to those used to develop the 2004 baseline fleet mix. Table 4.2-2 presents the 2007 baseline activity levels by aircraft category and the estimated percent change from 2004. Aircraft operations declined by an estimated 17.5% between 2004 and 2007. The overall decline masks an underlying change in the mix of activity at VNY. While total activity fell between 2004 and 2007, jet aircraft operations grew by 8.8%, to 48,143, accounting for 15% of VNY's operations. The sectors of activity most sensitive to rising fuel prices experienced steep declines. Operations by turboprop and piston aircraft fell by more than 30%, and touch-and-go training operations declined by 19%.

**Table 4.2-2.** Estimated 2007 VNY Aircraft Operations by Aircraft Category

<b>Aircraft Category</b>	<b>2004</b>	<b>2007</b>	<b>Percent Change</b>	<b>Average Annual Percent Change</b>
GA Jet	44,264	48,143	8.8%	2.8%
Turboprop	24,874	15,728	-36.8%	-14.2%
Piston	136,273	89,143	-34.6%	-13.2%
Helo	52,202	61,298	17.4%	5.5%
Military	293	321	9.4%	3.0%
Private Military	659	659	0.0%	0.0%
Training	121,918	98,715	-19.0%	-6.8%
<b>Total</b>	<b>380,483</b>	<b>314,007</b>	<b>-17.5%</b>	<b>-6.2%</b>
Source: HMMH & SH&E, 2008				

Table 4.2-3 shows annual and average daily operations at VNY by aircraft category for the 2007 baseline. Non-training operations in light general aviation aircraft, turboprops, and pistons represented one-third of total operations. Touch-and-go training operations accounted for 31% of total aircraft activity. An estimated 20% of operations were performed by helicopters. Business jets accounted for approximately 15% of total aircraft activity. Less than 1% of total operations were by active or privately owned former military aircraft.

**Table 4.2-3.** Baseline 2007 Operations by Aircraft Category

<b>Aircraft Category</b>	<b>Annual</b>	<b>Average Daily</b>	<b>Percent of Total</b>
Business Jets	48,143	131.9	15%
Turboprop	15,728	43.1	5%
Piston	89,143	244.2	28%
Helicopter	61,298	167.9	20%
Military	321	0.9	0%
Private Former Military	659	1.8	0%
Touch and Go	98,715	270.5	31%
<b>Total</b>	<b>314,007</b>	<b>860.3</b>	<b>100%</b>

Source: HMMH & SH&E, 2008

When business jet operations at VNY are categorized by noise stage, Stage 2 business jets - the aircraft most affected by the proposed phaseout - accounted for approximately 10% of business jet operations at VNY in 2007 (Table 4.2-4). In general, the number of Stage 2 business jet operations has been declining as older Stage 2 aircraft are retired from the fleet and some older aircraft are flown less frequently.

**Table 4.2-4.** Baseline 2007 Jet Operations at VNY by Noise Stage, Direction, and Time of Day

Noise Stage	Arrivals				Departures				Total Arrivals and Departures
	Day	Evening	Night	Total	Day	Evening	Night	Total	
Stage 2	1,708	390	284	2,382	2,146	219	16	2,382	4,764
Stage 3	16,283	2,968	2,438	21,690	18,358	1,353	1,978	21,690	43,379
<b>Total</b>	<b>17,991</b>	<b>3,358</b>	<b>2,722</b>	<b>24,072</b>	<b>20,504</b>	<b>1,572</b>	<b>1,995</b>	<b>24,072</b>	<b>48,143</b>
<i>Percent of Total</i>									
Stage 2	3.5%	0.8%	0.6%	4.9%	4.5%	0.5%	0.0%	4.9%	9.9%
Stage 3	33.8%	6.2%	5.1%	45.1%	38.1%	2.8%	4.1%	45.1%	90.1%
<b>Total</b>	<b>37.4%</b>	<b>7.0%</b>	<b>5.7%</b>	<b>50.0%</b>	<b>42.6%</b>	<b>3.3%</b>	<b>4.1%</b>	<b>50.0%</b>	<b>100.0%</b>

Source: HMMH & SH&E, 2008

The time-of-day profile for Stage 2 and Stage 3 business jets is very similar. Of the Stage 2 jet operations, 19.1% occurred during the evening or night hours compared to 20.1% for Stage 3 operations. Because the existing VNY noise abatement and curfew regulations prohibit night departures by aircraft with estimated takeoff noise levels exceeding 74 dBA, almost no Stage 2 business jets depart during the night period. The small number of Stage 2 night departures that was estimated for 2007, fewer than 0.05 per day, represents exempted operators, violators of the noise policy, or minor differences in how departures were recorded.

## Historic and Forecast Growth Aircraft Operations

Growth assumptions for each of the major categories of aircraft activity at VNY were developed by reviewing historic trends at VNY and considering the outlook for the general aviation industry nationwide. This section discusses actual trends at VNY based on historic activity and the growth assumptions underlying the forecast of future activity, which were used to determine forecast increases in noise at VNY. The information presented below is a summary; for additional detail on these matters, see the Noise Report (Appendix B, Section 5.3).

### Forecast Growth Rate Assumptions

Table 4.2-5 presents the growth rate assumptions underlying the forecast of 2014 aircraft operations at VNY. Growth rate assumptions were based on a review of historic trends at VNY, including actual operations for 2005 and 2006 (January to May), the general outlook for different segments of the GA market, assumptions regarding fuel prices, and the FAA's forecast for the United States GA market.

**Table 4.2-5.** Forecast Average Annual Growth in Aircraft Operations at VNY by Aircraft Category, 2004–2014

Aircraft Category	Van Nuys	FAA Industry*
Business Jets	6.5%	10.5%
Turboprops	0.8%	1.3%
Pistons	-2.8%	1.3%
Helicopters	4.6%	4.6%
Military	0.0%	-0.5%
Private Former Military	0.0%	na
Touch and Go	-3.0%	1.5%

\*FAA, Aerospace Forecasts Fiscal Year (FY) 2006–FY 2017, March 2006.  
Source: HMMH & SH&E, 2008

The business jet segment has been the fastest growing segment of activity at VNY and within the United States general aviation industry. Increases in business jet operations have been driven by growing demand for private jet transportation services by businesses and wealthy individuals. The business jet segment is expected to continue to grow over the forecast period through growth in these services as well as a new private transportation product, on-demand air taxi. At VNY, jet operations are forecast to increase at an average rate of 6.5% per year between 2004 and 2014. Privately owned former military aircraft at Van Nuys accounted for only 659 operations in 2004, averaging less than one takeoff and landing per day. Based on conversations with owners of former military aircraft conducted as part of analysis of this project, the forecast assumes that this level of activity remains constant over the forecast period.

#### **Forecast Operations (2014)**

Assuming the growth described above, forecasts for 2014 without the implementation of the proposed phaseout of noisier aircraft at VNY are shown below in Table 4.2-6. 2014 baseline conditions were used to estimate the number of aircraft operations that would be affected by the operation, and also provide a basis for comparing the project conditions to conditions as they would exist in 2014 without the project.

**Table 4.2-6.** Forecast 2014 Operations at VNY by Aircraft Category

<b>Aircraft Category</b>	<b>Forecast 2014</b>
Business Jets	83,449
Turboprops	26,835
Piston	102,979
Helicopter	82,212
Military	293
Private Military	659
Touch and Go	90,354
<b>Total</b>	<b>386,781</b>

Source: HMMH & SH&E, 2008

Table 4.2-7 presents forecast 2014 operations by type of operation (i.e., arrival or departure) and time of day. Almost two-thirds of the additional business jet activity forecast is anticipated to occur during the daytime. During the evening hours, 78 additional business jet operations are forecast under the status quo. Night activity increases by 39 jet operations. Arrivals make up the majority of the additional activity forecast during the evening hours and nearly all of the additional operations forecast during the night period.

**Table 4.2-7.** Forecast 2014 Operations by Type and Time of Day

<b>Direction and Time of Day</b>	<b>Forecast 2014</b>
Total Operations	386,781
Day	335,956
Evening	33,790
Night	17,036
Arrivals	193,391
Day	164,784
Evening	19,541
Night	9,066
Departures	193,391
Day	171,172
Evening	14,249
Night	7,969

Source: HMMH & SH&E, 2008



Table 4.2-8 summarizes forecast 2014 jet operations at VNY by noise stage. Stage 2 jets are forecast to perform 2,301 operations in 2014. This represents almost 2,000 additional operations in Stage 2 jets than would occur with implementation of the project. With the project in place, some operators of Stage 2 jets are expected to replace their aircraft with Stage 3 aircraft and continue operating at VNY. As a result, 1,609 fewer operations in Stage 3 jets are anticipated in the 2014 forecast than would occur with implementation of the project. The net result is an additional 348 business jet operations forecast at VNY in 2014 if the project is not implemented.

**Table 4.2-8.** Forecast 2014 Jet Operations at VNY by Noise Stage

2014 Forecast		
Noise Stage	Operations	Percent Share
Stage 2	2,301	2.8%
Stage 3	81,148	97.2%
<b>Total</b>	<b>83,449</b>	<b>100.0%</b>

Source: HMMH & SH&E, 2008

### 4.2.3.2 VNY: Baseline and Forecast Aircraft Noise

Because aircraft operations are anticipated to increase at VNY between 2007 and 2014 (independent of the project) aircraft-generated noise is also anticipated to increase. The Noise Report (Appendix B) analyzed the change between baseline and forecast noise levels at VNY by applying estimated changes in operational traffic to the FAA's AEM model. Changes in noise level were also applied to the noise level contours surrounding VNY, indicating the estimated noise levels experienced by residences and businesses surrounding the airport. Using the AEM model, changes in noise conditions were identified in terms of changes to the area within the airport's various noise contours (referenced as a percentage change) and increases in the ~~dBA~~ CNEL levels that would be experienced. Estimated and forecasted noise conditions are discussed below.

The increase in air traffic at VNY without implementation of the project is anticipated to increase the CNEL by 0.8 dB between 2007 and 2014. This increased noise is anticipated to expand the area within the 65-dB noise contour by approximately 13.3%. Figure 4.2-1 shows the estimated expansion of the 65-, 70-, and 75-dB contours at VNY between the 2007 baseline conditions and the projected 2014 conditions, without project implementation.

An inventory of land use was undertaken to determine the residences, residential population, and other potentially sensitive land uses surrounding VNY that would be affected by forecasted increases in aircraft operational noise. Dwelling unit and population counts were developed from 2000 census block-level data and applied to field-verified land uses, confirmed by surveys conducted on a parcel-by-parcel basis

in the airport vicinity. Table 4.2-9 shows the estimated numbers of dwelling units and residents within the contours under the 2007 baseline conditions, compared with those affected by 2014 forecast conditions. As discussed in Appendix B.5 of the Noise Report, LAWA policy calls for sound-insulating all residential dwelling units within the 65-dB CNEL contour (where the owner accepts the offer of treatment). The bottom half of the table presents the estimated dwelling units and population that will require additional noise insulation given the increases anticipated by 2014.

**Table 4.2-9.** Estimated Dwelling Units and Residents within 2007 and 2014 CNEL Contours (with and without sound insulation)

Basis for Counts	Type of Count*	Analysis Year, Case, and CNEL Contour Interval					
		2007, Baseline			2014, Forecast		
		65–70 CNEL	70–75 CNEL	Total	65–70 CNEL	70–75 CNEL	Total
Dwelling units within the contours	S.F. D.U.	411	8	419	688	9	697
	S.F. Pop.	1,320	39	1,359	2,138	42	2,180
	M.F. D.U.	1,600	27	1,627	1,958	170	2,128
	M.F. Pop.	5,451	104	5,555	6,496	663	7,159
	<b>Total D.U.</b>	<b><del>2,100</del>2,011</b>	<b>35</b>	<b><del>2,135</del>2,046</b>	<b>2,646</b>	<b>179</b>	<b>2,825</b>
<b>Total Pop.</b>	<b>6,771</b>	<b>143</b>	<b>6,914</b>	<b>8,634</b>	<b>705</b>	<b>9,339</b>	
Dwelling units within contours and lacking sound insulation under existing conditions**	S.F. D.U.	400	0	400	677	1	678
	S.F. Pop.	1,286	0	1,286	2,104	4	2,108
	M.F. D.U.	1,379	0	1,379	1,820	60	1,880
	M.F. Pop.	4,659	0	4,659	6,038	225	6,263
	<b>Total D.U.</b>	<b>1,779</b>	<b>0</b>	<b>1,779</b>	<b>2,497</b>	<b>61</b>	<b>2,558</b>
<b>Total Pop.</b>	<b>5,945</b>	<b>0</b>	<b>5,945</b>	<b>8,142</b>	<b>229</b>	<b>8,371</b>	

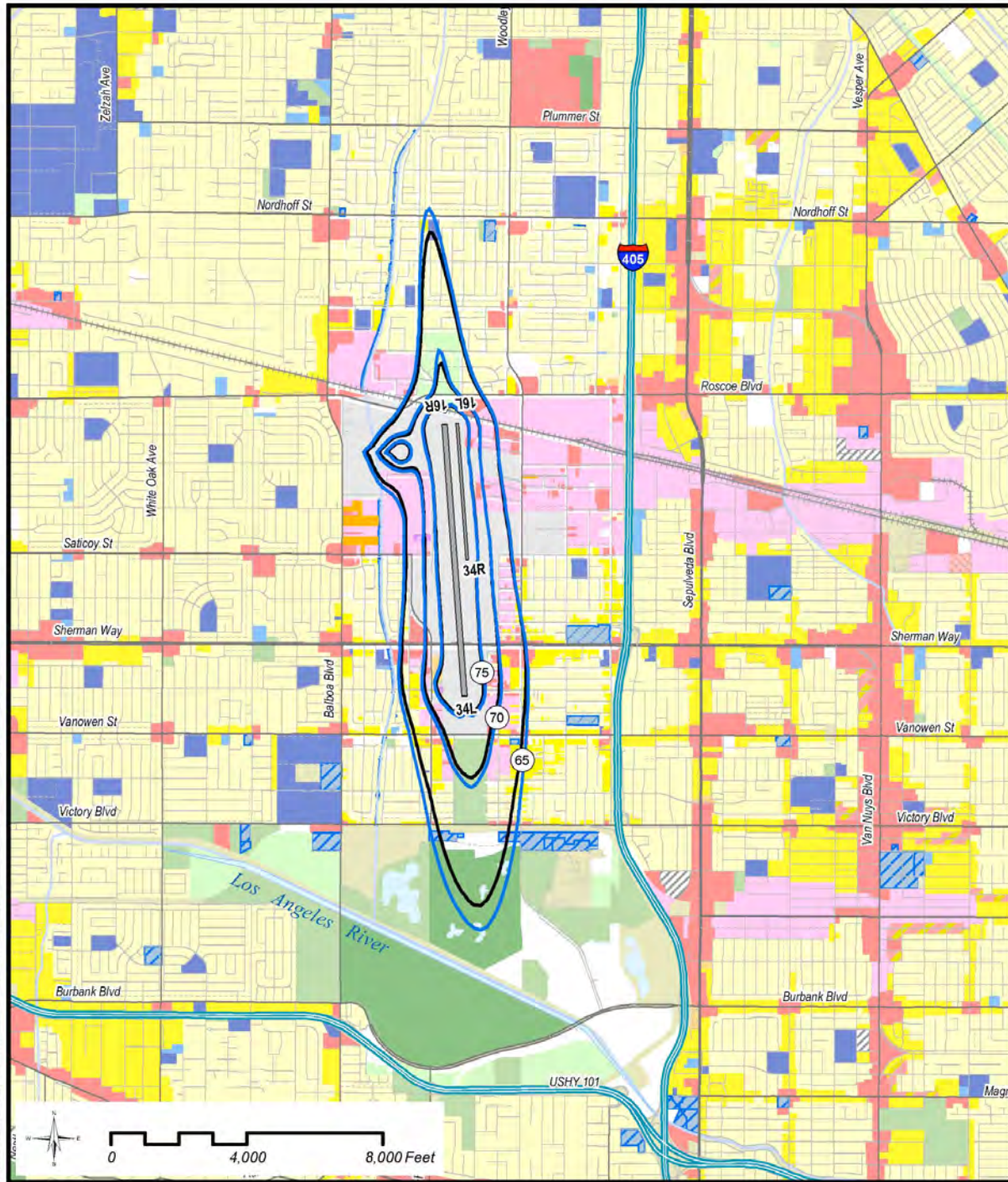
\*S.F. = single family, M.F. = multifamily, D.U. = dwelling units.

\*\*Includes those units lacking insulation under 2007 conditions or anticipated to lack insulation under forecast 2014 conditions, respectively. See full discussion and figure in Appendix B.5.3.1.

Note: This table has been revised in the Final EIR to correct a minor clerical error. The modifications do not affect the impact conclusions.

Source: HMMH & SH&E, 2008.

As the table shows, the increase in noise contour by 2014 is anticipated to increase the number of residences within the 65-dB contour to 2,825 from 2,135; this would affect an estimated 2,425 additional residents (9,339 under 2014 conditions compared to 6,914 under 2007 conditions).



- |                                  |                              |
|----------------------------------|------------------------------|
| Residential - Single Family      | Industrial - Manufacturing   |
| Residential Multi-Family         | Industrial - Airport Related |
| Res. - Mobile Home, Trailer Park | Public/Government Service    |
| Mixed Residential                | Golf Courses                 |
| Transient Lodging                | Recreation / Open Space      |
| Airport Ownership                | Agriculture                  |
| School                           | Trans, Comm, and Utilities   |
| Church - Religious Organization  | Vacant                       |
| Commercial                       | Undefined                    |
| Mixed Use                        | Water                        |

**Van Nuys Airport**  
 2014 Alternative 1 - No Project CNEL Compared to  
 2007 Baseline CNEL

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

**HARRIS MILLER MILLER & HANSON INC.**

2007 Baseline CNEL  
 2014 Alternative 1 - No Project CNEL

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**Figure 4.2-1**  
**CNEL Contours at VNY: Baseline and 2014 Forecast**  
**Van Nuys Airport Noisier Aircraft Phaseout EIR**



In addition to the numerous residential receptors, there is only one parcel containing a potentially noise-sensitive nonresidential land use within the existing contours. This is the Los Angeles Baptist City Mission, located north of the airport at 16514 Nordhoff Street in North Hills. The property includes a house of worship and school, and currently is bisected by the airport's 65-dB contour.

### **4.2.3.3 Diversion Airports: Baseline and Forecast Aircraft Operations and Noise**

The airports that are forecast to receive operations diverted from VNY as a result of the project include BUR, LAX, CMA, CNO, and WJF. This section describes the methodology for developing forecast operations at the diversion airports and presents the 2007 baseline and 2014/2016 forecasts of aircraft operations without project implementation. As with the VNY forecasts, forecasts for all the diversion airports except LAX were determined using fleet mix and time of day profiles, and considered regional and airport-specific growth projections based on FAA data. Actual changes in aircraft operations as reported in the FAA Air Traffic Activity Data System (ATADS) and FAA Enhanced Traffic Management System Counts (ETMSC) databases were reviewed and used to estimate activity levels for the 2007 baseline. Growth rate assumptions were developed and applied to calendar year 2006 activity to estimate the 2007 baseline activity at each of the diversion airports. Baseline and forecast operations for LAX were based on existing forecasts prepared for LAWA for the Los Angeles International Airport Senior and Subordinate Revenue Bonds Series 2008 - Final Official Statement. A full explanation of the methods used to estimate and forecast baseline and future operations numbers is provided in the Noise Report (Appendix B).

Table 4.2-10 presents a summary of the growth rate assumptions used to estimate 2007 baseline operations by type at all the diversion airports.

**Table 4.2-10.** Growth Rate Assumptions for Aircraft Operations at Diversion Airports, 2006–2007

Activity Type	BUR*	<u>LAX**</u>	CMA	CNO	WJF
Business Jet	-5.0%	<u>3.8%</u>	5.0%	37.6%	1.5%
Air Carrier	5.7%	<u>0.0%</u>	na	na	na
Commuter	-4.4%	<u>7.1%</u>	na	na	na
Itinerant GA Non-Jet	-10.5%	<u>2.9%</u>	-6.4%	3.4%	-5.3%
Local GA Non-Jet	-35.2%	<u>na</u>	-1.5%	-4.7%	3.9%
Military (Itinerant + Local)	-4.8%	<u>0.0%</u>	125.2%	51.1%	-0.1%

Note: Actual growth for year to date (YTD) September 2006–2007 based on FAA ATADS and ETMSC, except where noted.

~~Excludes LAX. 2007 aircraft operations for LAX are based on actual activity reported by LAWA.~~

\* Actual growth for YTD September 2006–2007 for business jets based on FAA, ETMSC; actual YTD November 2006–2007 growth rates for major air carriers and commuter airlines based on USDOT T-100 database; actual CY 2006–2007 growth for non-jet GA and military based on FAA ATADS.

\*\* LAX operations are based on actual activity reported by LAWA.

Source: HMMH & SH&E, 2008

Note: This table was revised in the Final EIR because the version presented in the Draft EIR inadvertently omitted information for LAX.

Estimated 2007 baseline operations for the diversion airports are summarized in Table 4.2-11. The level of aircraft activity at the diversion airports ranges from 66,000 annual operations at WJF to 678,000 at LAX. Only BUR and LAX have operations by scheduled commercial airlines (major air carriers and commuter airlines). The majority of the activity at the other airports consists of itinerant and local non-jet aircraft operations. A more detailed description of baseline operations for each diversion airport is provided below.

**Table 4.2.-11.** Estimated 2007 Baseline Operations at Diversion Airports by Type of Activity

Activity Type	BUR	LAX*	CMA	CNO	WJF
Business Jet	18,863	21,013	4,883	2,037	508
Air Carrier	58,629	454,946	na	na	na
Commuter	11,819	173,081	na	na	na
Itinerant GA Non-Jet	26,174	11,981	74,601	67,590	31,738
Local GA Non-Jet	5,060	—	63,860	96,376	32,291
Military(Itinerant + Local)	265	2,488	1,740	594	1,513
<b>Total</b>	<b>120,810</b>	<b>663,509</b>	<b>145,083</b>	<b>166,596</b>	<b>66,049</b>

Source: HMMH &amp; SH&amp;E, 2008

\* LAX data based on LAWA, LAX Senior and Subordinate Revenue Bonds Series 2008 - Final Official Statement

## Bob Hope Airport

### Aircraft Operations

Table 4.2-12 shows estimated 2007 baseline operations at BUR. There were an estimated 121,000 operations, excluding overflights, at BUR in the 2007 baseline. Major air carriers and commuter airlines accounted for 58% of total airport operations. GA non-jet itinerant operations, which include air taxis and the cargo operations of Ameriflight, represented 22% of total activity. Business jets were responsible for 16% of total operations in the base year. Because of the high level of regularly scheduled commercial airline services at BUR, local operations, including training activity, are minimal.

**Table 4.2-12.** 2007 Baseline Operations at BUR by Type of Activity

Activity Type	Annual	Average Daily	Percent of Total
Air Carrier/Commuter	70,448	193.0	58%
Business Jet	18,863	51.7	16%
GA Non-Jet Itinerant	26,174	71.7	22%
GA Non-Jet Local	5,060	13.9	4%
Military (Itinerant + Local)	265	0.7	0%
<b>Total</b>	<b>120,810</b>	<b>331.0</b>	<b>100%</b>

Source: HMMH &amp; SH&amp;E, 2008

Table 4.2-13 presents estimated baseline operations for BUR by type and by time of day. Approximately 75% of total aircraft operations occurred during the day. The evening period accounted for 16% of operations, and nearly 9% of activity occurred during the night. The GA non-jet category had the highest percentage of activity during the night period, at 27.2%. Almost 12% of business jet operations occurred during the night but only 2.1% of commercial airline activity. The limited amount of commercial airline activity at night illustrates the effect of the current voluntary nighttime curfew for air carriers at BUR.

**Table 4.2-13.** 2007 Baseline Operations at BUR by Type of Activity and Time of Day

Activity Type	Operations by Time of Day				Percent of Total 24 Hours		
	Day	Evening	Night	Total	Day	Evening	Night
Air Carrier/Commuter	54,226	14,754	1,468	70,448	77.0%	20.9%	2.1%
Business Jet	14,721	1,948	2,194	18,863	78.0%	10.3%	11.6%
GA Non-Jet Itinerant	16,207	2,852	7,115	26,174	61.9%	10.9%	27.2%
GA Non-Jet Local	4,742	318	—	5,060	93.7%	6.3%	0.0%
Military (Itinerant + Local)	253	12	—	265	95.3%	4.7%	0.0%
<b>Total</b>	<b>90,149</b>	<b>19,884</b>	<b>10,777</b>	<b>120,810</b>	<b>74.6%</b>	<b>16.5%</b>	<b>8.9%</b>

Source: HMMH & SH&E, 2008

As shown in Table 4.2-14, there were 757 operations in Stage 2 business jet aircraft (excluding military operations) at BUR in 2007. Stage 2 types in the BUR fleet are represented by the following INM types: GIIB (411 operations), GII (212 operations), LEAR25 (81 operations), and FAL20 (52 operations). Stage 3 aircraft types accounted for 96% of BUR's total business jet operations in the baseline case.

**Table 4.2-14.** 2007 Baseline Business Jet Operations at BUR by Noise Stage

Noise Stage	Annual Operations	Percent of Total
Stage 2	757	4.0%
Stage 3	18,106	96.0%
<b>Total</b>	<b>18,863</b>	<b>100.0%</b>

Source: HMMH & SH&E, 2008

Table 4.2-15 summarizes baseline and forecast aircraft operations at BUR by type of activity. In 2014, aircraft operations at BUR are forecast at 148,000, a 23% increase over the 2007 baseline level of activity. Business jets are forecast to be the fastest growing segment of activity and will account for 33,000 operations, or 22% of total operations, in 2014 compared to 16% in 2007. Aircraft operations are forecast to



reach 156,000 in 2016, with the business jet operations growing to 37,000, or 24% of the total.

**Table 4.2-15.** Baseline and Forecast Operations at BUR by Type of Activity

Activity Type	2007 Baseline	Percent of Total	2014 Forecast	Percent of Total	2016 Forecast	Percent of Total
Air Carrier/Commuter	70,448	58.3%	79,086	53.4%	81,741	52.3%
Business Jet	18,863	15.6%	32,744	22.1%	37,439	24.0%
GA Non-Jet Itinerant	26,174	21.7%	30,626	20.7%	31,446	20.1%
GA Non-Jet Local	5,060	4.2%	5,332	3.6%	5,413	3.5%
Military (Itinerant + Local)	265	0.2%	265	0.2%	265	0.2%
<b>Total</b>	<b>120,810</b>	<b>100.0%</b>	<b>148,053</b>	<b>100.0%</b>	<b>156,303</b>	<b>100.0%</b>

Source: HMMH & SH&E, 2008

As shown in Table 4.2-16, the percentage of total operations occurring during the night period increases over the forecast period from 8.9% to 9.3% because of growth in business jet operations and their increased share of total forecast activity. The number of operations occurring during the noise-sensitive evening and night hours is forecast to increase from approximately 31,000 in 2007 to 37,000 in 2014 and 39,000 in 2016.

**Table 4.2-16.** Baseline and Forecast Operations at BUR by Time of Day

Year	Operations by Time of Day				Percent of Total 24 Hours		
	Day	Evening	Night	Total	Day	Evening	Night
2007 Baseline	90,149	19,884	10,777	120,810	74.6%	16.5%	8.9%
2014 Forecast	110,742	23,530	13,781	148,053	74.8%	15.9%	9.3%
2016 Forecast	117,070	24,634	14,600	156,303	74.9%	15.8%	9.3%

Note: Day = 7 a.m. – 7 p.m.; Evening = 7 p.m. – 10 p.m.; Night = 10 p.m. – 7 a.m.

Source: HMMH & SH&E, 2008

Based on historic trends in the industry, business jet operations in Stage 2 aircraft are projected to decline by more than 50% over the forecast period, comparing 2007 baseline conditions to 2016 forecast conditions, as older aircraft are retired or less frequently used. Between the 2007 baseline and 2016, business jet operations in Stage 3 aircraft are expected to more than double, from 18,000 to 37,000. By 2016, Stage 2 business jets are projected to account for less than 1% of total business jet operations at BUR (Table 4.2-17).

**Table 4.2-17.** Baseline and Forecast Business Jet Operations at BUR by Noise Stage

Noise Stage	2007 Baseline	Percent of Total	2014 Operations	Percent of Total	2016 Operations	Percent of Total
Stage 2	757	4.0%	371	1.1%	318	0.8%
Stage 3	18,106	96.0%	32,373	98.9%	37,121	99.2%
<b>Total</b>	<b>18,863</b>	<b>100.0%</b>	<b>32,744</b>	<b>100.0%</b>	<b>37,439</b>	<b>100.0%</b>

Source: HMMH & SH&E, 2008

### Aircraft Noise

BUR is located in an area that is primarily developed, and the airport is immediately surrounded by industrial and commercial development to the east, residential development to the west, industrial development and a cemetery to the south, and industrial and residential development to north. Because aircraft operations are anticipated to increase at BUR between 2007 and 2014 (independent of the project) aircraft-generated noise is also anticipated to increase. Without implementation of the project, increases in air traffic at BUR are anticipated to increase the CNEL by 0.9 dB between 2007 and 2014. This increased noise is anticipated to increase the area within the 65-dB noise contour by approximately 14.6%.

## Los Angeles International Airport

### Aircraft Operations

Baseline operations at LAX are summarized by type of activity in Table 4.2-18. There were approximately 664,000 aircraft operations at LAX in 2007, nearly 95% of which were performed by commercial passenger or cargo airlines. Business jets accounted for only 3% of total aircraft operations, and civilian GA non-jets performed less than 2% of operations.

**Table 4.2-18.** 2007 Baseline Operations at LAX by Type of Activity

Activity Type	Annual	Average Daily	Percent of Total
Air Carrier/Commuter	628,027	1,720.6	94.7%
Business Jet	21,013	57.6	3.2%
GA Non-Jet Itinerant	11,981	32.8	1.8%
GA Non-Jet Local	—	—	0.0%
Military (Itinerant + Local)	2,488	6.8	0.4%
<b>Total</b>	<b>663,509</b>	<b>1,817.8</b>	<b>100.0%</b>

Source: HMMH & SH&E, 2008; data based on LAWA, LAX Senior and Subordinate Revenue Bonds Series 2008 - Final Official Statement

Table 4.2-19 presents estimated baseline operations for LAX by type and by time of day. Compared to the other diversion airports, LAX had the highest percentage of operations occurring during the evening and nighttime, reflecting the airport's role as a large-hub commercial service airport and international gateway. Of the business jets that operated at LAX in 2007, 76% operated during the daytime, and 24% operated during the evening and nighttime hours.

**Table 4.2-19.** 2007 Baseline Operations at LAX by Type of Activity and Time of Day

Activity Type	Operations by Time of Day				Percent of Total 24 Hours		
	Day	Evening	Night	Total	Day	Evening	Night
Air Carrier/Commuter	427,554	98,361	102,112	628,027	68.1%	15.7%	16.3%
Business Jet	15,994	2,388	2,631	21,013	76.1%	11.4%	12.5%
GA Non-Jet Itinerant	7,662	3,109	1,210	11,981	64.0%	25.9%	10.1%
GA Non-Jet Local	—	—	—	—	0.0%	0.0%	0.0%
Military (Itinerant + Local)	104	124	2,260	2,488	4.2%	5.0%	90.8%
<b>Total</b>	<b>451,314</b>	<b>103,982</b>	<b>108,213</b>	<b>663,509</b>	<b>68.0%</b>	<b>15.7%</b>	<b>16.3%</b>

Note: Day = 7 a.m. – 7 p.m.; Evening = 7 p.m. – 10 p.m.; Night = 10 p.m. – 7 a.m.

Source: HMMH & SH&E, 2008; data based on LAWA, LAX Senior and Subordinate Revenue Bonds Series 2008 - Final Official Statement

As shown in Table 4.2-20, 94% of the business jets that operated at LAX in 2007 were Stage 3 aircraft. Only 1,200 of the business jet operations were by Stage 2 aircraft.

**Table 4.2-20.** 2007 Baseline Business Jet Operations at LAX by Noise Stage

Noise Stage	Annual Operations	Percent of Total
Stage 2	1,211	5.8%
Stage 3	19,802	94.2%
<b>Total</b>	<b>21,013</b>	<b>100.0%</b>

Source: HMMH & SH&E, 2008; data based on LAWA, LAX Senior and Subordinate Revenue Bonds Series 2008 - Final Official Statement

Table 4.2-21 summarizes baseline and forecast aircraft operations at LAX by activity type. Total aircraft operations are forecast to grow from 664,000 in 2007 to 739,379 in 2016. Business jets operations are forecast to reach 31,000 by 2016 and account for 4.2% of total airport activity.

**Table 4.2-21.** Baseline and Forecast Operations at LAX by Type of Activity

Activity Type	2007 Baseline	Percent of Total	2014 Forecast	Percent of Total	2016 Forecast	Percent of Total
Air Carrier/Commuter	628,027	94.7%	674,332	93.9%	692,196	93.6%
Business Jet	21,013	3.2%	28,454	4.0%	31,131	4.2%
GA Non-Jet Itinerant	11,981	1.8%	13,035	1.8%	13,352	1.8%
GA Non-Jet Local	—	0.0%	—	0.0%	—	0.0%
Military (Itinerant + Local)	2,488	0.4%	2,700	0.4%	2,700	0.4%
<b>Total</b>	<b>663,509</b>	<b>100.0%</b>	<b>718,520</b>	<b>100.0%</b>	<b>739,379</b>	<b>100.0%</b>

Source: HMMH & SH&E, 2008; data based on LAWA, LAX Senior and Subordinate Revenue Bonds Series 2008 - Final Official Statement

Because commercial airline services are forecast to continue to be the dominant type of activity at LAX, the time-of-day profile for airport operations is unchanged over the forecast period. Approximately 32% of LAX aircraft operations occur during the evening and night periods in the baseline and forecast years, as summarized in Table 4.2-22.

**Table 4.2-22.** Baseline and Forecast Operations at LAX by Time of Day

Year	Operations by Time of Day				Percent of Total 24 Hours		
	Day	Evening	Night	Total	Day	Evening	Night
2007 Baseline	451,314	103,982	108,213	663,509	68.0%	15.7%	16.3%
2014 Forecast	488,948	112,307	117,265	718,520	68.0%	15.6%	16.3%
2016 Forecast	503,245	115,474	120,660	739,379	68.1%	15.6%	16.3%

Note: Day = 7 a.m. – 7 p.m.; Evening = 7 p.m. – 10 p.m.; Night = 10 p.m. – 7 a.m.

Source: HMMH & SH&E, 2008; data based on LAWA, LAX Senior and Subordinate Revenue Bonds Series 2008 - Final Official Statement

As the fleet of Stage 2 business jets shrinks over the forecast period, the number of Stage 2 business jet operations at LAX is also expected to decline. By 2016, approximately 500 annual operations in Stage 2 business jets are expected at LAX compared to approximately 1,200 in 2007. As a result, the Stage 2 aircraft share of business jet activity at LAX will fall from 5.8% in 2007 to less than 2% in 2016 (Table 4.2-23).

**Table 4.2-23.** Baseline and Forecast Business Jet Operations at LAX by Noise Stage

Noise Stage	2007 Baseline	Percent of Total	2014 Operations	Percent of Total	2016 Operations	Percent of Total
Stage 2	1,211	5.8%	596	2.1%	509	1.6%
Stage 3	19,802	94.2%	27,858	97.9%	30,622	98.4%
<b>Total</b>	<b>21,013</b>	<b>100.0%</b>	<b>28,454</b>	<b>100.0%</b>	<b>31,131</b>	<b>100.0%</b>

Source: HMMH & SH&E, 2008; data based on LAWA, LAX Senior and Subordinate Revenue Bonds Series 2008 - Final Official Statement

### Aircraft Noise

LAX is located in a primarily built out area, with the surrounding lands developed with a mixture of residential, commercial, industrial, and public uses, and the undeveloped Los Angeles/El Segundo dunes located directly to the west of the airport. Because aircraft operations are anticipated to increase at LAX between 2007 and 2014 (independent of the project) aircraft-generated noise is also anticipated to increase. Without implementation of the project, increases in air traffic at LAX are anticipated to increase the CNEL by 0.4 dB between 2007 and 2014. This increased noise is anticipated to increase the area within the 65-dB noise contour by approximately 6.0%.

## Camarillo Airport

### Aircraft Operations

Table 4.2-24 shows the estimated 2007 baseline operations at CMA. As shown in the table, there were 145,000 aircraft operations at CMA in 2007, and GA non-jet aircraft accounted for 95% of total airport operations. More than 40% of the airport's operations are local operations, which include pilot training activity, such as touch-and-go operations; flights that remain within the local traffic pattern; and flights between the airport and a practice area within a 20-mile radius of the tower. Business jet aircraft accounted for less than 5,000 annual operations, or 3% of total activity.

**Table 4.2-24.** 2007 Baseline Operations at CMA by Type of Activity

Activity Type	Annual	Average Daily	Percent of Total
Air Carrier/Commuter	0	—	0.0%
Business Jet	4,883	13.4	3.4%
GA Non-Jet Itinerant	74,601	204.4	51.4%
GA Non-Jet Local	63,860	175.0	44.0%
Military (Itinerant + Local)	1,740	4.8	1.2%
<b>Total</b>	<b>145,083</b>	<b>397.5</b>	<b>100.0%</b>

Source: HMMH & SH&E, 2008

Table 4.2-25 summarizes 2007 aircraft activity at CMA by type and by time of day. Nearly 92% of aircraft operations at CMA occurred during the daytime. The high percentage of daytime activity reflects the high percentage of non-jet itinerant and training operations that occur predominantly during daytime hours. Approximately 6% of aircraft operations occurred during evening hours, and only 2% operated during the night. The time-of-day pattern for business jets differs from the time-of-day pattern for non-jet aircraft, with a higher percentage of activity occurring during the evening and night periods. In 2007, 8% of business jet operations were in the evening, and 7% were at night.

**Table 4.2-25.** 2007 Baseline Operations at CMA by Type of Activity and Time of Day

Activity Type	Operations by Time of Day				Percent of Total 24 Hours		
	Day	Evening	Night	Total	Day	Evening	Night
Air Carrier/Commuter	—	—	—	—	—	—	—
Business Jet	4,134	408	341	4,883	84.7%	8.4%	7.0%
GA Non-Jet Itinerant	68,297	4,399	1,904	74,601	91.6%	5.9%	2.6%
GA Non-Jet Local	58,909	3,752	1,198	63,860	92.2%	5.9%	1.9%
Military (Itinerant + Local)	1,593	103	44	1,740	91.6%	5.9%	2.6%
<b>Total</b>	<b>132,933</b>	<b>8,663</b>	<b>3,487</b>	<b>145,083</b>	<b>91.6%</b>	<b>6.0%</b>	<b>2.4%</b>

Note: Day = 7 a.m. – 7 p.m.; Evening = 7 p.m. – 10 p.m.; Night = 10 p.m. – 7 a.m.  
Source: HMMH & SH&E, 2008

Table 4.2-26 shows the business jet fleet mix at CMA by noise classification stage. In 2007, approximately 4% of CMA's business jet operations were performed by Stage 2 jets.

**Table 4.2-26.** 2007 Baseline Business Jet Operations at CMA by Noise Stage

Noise Stage	Annual Operations	Percent of Total
Stage 2	191	3.9%
Stage 3	4,691	96.1%
<b>Total</b>	<b>4,883</b>	<b>100.0%</b>

Source: HMMH & SH&E, 2008

Baseline and forecast aircraft operations at CMA are summarized by type of activity in Table 4.2-27. Total aircraft operations are projected to increase by 17%, from 145,000 in 2007 to 169,000 in 2016. Business jet operations are forecast to be the fastest growing, more than doubling over the forecast period. However, non-jet general aviation will continue to be the dominant type of activity at CMA, accounting for 93% of 2016 operations.

**Table 4.2-27.** Baseline and Forecast Operations at CMA by Type of Activity

Activity Type	2007 Baseline	Percent of Total	2014 Forecast	Percent of Total	2016 Forecast	Percent of Total
Air Carrier/Commuter	—	0.0%	—	0.0%	—	0.0%
Business Jet	4,883	3.4%	8,764	5.3%	10,395	6.1%
GA Non-Jet Itinerant	74,601	51.4%	90,386	54.6%	92,157	54.5%
GA Non-Jet Local	63,860	44.0%	64,781	39.1%	64,781	38.3%
Military (Itinerant + Local)	1,740	1.2%	1,740	1.1%	1,740	1.0%
<b>Total</b>	<b>145,083</b>	<b>100.0%</b>	<b>165,671</b>	<b>100.0%</b>	<b>169,073</b>	<b>100.0%</b>

Source: HMMH & SH&E, 2008

Because business jet operations are forecast to account for only 6.1% of activity by 2016, the time-of-day profile for the airport changes very little over the forecast period. As shown in Table 4.2-28, 8% to 9% of CMA operations are forecast to occur during the evening and night periods, compared to 8.4% in the 2007 baseline.

**Table 4.2-28.** Baseline and Forecast Operations at CMA by Time of Day

Year	Operations by Time of Day				Percent of Total 24 Hours		
	Day	Evening	Night	Total	Day	Evening	Night
2007 Baseline	132,933	8,663	3,487	145,083	91.6%	6.0%	2.4%
2014 Forecast	151,499	9,983	4,189	165,671	91.4%	6.0%	2.5%
2016 Forecast	154,488	10,230	4,355	169,073	91.4%	6.1%	2.6%

Note: Day = 7 a.m. – 7 p.m.; Evening = 7 p.m. – 10 p.m.; Night = 10 p.m. – 7 a.m.  
Source: HMMH & SH&E, 2008

Table 4.2-29 summarizes baseline and forecast business jet activity at CMA by noise stage classification. As older Stage 2 business jets, such as the LEAR25 and Gulfstream II are retired or less frequently used, the number of Stage 2 business jet operations at CMA is expected to decline over the forecast period. However, Stage 3 business jet operations are forecast to increase, from approximately 4,700 in 2007 to 10,300 in 2016. As a result, Stage 3 aircraft will account for 99% of total business jet operations at CMA in 2016, compared to 96% in the baseline year.

**Table 4.2-29.** Baseline and Forecast Business Jet Operations at CMA by Noise Stage

Noise Stage	2007 Baseline	Percent of Total	2014 Operations	Percent of Total	2016 Operations	Percent of Total
Stage 2	191	3.9%	102	1.2%	88	0.8%
Stage 3	4,691	96.1%	8,662	98.8%	10,307	99.2%
<b>Total</b>	<b>4,883</b>	<b>100.0%</b>	<b>8,764</b>	<b>100.0%</b>	<b>10,395</b>	<b>100.0%</b>

Source: HMMH & SH&E, 2008

### Aircraft Noise

CMA is located in an area that is partially developed. Agricultural land in active row-crop production surrounds CMA to the west, south, and east. Land immediately north of the site is developed for industrial and commercial uses, and single-family development is located further northeast of the airport. Because aircraft operations are anticipated to increase at CMA between 2007 and 2014 (independent of the project) aircraft-generated noise is also anticipated to increase. Without implementation of the project, increases in air traffic at CMA are anticipated to increase the CNEL by 0.8 dB between 2007 and 2014. This increased noise is anticipated to increase the area within the 65-dB noise contour by approximately 13.8%.



## Chino Airport

### Aircraft Operations

Table 4.2-30 shows estimated 2007 baseline operations at CNO by type of activity. As shown in the table, CNO accommodated 167,000 aircraft operations in 2007, with civilian GA non-jet aircraft accounting for 99% of operations. More than half of airport operations were local operations, including pilot training and touch-and-go maneuvers.

**Table 4.2-30.** 2007 Baseline Operations at CNO by Type of Activity

Activity Type	Annual	Average Daily	Percent of Total
Air Carrier/Commuter	—	—	0%
Business Jet	2,037	5.6	1%
GA Non-Jet Itinerant	67,590	185.2	41%
GA Non-Jet Local	96,376	264.0	58%
Military (Itinerant + Local)	594	1.6	0%
<b>Total</b>	<b>166,596</b>	<b>456.4</b>	<b>100%</b>

Source: HMMH & SH&E, 2008

Table 4.2-31 presents CNO operations by type and by time of day. Because of the high proportion of activity by non-jet aircraft, particularly local operations, more than 90% of total aircraft operations at CNO occurred during the daytime. Only 6% of operations occurred during the evening, and 1% occurred during the night. A higher percentage of jet aircraft operations occurred during the evening and night periods. Of the 2,000 annual jet operations, 11% operated during the evening, and approximately 12% operated during the night.

**Table 4.2-31** 2007 Baseline Operations at CNO by Type of Activity and Time of Day

Activity Type	Operations by Time of Day				Percent of Total 24 Hours		
	Day	Evening	Night	Total	Day	Evening	Night
Air Carrier/Commuter	—	—	—	—	—	—	—
Business Jet	1,570	231	236	2,037	77.1%	11.4%	11.6%
GA Non-Jet Itinerant	61,677	4,210	1,703	67,590	91.3%	6.2%	2.5%
GA Non-Jet Local	89,938	6,438	—	96,376	93.3%	6.7%	0.0%
Military (Itinerant + Local)	542	37	15	594	91.3%	6.2%	2.5%
<b>Total</b>	<b>153,726</b>	<b>10,916</b>	<b>1,954</b>	<b>166,596</b>	<b>92.3%</b>	<b>6.6%</b>	<b>1.2%</b>

Note: Day = 7 a.m. – 7 p.m.; Evening = 7 p.m. – 10 p.m.; Night = 10 p.m. – 7 a.m.  
Source: HMMH & SH&E, 2008

Table 4.2-32 shows a breakdown of operations by noise stage at CNO. While there were just 2,000 operations (approximate) in business jet aircraft during the base year at the airport, 18% were performed by Stage 2 jets, as shown in Table 4.2.8-20.

**Table 4.2-32.** 2007 Baseline Business Jet Operations at CNO by Noise Stage

Noise Stage	Annual Operations	Percent of Total
Stage 2	376	18.5%
Stage 3	1,661	81.5%
<b>Total</b>	<b>2,037</b>	<b>100.0%</b>

Source: HMMH & SH&E, 2008

As shown in Table 4.2-33, total aircraft operations at CNO are forecast to increase by 8.4%, from 167,000 in 2007 to 181,000 in 2016. Business jets are forecast to grow at a faster rate, increasing by 15%, but still remain a small portion of total airport activity.

**Table 4.2-33.** Baseline and Forecast Operations at CNO by Type of Activity

Activity Type	2007 Baseline	Percent of Total	2014 Forecast	Percent of Total	2016 Forecast	Percent of Total
Air Carrier/Commuter	—	0.0%	—	0.0%	—	0.0%
Business Jet	2,037	1.2%	2,132	1.2%	2,349	1.3%
GA Non-Jet Itinerant	67,590	40.6%	74,983	41.9%	76,567	42.4%
GA Non-Jet Local	96,376	57.8%	101,121	56.5%	101,121	56.0%
Military (Itinerant + Local)	594	0.4%	594	0.3%	594	0.3%
<b>Total</b>	<b>166,596</b>	<b>100.0%</b>	<b>178,830</b>	<b>100.0%</b>	<b>180,631</b>	<b>100.0%</b>

Source: HMMH & SH&E, 2008

The time-of-day operating profile for CNO remains constant over the forecast period, with approximately 8% of aircraft operations occurring during the evening and night periods (Table 4.2-34).

**Table 4.2-34.** Baseline and Forecast Operations at CNO by Time of Day

Year	Operations by Time of Day				Percent of Total 24 Hours		
	Day	Evening	Night	Total	Day	Evening	Night
2007 Baseline	153,726	10,916	1,954	166,596	92.3%	6.6%	1.2%
2014 Forecast	164,992	11,694	2,144	178,830	92.3%	6.5%	1.2%
2016 Forecast	166,610	11,814	2,206	180,631	92.2%	6.5%	1.2%

Note: Day = 7 a.m. – 7 p.m.; Evening = 7 p.m. – 10 p.m.; Night = 10 p.m. – 7 a.m.  
Source: HMMH & SH&E, 2008

Stage 2 business jet operations at CNO are forecast to decline, from approximately one per day in 2007 to one every third day by 2016, as shown in Table 4.2-35. Stage 3 jets are forecast to account for all the growth in business jet operations at CNO. As a result, the Stage 2 share of business jet operations will decline, from 18.5% in 2007 to 5.1% in 2016.

**Table 4.2-35.** Baseline and Forecast Business Jet Operations at CNO by Noise Stage

Noise Stage	2007 Baseline	Percent of Total	2014 Operations	Percent of Total	2016 Operations	Percent of Total
Stage 2	376	18.5%	148	6.9%	120	5.1%
Stage 3	1,661	81.5%	1,984	93.1%	2,229	94.9%
<b>Total</b>	<b>2,037</b>	<b>100.0%</b>	<b>2,132</b>	<b>100.0%</b>	<b>2,349</b>	<b>100.0%</b>

Source: HMMH & SH&E, 2008

### Aircraft Noise

CNO is located within an area characterized by open space, active agricultural land, and industrial development, with some residential development located south of the airport. Land south and southeast of the airport is designated for future residential and commercial development. Overall, aircraft operations are anticipated to increase at CNO between 2007 and 2016 (independent of the project), but aircraft-generated noise is anticipated to decrease slightly. This is due to the reduction in Stage 2 business jets that is anticipated to occur in the coming years. The CNEL is anticipated to decrease by approximately 0.1 dB between 2007 and 2016, and this decreased noise level is anticipated to decrease the area within the 65-dB noise contour by approximately 1.5%.

## William J. Fox Airport

### Aircraft Operations

Baseline 2007 operations at WJF are shown in Table 4.2-36. The airport handled 66,000 aircraft operations in the 2007, and civilian GA non-jet aircraft accounted for almost all of the activity. Local operations, including training maneuvers, represented almost half of all aircraft operations. Business jets accounted for only 508 annual operations, or slightly less than 1% of total activity.

**Table 4.2-36.** 2007 Baseline Operations at WJF by Type of Activity

Activity Type	Annual	Average Daily	Percent of Total
Air Carrier/Commuter	—	—	0%
Business Jet	508	1.4	1%
GA Non-Jet Itinerant	31,738	87.0	48%
GA Non-Jet Local	32,291	88.5	49%
Military (Itinerant + Local)	1,513	4.1	2%
<b>Total</b>	<b>66,049</b>	<b>181.0</b>	<b>100%</b>

Source: HMMH & SH&E, 2008

Table 4.2-37 summarizes baseline operations by type and time of day. Because activity at WJF is dominated by GA non-jet aircraft, with a high percentage of local operations, 85% of aircraft operations occurred during the daytime, and only 1% occurred during the more noise-sensitive night period. As shown in Table 4.2-38, only 4% of business jet operations were performed by Stage 2 aircraft.

**Table 4.2-37.** 2007 Baseline Operations at WJF by Type of Activity and Time of Day

Activity Type	Operations by Time of Day				Percent of Total 24 Hours		
	Day	Evening	Night	Total	Day	Evening	Night
Air Carrier/Commuter	—	—	—	—	—	—	—
Business Jet	470	18	19	508	92.6%	3.6%	3.8%
GA Non-Jet Itinerant	26,984	4,449	304	31,738	85.0%	14.0%	1.0%
GA Non-Jet Local	27,454	4,515	322	32,291	85.0%	14.0%	1.0%
Military (Itinerant + Local)	1,286	212	15	1,513	85.0%	14.0%	1.0%
<b>Total</b>	<b>56,195</b>	<b>9,195</b>	<b>660</b>	<b>66,049</b>	<b>85.1%</b>	<b>13.9%</b>	<b>1.0%</b>

Note: Day = 7 a.m. – 7 p.m.; Evening = 7 p.m. – 10 p.m.; Night = 10 p.m. – 7 a.m.  
Source: HMMH & SH&E, 2008

**Table 4.2-38.** 2007 Baseline Business Jet Operations at WJF by Noise Stage

Noise Stage	Annual Operations	Percent of Total
Stage 2	22	4.4%
Stage 3	485	95.6%
<b>Total</b>	<b>508</b>	<b>100.0%</b>

Source: HMMH & SH&E, 2008

Aircraft activity at WJF is projected to increase by 6% over the forecast period, reaching 70,000 annual operations in 2016 (Table 4.2-39). Business jet operations are forecast to increase at a faster rate but remain less than 1% of total activity in the outer forecast year.

**Table 4.2-39.** Baseline and Forecast Operations at WJF by Type of Activity

Activity Type	2007 Baseline	Percent of Total	2014 Forecast	Percent of Total	2016 Forecast	Percent of Total
Air Carrier/Commuter	—	0.0%	—	0.0%	—	0.0%
Business Jet	508	0.8%	583	0.8%	606	0.9%
GA Non-Jet Itinerant	31,738	48.1%	35,048	50.4%	35,304	50.3%
GA Non-Jet Local	32,291	48.9%	32,394	46.6%	32,716	46.6%
Military (Itinerant + Local)	1,513	2.3%	1,513	2.2%	1,513	2.2%
<b>Total</b>	<b>66,049</b>	<b>100.0%</b>	<b>69,537</b>	<b>100.0%</b>	<b>70,139</b>	<b>100.0%</b>

Source: HMMH & SH&E, 2008

The percentage of WJF operations occurring during the evening and night hours remains unchanged over the forecast period, as shown in Table 4.2-40.

**Table 4.2-40.** Baseline and Forecast Operations at WJF by Time of Day

Year	Operations by Time of Day				Percent of Total 24 Hours		
	Day	Evening	Night	Total	Day	Evening	Night
2007 Baseline	56,195	9,195	660	66,049	85.1%	13.9%	1.0%
2014 Forecast	59,154	9,677	706	69,537	85.1%	13.9%	1.0%
2016 Forecast	59,668	9,759	712	70,139	85.1%	13.9%	1.0%

Note: Day = 7 a.m. – 7 p.m.; Evening = 7 p.m. – 10 p.m.; Night = 10 p.m. – 7 a.m.  
Source: HMMH & SH&E, 2008

The retirement and reduced usage of older Stage 2 business jets (not related to the project) is projected to result in fewer Stage 2 jet operations at WJF. By 2016, Stage 2 aircraft will account for only 1% of total business jet operations, compared to 4% in the 2007 base year (Table 4.2.41).

**Table 4.2.41.** Baseline and Forecast Business Jet Operations at WJF by Noise Stage

Noise Stage	2007 Baseline	Percent of Total	2014 Operations	Percent of Total	2016 Operations	Percent of Total
Stage 2	22	4.4%	8	1.4%	7	1.2%
Stage 3	485	95.6%	575	98.6%	599	98.8%
<b>Total</b>	<b>508</b>	<b>100.0%</b>	<b>583</b>	<b>100.0%</b>	<b>606</b>	<b>100.0%</b>

Source: HMMH & SH&E, 2008

### Aircraft Noise

WJF is located in a primarily undeveloped area designated for industrial use, and is almost devoid of noise receptors, save a few scattered residences located in the vicinity of the airport. As with CNO, aircraft operations are anticipated to increase at WJF between 2007 and 2016 (independent of the project), but aircraft-generated noise is anticipated to decrease slightly. This is due to the reduction in Stage 2 business jets that is anticipated to occur in the coming years, independent of the project. The CNEL is anticipated to decrease by approximately 0.5 dB between 2007 and 2016, and this decreased noise level is anticipated to decrease the area within the 65-dB noise contour by approximately 8.5%.

## 4.2.4 Impact Analysis

### 4.2.4.1 Significance Criteria

Lead Agencies typically use a significance threshold to determine whether a project would result in a significant environmental impact. “A threshold of significance is an identifiable quantitative, qualitative, or performance level of a particular environmental effect, non-compliance with which means the effects will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant.” (CEQA Guidelines § 15064.7.) The following significance criteria were used to analyze noise impacts for this project, reflecting thresholds of the City of Los Angeles and FAA, (see discussion above in Section 4.2.2):

- Where noise exceeds 65 dB as a result of airport activity, a significant impact would occur if the project would cause a noise increase of 1.5 dB or more as received at noise-sensitive land uses.

- If noise-sensitive areas at or above CNEL 65 dB have a project-related increase of CNEL 1.5 dB or more, a significant impact would also occur if the project would cause CNEL increases of 3 dB or more at noise-sensitive land uses lying between CNEL 60 and 65 dB.

As described in Section 4.2.4.3 of this EIR, a “single event” or “Berkeley Jets”<sup>6</sup> analysis was also conducted for this project to provide a fuller examination of how the project would contribute to noise conditions in the vicinity of the airports. For this single-event analysis, the following ~~criteria~~ criteria-criterion was used:

- The project would have a significant noise impact if it would result in a daily average of one additional flight during night hours (10 p.m. to 7 a.m.).

This threshold was selected to provide a conservative basis for examining the project’s potential to result in interference with sleep and conversation from nighttime noise. The frequency of nighttime flights was discussed throughout *Berkeley Keep Jets Over the Bay v. Board of Port Commissioners of the City of Oakland* and is an appropriate measure for determining the significance of impacts on sleep for the proposed project and the alternatives. (See *Berkeley Keep Jets v. City of Oakland* (2001) 91 Cal.App.4<sup>th</sup> 1344, 1376, 1377.)

The American National Standards Institute (ANSI) recently published a complex standard for estimating the likelihood of awakenings in ANSI S12.9-2008, *Quantities and Procedures for Description and Measurement of Environmental Sound — Part 6: Methods for Estimation of Awakenings Associated with Outdoor Noise Events Heard in Homes*. The Federal Interagency Committee on Aviation Noise announced in December 2008 that it recommended use of this procedure for estimation of awakenings. The ANSI standard requires consideration of several factors for determining interference with sleep, including the number of aircraft-produced noise events that occur during an individual night, the resulting indoor sound exposure level (SEL) produced by each noise event, “the probability that a person of average sensitivity to awakening will be awakened by a single noise event,” and the time of night each noise event occurs (to account for changing sensitivity from differences in sleep state through the night). The threshold of significance used in this EIR requires the occurrence of only one of the factors identified in the ANSI standard to result in a significant impact: the occurrence of one additional aircraft noise event per night. This EIR’s threshold is therefore conservative, for it assumes that one additional operation would be significant in terms of awakening, regardless of the resulting indoor SEL, time of night, or potential sensitivity to awakening.

In the event the significance threshold used here is triggered, the impact analysis would provide additional detail regarding SEL and homes likely to be affected to aid in identifying feasible mitigation measures. This methodology is consistent with the

<sup>6</sup> The term “Berkeley Jets” is used throughout this section of the EIR, and in Appendix A.8, to reference the single-event noise analysis conducted for the project. The name is derived from a court case, as fully explained below in footnote 10, and is not meant to imply any relationship between this project and Berkeley, CA.

State CEQA Guidelines, which state that “[t]he significant effects should be discussed with emphasis in proportion to their severity and probability of occurrence” (State CEQA Guidelines Section 15143 and 15151). It should be noted that the Berkeley Jets impact analysis presented below does not identify any significant impacts pursuant to this threshold and, consequently, does not discuss the impacts at a greater level of detail, including information about SEL at the diversion airports. Nevertheless, more detailed information regarding these less-than-significant impacts is provided in Appendix B of this EIR. For example, SEL noise levels at the respective diversion airports can be found in Tables B.8.2, B.8.3, B.8.4, B.8.6, B.8.7, B.8.8, B.8.10, B.8.11, B.8.12, B.8.14, B.8.15, B.8.16, and B.8.18 of Appendix B. However, it should be noted that SEL shown in the referenced tables do not directly correspond to indoor SEL at sensitive receptors. Interior noise levels in a specific room would be less than those shown in the representative SEL noise contours provided in Figure B.8.1 of Appendix B by varying amounts, depending on a range of factors, such as building construction; the number, size, and type of windows in the room; whether the windows are open or closed; the orientation of the room and its windows to the aircraft’s flight path; and so on.

Appendix G of the State CEQA Guidelines suggests six criteria to consider in assessing a project’s potential noise effects; these Appendix G criteria are either addressed by the bulleted criteria listed above or else not relevant to the project and were therefore not considered in detail in this EIR. The criteria are discussed below for informational purposes, with an explanation of their applicability to the project.

The first Appendix G criterion asks whether the project “would result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies.” The significance criteria bulleted above address this criterion by incorporating the applicable FAA standard (mirrored by City of Los Angeles criterion) for analysis within the 65 dB and 60 dB noise contours. The second State CEQA Guidelines criterion relates to groundborne noise and vibration, neither of which would result from the project; therefore, this criterion is not addressed. The third criterion states, “Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?” This criterion is addressed in this project analysis by the bulleted criteria listed above; a “substantial permanent increase” in this analysis is a 1.5-dB increase within the 65-dB contour and, if that occurs, a 3-dB increase within the 60-dB contour. The fourth CEQA Appendix G criterion asks whether the project would “result in a substantial temporary or periodic increase in ambient noise levels”; because all of the noise impacts occurring as a result of this project are considered permanent, this temporary-impact criterion is not applicable to this analysis. The fifth and sixth ask whether a project would result in “excessive noise levels” for those people in the vicinity of an airport or private airstrip. Due to the nature of this airport-related project, the bulleted criteria listed above amply address airport-related issues. “Excessive noise levels,” as analyzed for this project, would be a 1.5-dB increase within the 65-dB contour and, if that occurs, a 3-dB increase within the 60-dB contour. There are no private airstrips pertaining to this project; therefore, the sixth Appendix G criterion is not relevant.



#### 4.2.4.2 Project Impact of Operations at VNY

Before specifically addressing the project's noise impacts at VNY, it is necessary to explain the project-related reductions in aircraft operations estimated at the airport. As described in Section 2.1 of this EIR, the project would result in a small number of GA jet operations that currently occur at VNY transferring to BUR, LAX, or CMA in 2009 and 2011 due to the limited number of operations affected by the proposed noise limitations in those years. By 2014, the project's noise limitations would affect a much greater number of operations, estimated at 1,989 for the year. In 2016, the number of aircraft operations affected by the project is anticipated to decline to 1,886, due to the retirement and reduced usage of older jets that is expected to occur independent of the project. Table 4.2-42 shows the number of operations that would be affected by type of aircraft.<sup>7</sup>

**Table 4.2-42.** VNY Jet Operations Affected by the Project

Aircraft Type	2009	2011	2014	2016
Boeing 727	38	35	32	19
Learjet 24, 25, 28	—	—	522	435
Gulfstream II/III	—	—	1,428	1,358
Falcon 20	—	—	—	63
Other	—	7	7	11
<b>Total</b>	<b>38</b>	<b>42</b>	<b>1,989</b>	<b>1,886</b>

Note: "Other" includes operations by early model Sabreliners and Hawkers.

Source: HMMH & SH&E, 2008

#### Project Impacts on Forecast Activity (2014)

Table 4.2-43 compares forecast aircraft operations by aircraft category for 2014 under the project to activity levels for the 2007 baseline. Under the project, 386,433 aircraft are forecast to land or take off from the VNY in 2014. This represents a 23% increase in activity over the 2007 baseline. Because business jet activity is expected to continue growing more rapidly than recreational and training activity, the mix of aircraft operations is forecast to change, with the business jet share growing from 15% in the baseline to ~~20~~22% in 2014. Touch-and-go training activity, performed with piston aircraft, is projected to decline over the forecast period and account for only 23% of total 2014 aircraft operations.<sup>8</sup>

<sup>7</sup> See Table 28 of Appendix B and related discussion.

<sup>8</sup> See Appendix B, Section 5.1 through 5.4.

**Table 4.2-43.** Forecast 2014 Operations by Aircraft Category under the Project

<b>Aircraft Category</b>	<b>Baseline 2007</b>	<b>Percent of Total</b>	<b>Project Forecast 2014</b>	<b>Percent of Total</b>
Business Jets	48,143	15%	83,101	22%
Turboprops	15,728	5%	26,835	7%
Piston	89,143	28%	102,979	27%
Helicopter	61,298	20%	82,212	21%
Military	321	0%	293	0%
Private Military	659	0%	659	0%
Touch and Go	98,715	31%	90,354	23%
<b>Total</b>	<b>314,007</b>	<b>100%</b>	<b>386,433</b>	<b>100%</b>

Source: HMMH & SH&E, 2008.

### Project Impacts on Operations by Time of Day and Direction

As shown in Table 4.2-44, both the absolute number and the share of operations occurring during the night period increases with the proposed project in 2014. Total nighttime operations increase by 56%, from approximately 11,000 in the 2007 baseline year, to approximately 17,000 in 2014. The growth in night operations is primarily the result of growth in the number of jet and helicopter operations, which have a high proportion of activity during the night hours. As a result, the share of total VNY operations occurring during the night increases from 3.5% in the base year to 4.4% in 2014 with the proposed noisier aircraft phaseout.

**Table 4.2-44.** Forecast 2014 Operations by Aircraft Category and Time of Day under the Project

Aircraft Category	Operations by Time of Day				Percent of Total 24 Hours		
	Day	Evening	Night	Total	Day	Evening	Night
Business Jets	66,405	8,304	8,392	83,101	79.9%	10.0%	10.1%
Turboprop	23,252	2,058	1,525	26,835	86.6%	7.7%	5.7%
Piston	93,858	8,788	334	102,979	91.1%	8.5%	0.3%
Helicopter	66,629	8,842	6,741	82,212	81.0%	10.8%	8.2%
Military	279	14	—	293	95.1%	4.9%	0.0%
Private Military	621	34	5	659	94.2%	5.1%	0.7%
Touch and Go	84,681	5,672	—	90,354	93.7%	6.3%	0.0%
<b>Total 2014 Project</b>	<b>335,725</b>	<b>33,712</b>	<b>16,996</b>	<b>386,433</b>	<b>86.9%</b>	<b>8.7%</b>	<b>4.4%</b>
<b>Total 2007 Baseline</b>	<b>276,551</b>	<b>26,528</b>	<b>10,927</b>	<b>314,007</b>	<b>88.1%</b>	<b>8.4%</b>	<b>3.5%</b>

Note: Day = 7 a.m. – 7 p.m.; Evening = 7 p.m. – 10 p.m.; Night = 10 p.m. – 7 a.m.  
Source: HMMH & SH&E, 2008

The forecast overall arrival and departure mix by time of day under the project is similar to the 2007 baseline mix, shown below in Table 4.2-45. Operations during the day are almost evenly divided between arrivals (49.1%) and departures (50.9%), whereas 58% of evening operations and 53% of night operations are arrivals. Business jets have a slightly different profile than the overall airport average. Departures account for a greater share of business jet operations during the day, and evening and night activity by business jets is more heavily weighted toward arrivals. More than two-thirds of the forecast business jet operations during the evening are arrivals, and 56% of the forecast business jet operations during the night hours are arrivals.

**Table 4.2-45.** Forecast 2014 Operations by Aircraft Category, Time of Day, and Direction under the Proposed Project

Aircraft Category	Day		Evening		Night	
	Arrivals	Departures	Arrivals	Departures	Arrivals	Departures
Business Jets	46.9%	53.1%	68.6%	31.4%	55.8%	44.2%
Turboprops	48.2%	51.8%	70.7%	29.3%	49.6%	50.4%
Piston	48.7%	51.3%	63.4%	36.6%	53.7%	46.3%
Helicopter	50.7%	49.3%	44.0%	56.0%	50.7%	49.3%
Military	48.3%	51.7%	82.5%	17.5%	—	—
Private Military	48.9%	51.1%	76.5%	23.5%	3.0%	97.0%
Touch and Go	50.0%	50.0%	50.0%	50.0%	—	—
<b>Total 2014 Project</b>	<b>49.1%</b>	<b>50.9%</b>	<b>57.8%</b>	<b>42.2%</b>	<b>53.1%</b>	<b>46.9%</b>
<b>Total 2007 Baseline</b>	<b>49.2%</b>	<b>50.8%</b>	<b>56.7%</b>	<b>43.3%</b>	<b>53.7%</b>	<b>46.3%</b>

Note: Day = 7 a.m. – 7 p.m.; Evening = 7 p.m. – 10 p.m.; Night = 10 p.m. – 7 a.m.  
Source: HMMH & SH&E, 2008

## Project Impacts on Aircraft Diverted from VNY to Other Airports

After identifying the five potential diversion airports, diversions were allocated to the airports depending on the reason for their diversion (i.e., accounting for the expiration of exemptions).<sup>9</sup> The shift in operations from VNY to alternative airports also considered factors such as driving time and operating convenience. Using this approach, BUR was estimated to attract 57% of the business jet operations shifted from VNY, CMA was estimated to attract 34%, and LAX was estimated to attract 9%. Boeing 727s that have been converted to GA use represent an exception to this rule. All 727 operations at VNY are expected to shift to LAX, where this aircraft type operates frequently and can be more readily serviced.

Table 4.2-46 shows the forecast of GA jet operations shifted from VNY to BUR, LAX, and CMA in 2014 as a result of implementing the project's phaseout. GA jet operations at BUR would increase by 0.5 operation per day, with smaller increases at CMA and LAX. Table 4.2-47 shows the Stage 2 and Stage 3 operations at BUR, LAX, and CMA under the project and the No Action alternative.

<sup>9</sup> For an explanation of the selection process for the diversion airports, see Chapter 2 of this EIR and Section 7.2 of the Noise Report (Appendix B of this EIR).

**Table 4.2-46.** GA Jet Operations Shifted from VNY to BUR, LAX, and CMA in 2014 Under Project Conditions

<b>Aircraft Type</b>	<b>To BUR</b>	<b>To LAX</b>	<b>To CMA</b>
Gulfstream II	22	3	13
Gulfstream III	73	12	44
Learjet 25	75	12	45
Learjet <del>25</del> <u>24</u>	17	3	10
Boeing 727 <sup>*</sup>	—	<del>45</del> <u>32</u>	—
<del>Boeing 721</del>	—	<del>42</del>	—
<del>Boeing 722</del>	—	<del>5</del>	—
Hawker <del>25A</del> <u>600</u>	2	—	1
Sabreliner <del>460</del>	2	—	1
Learjet 28	1	—	1
<b><u>Annual Total</u></b>	<b><u>192</u></b>	<b><u>62</u></b>	<b><u>115</u></b>
<b><u>Per Day Average</u></b>	<b><u>0.5</u></b>	<b><u>0.2</u></b>	<b><u>0.3</u></b>

\* Includes the Boeing 727 models 727, 727-100 (721) and 727-200 (722)  
Source: HMMH & SH&E, 2008

Note: This table has been revised in the Final EIR to correct minor errors discovered by LAWA's environmental consultants in the version presented in the Draft EIR, and to combine the three variations of the Boeing 727 into one row. The modifications to the table do not affect impact analysis.

**Table 4.2-47.** 2014 Business Jet Operations at BUR, LAX, and CMA, Comparing Project and Forecast Conditions

Scenario	BUR	LAX	CMA
2014 Project			
Stage 2	<del>563,564</del>	<del>1,010,658</del>	217
Stage 3	32,373	<del>27,537</del> 27,890	8,662
<b>Annual Total</b>	<b><del>32,936</del> 32,937</b>	<b><del>28,516</del> 28,548</b>	<b>8,879</b>
<b>Annual Stage 2 Percentage</b>	<b>1.7%</b>	<b><del>3.5</del> 2.3%</b>	<b><del>2.5</del> 2.4%</b>
2014 Forecast			
Stage 2	371	596	102
Stage 3	32,373	27,858	8,662
<b>Annual Total</b>	<b>32,744</b>	<b>28,454</b>	<b>8,764</b>
<b>Annual Stage 2 Percentage</b>	<b>1.1%</b>	<b>2.1%</b>	<b>1.2%</b>

Source: HMMH & SH&E, 2008; LAX data based on LAWA, LAX Senior and Subordinate Revenue Bonds Series 2008 - Final Official Statement

Note: This table has been revised in the Final EIR to correct minor errors discovered by LAWA's environmental consultants in the version presented in the Draft EIR. The modifications to the table do not affect the impact conclusions.

Compared to the forecast estimates, the project would increase the Stage 2 share of business jet operations at BUR from 1.1% to 1.7%, the share at LAX from 2.1% to ~~3.5~~ 2.3%, and the share at CMA from 1.2% to ~~2.5~~ 2.4%. In addition, the number of annual general aviation 727 operations at LAX would increase by 32. Except for the 727s at LAX, the number of Stage 3 business jet operations at these airports would not be affected.

Under Alternative 2, which exempts all Stage 3 operations from the phaseout, the GA 727 operations at VNY would not shift to LAX. Except for this, there is no difference in diversion between the project and Alternative 2.

The proposed phaseout has the greatest impact on noisy jet operations at BUR, LAX, and CMA in 2014, but it will also affect operations in 2016 at CNO and WJF when exemptions on noisy aircraft maintenance activity and privately owned former military aircraft operations at VNY expire. A total of 260 annual operations are expected to shift to WJF, based on 65 maintenance visits with one arrival, one departure, and one test flight per visit. The maintenance activity is expected to involve Gulfstream II and Gulfstream III aircraft, and all operations are expected to occur during daytime hours. A total of 100 annual operations are expected to shift to CNO.

## Aircraft Noise

With implementation of the project, noise levels generated by VNY aircraft operations in 2014 would increase beyond the 2007 baseline levels, but this increase would be lower than that anticipated for the No Project scenario (Alternative 1). Alternative 2 would also lead to a lesser increase in noise levels at VNY, though greater than that of the project. Table 4.2-48 compares the estimated 2014 noise effects at VNY associated with the project and the two alternatives, including the projected increases in CNEL and the increases in the area of the 65-dB contour.

**Table 4.2-48. VNY Impacts: 2014 Project and Alternatives vs. 2007 Baseline**

Scenario	Estimated Changes Compared to 2007 Baseline	
	Increase in area within 65 dB CNEL	Change in CNEL
2014 Proposed Project	+6.6%	+0.4 dB
2014 Alternative 1, No Project	+13.3%	+0.8 dB
2014 Alternative 2, Exempted Stage 3 and Stage 4 Aircraft	+6.8%	+0.4 Db

Source: HMMH & SH&E, 2008

To further illustrate the benefits of the phaseout variations, Table 4.2-49 compares the 2014 project and Alternative 2 to the 2014 Alternative 1 conditions. As the table shows, the two phaseout variations would similarly reduce the area within the 65-dB CNEL by approximately 6% and slightly reduce CNEL, when compared to forecasted No Project conditions.

**Table 4.2-49. VNY Alternative Comparison: 2014 Project and Alternative 2 vs. 2014 Alternative 1**

Scenario	Estimated Changes Compared to 2014 Alternative 1	
	Increase in area within 65 dB CNEL	Change in CNEL
2014 Proposed Project	-6.0%	-0.4 dB
2014 Alternative 2	-5.8%	-0.4 dB

Source: HMMH & SH&E, 2008

As the tables show, the project would have a beneficial noise impact at VNY by reducing noise levels received by surrounding receptors.

The differences in 2014 contour expansion associated with the project and Alternative 2, as compared to the 2014 No Project scenario, are depicted in Figures 4.2-2 through 4.2-4.

While the project noise exposure in 2014 would be greater than the 2007 baseline noise exposure (Figure 4.2-2), the increase is the result of projected growth in airport activity that would occur independent of the project, since the 2014 proposed project CNEL contours are smaller than the 2014 No Project contours (Figure 4.2-3). The growth in noise exposure from 2007 to 2014 without the project (as shown above in Figure 4.2-1) is noticeably greater than the growth from 2007 to 2014 with the project (Figure 4.2-2) (i.e., the proposed project mitigates the projected growth in exposure). The estimated project noise exposure in 2014 is essentially identical to Alternative 2 (Figure 4.2-4); the exemption permits such a small number of aircraft to continue operating that the benefit of the restriction is not noticeably affected.

The proposed project and Alternative 2 would both reduce noise received in the vicinity of VNY. Because the project and Alternative 2 would not contribute to the increase in noise levels in comparison to baseline and the noise levels would not increase by 1.5 dB or greater within the 65-dB contour, this impact at VNY is less than significant.

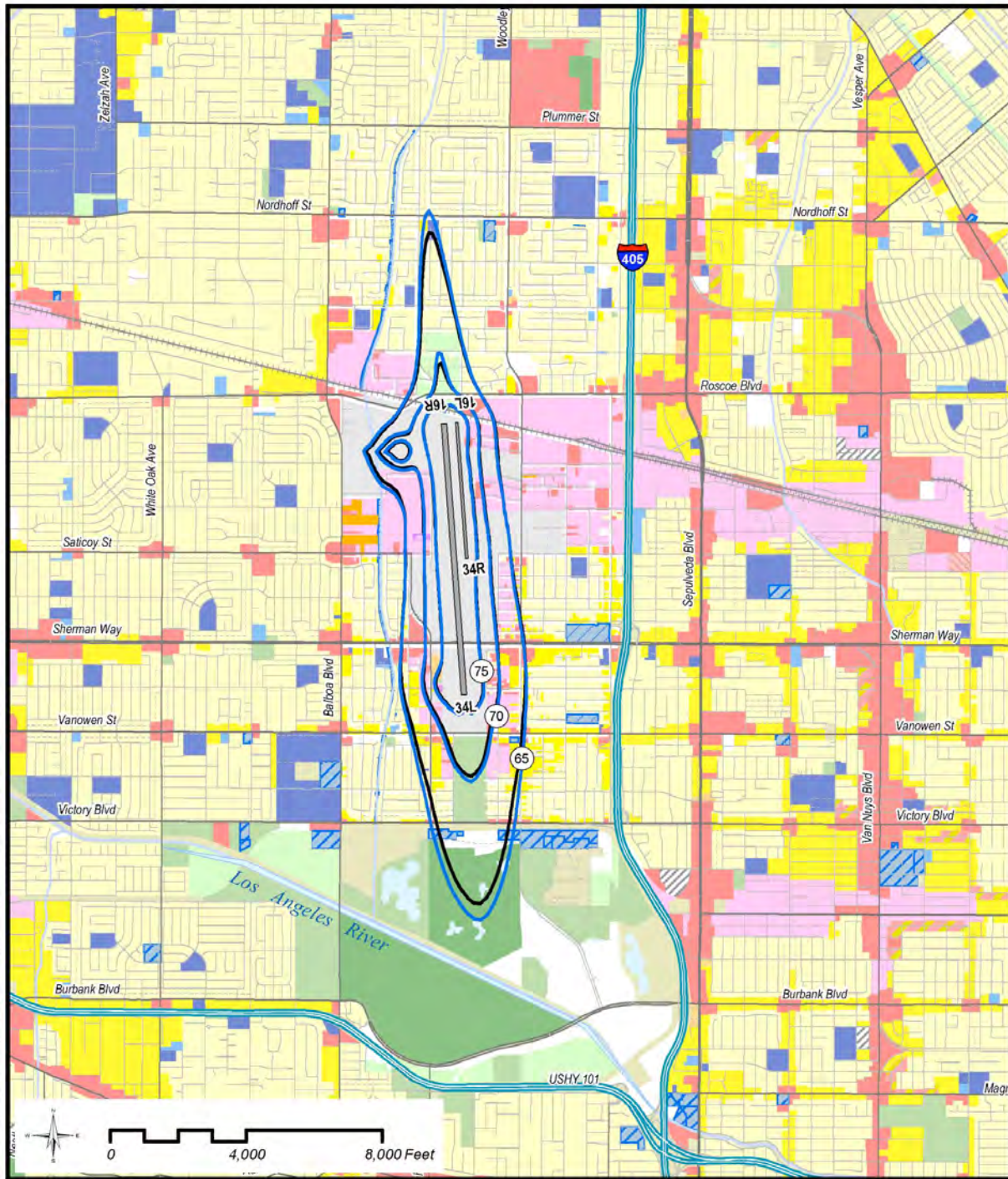
## **Population, Dwelling Unit, and Sensitive-Receptor Impact Analyses**

To further quantify the benefits of the project at VNY, land use analyses were undertaken to estimate the numbers of residential dwelling units, the residential population, and other effects on potentially sensitive land uses within the contours presented in the preceding figures that would be affected by the project-related reductions in noise. This analysis does not specifically address the significance thresholds listed in Section 4.2.4.1, but is provided for informational purposes to show project effects at residences in the vicinity of VNY.

The top half of Table 4.2-50 presents the total estimated residential dwelling units and population within the 65 to 70 and 70 to 75 dB CNEL contour bands (the only two bands encompassing any residential use). The bottom half of the table presents the estimated dwelling units and population that are outside the area within which LAWA expects to have completed sound insulation treatment by the end of 2009.

As the table shows, the project would reduce the number of dwelling units that would require sound insulation in 2014, from 2,558 (no-project conditions) to 2,400 (project conditions). Because of the very slight increase in noise associated with the additional exemption proposed in Alternative 2, the alternative would add one more dwelling unit requiring sound insulation than would the proposed project.





- |                                  |                              |
|----------------------------------|------------------------------|
| Residential - Single Family      | Industrial - Manufacturing   |
| Residential Multi-Family         | Industrial - Airport Related |
| Res. - Mobile Home, Trailer Park | Public/Government Service    |
| Mixed Residential                | Golf Courses                 |
| Transient Lodging                | Recreation / Open Space      |
| Airport Ownership                | Agriculture                  |
| School                           | Trans, Comm, and Utilities   |
| Church - Religious Organization  | Vacant                       |
| Commercial                       | Undefined                    |
| Mixed Use                        | Water                        |
- 2007 Baseline CNEL  
 2014 Project CNEL

**Van Nuys Airport**  
 2014 Project CNEL Compared to 2007 Baseline CNEL

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

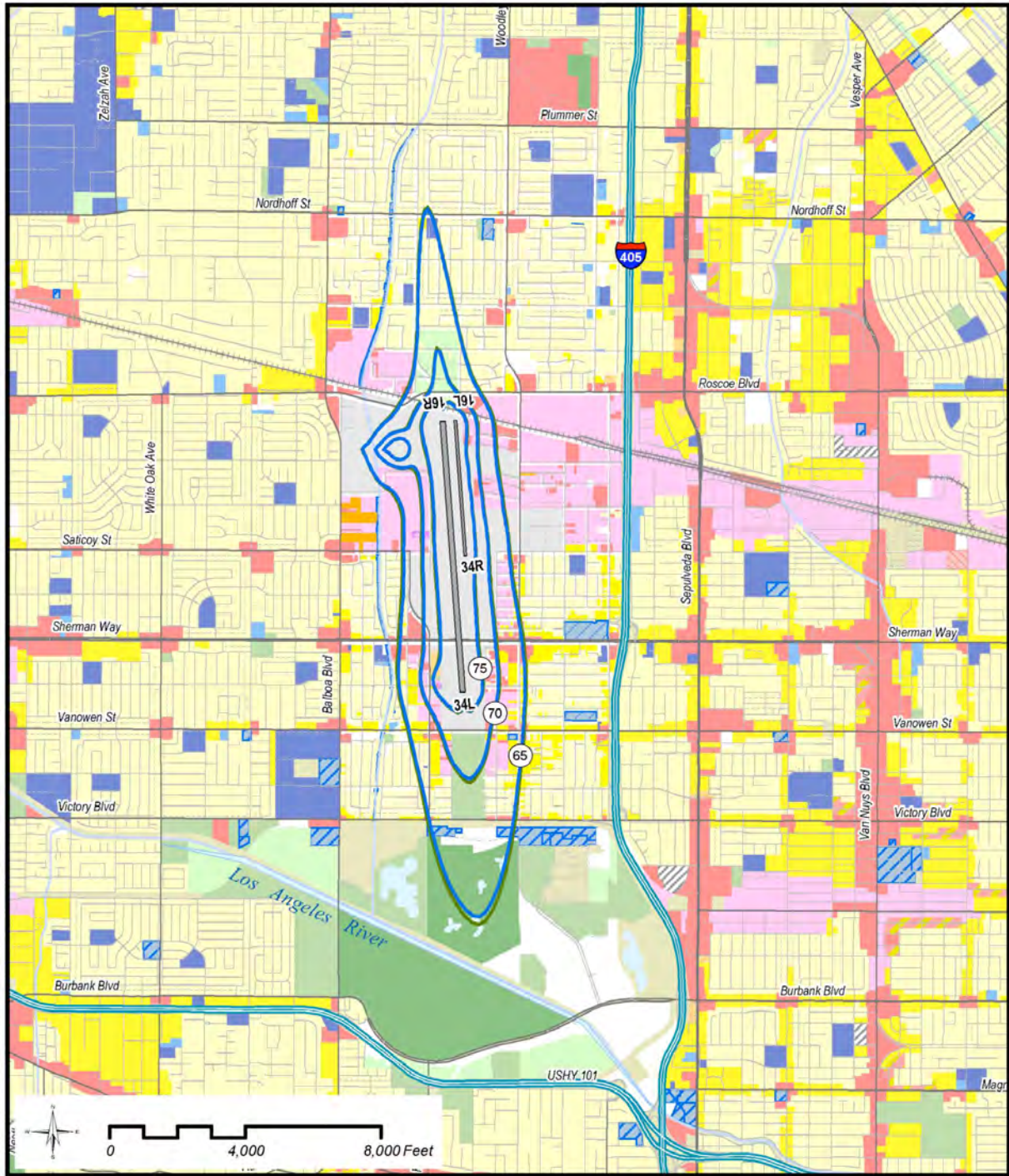
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**Figure 4.2-2**  
**CNEL Contours at VNY: Baseline and 2014 Project**  
**Van Nuys Airport Noisier Aircraft Phaseout EIR**







- |                                  |                              |
|----------------------------------|------------------------------|
| Residential - Single Family      | Industrial - Manufacturing   |
| Residential Multi-Family         | Industrial - Airport Related |
| Res. - Mobile Home, Trailer Park | Public/Government Service    |
| Mixed Residential                | Golf Courses                 |
| Transient Lodging                | Recreation / Open Space      |
| Airport Ownership                | Agriculture                  |
| School                           | Trans, Comm, and Utilities   |
| Church - Religious Organization  | Vacant                       |
| Commercial                       | Undefined                    |
| Mixed Use                        | Water                        |

**Van Nuys Airport**  
 2014 Project CNEL Compared to  
 2014 Alternative 1 - No Project CNEL

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

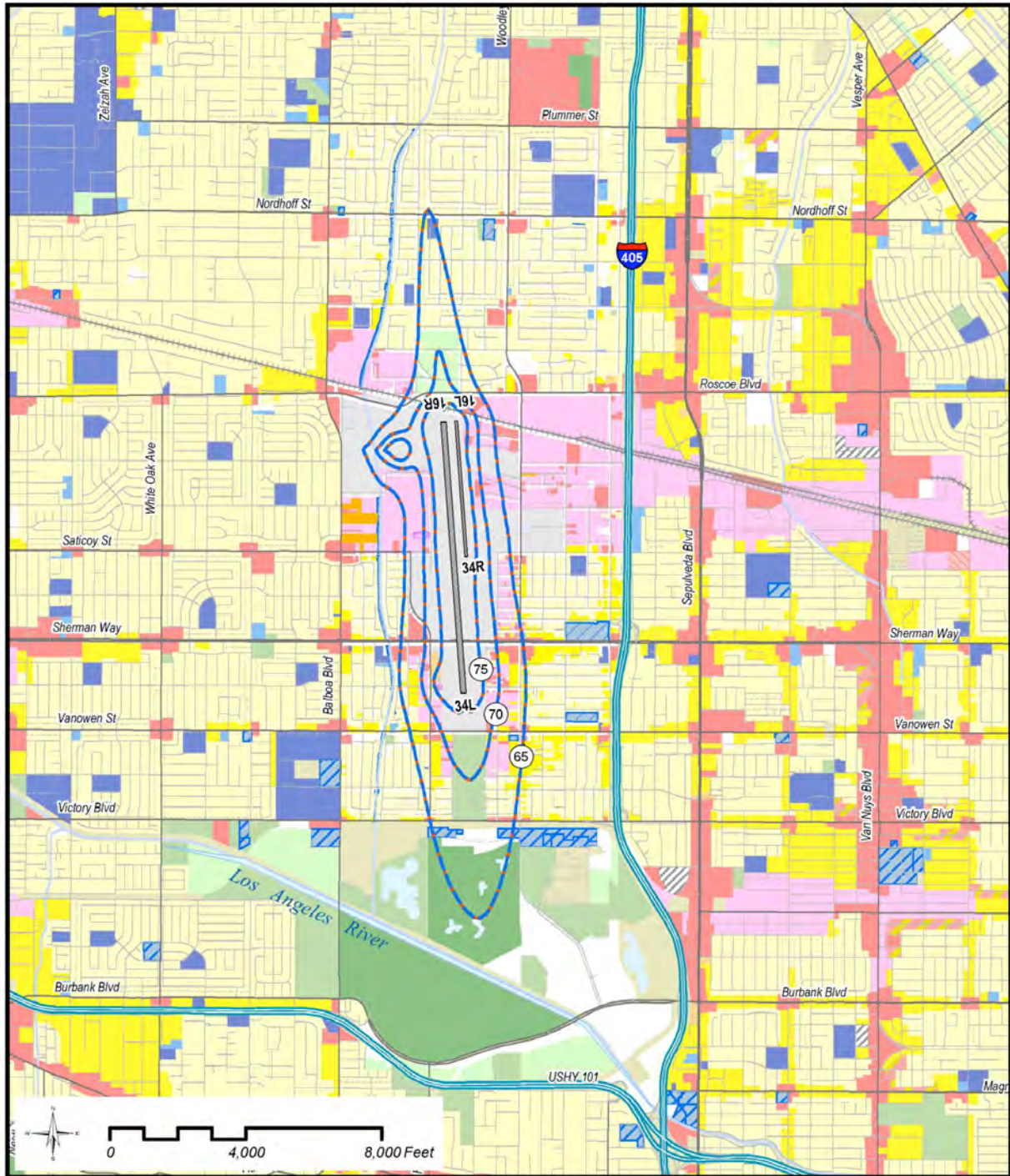
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**Figure 4.2-3**  
**CNEL Contours at VNY: 2014 Forecast and 2014 Project**  
**Van Nuys Airport Noisier Aircraft Phaseout EIR**







- |                                  |                              |
|----------------------------------|------------------------------|
| Residential - Single Family      | Industrial - Manufacturing   |
| Residential Multi-Family         | Industrial - Airport Related |
| Res. - Mobile Home, Trailer Park | Public/Government Service    |
| Mixed Residential                | Golf Courses                 |
| Transient Lodging                | Recreation / Open Space      |
| Airport Ownership                | Agriculture                  |
| School                           | Trans, Comm, and Utilities   |
| Church - Religious Organization  | Vacant                       |
| Commercial                       | Undefined                    |
| Mixed Use                        | Water                        |

**Van Nuys Airport**  
 2014 Project CNEL Compared to  
 2014 Alternative 2 - Stage 3 and 4 Exemption CNEL

Basemap: Southern California Association of Governments (SCAG), Environmental Systems Research Institute (ESRI), United States Geological Survey (USGS)  
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**Figure 4.2-4**  
**CNEL Contours at VNY: 2014 Project and 2014 Alternative 2**  
**Van Nuys Airport Noisier Aircraft Phaseout EIR**



**Table 4.2-50.** VNY Impacts: Estimated Dwelling Units and Residents within 2007 and 2014 CNEL Contours (with and without sound insulation)

		Analysis Year, Case, and CNEL Contour Interval											
		2007					2014						
		Baseline			Project		Alt. 1			Alt. 2			
Basis for Counts	Type of Count*	65-70 CNEL	70-75 CNEL	Total	65-70 CNEL	70-75 CNEL	Total	65-70 CNEL	70-75 CNEL	Total	65-70 CNEL	70-75 CNEL	Total
Dwelling units within the contours	S.F. D.U.	411	8	419	626	9	635	688	9	697	627	9	636
	S.F. Pop.	1,320	39	1,359	1,957	42	1,999	2,138	42	2,180	1,960	42	2,002
	M.F. D.U.	1,600	27	1,627	1,922	110	2,032	1,958	170	2,128	1,922	110	2,032
	M.F. Pop.	5,451	104	5,555	6,421	438	6,859	6,496	663	7,159	6,421	438	6,859
	Total D.U.	<del>2,100</del> 2,011	35	<del>2,135</del> 2,046	2,548	119	2,667	2,646	179	2,825	2,549	119	2,668
	Total Pop.	6,771	143	6,914	8,378	480	8,858	8,634	705	9,339	8,381	480	8,861
Dwelling units within contours and lacking sound insulation under existing conditions**	S.F. D.U.	400	0	400	615	1	616	677	1	678	616	1	617
	S.F. Pop.	1,286	0	1,286	1,927	4	1,931	2,104	4	2,108	1,926	4	1,930
	M.F. D.U.	1,379	0	1,379	1,784	0	1,784	1,820	60	1,880	1,784	0	1,784
	M.F. Pop.	4,659	0	4,659	5,963	0	5,963	6,038	225	6,263	5,963	0	5,963
	Total D.U.	1,779	0	1,779	2,399	1	2,400	2,497	61	2,558	2,400	1	2,401
Total Pop.	5,945	0	5,945	7,890	4	7,894	8,142	229	8,371	7,889	4	7,893	

\*S.F. = single family, M.F. = multifamily, D.U. = dwelling units.

\*\* Includes those units lacking insulation under 2007 conditions or anticipated to lack insulation under forecast 2014 conditions, respectively. See full discussion and figure in Appendix B.5.3.1.

Note: This table has been revised in the Final EIR to correct minor errors discovered by LAWA's environmental consultants in the version presented in the Draft EIR. The modifications to the table do not affect the impact conclusions.

Source: HMMH & SH&E, 2008.

As discussed in Section 4.2.2, Regulatory Setting, the City of Los Angeles CEQA Guidelines state that airport-related noise analyses must consider all potentially sensitive land uses within the 65-dB CNEL contour. Following land use-compatibility criteria established by LAWA (Noise Report Appendix B.3, Table B.3.1), there is only one parcel containing potentially noise-sensitive, nonresidential land uses within any of the VNY noise contours depicted in the preceding figures. That parcel is occupied by the Los Angeles Baptist City Mission, at 16514 Nordhoff Street (North Hills). The property includes a house of worship and school, and is shown on Figure 5 of the Noise Report (see Appendix B).

Supplemental analysis was conducted to specify future noise levels at this receptor, comparing project conditions to those of the alternatives. Table 4.2-51 presents the results of this supplemental analysis, and shows that 2014 forecasts with the project would result in a 1.1-dB increase above the 2007 baseline; this is approximately 0.1 dB less than in 2014 forecasts without the project (Alternative 1). Alternative 2 conditions are not anticipated to differ from those of the proposed project.

**Table 4.2-51.** Supplemental Noise Analysis Results for the Los Angeles Baptist City Mission

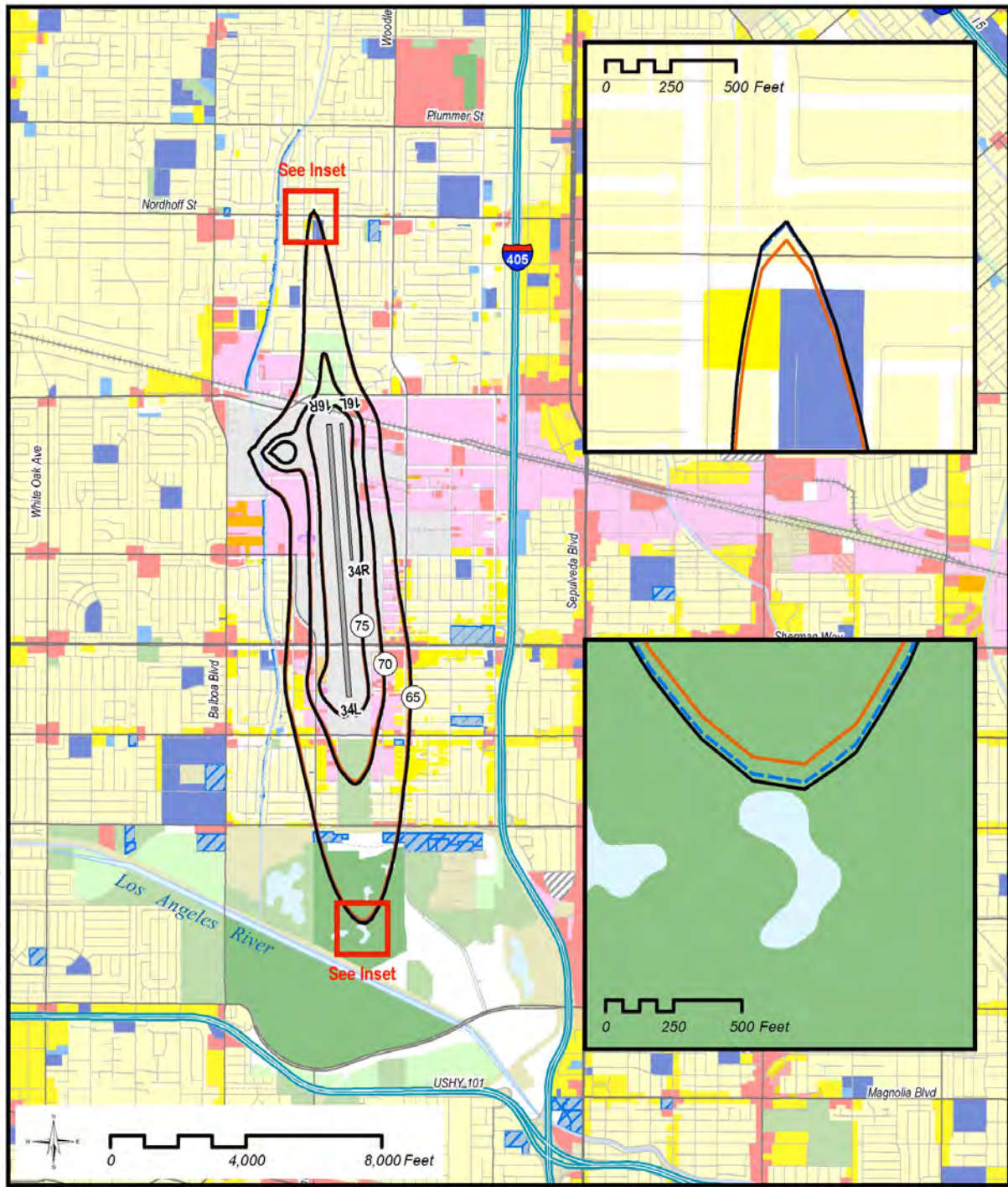
	CNEL Difference					
	2014 Project CNEL Minus*:					
	2014 Project CNEL	2014 Alt. 1 CNEL	2014 Alt. 2 CNEL	2007 Baseline CNEL	2014 Alt. 1 CNEL	2014 Alt. 2 CNEL
2007 Baseline CNEL	64.3 dB	65.4 dB	65.5 dB	65.4 dB	1.1 dB	-0.1 dB
* Positive difference means the 2014 Project CNEL is greater.						
Source: HMMH & SH&E, 2008						

Supplemental analysis conducted for 1,254 residential receptors in proximity of VNY, presented in Appendix B.7 of the Noise Report (Appendix B), indicated that the greatest increase between 2007 baseline CNEL and 2014 project forecasts, as received at these receptors, is 1.3 dB, and that the project would either result in the same or less noise exposure in 2014 compared to No Project conditions.

**Effect of Historic Aircraft and Maintenance-Related Exemptions**

Though it does not specifically address a-significance thresholds identified in Section 4.2.4.1, it is useful for informational purposes to describe the noise implications of the project’s inclusion of the exemptions for historic-aircraft operations and maintenance-related operations. The proposed exemptions for historic aircraft and maintenance-related operations would permit a small number of operations at VNY by aircraft that exceed the departure noise limits; the forecast of exempted operations indicates a maximum of 362 such operations per year in 2014, slightly less than one per day. To illustrate the negligible effect of these exempted operations, Figure 4.2-5 compares 2014 CNEL contours for the proposed project to separate contours that include each of the two categories of exempted operations. As the figure indicates, the effect of the small number of exempted operations is minimal.





- |                                  |                              |
|----------------------------------|------------------------------|
| Residential - Single Family      | Industrial - Manufacturing   |
| Residential Multi-Family         | Industrial - Airport Related |
| Res. - Mobile Home, Trailer Park | Public/Government Service    |
| Mixed Residential                | Golf Courses                 |
| Transient Lodging                | Recreation / Open Space      |
| Airport Ownership                | Agriculture                  |
| School                           | Trans, Comm, and Utilities   |
| Church - Religious Organization  | Vacant                       |
| Commercial                       | Undefined                    |
| Mixed Use                        | Water                        |

### Van Nuys Airport Part 161 Study

Comparison of CNEL for 2014 Project to:  
 2014 Project without Historic Aircraft Exemption  
 2014 Project without Maintenance Operation Exemption

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

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- |                                                      |
|------------------------------------------------------|
| 2014 Project CNEL                                    |
| 2014 Project without Historic Aircraft Exemption     |
| 2014 Project without Maintenance Operation Exemption |

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**Figure 4.2-5**  
**CNEL Contours at VNY: Effects of Proposed Exemptions**  
**Van Nuys Airport Noisier Aircraft Phaseout EIR**



### 4.2.4.3 Noise Impacts at Diversion Airports

Project-related diversion of aircraft operations from VNY would increase noise levels at BUR, LAX, CMA, CNO, and WJF beyond their forecasted levels, to varying degrees. Two types of noise analyses were conducted for the diversion airports: a screening to determine if the additional project-related operations would result in an increase in CNEL noise exposure that reaches the identified significance threshold of 1.5 dB; and a so-called “Berkeley Jets” analysis to consider the potential effects of individually noticeable noise levels. The Berkeley Jets analysis is a type of “single event” analysis that focuses on noise exposure associated with *individual* aircraft operations, in contrast to the CNEL-based assessment of exposure averaged over a course of time. Berkeley Jets analyses have most often been applied to assess nighttime noise, but at a more fundamental level, they address the inadequacy of CNEL to fully describe potential noise impacts of individual aircraft “noise events,” regardless of the time of day.<sup>10</sup>

By including the Berkeley Jets analysis, this EIR goes beyond CNEL analysis to provide detailed information about the frequency and single-event noise levels of the diverted operations. For each of the diversion airports, this analysis tabulates the number and frequency of potential diversions and the corresponding percentage increases in operations during the three CNEL time periods (day: 7 a.m.–7 p.m., evening: 7 p.m.–10 p.m., and night: 10 p.m.–7 a.m.). As discussed in Section 4.2.4.1, a conservative threshold of significance was selected for the Berkeley Jets analysis of nighttime operations—the occurrence on average of at least one additional nighttime aircraft operation by diverted aircraft. Appendix B.8 presents a more detailed “supplemental” Berkeley Jets analysis that further categorizes the diverted aircraft types according to their relative “noisiness,” based on their departure noise levels, (since the diverted types are far noisier on departure than arrival). This supplemental analysis, which presents information beyond that necessary to address the threshold of significance, is included to provide interested reviewers with a basis for considering the very infrequent diversions in the context of existing comparable activity (i.e., with regard to time of day, relative noisiness, and frequency of occurrence). It compares the changes in activity to the underlying frequency of operations at the airports in the same noise categories. By doing this, the analysis assessed whether the diversions would result in a dramatic shift in the overall distribution of operations by noisiness.

Since the maximum anticipated effect on operations at BUR, LAX, and CMA would occur in 2014, it was used as the forecast year for analysis at those airports. Project-

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<sup>10</sup> Berkeley Jets analyses have become common in California since a 2001 decision of the California Court of Appeals that found that, for purposes of preparing an EIR that complies with CEQA, sole reliance on the CNEL metric is not necessarily sufficient to provide adequate information on potential noise impacts in areas outside 65 dB CNEL (Berkeley Keep Jets Over the Bay Committee v. Board of Port Commissioners, [2001] 91 Cal. App. 4th 1344.) The court noted in its decision that “fundamental information about the project’s noise impacts...specifically included the number of additional nighttime flights that would occur under the project, the frequency of those flights, and their effect on sleep,” information that is not always made apparent by merely analyzing CNEL impacts.

related impacts would continue to occur beyond that year, but would be lower than in 2014 due to the retirement and reduced usage of older jets that is expected to occur independent of the project. Since there would be no effect on operations at CNO and WJF until 2016, that year was used as the forecast year for analyses at those airports for both the CNEL and Berkeley Jets analyses. As with the 2014 impacts noted above, impacts would continue to occur beyond 2016, but would be lower due to older jet retirement and reduced usage.

## Bob Hope Airport

An estimated total of ~~192~~ 193 business jet operations are anticipated to shift to BUR in 2014, or an average of 0.52 per day. No other types of aircraft are anticipated to divert to BUR. Table 4.2-52 shows the estimated distribution of transferred operations by day, evening, and night.

**Table 4.2-52.** 2014 Business Jet Operations Shifted from VNY to BUR

Operation Type	Day	Evening	Night	Total
Departures	83	12	1	96
Arrivals	75	13	8	96
<b>Total</b>	<b>158</b>	<b>25</b>	<b>9</b>	<b><u>192</u>193</b>

Note: Totals may not equal sum of columns due to rounding in source data.

Note: Day = 7 a.m. – 7 p.m.; Evening = 7 p.m. – 10 p.m.; Night = 10 p.m. – 7 a.m.

Source: FAA ASDI data, SH&E analysis. HMMH & SH&E, 2008

Note: This table was revised in the Final EIR to correct minor clerical errors. The modifications do not affect the impact analysis.

## Noise Levels Impacts

The small amount of project-related diversions to BUR would lead to minor increases in noise levels beyond the increases forecast for 2014. As Table 4.2-53 shows, the project is estimated to produce a 1.5% increase in 65 dB contour area and a 0.1 dB increase in CNEL exposure in 2014, when compared to the forecast conditions. These increases would be generally unnoticeable to the human ear. When compared to the 2007 baseline conditions, a 1.0-dB increase is anticipated to occur. BUR would be unaffected by the Alternative 2 exemptions, and Alternative 2 would have the same impacts as the project. Diversions would continue to occur at BUR after 2014, but the noise impacts would be lower due to retirement and reduced usage of older jets that is expected to occur independently of the project. Because neither the project nor Alternative 2 would increase noise within the 65-dB contour at BUR by 1.5 dB or more in 2014, this impact is less than significant. Impacts would be lower in 2016 and, therefore, would also be less than significant in that planning year.

**Table 4.2-53.** BUR Impacts: 2014 Project and Alternatives vs. 2007 Baseline

	2014 VNY Proposed Project		2014 VNY Alternative 1		2014 VNY Alternative 2	
	Area	CNEL	Area	CNEL	Area	CNEL
2007 BUR Baseline	+16.3%	+1.0 dB	+14.6%	+0.9 dB	+16.3%	+1.0 dB
2014 BUR Forecast	+1.5%	+0.1 dB	--	--	+1.5%	+0.1 dB

Note: Percent change in area within 65 dB CNEL and approximate decibel change in CNEL for cases listed above compared to baseline listed on left (i.e., case listed above minus case listed on left; positive entry means case listed above is “noisier”).

Source: HMMH & SH&E, 2008

The Burbank-Glendale-Pasadena Airport Authority recently released an Official Draft Part 161 Application for a Proposed Curfew at BUR.<sup>11</sup> That application uses a 2015 forecast year. Table 4.2-54 presents the results of an AEM analysis that applied the forecast 2014 VNY diversions to the BUR 2015 forecast, both with and without the BUR curfew in place. Since the noise level limit at VNY would be the same in 2015 as in 2014 (because no additional noise limits are proposed at VNY in 2015), and since operations in the aircraft types that would be affected by the phaseout are expected to decrease slowly over time, even in the absence of the phaseout, the 2014 diversions provide a slightly conservative (i.e., “worst-case”) assumption to assess at BUR.

**Table 4.2-54.** BUR 2015 Impacts, With and Without Proposed BUR Curfew

	Effect of VNY Proposed Project		Effect of VNY Alternative 1, No-Project Alternative		Effect of VNY Alternative 2, Exempted Stage 3 and 4 Aircraft	
	Area	CNEL	Area	CNEL	Area	CNEL
2015 BUR Forecast	+0.9%	+0.1 dB	+0.0%	+0.0 dB	+0.9%	+0.1 dB
2015 BUR Curfew	+1.5%	+0.1 dB	+0.0%	+0.0 dB	+1.5%	+0.1 dB

Note: Percent change in area within 65 dB CNEL and approximate decibel change in CNEL for cases listed above compared to baseline listed on left (i.e., case listed above minus case listed on left; positive entry means case listed above is “noisier”).

Source: HMMH & SH&E, 2008

Table 4.2-54 reveals that neither the project nor either of the alternatives under consideration at VNY would result in a significant change in noise exposure

<sup>11</sup> Jacobs Consultancy. 2008. Official Draft FAR Part 161 Application for a Proposed Curfew at Bob Hope Airport. Prepared for Burbank-Glendale-Pasadena Airport Authority, Burbank, CA. March.

compared to 2015 forecast conditions at BUR, with or without the adoption of a curfew at that airport.

### “Berkeley Jets” Impacts

As shown in Table 4.2-13, there were an estimated 10,777 night operations at BUR during the baseline year of 2007. Table 4.2-55 provides a summary of relevant statistics related to the number and frequency of operations that the project would divert to BUR, as further discussed in Appendix B.8 (see pg. B.8-9 through B.8-13). The area surrounding BUR is mostly developed, with a mixture of residential and commercial uses. As the table shows, the absolute number of diverted operations to BUR is very small. The most frequent occurrence of operational diversions to BUR is anticipated to be in the daytime, averaging one operation every two days. Additional nighttime operations are anticipated to be very seldom, occurring, on average, once every 30 days. This frequency of additional operations at BUR would not provide a substantial disturbance to the surrounding receptors, especially at night. Because the project would not cause a daily average of one or more additional night flights to occur at BUR, the Berkeley Jets impacts at BUR are less than significant.

**Table 4.2-55.** Frequency Statistics for Additional Operations at BUR: Project and Alternative 2

Airport	Statistics Related to Diverted Operations by CNEL Time Period								
	Day (7 a.m.–7 p.m.)			Evening (7 p.m.–10 p.m.)			Night (10 p.m.–7 a.m.)		
	No. of Diverted Day Ops (per day)	Percent Increase in Day Ops	Days between Diverted Ops	No. of Diverted Evening Ops (per day)	Percent Increase in Evening Ops	Days between Diverted Ops	No. of Diverted Night Ops (per day)	Percent Increase in Night Ops	Days between Diverted Ops
BUR	0.431	0.142%	2	0.062	0.096%	16	0.033	0.088%	30

Source: HMMH & SH&E, 2008

## Los Angeles International Airport

An estimated total of 62 business jet operations are anticipated to shift to LAX in 2014, or an average of 0.17 per day. Table 4.2-56 shows the estimated distribution of this increase between day, evening, and night.

**Table 4.2-56.** 2014 Business Jet Operations Shifted from VNY to LAX

Operation Type	Day	Evening	Night	Total
Departures	27	3	1	31
Arrivals	24	4	2	31
<b>Total</b>	<b>51</b>	<b>8</b>	<b>3</b>	<b>62</b>

Note: Totals may not equal sum of columns due to rounding in modeling analysis.  
 Note: Day = 7 a.m. – 7 p.m.; Evening = 7 p.m. – 10 p.m.; Night = 10 p.m. – 7 a.m.  
 Source: HMMH & SH&E, 2008

### Noise Level Impacts

The minimal project-related increase in operations would not produce a perceptible increase in noise beyond the forecast 2014 levels. As Table 4.2-57 shows, neither the project nor Alternative 2 would increase the CNEL or the area within the airport's 65 dB contour. Diversions from VNY represent a very small percentage of the total air traffic at LAX, which is one of the busiest airports in the world. Normal forecast growth in activity at LAX would overwhelm any change associated with project-related diversions from VNY. Diversions would continue to occur at LAX after 2014, but the noise impacts would be lower due to retirement and reduced usage of older jets that is expected to occur independently of the project. Because neither the project nor Alternative 2 would increase noise within the 65-dB contour at LAX by 1.5-dB or more, this impact is less than significant. Impacts would be lower in 2016 and, therefore, would also be less than significant in that planning year.

**Table 4.2-57.** LAX Impacts: 2014 Project and Alternatives vs. 2007 Baseline

	2014					
	Proposed Project		2014 Alternative 1		2014 Alternative 2	
	Area	CNEL	Area	CNEL	Area	CNEL
2007 LAX Baseline	+6.0%	+0.4 dB	+6.0%	+0.4 dB	+6.0%	+0.4 dB
2014 LAX Forecast	+0.0%	+0.0 dB	--	--	+0.0%	+0.0 dB

Note: Percent change in area within 65 dB CNEL and approximate decibel change in CNEL for cases listed above compared to baseline listed on left (i.e., case listed above minus case listed on left; positive entry means case listed above is "noisier").

Source: HMMH & SH&E, 2008; analysis based on LAWA, LAX Senior and Subordinate Revenue Bonds Series 2008 - Final Official Statement

### "Berkeley Jets" Impacts

As shown in Table 4.2-19, there were an estimated 108,203 night operations at LAX during the baseline year of 2007. Table 4.2-58 provides a summary of relevant statistics related to the number and frequency of operations that the project would divert to LAX, as further discussed in Appendix B.8 (see pg. B.8-4 through B.8-8). Alternative 2 impacts would be less than these, because the additional exemption would keep operations at VNY that would transfer to LAX under the project. As the table shows, the absolute number of diverted operations to LAX is very small. For any given CNEL time period, diversions would occur no more frequently than once every nine days, on average. At night, the time period of particular interest in the Berkeley Jets decision, the diversions would be the rarest—estimated at once every four months—and would not be noticeable compared to the large amount of traffic that exists under baseline and forecast conditions, regardless of project implementation. Because the project would not cause a daily average of one or more additional night operations to occur at LAX, the Berkeley Jets impacts at LAX are less than significant.

**Table 4.2-58.** Frequency Statistics for Additional Operations at LAX: Project Only

Statistics Related to Diverted Operations by CNEL Time Period									
Airport	Day (7 a.m.–7 p.m.)			Evening (7 p.m.–10 p.m.)			Night (10 p.m.–7 a.m.)		
	No. of Diverted Day Ops (per day)	Percent Increase in Day Ops	Days between Diverted Ops	No. of Diverted Evening Ops (per day)	Percent Increase in Evening Ops	Days between Diverted Ops	No. of Diverted Night Ops (per day)	Percent Increase in Night Ops	Days between Diverted Ops
LAX	0.116	0.009%	9	0.047	0.015%	21	0.009	0.002%	128

Source: HMMH & SH&E, 2008

## Camarillo Airport

An estimated total of 115 business jet operations are anticipated to shift to CMA in 2014, or an average of 0.31 per day. Table 4.2-59 shows the estimated breakdown of this increase between day, evening, and night.

**Table 4.2-59.** 2014 Business Jet Operations Shifted from VNY to CMA

Operation Type	Day	Evening	Night	Total
Departures	50	7	0	58
Arrivals	45	8	5	58
<b>Total</b>	<b>94</b>	<b>15</b>	<b>5</b>	<b>115</b>

Note: Totals may not equal sum of columns due to rounding.

Note: Day = 7 a.m. – 7 p.m.; Evening = 7 p.m. – 10 p.m.; Night = 10 p.m. – 7 a.m.

Source: HMMH & SH&E, 2008

## Noise Level Impacts

The small amount of project-related diversions to CMA would lead to minor increases in noise levels beyond the forecast 2014 levels. As Table 4.2-60 shows, the project would result in approximately a 19.8% increase in the area within the 65 dB CNEL contour and approximately a 1.1 dB overall increase in CNEL compared to the 2007 baseline, which is only a 5.3% increase in area and 0.3 dB increase in CNEL exposure compared to the 2014 forecast represented by Alternative 1. CMA operations would be unaffected by the Alternative 2 exemptions, and impacts would be the same as under the project. Diversions would continue to occur at CMA after 2014, but the noise impacts would be lower due to retirement and reduced usage of older jets that is expected to occur independently of the project. Because neither the project nor Alternative 2 would increase noise within the 65-dB contour at CMA by 1.5 dB or more this impact is less than significant. Impacts would be lower in 2016 and, therefore, would also be less than significant in that planning year.



**Table 4.2-60.** CMA Impacts: 2014 Project and Alternatives vs. 2007 Baseline

	2014 VNY					
	Proposed Project		2014 VNY Alternative 1		2014 VNY Alternative 2	
	Area	CNEL	Area	CNEL	Area	CNEL
2007 CMA Baseline	+19.8%	+1.1 dB	+13.8%	+0.8 dB	+19.8%	+1.1 dB
2014 CMA Forecast	+5.3%	+0.3 dB	--	--	+5.3%	+0.3 dB

Note: Percent change in area within 65 dB CNEL and approximate decibel change in CNEL for cases listed above compared to baseline listed on left (i.e., case listed above minus case listed on left; positive entry means case listed above is “noisier”).

Source: HMMH & SH&E, 2008

**“Berkeley Jets” Impacts**

As shown in Table 4.2-25, there were an estimated 3,487 night operations at CMA during the baseline year of 2007. Table 4.2-61 provides a summary of relevant statistics related to the number and frequency of operations that the project would divert to CMA, as further discussed in Appendix B.8 (see pg. B.8-14 through B.8-18). As the table shows, the absolute number of diverted operations to CMA is very small. The most frequent occurrence of operational diversions to CMA is anticipated to be in the daytime, averaging one operation every four days. At night, the diversions would be the rarest—estimated at approximately once every 50 days. Because the project would not cause a daily average of one or more additional night operations to occur at CMA, the Berkeley Jets impacts at CMA are less than significant.

**Table 4.2-61.** Frequency Statistics for Additional Operations at CMA: Project and Alternative 2

Airport	Statistics Related to Diverted Operations by CNEL Time Period								
	Day (7 a.m.–7 p.m.)			Evening (7 p.m.–10 p.m.)			Night (10 p.m.–7 a.m.)		
	No. of Diverted Day Ops (Per Day)	Percent Increase in Day Ops	Days between Diverted Ops	No. of Diverted Evening Ops (Per Day)	Percent Increase in Evening Ops	Days between Diverted Ops	No. of Diverted Night Ops (Per Day)	Percent Increase in Night Ops	Days between Diverted Ops
CMA	0.257	0.062%	4	0.037	0.135%	27	0.020	0.174%	50

Source: HMMH & SH&E, 2008

**Chino Airport**

Privately owned former-military jets that cannot operate at VNY when the exemption expires in 2016 are all expected to shift to CNO, which is a center for military aircraft restoration. Table 4.2-62 shows the expected shift in operations, a total of 100 annual

operations, or an average of 0.27 per day. Given current usage patterns at VNY, most operations are expected to occur during daytime hours, with a small number of evening and night flights.

**Table 4.2-62.** 2016 Privately Owned Former Military Jet Operations Shifted to CNO

Operation Type	Day	Evening	Night	Total
Departures	42	4	4	50
Arrivals	50	0	0	50
<b>Total</b>	<b>92</b>	<b>4</b>	<b>4</b>	<b>100</b>

Day = 7 a.m. – 7 p.m.; Evening = 7 p.m. – 10 p.m.; Night = 10 p.m. – 7 a.m.  
Source: HMMH & SH&E, 2008

### Noise Level Impacts

The small amount of project-related diversions to CNO would lead to minor increases in noise levels beyond the forecast 2016 levels. Without project implementation (i.e., under Alternative 1), noise levels are anticipated to decrease at CNO as a result of the non-project-related retiring of older Stage 1 and Stage 2 jets. The project would result in increases in noise levels, but very minor ones. Table 4.2-63 shows that the project would result in approximately a 5.9% increase in the area within the 65 dB CNEL contour and approximately a 0.4 dB overall increase in CNEL compared to the 2007 baseline and a 7.5% increase in area and 0.5 dB increase in CNEL exposure over forecast conditions in 2016. CNO would be unaffected by the Alternative 2 exemptions, and Alternative 2 would have the same impacts as the project. Diversions would continue to occur at CNO after 2016, but the noise impacts would be lower due to retirement and reduced usage of older jets that is expected to occur independently of the project. Because neither the project nor Alternative 2 would increase noise within the 65-dB contour at CNO by 1.5 dB or more this impact is less than significant.

**Table 4.2-63.** CNO Impacts: 2016 Project and Alternatives vs. 2007 Baseline

	2016 VNY Proposed Project		2016 VNY Alternative 1		2016 VNY Alternative 2	
	Area	CNEL	Area	CNEL	Area	CNEL
2007 CNO Baseline	+5.9%	+0.4 dB	-1.5%	-0.1 dB	+5.9%	+0.4 dB
2016 CNO Forecast	+7.5%	+0.5 dB	--	--	+7.5%	+0.5 dB

Note: Percent change in area within 65 dB CNEL and approximate decibel change in CNEL for cases listed above compared to baseline listed on left (i.e., case listed above minus case listed on left; positive entry means case listed above is “noisier”).

Source: HMMH & SH&E, 2008

### **“Berkeley Jets” Impacts**

As shown in Table 4.2-31, there were an estimated 1,954 night operations at CNO during the baseline year of 2007. Table 4.2-64 provides a summary of relevant statistics related to the number and frequency of operations that the project would divert to CNO, as further discussed in Appendix B.8 (see pg. B.8-19 through B.8-23). As the table shows, the absolute number of diverted operations to CNO is very small. The most frequent occurrence of operational diversions to CNO is anticipated to be in the daytime, averaging one operation every four days. Additional nighttime and evening operations are anticipated to occur once every 92 days. Because the project would not cause a daily average of one or more additional night operations to occur at CNO, the Berkeley Jets impacts at CNO are less than significant.

**Table 4.2-64.** Frequency Statistics for Additional Operations at CNO: Project and Alternative 2

Airport	Statistics Related to Diverted Operations by CNEL Time Period								
	Day (7 a.m.–7 p.m.)			Evening (7 p.m.–10 p.m.)			Night (10 p.m.–7 a.m.)		
	No. of Diverted Day Ops (per day)	Percent Increase in Day Ops	Days between Diverted Ops	No. of Diverted Evening Ops (per day)	Percent Increase in Evening Ops	Days between Diverted Ops	No. of Diverted Night Ops (per day)	Percent Increase in Night Ops	Days between Diverted Ops
CNO	0.251	0.055%	4	0.011	0.034%	92	0.011	0.181%	92

Source: HMMH & SH&E, 2008

### **William J. Fox Airport**

When the maintenance exemption expires in 2016, a total of 260 annual operations are expected to shift to WJF, based on the usual occurrence of 65 maintenance visits with one arrival, one departure, and one test flight per visit (Table 4.2-65). The maintenance activity is expected to involve Gulfstream II and Gulfstream III aircraft. All operations are expected to occur during daytime hours when maintenance-related flights typically take place.

**Table 4.2-65.** 2016 Maintenance-Related Operations Shifted to WJF

Operation Type	Day	Evening	Night	Total
Departures	130	0	0	130
Arrivals	130	0	0	130
<b>Total</b>	<b>260</b>	<b>0</b>	<b>0</b>	<b>260</b>

Note: Day = 7 a.m. – 7 p.m.; Evening = 7 p.m. – 10 p.m.; Night = 10 p.m. – 7 a.m.

Source: HMMH & SH&E, 2008

### Noise Level Impacts

The small amount of project-related diversions to CNO would lead to minor increases in noise levels above the forecast 2016 levels. As at CNO, noise levels are anticipated to decrease at WJF without project implementation (i.e., under Alternative 1) as a result of the non-project-related retiring of older, noisier aircraft. Under project conditions, noise levels would also decrease, but at a lower rate than under Alternative 1. Table 4.2-66 shows that the project would present a 3.9% increase in area and 0.2 dB increase in CNEL exposure over 2016 forecast conditions. WJF would be unaffected by the Alternative 2 exemptions, and Alternative 2 would have the same impacts as the project. Diversions would continue to occur at WJF after 2016, but the noise impacts would be lower due to retirement and reduced usage of older jets that is expected to occur independently of the project. Because neither the project nor Alternative 2 would increase noise within the 65-dB contour at WJF by 1.5 dB or more this impact is less than significant.

**Table 4.2-66.** WJF Impacts: 2016 Project and Alternatives vs. 2007 Baseline

	2016 VNY Proposed Project		2016 VNY Alternative 1		2016 VNY Alternative 2	
	Area	CNEL	Area	CNEL	Area	CNEL
2007 WJF Baseline	-4.9%	-0.3 dB	-8.5%	-0.5 dB	-4.9%	-0.3 dB
2016 WJF Forecast	+3.9%	+0.2 dB	--	--	+3.9%	+0.2 dB

Note: Percent change in area within 65 dB CNEL and approximate decibel change in CNEL for cases listed above compared to baseline listed on left (i.e., case listed above minus case listed on left; positive entry means case listed above is “noisier”).

Source: HMMH & SH&E, 2008

### “Berkeley Jets” Impacts

As shown in Table 4.2-37, there were an estimated 660 night operations at WJF during the baseline year of 2007. Table 4.2-67 provides a summary of relevant statistics related to the number and frequency of operations that the project would divert to WJF, as further discussed in Appendix B.8 (see pg. B.8-24 through B.8-26). The area surrounding WJF is largely undeveloped and has little residential development or other receptors that would be affected by aircraft operational noise. As stated above, all project-related WJF operations are anticipated to occur during the daytime, and the additional operations are estimated to occur once a day, on average. This would not provide a substantial disturbance. Because the project would not cause a daily average of one or more additional night operations to occur at WJF, the Berkeley Jets impacts at WJF are less than significant.

**Table 4.2-67.** Frequency Statistics for Additional Operations at WJF: Project and Alternative 2

<b>Statistics Related to Diverted Operations by CNEL Time Period</b>									
Airport	Day (7 a.m.–7 p.m.)			Evening (7 p.m.–10 p.m.)			Night (10 p.m.–7 a.m.)		
	No. of Diverted Day Ops (Per Day)	Percent Increase in Day Ops	Days between Diverted Ops	No. of Diverted Ops (Per Day)	Percent Increase in Evening Ops	Days between Diverted Ops	No. of Diverted Ops (Per Day)	Percent Increase in Night Ops	Days between Diverted Ops
WJF	0.710	0.435%	1	--	--	--	--	--	--

Source: HMMH & SH&E, 2008

#### 4.2.4.4 Significant Impacts and Mitigation Measures

The project would not result in any significant impacts at VNY or the diversion airports. Therefore, no mitigation is required.



# 4.3

## AIR QUALITY

### 4.3.1 Introduction

The project-related displacement of aircraft to the identified diversion airports would increase aircraft operations at the diversion airports, resulting in an increase in air pollution emissions from aircraft at the diversion airports. This study evaluates the air quality effects of increased aircraft activity at the diversion airports and compares these changes to the applicable significance criteria in each location.

### 4.3.2 Regulatory Setting

Air quality is affected by the amount and location of pollutant emissions, and by meteorological conditions that influence movement and dispersal of pollutants. Local topography and atmospheric conditions such as wind speed, wind direction, and air temperature gradients provide the link between air pollutant emissions and air quality.

Air pollutants of concern can occur locally, near the source of emissions, or regionally, due to atmospheric interactions downwind of the source. Ozone and its precursors reactive organic gases (ROG; also known as volatile organic compounds, or VOC), and oxides of nitrogen (NO<sub>x</sub>), sulfates, visibility reducing particles, nitrogen dioxide (NO<sub>2</sub>), particulate matter of diameter 10 micrometers or less (PM<sub>10</sub>), and particulate matter of diameter 2.5 micrometers or less (PM<sub>2.5</sub>) are considered to be regional pollutants because they affect air quality on a regional scale. Ozone can be formed significantly downwind of the source of its precursors by photochemical reactions of NO<sub>2</sub> with ROG, while PM<sub>10</sub>, PM<sub>2.5</sub>, sulfates, and decreased visibility can result from atmospheric chemical reactions involving NO<sub>x</sub>, oxides of sulfur (SO<sub>x</sub>), and ammonia. Pollutants such as carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), lead (Pb), and particulates are considered to be local pollutants because they tend to disperse rapidly with distance from the source. Particulate matter can occur on a regional scale as a result of atmospheric interactions mentioned

above, or as direct emissions from automobile exhaust, which can accumulate in the air locally near the emission sources.

Federal, state, and local agencies have adopted rules and regulations requiring evaluation of the impact on ambient air quality of a planned project and appropriate mitigation for air pollutant emissions. Most federal programs to monitor and regulate stationary source emissions are delegated to these regional air quality management districts. State programs administered through the California Air Resources Board (CARB) provide regulatory control over air pollution emissions from mobile sources.

The federal and state laws and regulations also define a group of pollutants called hazardous air pollutants (HAPs), toxic air contaminants (TACs), or air toxics. Exposure to these pollutants can cause or contribute to cancer, birth defects, genetic damage, and other adverse health effects. The source and effects of HAPs are generally local, rather than regional. Evaluation is based on case studies, not standards for ambient concentration. Examples of air toxics include benzene, asbestos, carbon tetrachloride, ammonia, hydrogen sulfide, hydrogen cyanide, and methane.

Certain pollutants, such as CO<sub>2</sub>, are responsible for affecting the earth's climate in what is commonly known as the greenhouse effect. These gases interact with infrared radiation (heat) escaping from the earth's surface, causing a warming of the lower atmosphere. Emissions of these greenhouse gases (GHGs) from combustion of fossil fuels such as gasoline and jet fuel have resulted in an increase in the concentration of GHGs in the atmosphere and, thus, a detectible warming of the planet. Atmospheric GHG concentrations affect climate on a global scale and do not directly affect local air quality. In general, regulations involving GHGs are rare and in early stages of development. A recent California law (Assembly Bill [AB] 32, the Global Warming Solutions Act) represents the first enforceable statewide program, capping GHG emissions to 1990 levels by 2020. Although AB 32 does not amend CEQA, it has established a strong argument for addressing climate change issues at the plan level and project level through CEQA documents.

### **4.3.2.1 Federal Laws, Standards, and Regulations**

Under the authority of the CAA, EPA has established nationwide air quality standards to protect the public health and welfare with an adequate margin of safety. The significance of a measured air pollutant concentration in a geographic region or air basin is determined by comparing it to these federal and, if applicable, state ambient air quality standards.

The federal standards, known as the National Ambient Air Quality Standards (NAAQS), defined at 40 CFR 50, represent the maximum allowable atmospheric concentrations for the following so-called criteria pollutants: ozone, NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, CO, PM<sub>2.5</sub>, and Pb. The NAAQS are defined in terms of concentration determined over a specified time period. Based on measured ambient criteria pollutant data, EPA designates regions as having air quality equal to or better than the



NAAQS as “attainment” and those regions having worse than the NAAQS as “nonattainment.” Where not enough data are available to support an attainment or nonattainment designation, the area is deemed unclassified, and treated as an attainment area.

CAA specifies future dates for achieving compliance with these standards and mandates that states submit and implement a State Implementation Plan (SIP) for local areas not meeting the NAAQS. SIPs must include pollution control measures that demonstrate how the NAAQS will be met within a time period determined by the level or classification of nonattainment.

## Aircraft Emission Standards

The aircraft emission standards have a 30-year history in the U.S., with new emissions standards being set for different aspect of engines, including:

- 1974: Engine smoke and fuel venting
- 1984: Hydrocarbon emissions
- 1997: NO<sub>x</sub> and CO
- 2005: Updated NO<sub>x</sub> emission standards

The EPA standards are equivalent to the NO<sub>x</sub> emission standards of the United Nation International Civil Aviation Organization (ICAO), which is in alignment with the international standards. These standards are in effect since December 19, 2005 and apply to new aircraft engines utilized on commercial aircraft that include small jets.

Using recent FAA 2003 growth projections (68 *Federal Register* (FR) 56226), aircraft NO<sub>x</sub> emissions are projected to double by 2030. Aircraft engines produce emissions that are similar to other emissions resulting from fossil fuel combustion. However, aircraft emissions are unusual in that a significant proportion is emitted at high altitude. For the purpose of assessing the potential air quality impacts around airports, EPA suggested that the analysis of aircraft emissions should be between the ground level (airport) and the mixing height (inversion layer) of approximately 3,000 feet above ground level.

The EPA began regulating leaded fuel use in automobiles (tetraethyl lead) in the 1970s, but few restrictions are in place for aviation-use jet fuel. In 2005, EPA stated there is insufficient information to determine that aircraft lead emissions endanger public health and welfare. The EPA also stressed that because a suitable, safe, unleaded aviation fuel has not been developed, regulating leaded aviation fuel would present severe economic repercussions to general aviation businesses and operators.

## Federal Climate Change Policy

Twelve U.S. states and cities (including California), in conjunction with several environmental organizations, sued to force EPA to regulate GHGs as a pollutant pursuant to the federal CAA (Massachusetts vs. EPA et al. 549 U.S. 497 (2007),]; . The Supreme Court ruled that the plaintiffs had standing to sue, that GHGs fit within the CAA's definition of a pollutant, and that EPA's reasons for not regulating GHGs were insufficiently grounded in the CAA. Despite the Supreme Court ruling, there are no promulgated federal regulations to date limiting GHG emissions. In *Center for Biological Diversity v. National Highway Traffic Safety Admin.* 508 F.3d 508 (9th Cir. 2007), a federal court ruled that GHGs must be analyzed in National Environmental Policy Act documents. There are currently no GHG emissions controls on aircraft.

### 4.3.2.2 State Laws, Standards, and Regulations

The California Clean Air Act (CCAA) of 1988 establishes California's air quality goals, planning mechanisms, regulatory strategies, and standards of progress. The CCAA requires attainment of state ambient air quality standards by the earliest practicable date. Attainment plans are required for air basins in violation of the state ozone, CO, SO<sub>2</sub>, or NO<sub>2</sub> standards. Preparation of and adherence to attainment plans are the responsibility of the local air pollution control districts or air quality management districts.

### State and Federal Air Quality Standards

The state and federal air quality standards are listed in Table 4.3-1. As indicated, the averaging times for the various air quality standards (the duration over which they are measured) range from 1 hour to 1 year. The standards are read as a concentration, in parts per million (ppm), or as mass of material per a volume of air, in milligrams or micrograms of pollutant per cubic meter of air (mg/m<sup>3</sup> and µg/m<sup>3</sup>, respectively). California's standard for visibility-reducing particles is measured by observation of the opacity of air under specific conditions.

**Table 4.3-1.** Federal and State Ambient Air Quality Standards

<b>Pollutant</b>	<b>Averaging Time</b>	<b>Federal Standard</b>	<b>California Standard</b>
Ozone	8-Hour	0.08 ppm (157 µg/m <sup>3</sup> )	0.07 ppm (157 µg/m <sup>3</sup> )
	1-Hour	—	0.09 ppm (180 µg/m <sup>3</sup> )
Carbon Monoxide (CO)	8-Hour	9 ppm (10 mg/m <sup>3</sup> )	9 ppm (10 mg/m <sup>3</sup> )
	1-Hour	35 ppm (40 mg/m <sup>3</sup> )	20 ppm (23 mg/m <sup>3</sup> )
Nitrogen Dioxide (NO <sub>2</sub> )	Annual	0.053 ppm (100 µg/m <sup>3</sup> )	—
	1-Hour	—	0.25 ppm (470 µg/m <sup>3</sup> )
Sulfur Dioxide (SO <sub>2</sub> )	Annual	0.03 ppm (80 µg/m <sup>3</sup> )	—
	24-Hour	0.14 ppm (365 µg/m <sup>3</sup> )	0.04 ppm (105 µg/m <sup>3</sup> )
	3-Hour	0.5 ppm (1,300 µg/m <sup>3</sup> )	—
	1-Hour	—	0.25 ppm (655 µg/m <sup>3</sup> )
Respirable Particulate Matter (PM <sub>10</sub> )	Annual	—	20 µg/m <sup>3</sup>
	24-Hour	150 µg/m <sup>3</sup>	50 µg/m <sup>3</sup>
Fine Particulate Matter (PM <sub>2.5</sub> )	Annual	15 µg/m <sup>3</sup>	12 µg/m <sup>3</sup>
	24-Hour	35 µg/m <sup>3</sup>	—
Sulfates (SO <sub>4</sub> )	24-Hour	—	25 µg/m <sup>3</sup>
Lead (Pb)	30-Day	—	1.5 µg/m <sup>3</sup>
	3-Month	1.5 µg/m <sup>3</sup>	—
Hydrogen Sulfide (H <sub>2</sub> S)	1-Hour	—	0.03 ppm (42 µg/m <sup>3</sup> )
Vinyl Chloride (chloroethene)	24-Hour	—	0.010 ppm (26 µg/m <sup>3</sup> )
Visibility Reducing Particulates	1 Observation (8-hour)	—	Extinction coefficient of 0.23 per km; less than 70% relative humidity.

Source: California Air Resources Board, February 21, 2008.

## Criteria Pollutants

### Ozone

Ozone is a respiratory irritant that increases susceptibility to respiratory infections. It is also an oxidant that can cause substantial damage to vegetation and other materials.

Ozone is not emitted directly into the air but is formed by a photochemical reaction in the atmosphere. Ozone precursors (ROGs; equivalent to VOCs) and NO<sub>x</sub> react in the atmosphere in the presence of sunlight to form ozone. Ozone is primarily a summer air pollution problem because the photochemical reaction rates are directly related to the intensity of ultraviolet light and air temperature. Ozone is considered a regional

pollutant; high levels often occur downwind of the emission source because of the length of time between when the ROG form and when they react with light to change to ozone.

### **Inhalable Particulate Matter**

Particulates can damage human health and retard plant growth. Health concerns associated with suspended particulate matter focus on those particles small enough to reach the lungs when inhaled (PM10 and PM2.5). Particulates also reduce visibility and corrode materials.

Particulate emissions are generated by a wide variety of sources, including agricultural activities, industrial emissions, dust suspended by vehicle traffic and construction equipment, and secondary aerosols formed by reactions in the atmosphere.

### **Carbon Monoxide**

CO is a public health concern because it combines readily with hemoglobin and reduces the amount of oxygen transported in the bloodstream. CO can cause health problems such as fatigue, headache, confusion, dizziness, and even death.

CO emissions can create so-called CO hotspots. Since motor vehicles are the dominant source of CO emissions, CO hotspots are normally located near roads and freeways with high traffic volume. High CO levels develop primarily during winter when periods of light winds combine with the formation of ground-level temperature inversions (typically from the evening through early morning). These conditions result in reduced dispersion of vehicle emissions. Motor vehicles also exhibit increased CO emission rates at low air temperatures.

### **Nitrogen Oxides**

NO<sub>x</sub> are a family of highly reactive gases that are a primary precursor to the formation of ground-level ozone, and react in the atmosphere to form acid rain. NO<sub>x</sub> is emitted from the use of solvents and combustion processes in which fuel is burned at high temperatures, principally from motor vehicle exhaust and stationary sources such as electric utilities and industrial boilers. A brownish gas, nitrogen dioxide is a strong oxidizing agent that reacts in the air to form corrosive nitric acid, as well as toxic organic nitrates.

### **Sulfur Dioxide**

Sulfur dioxide is a colorless, pungent gas belonging to the family of SO<sub>x</sub>, formed primarily by combustion of sulfur-containing fossil fuels (mainly coal and oil), and during metal smelting and other industrial processes. Sulfur oxides can react to form sulfates, which significantly reduce visibility.

### **Lead**

Lead is a metal that is a natural constituent of air, water, and the biosphere. Lead is neither created nor destroyed in the environment, so it essentially persists forever. Lead has the potential to cause gastrointestinal, central nervous system, kidney, and blood diseases upon prolonged exposure. Lead is also classified as a probable human carcinogen. Lead, which was used to increase the octane rating in fuel, was phased

out of automotive gasoline starting in 1973 and banned completely in a final EPA ruling in 1996, but remains in use in aviation fuel (though not in jet fuel). Since gasoline-powered automobile engines were a major source of airborne lead through the use of leaded fuels and the use of leaded fuel has been mostly phased out, the ambient concentrations of lead have dropped dramatically in recent years.

### **Toxic Air Contaminants**

Although NAAQS exist for criteria pollutants, no ambient standards exist for TACs. Many pollutants are identified as TACs because of their potential to increase the risk of developing cancer or because of their acute or chronic health risks. For TACs that are known or suspected carcinogens, CARB has consistently found that there are no levels or thresholds below which exposure is risk-free. Individual TACs vary greatly in the risk they present. At a given level of exposure, one TAC may pose a hazard that is many times greater than another. For certain TACs, a unit risk factor can be developed to evaluate cancer risk. For acute and chronic health risks, a similar factor, called a Hazard Index, is used to evaluate risk. In the early 1980s, CARB established a statewide comprehensive air toxics program to reduce exposure to air toxics. The Toxic Air Contaminant Identification and Control Act (AB 1807) created California's program to reduce exposure to air toxics. The Air Toxics Hot Spots Information and Assessment Act (AB 2588) supplements the AB 1807 program by requiring a statewide air toxics inventory, notification of people exposed to a significant health risk, and facility plans to reduce these risks.

In August 1998, CARB identified particulate emissions from diesel-fueled engines as TACs. In September 2000, CARB approved a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel-fueled engines and vehicles. The goal of the plan is to reduce diesel PM10 emissions and the associated health risk by 75% in 2010 and by 85% by 2020. The plan identifies 14 measures that CARB will implement over the next several years. Since CARB measures are not applicable to aircraft, the current long-term strategy is to work with EPA and FAA to develop more stringent emission standards for aircraft.

### **Senate Bill 97 Chapter 185, Statutes of 2007**

Senate Bill (SB) 97 requires the Office of Planning and Research to prepare guidelines to submit to the California Resources Agency regarding feasible mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions as required by CEQA. The California Resources Agency is required to certify and adopt these revisions to the State CEQA Guidelines by January 1, 2010. The Guidelines will apply retroactively to any incomplete environmental impact report, negative declaration, mitigated negative declaration, or other related document. In the interim, OPR has released a technical advisory (*CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review*, OPR, June 19, 2008). OPR offers informal guidance regarding the steps lead agencies should take to address climate change in their CEQA documents. This guidance was developed in cooperation with the Resources Agency, the California Environmental Protection Agency (CalEPA), and the CARB. On January 8, 2009, OPR issued its proposed amendments to the CEQA Guidelines.

## Global Warming Solutions Act of 2006 (AB 32)

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. The goal of this executive order is to reduce California's GHG emissions to 1) 2000 levels by 2010, 2) 1990 levels by the 2020, and 3) 80% below the 1990 levels by the year 2050. In 2006, this goal was further reinforced with the passage of AB 32, the Global Warming Solutions Act of 2006. AB 32 sets the same overall GHG emissions reduction goals while further mandating that CARB create a plan, including market mechanisms, and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Executive Order S-20-06 further directs state agencies to begin implementing AB 32, including the recommendations made by the state's Climate Action Team. On November 14, 2008, the Governor signed Executive Order S-13-08, which mandates the state to evaluate adaptation issues, including sea level rise and water resources.

CARB has approved 44 early actions in its October 17, 2007 report (CARB 2007):

- Group 1—Three new GHG-only regulations are proposed to meet the narrow legal definition of "discrete early action greenhouse gas reduction measures" in Section 38560.5 of the Health and Safety Code. These include the Governor's Low Carbon Fuel Standard, reduction of refrigerant losses from motor vehicle air conditioning maintenance, and increased methane capture from landfills. These actions are estimated to reduce GHG emissions between 13 and 26 million metric tons of CO<sub>2</sub> equivalent (MMT-CO<sub>2</sub>e) annually by 2020 relative to projected levels. If approved for listing by the Governing Board, these measures will be brought to hearing in the next 12 to 18 months and take legal effect by January 1, 2010. When these actions take effect, they would influence GHG emissions associated with vehicle fuel combustion and air conditioning, but would not otherwise affect project site design or implementation.
- Group 2—CARB is initiating work on another 23 GHG emission reduction measures in the 2007 through 2009 time period, with rulemaking to occur as soon as possible where applicable. These GHG measures relate to the following sectors: agriculture, commercial, education, energy efficiency, fire suppression, forestry, oil and gas, and transportation.
- Group 3—CARB staff has identified 10 conventional air pollution control measures that are scheduled for rulemaking in the 2007 through 2009 period. These control measures are aimed at criteria and toxic air pollutants, but will have concurrent climate co-benefits through reductions in CO<sub>2</sub> or non-Kyoto pollutants (i.e., diesel particulate matter, other light-absorbing compounds and/or ozone precursors) that contribute to global warming.

In December 2008, CARB adopted the Scoping Plan for reducing GHGs.

In consultation with CARB and California Public Utilities Commission, the California Energy Commission (CEC) have published a GHG emission performance standard for local, public-owned electric utilities (pursuant to Senate Bill No. 1368). This standard limits the rate of GHG emissions to a level that is no higher than the

rate of emissions of GHGs for combined-cycle natural gas baseload generation, or 1,100 pounds of CO<sub>2</sub> per megawatt-hour. (Rulemaking R.06-04-009 at CPUC and Docket # 07-OIIP-01 at CEC).

### **Executive Order S-03-05 (2005)**

California Executive Order S-03-05, put forth by Governor Arnold Schwarzenegger, established the following GHG emission reduction targets for California's state agencies:

- by 2010, reduce GHG emissions to 2000 levels;
- by 2020, reduce GHG emissions to 1990 levels; and
- by 2050, reduce GHG emissions to 80 percent below 1990 levels.

The order also required that the Secretary of the CalEPA to oversee and coordinate emission reduction efforts with the Secretary of the Business, Transportation and Housing Agency, Secretary of the Department of Food and Agriculture, Secretary of the Resources Agency, Chairperson of the Air Resources Board, Chairperson of the Energy Commission, and the President of the Public Utilities Commission. The Secretary of CalEPA is required to report to the Governor and State Legislature biannually on the impacts of global warming on California, mitigation and adaptation plans, and progress made toward reducing greenhouse gas emissions to meet the targets established in this executive order.

Executive Orders are directives to state agencies from the Governor of California. They do not govern local agency actions nor do they affect the State Legislature. While S-03-05 is an indicator of state policy as interpreted by the Governor, it may or may not reflect the view of the Legislature. It is, however, one of the factors being considered by state agencies such as CARB, California Energy Commission, and the Building Standards Commission in formulating their GHG reduction strategies.

### **Regulation of Air Pollution Transport between Air Basins**

The California Clean Air Act of 1988 directs CARB to assess the contribution of ozone and ozone precursors in upwind basins or regions to ozone concentrations that violate the state ozone standard in downwind basins or regions. The movement of ozone and ozone precursors between basins or regions is referred to as *transport*. In addition, the California Clean Air Act directs CARB to establish mitigation requirements for upwind districts commensurate with their contributions to the air quality problems in downwind basins or regions.

Over the last decade, CARB has published several transport reports that include technical assessments of transport relationships between air basins and regions in California. Along with these technical assessments, the reports have included mitigation requirements for ensuring that upwind areas do their part to limit the

effects of transport on their downwind neighbors. CARB originally established mitigation requirements in 1990, which are contained in Title 17, California Code of Regulations, Sections 70600 and 70601. These regulations were amended in 1993 and more recently in 2003. The most recent amendments added two new requirements for upwind districts. These amendments require upwind districts to 1) consult with their downwind neighbors and adopt “all feasible measures” for ozone precursors, and 2) amend their “no net increase” thresholds for permitting so that they are equivalent to those of their downwind neighbors. The amendments clarify that upwind districts are required to comply with the mitigation requirements, even if they attain the state ozone standard in their own district, unless the mitigation measures are not needed in the downwind district.

## **Air Quality Regions**

For the purposes of the project, the potential air service area for the aviation activity consists of the southern California region, which covers the counties of Los Angeles, San Bernardino, and Ventura (Figure 2-2). This is an area generally referred to as the Greater Los Angeles Metropolitan Area and is hereinafter referred to as the Air Service Area (ASA). The proposed phaseout of the noisier and older aircraft from VNY would primarily relocate the aircraft to other airports in the ASA. Therefore, potential reallocation of aviation services must be viewed in the content of a system of airports in the ASA. For the purpose of this air quality analysis, six airports currently serve the ASA. Within the ASA for this project there are three air quality control regions: South Coast Air Basin, South Central Coast Air Basin, and Mojave Desert Air Basin. VNY is located in Los Angeles County, within the South Coast Air Basin. South Coast Air Basin includes Orange County and the non-desert portion of Los Angeles, Riverside, and San Bernardino Counties. Air quality conditions in South Coast Air Basin are under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The South Central Coast Air Basin includes Ventura, Santa Barbara, and San Luis Obispo Counties. For the South Central Coast Air Basin, each County has its own air districts. Ventura County is under the jurisdiction of Ventura County Air Pollution Control District (VCAPCD), and is the only air district in this basin affected by this project. Mojave Desert Air Basin includes the desert portion of Los Angeles County, under the jurisdiction of the Antelope Valley Air Pollution Control District (AVAPCD), which is the only air district in this basin affected by the project.

While this air quality analysis considers aircraft emissions across the three air basins, the project will involve six airports in three counties. Table 4.3-2 lists the airports, counties, air basins, and jurisdictions within the ASA study area.



**Table 4.3-2.** Summary of Project-related Airports in Counties and Air Basins

<b>Airport</b>	<b>County</b>	<b>Air Basin</b>	<b>Jurisdiction</b>
Van Nuys Airport – VNY	Los Angeles	South Coast	SCAQMD
Bob Hope Airport (Burbank)–BUR	Los Angeles	South Coast	SCAQMD
Los Angeles International Airport – LAX	Los Angeles	South Coast	SCAQMD
Chino Airport – CNO	San Bernardino	South Coast	SCAQMD
Camarillo Airport – CMA	Ventura	South Central Coast	VCAPCD
William J. Fox Airport (Lancaster) – WJF	Los Angeles	Mojave Desert	AVAPCD

Attainment status designations for the air basins containing the six airports relevant to this project are presented in Table 4.3-3. All six airports are in nonattainment air basins for the federal 8-hour ozone standard. South Coast Air Basin is also nonattainment for the federal PM10 and PM2.5 standards and in maintenance status for the federal CO standard as of June 11, 2007. Maintenance status means that the basin has only recently been designated as attainment, and is operating under a 10-year maintenance plan to ensure that pollutant levels are maintained below the relevant standard. All six airports are in nonattainment basins for the state ozone and PM10 standards. South Coast Air Basin and South Central Coast Air Basin are also designated as nonattainment for the state PM2.5 standard.

### 4.3.2.3 Local Standards and Regulations

Local air quality agencies have the authority to manage air quality and ensure that federal and state ambient air quality standards are achieved and maintained. This includes monitoring ambient air pollutant levels, development of air quality management plans that identify actions necessary to reach or maintain the standards, and implementation and enforcement of rules and regulations to improve air quality in each region.

VNY and three of the diversion airports (BUR, LAX, and CNO) fall within South Coast Air Basin and are under the regulatory jurisdiction of SCAQMD. CMA is located in the South Central Coast Air Basin and is regulated by VCAPCD. WJF is in the portion of the Mojave Desert Air Basin that is regulated by AVAQMD.

**Table 4.3-3.** Federal and State Attainment Designations for Regions Containing the Six Airports Potentially Affected by the Project

Pollutant	Federal Designations			State Designations		
	South Coast	Ventura	Mojave	South Coast	Ventura	Mojave
	VNY, BUR, LAX, CNO	CMA	WJF	VNY, BUR, LAX, CNO	CMA	WJF
Ozone (1-hour)	—	—	—	NA	NA	NA
Ozone (8-hour)	NA	NA	NA	NA	NA	NA
PM10	NA	A	A	NA	NA	NA
PM2.5	NA	A	A	NA	NA	A
CO	A*	A	A	A	A	A
NO2	A	A	A	A	A	A
SO2	A	A	A	A	A	A
Pb	A	A	A	A	A	A
Sulfates	—	—	—	A	A	A
H2S	—	—	—	A	A	A
Visibility	—	—	—	A	A	A

NA = Nonattainment  
A = Attainment or Unclassified  
A\* = Recent attainment (maintenance status)

## 2007 Air Quality Management Plan

To ensure continued progress toward clean air and to comply with state and federal requirements, SCAQMD, in conjunction with CARB, SCAG, and EPA, updates its Air Quality Management Plan (AQMP) every 3 years. Each iteration of the plan is an update of the previous plan. The 2007 AQMP was adopted by the SCAQMD Governing Board on June 1, 2007.<sup>1</sup> The 2007 AQMP employs the most up-to-date science and analytical tools and incorporates a comprehensive strategy aimed at controlling pollution from all sources, including stationary sources, on-road and off-road mobile sources, and area sources. The 2007 AQMP also addresses several federal planning requirements and incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. Additionally, the 2007 AQMP builds on the approaches taken in the 2003 AQMP for South Coast Air Basin for the attainment of the federal ozone air quality standard. However, the 2007

<sup>1</sup> South Coast Air Quality Management District. Available: <<http://www.aqmd.gov/aqmp/AQMPintro.htm>>.

AQMP highlights the significant amount of reductions needed and the urgent need to identify additional strategies, especially in the area of mobile sources, to meet all federal criteria pollutant standards within the timeframes allowed under the federal CAA. Specifically the 2007 AQMP was prepared because the federal CAA requires an 8-hour ozone nonattainment area to prepare a SIP revision by June 2007 and a PM<sub>2.5</sub> nonattainment area by April 2008.

The 2007 AQMP proposes attainment demonstration of the federal PM<sub>2.5</sub> standards through a more focused control of SO<sub>x</sub>, directly emitted PM<sub>2.5</sub>, and NO<sub>x</sub> supplemented with volatile organic compounds (VOCs) by 2015. The 8-hour ozone control strategy builds on the PM<sub>2.5</sub> strategy, augmented with additional NO<sub>x</sub> and VOC reductions to meet the standard by 2024, assuming a bump-up is obtained. A bump-up means that SCAQMD is considering requesting a voluntary reclassification. South Coast Air Basin is currently classified as a Severe-17 nonattainment area for the federal ambient 8-hour ozone air quality standard with an attainment date of 2021. “Bumping up” to extreme nonattainment classification for South Coast Air Basin would extend the attainment date to 2024 and allow for the attainment demonstration to rely on emission reductions from measures that anticipate the development of new technologies or improving of existing control technologies (CAA Section 182(e)(5) measures).

Aircraft emissions are of great concern to SCAQMD because federal emissions sources, such as airplanes, are essentially unregulated compared to stationary sources within the air districts. As time goes on, aircraft emissions, for some criteria pollutants, become a greater part of the total inventory. For example, according to the 2007 AQMP, NO<sub>x</sub> emissions from aircraft operations in 2005 comprised about 2% of the annual inventory (15.4 tons per day out of a total inventory of 1,030 tons per day). By 2010 NO<sub>x</sub> emissions from aircraft operations will increase to almost 4% and by the year 2020 NO<sub>x</sub> emissions from airport operations will comprise approximately 7.5% of the total inventory.

The 2007 AQMP concluded that substantial emission reductions from all sources, including airports, are necessary. Without aggressive measures to reduce emissions, particularly of NO<sub>x</sub>, SO<sub>x</sub>, VOCs, and particulate matter, attaining the federal 8-hour ozone standard by 2023 and the PM<sub>2.5</sub> standard by 2014 will be very difficult.

## **Regional Transportation Plan**

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties. It addresses regional issues relating to transportation, economy, community development, and the environment. SCAG is the federally designated metropolitan planning organization (MPO) for the majority of the southern California region and is the largest MPO in the nation. With respect to air quality planning, SCAG prepares the Regional Transportation Plan for the SCAG region every three years, which forms the basis for the land use and transportation components of the AQMP. These chapters are used to prepare the air quality forecasts and the consistency analysis that are included in the AQMP.

The local air districts have set significance criteria and thresholds for air pollutant emissions resulting from projects within their respective regions of jurisdiction. These criteria are presented below.

#### 4.3.2.4 CEQA Thresholds of Significance

Section 15002(g) of the CEQA Guidelines defines “significant effect on the environment” as “a substantial adverse change in the physical conditions that exist in the area affected by the Proposed Project.” When an environmental document identifies a significant environmental effect, the government agency approving the project must make findings as to whether the adverse environmental effects have been substantially reduced or if not, why they were not substantially reduced.

As based on Appendix G of the State CEQA Guidelines, the project would result in a significant air quality impact if it would:

- conflict with or obstruct implementation of the applicable AQMP;
- violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors);
- expose sensitive receptors to substantial pollutant concentrations or toxic air contaminants; or
- create objectionable odors affecting a substantial number of people.

The first four of these criteria are quantifiable, and CEQA allows for the significance criteria established by the applicable air quality management or air pollution control district to be used to assess impacts of a project on air quality. Accordingly, the significance thresholds for the criteria listed above that are maintained by each air district related to the project formed the basis for analyzing this project’s air quality impacts. These thresholds are presented below, beneath headers denoting each air district.

Additionally, in order to address the project’s potential climate change and GHG emissions impacts, the project would have a significant air quality impact if it would

- result in an increase in GHG emissions.

CEQA requires that a project incorporate mitigation sufficient to reduce its impacts to levels that are not significant. If mitigation is available but does not reduce the project’s impacts to a less-than-significant level, all feasible mitigation must be incorporated, but the impact must be identified as significant and unmitigated.

## South Coast Air Quality Management District: VNY, BUR, LAX, and CNO

### Criteria Pollutants

SCAQMD has established regional mass daily thresholds of significance for pollutant emissions during project operation. (July 2008). These thresholds are summarized below in Table 4.3-4.

**Table 4.3-4.** SCAQMD Daily Significance Criteria for Pollutant Emissions

Pollutant	Threshold
Carbon Monoxide (CO)	550 pounds per day
Volatile Organic Compounds (VOC)	55 pounds per day
Nitrogen Oxides (NOx)	55 pounds per day
Sulfur Oxides (SOx)	150 pounds per day
Particulate Matter (PM10)	150 pounds per day
Fine Particulates (PM2.5)	55 pounds per day
Lead (Pb)	3 pounds per day

### Toxic Air Contaminants

The SCAQMD CEQA Air Quality Handbook states that the determination of the significance of TACs will be made on a case-by-case basis, considering the following factors:

- the regulatory framework for the toxic material(s) and process(es) involved;
- the proximity of the TACs to sensitive receptors;
- the quantity, volume, and toxicity of the contaminants expected to be emitted;
- the likelihood and potential level of exposure; and
- the degree to which project design will reduce the risk of exposure.

Based on these guidelines, the project would have a significant impact from TACs if:

- onsite stationary sources emit carcinogenic or TACs that individually or cumulatively exceed the maximum individual cancer risk of 10 in 1 million ( $1.0 \times 10^{-5}$ ) or an acute or chronic hazard index of 1.0 (South Coast Air Quality Management District 1998);<sup>2</sup>
- hazardous materials associated with onsite stationary sources result in an accidental release of air toxic emissions or acutely hazardous materials posing a threat to public health and safety; or

<sup>2</sup> SCAQMD Risk Assessment Procedures for Rules 1401 and 212, November 1998.

- the project would be occupied primarily by sensitive individuals within 0.25 mile of any existing facility that emits TACs that could result in a health risk for pollutants identified in District Rule 1401 (South Coast Air Quality Management District 1993).

### Thresholds for Odor Impacts

Odor issues are very subjective because of the nature of odors themselves, and because their measurements are difficult to quantify. As a result, this project will be evaluated focusing on the existing and potential surrounding uses and location of sensitive receptors.

SCAQMD Rule 402 (Nuisance) and California Health & Safety Code, Division 26, Part 4, Chapter 3, Section 541700 prohibit the emission of any material that causes nuisance to a considerable number of persons or endangers the comfort, health, or safety of the public. Projects required to obtain permits from SCAQMD, typically industrial and some commercial projects, are evaluated by SCAQMD staff for potential odor nuisance, and conditions may be applied (or control equipment required) where necessary to prevent occurrence of public nuisance.

SCAQMD suggests a threshold based on the distance of the odor source from people and complaint records for a facility or similar facility. The threshold would be more than one confirmed complaint per year averaged over a 3-year period, or three unconfirmed complaints per year averaged over a 3-year period.

## Ventura County Air Pollution Control District: CMA

### Criteria Pollutants

VCAPCD has established significance thresholds for criteria pollutants to safeguard against project impacts interfering with the attainment of regional air quality objectives in its VCAPCD Air Quality Assessment Guidelines (October 2003). The significance thresholds are based on daily pollutant mass thresholds. If project emissions are below these thresholds, the project is considered to conform to the Ventura County AQMP and would not have a significant air quality impact. Daily pollutant emission thresholds for Ventura County are presented in Table 4.3-5.

**Table 4.3-5.** VCAPCD Daily Significance Criteria for Pollutant Emissions

Pollutant	Threshold
Reactive Organic Compounds (ROC)	25 pounds per day
Nitrogen Oxides (NO <sub>x</sub> )	25 pounds per day

### Toxic Air Contaminants

The VCAPCD Air Quality Assessment Guidelines state that the recommended significance thresholds for TACs would be exceeded if the project would:

- increase the lifetime probability of contracting cancer to greater than 10 in 1 million (as identified in a Health Risk Assessment [ HRA]); or
- cause ground-level concentration of noncarcinogenic toxic air pollutants to result in a hazard index of greater than 1 (as identified in an HRA).

### Thresholds for Odor Impacts

VCAPCD suggests a threshold based on the distance of the odor source from people and complaint records for a facility or similar facility. The threshold would be more than one confirmed complaint per year averaged over a 3-year period, or 3 unconfirmed complaints per year averaged over a 3-year period.

## Antelope Valley Air Quality Management District: WJF

### Criteria Pollutants

AVAQMD has established regional mass daily thresholds of significance for pollutant emissions during project operation in its CEQA and Federal Conformity Guidelines (May 2008). AVAQMD has set both daily and annual emission thresholds, as shown in 4-3-6.

**Table 4.3-6.** AVAQMD Daily and Annual Significance Criteria for Pollutant Emissions

Pollutant	Daily Threshold	Annual Threshold
Carbon Monoxide (CO)	548 pounds per day	100 tons per year
Volatile Organic Compounds (VOC)	137 pounds per day	25 tons per year
Nitrogen Oxides (NO <sub>x</sub> )	137 pounds per day	25 tons per year
Sulfur Oxides (SO <sub>x</sub> )	137 pounds per day	25 tons per year
Particulate Matter (PM10)	82 pounds per day	15 tons per year

### Toxic Air Contaminants

The AVAQMD CEQA Guidelines states that the project would have a significant impact from TACs if the project would:

- expose sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than 10 in 1 million ( $1.0 \times 10^{-5}$ ) and/or an acute or chronic hazard index greater than or equal to 1.0.

### Thresholds for Odor Impacts

Thresholds for odor impacts were not listed in the AVAQMD's CEQA and Federal Conformity Guidelines.

## 4.3.3 Environmental Setting

### 4.3.3.1 State Greenhouse Gas Emissions

Worldwide, California is the 12th to 16th largest emitter of CO<sub>2</sub> (California Energy Commission 2006), and is responsible for approximately 2% of the world's CO<sub>2</sub> emissions (California Energy Commission 2006).

Transportation is responsible for 41% of the state's GHG emissions, followed by the industrial sector (23%), electricity generation (20%), agriculture and forestry (8%) and other sources (8%) (California Energy Commission 2006). Emissions of CO<sub>2</sub> and nitrous oxide are byproducts of fossil fuel combustion, among other sources. Methane, a highly potent GHG, results from off-gassing associated with agricultural practices and landfills, among other sources. Sinks of CO<sub>2</sub> include uptake by vegetation and dissolution into the ocean. California GHG emissions in 2004 totaled approximately 492.1 MMT CO<sub>2</sub>e.<sup>3</sup>

Climate change could impact the natural environment in California in the following ways, among others:

- rising sea levels along the California coastline, particularly in San Francisco and the San Joaquin Delta resulting from ocean expansion;
- extreme-heat conditions, such as heat waves and very high temperatures, which could last longer and become more frequent;
- an increase in heat-related human deaths and infectious diseases, and a higher risk of respiratory problems caused by deteriorating air quality;
- reduced snow pack and stream flow in the Sierra Nevada mountains, affecting winter recreation and water supplies;
- an increase in the severity of winter storms, affecting peak stream flows and flooding;
- changes in growing season conditions that could affect California agriculture, causing variations in crop quality and yield; and
- changes in distribution of plant and wildlife species as a result of changes in temperature, competition from colonizing species, changes in hydrologic cycles, changes in sea levels, and other climate-related effects.

These changes in California's climate and ecosystems are occurring at a time when California's population is expected to increase from 34 million to 59 million by the

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<sup>3</sup> GHG emissions other than CO<sub>2</sub> are commonly converted into a CO<sub>2</sub> equivalent that expresses the global warming potential (GWP) of different gases. For example, the Intergovernmental Panel on Climate Change (IPCC) finds that NO<sub>x</sub> has a GWP of 310 and methane has a GWP of 21. The emission of 1 ton of nitrous oxide and 1 ton of methane is represented as the emission of 310 tons of CO<sub>2</sub>e and 21 tons of CO<sub>2</sub>e, respectively. This allows for the summation of different GHG emissions into a single total.



year 2040 (California Energy Commission 2005). As such, both the number of people potentially affected by climate change and the amount of anthropogenic GHG emissions expected under a “business as usual” scenario are expected to increase. Similar changes as those noted above for California would also occur in other parts of the world with regional variations in resources affected and vulnerability to adverse effects. GHG emissions in California are attributable to human activities associated with the industry and manufacturing, utilities, transportation, residential, and agricultural sectors (California Energy Commission 2006) as well as natural processes.

### **4.3.3.2 Climate**

California is divided into 15 air basins to regionally manage the state’s air resources. An air basin generally has similar meteorological and geographic conditions throughout. VNY, BUR, LAX, and CNOs all lie within South Coast Air Basin, a region encompassing approximately 12,000 square miles within four counties: all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The other diversion airports (CMA and WJF) lie within the South Central Coast Air Basin and Mojave Desert Air Basin, respectively. The discussions on the climate, criteria pollutant emission background, and local air quality condition for the three air basins are provided below.

#### **South Coast Air Basin: VNY, BUR, LAX, and CNO Airports**

The distinctive climate of South Coast Air Basin is influenced by the regional geographic characteristics of a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the southwest and high mountains around its remaining perimeter. The general region lies in the semi-permanent high pressure zone of the eastern Pacific Ocean, resulting in a mild climate tempered by cool sea breezes with light average wind speeds. The usually mild climatological pattern is interrupted occasionally by periods of extremely hot weather, winter storms, or Santa Ana winds bringing hot, dry air from the desert regions to the east.

The vertical dispersion of air pollutants in South Coast Air Basin is hampered by the presence of persistent temperature inversions. High pressure systems, such as the semi-permanent high pressure system in which the South Coast Air Basin is located, are characterized by an upper layer of dry air that warms as it descends. This upper layer restricts the mobility of cooler marine-influenced air near the surface, and results in the formation of subsidence inversions, which restrict the vertical dispersion of air pollutants released into the marine layer and, together with strong sunlight, can produce conditions that result in the formation of photochemical smog.

The atmospheric pollution potential of an area is largely dependent on winds, atmospheric stability, solar radiation, and terrain. The combination of low wind speeds and persistent inversions produce the greatest concentration of air pollutants.

On days without inversions, or days of wind speeds averaging 15 miles per hour or greater, smog potential is significantly reduced.

### **South Central Coast Air Basin (Ventura County): CMA**

Ventura County is in the South Central Coast Air Basin, along with Santa Barbara and San Luis Obispo counties. Each county in the air basin has its own air pollution control agency. The VCAPCD is the air pollution control agency for Ventura County and, along with CARB, is charged by state law to protect the people and the environment of Ventura County from the harmful effects of air pollution.

The air above Ventura County often exhibits weak vertical and horizontal dispersion characteristics, which limit the dispersion of emissions and cause increased ambient air pollutant levels. Persistent temperature inversions prevent vertical dispersion. The inversions act as a “ceiling” that prevents pollutants from rising and dispersing. Mountain ranges act as “walls” that inhibit horizontal dispersion of air pollutants.

The diurnal land/sea breeze pattern common in Ventura County recirculates air contaminants. Air pollutants are pushed toward the ocean during the early morning by the land breeze and toward the east during the afternoon, by the sea breeze. This creates a “sloshing” effect, causing pollutants to remain in the area for several days. Residual emissions from previous days accumulate and chemically react with new emissions in the presence of sunlight, thereby increasing ambient air pollutant levels.

This pollutant “sloshing” effect happens most predominantly from May through October (“smog” season). Air temperatures are usually higher and sunlight more intense during the “smog” season. This explains why Ventura County experiences the most exceedances of the state and federal ozone standards during this 6-month period.

### **Mojave Desert Air Basin (Antelope Valley Area): WJF**

The AVAQMD covers a western portion of the Mojave Desert Air Basin. The Mojave Desert Air Basin is an assemblage of mountain ranges interspersed with long broad valleys that often contain dry lakes. Many of the lower mountains that dot the vast terrain rise from 1,000 to 4,000 feet above the valley floor. Prevailing winds out of the west and southwest result from the proximity to coastal and central regions and the blocking nature of the Sierra Nevada to the north; air masses pushed onshore in southern California by differential heating are channeled through the Mojave Desert Air Basin. The Mojave Desert Air Basin is separated from the southern California coastal and central California Valley regions by mountains (highest elevation approximately 10,000 feet), whose passes form the main channels for these air masses. The Antelope Valley is bordered in the northwest by the Tehachapi Mountains, separated from the Sierra Nevada in the north by the Tehachapi Pass (3,800-foot elevation). The Antelope Valley is bordered in the south by the San Gabriel Mountains, bisected by Soledad Canyon (3,300 feet).

During the summer the Mojave Desert Air Basin is generally influenced by a Pacific subtropical high cell that sits off the coast, inhibiting cloud formation and encouraging daytime solar heating. The Mojave Desert Air Basin is rarely influenced by cold air masses moving south from Canada and Alaska, as these frontal systems are weak and diffuse by the time they reach the desert. Most desert moisture arrives from infrequent warm, moist, and unstable air masses from the south. Precipitation averages between 3 and 7 inches per year (from 16 to 30 days with at least 0.01 inch of precipitation). The Mojave Desert Air Basin is classified as a dry-hot desert climate, with portions classified as dry-very hot desert, indicating that at least 3 months have maximum average temperatures over 100.4° F.

### **4.3.3.3 Local Air Quality**

The local air districts measure air pollution concentrations at various locations throughout each air basin. These monitoring efforts and the data they produce establish air quality conditions in the region, and the trends in pollutant concentrations can be used to track progress toward or maintenance of attainment goals.

The relative impact of a project on regional air quality can be gauged by comparing project-related increases to the significance thresholds described in Section 4.3.2.4, or to region-wide emissions of air pollutants. CARB publishes total emissions for each air basin, and subtotals for various categories such as stationary, area-wide, mobile, and natural (nonanthropogenic) sources. The mobile source category (i.e., onroad and offroad vehicles, ships, trains, etc.) includes a line item for aircraft, the data from which can be used for direct comparison with project-related aircraft emissions.

The tables presented in the following sections summarize the air quality monitoring data and regional emissions in the vicinity of each of the six airports.

### **South Coast Air Basin: VNY, BUR, LAX, and CNOs**

Regional emissions from aircraft, mobile sources, and all sources within the South Coast Air Basin are summarized in Table 4.3-7. Aircraft comprise roughly 1% (varying by pollutant) of the total air pollution emissions in the basin.

**Table 4.3-7.** Estimated Annual Average Emissions, South Coast Air Basin, 2006

Emission Source Category	Emissions (tons per day)					
	ROG	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM10	PM2.5
Aircraft	6.4	46.0	13.2	1.3	0.8	0.8
Mobile Sources	425.8	3,580.0	866.5	28.1	48.4	39.0
South Coast Air Basin Total	762.4	3,909.9	955.4	49.8	296.2	117.9

Ambient air concentrations of ozone, PM2.5, CO, and NO<sub>2</sub> near VNY are monitored at the Reseda monitoring station. Table 4.3-8 shows ozone and PM2.5 data for the past 3 years. The closest PM10 data collection point is the West Palm Avenue monitoring station (Table 4.3-9). Because concentrations of other pollutants are below the state and federal standards, the region is designated attainment for the other pollutants.

The West Palm Avenue monitoring station in Burbank is the closest to the BUR and provides data for ozone, PM10, PM2.5, CO, and NO<sub>2</sub>. Table 4.3-9 shows the ozone and particulate matter data for the past 3 years. The region is designated as an attainment area for the other pollutants because concentrations of these pollutants are lower than the state and federal standards.

Ambient air concentrations of ozone, CO, and NO<sub>2</sub> in the vicinity of LAX are monitored at the West Los Angeles VA Hospital monitoring station. Ozone, CO, NO<sub>2</sub>, PM10, and SO<sub>2</sub> are monitored at the Westchester Parkway monitoring station; ozone, CO, NO<sub>2</sub>, and PM2.5 are monitored at the Lynwood monitoring station. Table 4.3-10 shows ozone and particulate matter data for the past 3 years. Because concentrations of other pollutants are below the state and federal standards, the region is designated attainment for the other pollutants.

Ambient air concentrations of ozone and NO<sub>2</sub> in the vicinity of CNO are monitored at the SCAQMD's Upland monitoring station. PM10 and PM2.5 are monitored at the Ontario monitoring station at 1408 Francis Street. Table 4.3-11 shows ozone and particulate matter data for the past 3 years. Because concentrations of other pollutants are below the state and federal standards, the region is designated attainment for the other pollutants.

**Table 4.3-8.** Ambient Air Quality Data Measured at Monitoring Station near VNY

Pollutant Standards	Reseda		
	2005	2006	2007
<b>Ozone</b>			
Maximum 1-hour concentration (ppm)	0.138	0.158	0.129
Maximum 8-hour concentration (ppm)	0.113	0.109	0.105
Days exceeded CAAQS 1-hour (> 0.09 ppm) <sup>a</sup>	30	34	21
Days exceeded NAAQS 8-hour (> 0.08 ppm) <sup>a</sup>	12	17	28
Days exceeded CAAQS 8-hour (> 0.07 ppm) <sup>a</sup>	43	55	43
<b>Particulate Matter (PM<sub>2.5</sub>)</b>			
National <sup>c</sup> maximum 24-hour concentration (µg/m <sup>3</sup> )	39.5	44.0	43.3
State <sup>d</sup> maximum 24-hour concentration (µg/m <sup>3</sup> )	39.5	44.0	43.3
National annual average concentration (µg/m <sup>3</sup> )	13.9	—	—
State <sup>c</sup> annual average concentration (µg/m <sup>3</sup> ) <sup>e</sup>	—	—	—
Days exceeded NAAQS 24-hour (> 65 µg/m <sup>3</sup> ) <sup>a</sup>	0	0	0

**Notes:**

CAAQS = California ambient air quality standards. ppm = parts per million.  
 NAAQS = national ambient air quality standards. µg/m<sup>3</sup> = micrograms per cubic meter.

— = insufficient data available to determine the value.

<sup>a</sup> An exceedance is not necessarily a violation.

<sup>b</sup> Measurements usually are collected every 6 days.

<sup>c</sup> National statistics are based on standard conditions data. In addition, national statistics are based on samplers using federal reference or equivalent methods.

<sup>d</sup> State statistics are based on local conditions data, except in the South Coast Air Basin, for which statistics are based on standard conditions data. In addition, state statistics are based on California-approved samplers.

<sup>e</sup> State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

<sup>f</sup> Mathematical estimate of how many days' concentrations would have been measured as higher than the level of the standard had each day been monitored.

Sources: California Air Resources Board 2008b; U.S. Environmental Protection Agency 2008a.

**Table 4.3-9.** Ambient Air Quality Data Measured at Monitoring Station near BUR

Pollutant Standards	West Palm Avenue, Burbank		
	2005	2006	2007
<b>Ozone</b>			
Maximum 1-hour concentration (ppm)	0.142	0.166	0.116
Maximum 8-hour concentration (ppm)	0.108	0.128	0.096
Days exceeded CAAQS 1-hour (> 0.09 ppm) <sup>a</sup>	13	25	13
Days exceeded NAAQS 8-hour (> 0.08 ppm) <sup>a</sup>	2	12	13
Days exceeded CAAQS 8-hour (> 0.07 ppm) <sup>a</sup>	23	34	19
<b>Particulate Matter (PM10)<sup>b</sup></b>			
National <sup>c</sup> maximum 24-hour concentration ( $\mu\text{g}/\text{m}^3$ )	92.0	71.0	109.0
State <sup>d</sup> maximum 24-hour concentration ( $\mu\text{g}/\text{m}^3$ )	90.0	69.0	107.0
State annual average concentration ( $\mu\text{g}/\text{m}^3$ ) <sup>e</sup>	33.2	—	—
Days exceeded NAAQS 24-hour (> 150 $\mu\text{g}/\text{m}^3$ ) <sup>a,f</sup>	0	0	0
Days exceeded CAAQS 24-hour (> 50 $\mu\text{g}/\text{m}^3$ ) <sup>a,f</sup>	5	10	5
<b>Particulate Matter (PM2.5)</b>			
National <sup>c</sup> maximum 24-hour concentration ( $\mu\text{g}/\text{m}^3$ )	63.1	50.7	56.5
State <sup>d</sup> maximum 24-hour concentration ( $\mu\text{g}/\text{m}^3$ )	63.1	50.7	56.5
National annual average concentration ( $\mu\text{g}/\text{m}^3$ )	19.7	17.8	17.1
State <sup>c</sup> annual average concentration ( $\mu\text{g}/\text{m}^3$ ) <sup>e</sup>	—	—	—
Days exceeded NAAQS 24-hour (> 65 $\mu\text{g}/\text{m}^3$ ) <sup>a</sup>	0	0	0

**Notes:**

CAAQS = California ambient air quality standards.

ppm = parts per million.

NAAQS = national ambient air quality standards.

 $\mu\text{g}/\text{m}^3$  = micrograms per cubic meter.

— = insufficient data available to determine the value.

<sup>a</sup> An exceedance is not necessarily a violation.<sup>b</sup> Measurements are usually collected every 6 days.<sup>c</sup> National statistics are based on standard conditions data. In addition, national statistics are based on samplers using federal reference or equivalent methods.<sup>d</sup> State statistics are based on local conditions data, except in the South Coast Air Basin, for which statistics are based on standard conditions data. In addition, state statistics are based on California-approved samplers.<sup>e</sup> State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.<sup>f</sup> Mathematical estimate of how many days' concentrations would have been measured as higher than the level of the standard had each day been monitored.

Sources: California Air Resources Board 2008b; U.S. Environmental Protection Agency 2008a.

**Table 4.3-10.** Ambient Air Quality Data Measured at Monitoring Station near LAX

Pollutant Standards	West Los Angeles VA Hospital		
	2005	2006	2007
<b>Ozone</b>			
Maximum 1-hour concentration (ppm)	0.114	0.099	0.117
Maximum 8-hour concentration (ppm)	0.090	0.074	0.087
Days exceeded CAAQS 1-hour (> 0.09 ppm) <sup>a</sup>	7	3	2
Days exceeded NAAQS 8-hour (> 0.08 ppm) <sup>a</sup>	1	0	0
Days exceeded CAAQS 8-hour (> 0.07 ppm) <sup>a</sup>	12	2	2
<b>Westchester Parkway</b>			
<b><u>Ozone</u></b>	<b><u>2005</u></b>	<b><u>2006</u></b>	<b><u>2007</u></b>
<u>Maximum 1-hour concentration (ppm)</u>	<u>0.086</u>	<u>0.084</u>	<u>0.087</u>
<u>Maximum 8-hour concentration (ppm)</u>	<u>0.076</u>	<u>0.066</u>	<u>0.068</u>
<u>Days exceeded CAAQS 1-hour (&gt; 0.09 ppm)<sup>a</sup></u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Days exceeded NAAQS 8-hour (&gt; 0.08 ppm)<sup>a</sup></u>	<u>1</u>	<u>0</u>	<u>0</u>
<u>Days exceeded CAAQS 8-hour (&gt; 0.07 ppm)<sup>a</sup></u>	<u>2</u>	<u>0</u>	<u>1</u>
<b><u>Particulate Matter (PM10)<sup>b</sup></u></b>	<b><u>2005</u></b>	<b><u>2006</u></b>	<b><u>2007</u></b>
National <sup>c</sup> maximum 24-hour concentration ( $\mu\text{g}/\text{m}^3$ )	44.0	45.0	128.0
State <sup>d</sup> maximum 24-hour concentration ( $\mu\text{g}/\text{m}^3$ )	44.0	45.0	128.0
State annual average concentration ( $\mu\text{g}/\text{m}^3$ ) <sup>e</sup>	—	—	—
Days exceeded NAAQS 24-hour (> 150 $\mu\text{g}/\text{m}^3$ ) <sup>a,f</sup>	0	0	0
Days exceeded CAAQS 24-hour (> 50 $\mu\text{g}/\text{m}^3$ ) <sup>a,f</sup>	0	0	3
<b>Lynwood</b>			
<b><u>Ozone</u></b>	<b><u>2005</u></b>	<b><u>2006</u></b>	<b><u>2007</u></b>
<u>Maximum 1-hour concentration (ppm)</u>	<u>0.111</u>	<u>0.088</u>	<u>0.102</u>
<u>Maximum 8-hour concentration (ppm)</u>	<u>0.081</u>	<u>0.067</u>	<u>0.078</u>
<u>Days exceeded CAAQS 1-hour (&gt; 0.09 ppm)<sup>a</sup></u>	<u>1</u>	<u>0</u>	<u>1</u>
<u>Days exceeded NAAQS 8-hour (&gt; 0.08 ppm)<sup>a</sup></u>	<u>1</u>	<u>0</u>	<u>1</u>
<u>Days exceeded CAAQS 8-hour (&gt; 0.07 ppm)<sup>a</sup></u>	<u>2</u>	<u>0</u>	<u>2</u>
<b><u>Particulate Matter (PM2.5)</u></b>	<b><u>2005</u></b>	<b><u>2006</u></b>	<b><u>2007</u></b>
National <sup>c</sup> maximum 24-hour concentration ( $\mu\text{g}/\text{m}^3$ )	54.6	55.0	48.9
State <sup>d</sup> maximum 24-hour concentration ( $\mu\text{g}/\text{m}^3$ )	54.6	55.0	48.9
National annual average concentration ( $\mu\text{g}/\text{m}^3$ )	17.5	16.7	16.0
State <sup>c</sup> annual average concentration ( $\mu\text{g}/\text{m}^3$ ) <sup>e</sup>	—	—	—
Days exceeded NAAQS 24-hour (> 65 $\mu\text{g}/\text{m}^3$ ) <sup>a</sup>	20	—	—
<b>Notes:</b>			
CAAQS = California ambient air quality standards.	ppm = parts per million.		
NAAQS = national ambient air quality standards.	$\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.		

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— = insufficient data available to determine the value.

- <sup>a</sup> An exceedance is not necessarily a violation.
- <sup>b</sup> Measurements usually are collected every 6 days.
- <sup>c</sup> National statistics are based on standard conditions data. In addition, national statistics are based on samplers using federal reference or equivalent methods.
- <sup>d</sup> State statistics are based on local conditions data, except in the South Coast Air Basin, for which statistics are based on standard conditions data. In addition, state statistics are based on California-approved samplers.
- <sup>e</sup> State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.
- <sup>f</sup> Mathematical estimate of how many days' concentrations would have been measured as higher than the level of the standard had each day been monitored.

Sources: California Air Resources Board 2008b; U.S. Environmental Protection Agency 2008a.

Note: This table was revised in the Final EIR to clarify which pollutants were monitored at nearby stations. The modifications do not affect the impact analysis.

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**Table 4.3-11.** Ambient Air Quality Data Measured at Monitoring Station near CNO

Pollutant Standards	Upland		
	2005	2006	2007
<b>Ozone</b>			
Maximum 1-hour concentration (ppm)	0.149	0.166	0.145
Maximum 8-hour concentration (ppm)	0.121	0.131	0.115
Days exceeded CAAQS 1-hour (> 0.09 ppm) <sup>a</sup>	34	52	32
Days exceeded NAAQS 8-hour (> 0.08 ppm) <sup>a</sup>	15	25	35
Days exceeded CAAQS 8-hour (> 0.07 ppm) <sup>a</sup>	45	64	55
<b>Ontario 1408 Francis Street</b>			
<b>Particulate Matter (PM10)<sup>b</sup></b>			
National <sup>c</sup> maximum 24-hour concentration ( $\mu\text{g}/\text{m}^3$ )	77.0	78.0	275.0
State <sup>d</sup> maximum 24-hour concentration ( $\mu\text{g}/\text{m}^3$ )	75.0	76.0	266.0
State annual average concentration ( $\mu\text{g}/\text{m}^3$ ) <sup>e</sup>	39.5	40.9	45.7
Days exceeded NAAQS 24-hour (> 150 $\mu\text{g}/\text{m}^3$ ) <sup>a,f</sup>	0	0	1
Days exceeded CAAQS 24-hour (> 50 $\mu\text{g}/\text{m}^3$ ) <sup>a,f</sup>	18	14	12
<b>Particulate Matter (PM2.5)</b>			
National <sup>c</sup> maximum 24-hour concentration ( $\mu\text{g}/\text{m}^3$ )	87.7	53.6	72.8
State <sup>d</sup> maximum 24-hour concentration ( $\mu\text{g}/\text{m}^3$ )	87.7	53.6	72.8
National annual average concentration ( $\mu\text{g}/\text{m}^3$ )	18.8	18.4	18.3
State <sup>c</sup> annual average concentration ( $\mu\text{g}/\text{m}^3$ ) <sup>e</sup>	—	—	—
Days exceeded NAAQS 24-hour (> 65 $\mu\text{g}/\text{m}^3$ ) <sup>a</sup>	1	0	1

## Notes:

CAAQS = California ambient air quality standards.

ppm = parts per million.

NAAQS = national ambient air quality standards.

 $\mu\text{g}/\text{m}^3$  = micrograms per cubic meter.

— = insufficient data available to determine the value.

<sup>a</sup> An exceedance is not necessarily a violation.<sup>b</sup> Measurements usually are collected every 6 days.<sup>c</sup> National statistics are based on standard conditions data. In addition, national statistics are based on samplers using federal reference or equivalent methods.<sup>d</sup> State statistics are based on local conditions data, except in the South Coast Air Basin, for which statistics are based on standard conditions data. In addition, state statistics are based on California-approved samplers.<sup>e</sup> State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.<sup>f</sup> Mathematical estimate of how many days' concentrations would have been measured as higher than the level of the standard had each day been monitored.

Sources: California Air Resources Board 2008b; U.S. Environmental Protection Agency 2008a.

### South Central Coast Air Basin: CMA

Regional emissions from aircraft, mobile sources, and all sources in the South Central Coast Air Basin are summarized in Table 4.3-12. Aircraft comprise roughly 2% (varying by pollutant) of the total air pollution emissions in the basin.

**Table 4.3-12.** Estimated Annual Average Emissions, South Central Coast Air Basin, 2006

Emission Source Category	Emissions (tons per day)					
	ROG	CO	NOx	SOx	PM10	PM2.5
Aircraft	1.8	15.52	0.8	< 0.1	0.3	0.3
Mobile Sources	57.4	446.7	98.1	1.4	5.1	4.2
<b>Total</b>	<b>112.3</b>	<b>559.2</b>	<b>116.3</b>	<b>16.3</b>	<b>77.3</b>	<b>26.7</b>

Air quality in the vicinity of CMA is monitored at the Rio Mesa School No.1 monitoring station in El Rio, which provides data for ozone, PM10, PM2.5, and NO2. Table 4.3-13 shows the ozone and particulate matter data for the past 3 years. The region is designated as an attainment area for the other pollutants because concentrations of these pollutants are lower than the state and federal standards.

**Table 4.3-13.** Ambient Air Quality Data Measured at Monitoring Station near CMA

Pollutant Standards	El Rio - Rio Mesa School #1		
	2005	2006	2007
<b>Ozone</b>			
Maximum 1-hour concentration (ppm)	0.076	0.089	0.089
Maximum 8-hour concentration (ppm)	0.067	0.070	0.072
Days exceeded CAAQS 1-hour (> 0.09 ppm) <sup>a</sup>	0	0	0
Days exceeded NAAQS 8-hour (> 0.08 ppm) <sup>a</sup>	0	0	0
Days exceeded CAAQS 8-hour (> 0.07 ppm) <sup>a</sup>	0	0	1
<b>Particulate Matter (PM10)<sup>b</sup></b>			
National <sup>c</sup> maximum 24-hour concentration ( $\mu\text{g}/\text{m}^3$ )	54.0	119.4	245.5
State <sup>d</sup> maximum 24-hour concentration ( $\mu\text{g}/\text{m}^3$ )	54.4	119.1	248.0
State annual average concentration ( $\mu\text{g}/\text{m}^3$ ) <sup>e</sup>	12.1	24.1	12.2
Days exceeded NAAQS 24-hour (> 150 $\mu\text{g}/\text{m}^3$ ) <sup>a,f</sup>	0	0	1
Days exceeded CAAQS 24-hour (> 50 $\mu\text{g}/\text{m}^3$ ) <sup>a,f</sup>	2	4	2
<b>Particulate Matter (PM2.5)</b>			
National <sup>c</sup> maximum 24-hour concentration ( $\mu\text{g}/\text{m}^3$ )	35.2	29.8	39.9
State <sup>d</sup> maximum 24-hour concentration ( $\mu\text{g}/\text{m}^3$ )	35.2	37.9	75.0
National annual average concentration ( $\mu\text{g}/\text{m}^3$ )	1.5	9.8	10.6
State <sup>e</sup> annual average concentration ( $\mu\text{g}/\text{m}^3$ ) <sup>e</sup>	1.5	9.8	10.6
Days exceeded NAAQS 24-hour (> 65 $\mu\text{g}/\text{m}^3$ ) <sup>a</sup>	0	0	0

**Notes:**

CAAQS = California ambient air quality standards. ppm = parts per million.

NAAQS = national ambient air quality standards.  $\mu\text{g}/\text{m}^3$  = micrograms per cubic meter.

— = insufficient data available to determine the value.

<sup>a</sup> An exceedance is not necessarily a violation.

<sup>b</sup> Measurements usually are collected every 6 days.

<sup>c</sup> National statistics are based on standard conditions data. In addition, national statistics are based on samplers using federal reference or equivalent methods.

<sup>d</sup> State statistics are based on local conditions data, except in the South Coast Air Basin, for which statistics are based on standard conditions data. In addition, state statistics are based on California-approved samplers.

<sup>e</sup> State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

<sup>f</sup> Mathematical estimate of how many days' concentrations would have been measured as higher than the level of the standard had each day been monitored.

Sources: California Air Resources Board 2008b; U.S. Environmental Protection Agency 2008a.

## Mojave Desert Basin: WJF

Regional emissions from aircraft, mobile sources, and all sources within the Mojave Desert Air Basin are summarized in Table 4.3-14. Aircraft comprise roughly 3% (varying by pollutant) of the total air pollution emissions in the basin.

**Table 4.3-14.** Estimated Annual Average Emissions, Mojave Desert Air Basin, 2006

Emission Source Category	Emissions (tons per day)					
	ROG	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Aircraft	4.8	21.9	3.2	0.4	3.0	3.0
Mobile Sources	66.2	422.9	221.0	4.9	13.4	11.9
MDAB Total	96.3	475.6	286.1	10.5	178.3	48.5

Air quality in the vicinity of WJF is monitored at the 43301 Division Street monitoring station in Lancaster, which provides data for ozone, PM<sub>10</sub>, PM<sub>2.5</sub>, and CO. Table 4.3-15 shows the ozone and particulate matter data for the past 3 years. The region is designated as an attainment area for the other pollutants, because concentrations of these pollutants are lower than the state and federal standards.

**Table 4.3-15.** Ambient Air Quality Data Measured at Monitoring Station near WJF

Pollutant Standards	43301 Division Street, Lancaster		
	2005	2006	2007
<b>Ozone</b>			
Maximum 1-hour concentration (ppm)	0.127	0.132	0.118
Maximum 8-hour concentration (ppm)	0.103	0.105	0.101
Days exceeded CAAQS 1-hour (> 0.09 ppm) a	42	22	16
Days exceeded NAAQS 8-hour (> 0.08 ppm) a	31	16	42
Days exceeded CAAQS 8-hour (> 0.07 ppm) a	73	66	63
<b>Particulate Matter (PM10)<sup>b</sup></b>			
National <sup>c</sup> maximum 24-hour concentration (µg/m <sup>3</sup> )	53.0	63.0	188.0
Stated maximum 24-hour concentration (µg/m <sup>3</sup> )	47.0	58.0	181.0
State annual average concentration (µg/m <sup>3</sup> ) <sup>e</sup>	—	—	—
Days exceeded NAAQS 24-hour (> 150 µg/m <sup>3</sup> ) a,f	0	0	1
Days exceeded CAAQS 24-hour (> 50 µg/m <sup>3</sup> ) a,f	0	4	3
<b>Particulate Matter (PM2.5)</b>			
National <sup>c</sup> maximum 24-hour concentration (µg/m <sup>3</sup> )	28.0	18.0	25.0
Stated maximum 24-hour concentration (µg/m <sup>3</sup> )	28.0	18.0	25.0
National annual average concentration (µg/m <sup>3</sup> )	8.9	7.4	8.0
State <sup>d</sup> annual average concentration (µg/m <sup>3</sup> ) e	8.9	7.4	8.0
Days exceeded NAAQS 24-hour (> 65 µg/m <sup>3</sup> ) a	0	0	0

**Notes:**

CAAQS = California ambient air quality standards.

ppm = parts per million.

NAAQS = national ambient air quality standards.

µg/m<sup>3</sup> = micrograms per cubic meter.

— = insufficient data available to determine the value.

a An exceedance is not necessarily a violation.

b Measurements usually are collected every 6 days.

c National statistics are based on standard conditions data. In addition, national statistics are based on samplers using federal reference or equivalent methods.

d State statistics are based on local conditions data, except in the South Coast Air Basin, for which statistics are based on standard conditions data. In addition, state statistics are based on California-approved samplers.

e State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

f Mathematical estimate of how many days' concentrations would have been measured as higher than the level of the standard had each day been monitored.

Sources: California Air Resources Board 2008b; U.S. Environmental Protection Agency 2008a.

#### **4.3.3.4 Health Effects of Criteria Air Pollutants**

Air pollutants are recognized to have a variety of health effects on humans. Research by CARB shows that exposure to high concentrations of air pollutants can trigger respiratory diseases such as asthma and bronchitis, and cardiovascular diseases. A healthy person exposed to high concentrations of air pollutants may become nauseated or dizzy, may develop a headache or cough, or may experience eye irritation and/or a burning sensation in the chest. Ozone is a powerful irritant that attacks the respiratory system, leading to the damage of lung tissue. Inhaled particulate matter (PM10 and PM2.5), NO<sub>2</sub>, and SO<sub>2</sub> can directly irritate the respiratory tract, constrict airways, and interfere with the mucous lining of the airways. Exposure to CO, when absorbed into the bloodstream, can endanger the hemoglobin, the oxygen-carrying protein in blood, by reducing the amount of oxygen that reaches the heart, brain, and other body tissues. When air pollutants levels are high, a common occurrence in southern California, children, elderly, and people with respiratory problems are advised to remain indoors. Outdoor exercise also is discouraged because strenuous activity may cause shortness of breath and chest pains. A brief discussion of the criteria pollutants and their effect on human health and the environment is provided in Table 4.3-16.

**Table 4.3-16.** Health Effects Summary of the Major Criteria Air Pollutants

<b>Pollutants</b>	<b>Sources</b>	<b>Primary Effects</b>
Ozone	Atmospheric reaction of organic gases with nitrogen oxides in sunlight.	Aggravation of respiratory and cardiovascular diseases. Irritation of eyes. Impairment of cardiopulmonary function. Plant leaf injury.
Nitrogen Dioxide (NO <sub>2</sub> )	Motor vehicle exhaust. High temperature stationary combustion. Atmospheric reactions.	Aggravation of respiratory illness. Reduced visibility. Reduced plant growth. Formation of acid rain.
Carbon Monoxide (CO)	Incomplete combustion of fuels and other carbon containing substances, such as motor exhaust. Natural events, such as decomposition of organic matter.	Reduced tolerance for exercise. Impairment of mental function. Impairment of fetal development. Death at high levels of exposure. Aggravation of some heart diseases (angina).
Particulate Matter (PM <sub>2.5</sub> and PM <sub>10</sub> )	Stationary combustion of solid fuels. Construction activities. Industrial processes. Atmospheric chemical reactions.	Reduced lung function. Aggravation of the effects of pollutants. Aggravation of respiratory and cardiorespiratory diseases. Increased cough and chest discomfort. Reduced visibility.
Sulfur Dioxide (SO <sub>2</sub> )	Combustion of sulfur-containing fossil fuels. Smelting of sulfur bearing metal ores. Industrial processes.	Aggravation of respiratory diseases (asthma, emphysema). Reduced lung function. Irritation of eyes. Reduced visibility. Plant injury. Deterioration of metals, textiles, coatings, etc.
Lead (Pb)	Contaminated soil.	Impairment of blood function and nerve construction. Behavioral and hearing problems in children.

Source: California Air Resources Board 2006.

TACs are gases, liquids, or particles that are emitted into the atmosphere and, under certain conditions, may cause adverse health effects such as cancer, acute non-cancer, and chronic non-cancer effects. The Office of Environmental Health Hazard Assessment (OEHHA) has compiled the health effects and health values for all toxic

air pollutants into one document entitled *Consolidated Table of OEHHA/CARB Approved Risk Assessment Health Values* (Office of Environmental Health Hazard Assessment (OEHHA 2005), and has included these values in the Hot Spots Assessment and Reporting Program (HARP). Table 4.3-17 summarizes the health effects of TACs potentially emitted during typical airport operations for any of the project alternatives.

**Table 4.3-17. Toxics Air Contaminants Health Effects**

TAC	Cancer Unit Risk Factor ( $\mu\text{g}/\text{m}^3$ ) <sup>-1</sup>	Chronic Inhalation Reference Exposure Level ( $\mu\text{g}/\text{m}^3$ )	Chronic Hazard Index Target Organ Systems	Acute Inhalation Reference Exposure Level ( $\mu\text{g}/\text{m}^3$ )	Acute Hazard Index Target Organ Systems
1,3-Butadiene	$1.7 \times 10^{-4}$	20	Reproductive System		
Acetaldehyde	$2.7 \times 10^{-6}$	9.0	Respiratory System		
Acrolein		0.06	Eyes; Respiratory System	0.19	Eyes; Respiratory System
Benzene	$2.9 \times 10^{-5}$	60	Developmental; Hematopoietic System; Nervous System	1,300	Hematologic System; Immune System; Reproductive/Developmental
Chromium		0.2	Respiratory System		
Formaldehyde	$6.0 \times 10^{-6}$	3.0	Eyes; Respiratory System	94	Eyes; Immune System; Respiratory System
Lead	$1.2 \times 10^{-5}$				
Naphthalene		9.0	Respiratory System		

Source: Office of Environmental Health Hazard Assessment (OEHHA 2005), Consolidated Table of OEHHA/CARB Approved Risk Assessment Health Values.

### 4.3.3.5 Sensitive Receptors

Air quality regulators typically define sensitive receptors as schools (preschool-12th grade), hospitals, resident care facilities, day-care centers, or other facilities that may house individuals with health conditions that would be adversely impacted by changes in air quality. Sensitive receptors were identified within a 1-mile radius of each airport using aerial photographs available in the electronic geographical information system (GIS) database from the Electric Power Research Institute (EPRI) and/or Google Earth. The locations of sensitive receptors around the airports are



summarized by air basin below and shown in Figures 4.3-1 through 4.3-6. For informational purposes, these figures also show residential receptors, though residences do not necessarily qualify as sensitive receptors.

### South Coast Air Basin: VNY, BUR, LAX, and CNOs

The sensitive receptors within 1 mile of VNY are shown in Figure 4.3-1 and listed below.

S4	Bassett Elementary School	0.7 mile	15756 Bassett St, Van Nuys
S5	Birmingham Senior High School	1.0 mile	17000 Haynes St, Van Nuys
S9	Cohasset Elementary School	0.7 mile	15810 Saticoy St, Van Nuys
S19	Gault Elementary School	0.8 mile	17000 Gault St, Van Nuys
S33	Mulholland Middle School	1.0 mile	17120 Vanowen St, Van Nuys
S40	Parthenia Street Elementary School	0.7 mile	16825 Napa St, Northridge
S47	Saint Bridget School	0.4 mile	16711 Gault St, Van Nuys
S53	Stagg Elementary School	0.9 mile	7839 Amestoy Ave, Van Nuys
S57	Valley School	0.8 mile	15700 Sherman Way, Van Nuys

The sensitive receptors within 1 mile of BUR are shown in Figure 4.3-2 and listed below.

S7	Camellia Elementary School	1.0 mile	7451 Camelia Ave, N. Hollywood
S14	Fair Avenue Elementary School	0.7 mile	6501 Fair Ave, N. Hollywood
S20	Glenwood Elementary School	0.4 mile	8001 Ledge Ave, Sun Valley
S31	Luther Burbank Middle School	1.0 mile	3700 W. Jeffries Ave, Glendale
S39	Our Lady of the Holy Rosary School	0.6 mile	7802 Vineland Ave, Sun Valley
S43	Providencia Elementary School	0.7 mile	1919 N. Ontario St, Glendale
S44	Roscoe Elementary School	0.6 mile	10765 Strathern St, Sun Valley
S50	Saint Patrick School	1.0 mile	10626 Erwin St., N. Hollywood
S55	Sun Valley Middle School	0.6 mile	7330 Bakman Ave, Sun Valley
S60	Washington Elementary School	0.8 mile	2322 N. Lincoln Ave, Glendale
S64	Woodbury University	0.9 mile	750 Glenoaks Blvd, Burbank

The sensitive receptors within one mile of LAX are shown in Figure 4.3-3 and listed below.

S3	Arena High School	1.0 mile	641 Sheldon St, El Segundo
S6	Buford Elementary School	0.9 mile	4919 W 109 <sup>th</sup> St, El Segundo
S8	Center Street Elementary School	1.0 mile	700 Center St, El Segundo
S11	El Segundo High School	1.0 mile	640 Main St, El Segundo
S12	El Segundo Middle School	0.6 mile	332 Center St, El Segundo
S13	Westchester-Emerson Community Adult School	0.3 mile	8810 Emerson Ave, Los Angeles
S15	Felton Elementary School	0.8 mile	10417 Felton Ave, Lennox
S25	Kentwood Elementary School	0.7 mile	8401 Emerson Ave, Los Angeles
S27	Lennox Middle School	0.9 mile	11033 Buford Ave, Lennox
S30	Loyola Village Elementary School	0.5 mile	8821 Villanova Ave, Los Angeles
S42	Paseo Del Rey Fundamental School	0.6 mile	7751 Paseo del Rey, Playa Del Rey
S46	Saint Bernard High School	0.4 mile	9100 Falmouth Ave, Playa Del Rey
S49	Saint Johns Lutheran Child Development Center	0.5 mile	1611 E Sycamore, El Segundo
S59	Visitation School	0.4 mile	8740 Emerson Ave, Los Angeles
S62	Westchester Senior High School	0.6 mile	7400 W Manchester Ave, Los Angeles

The sensitive receptors within 1 mile of CNO are shown in Figure 4.3-4 and listed below.

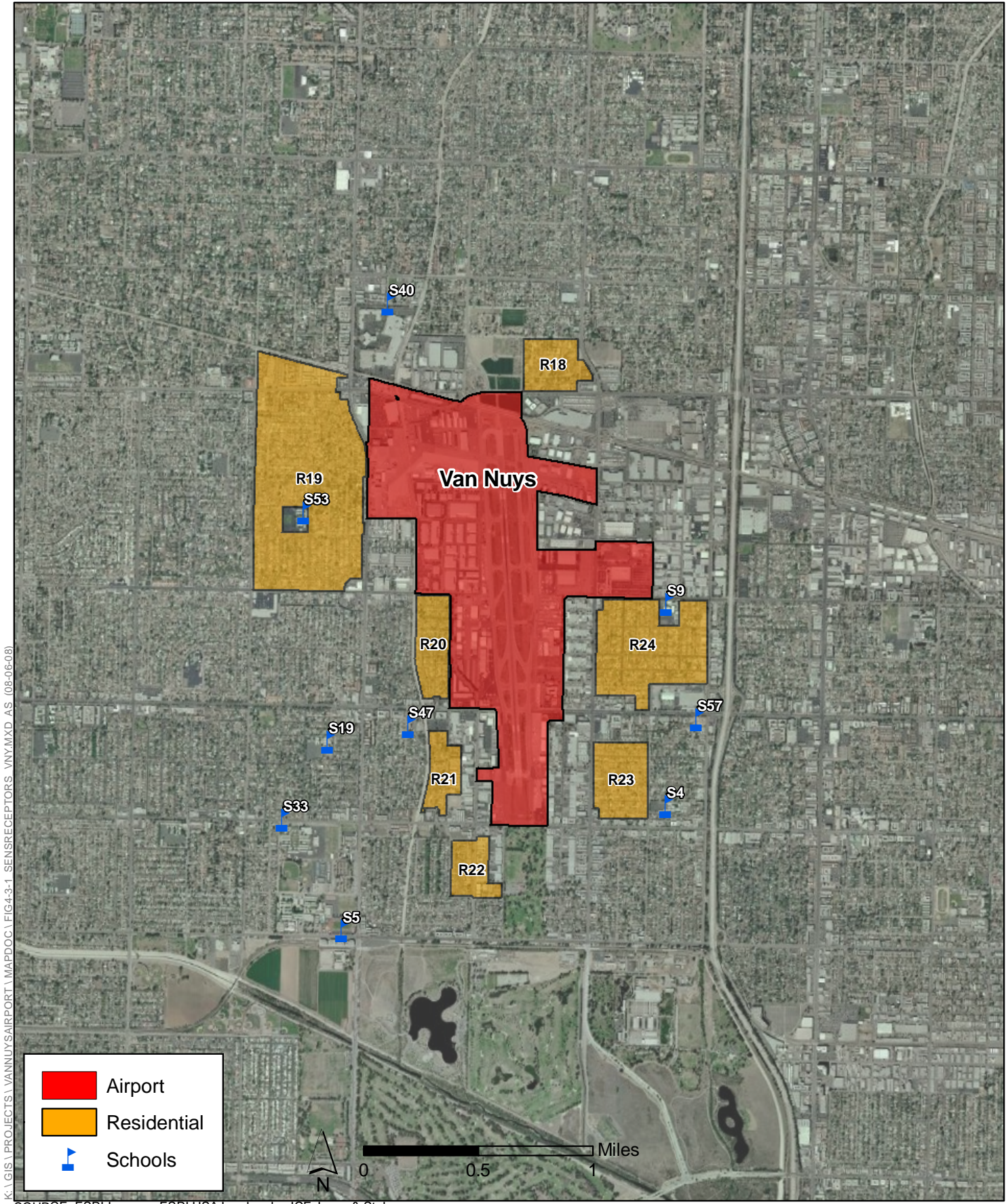
S54	Stark Youth Training School	0.5 mile	15180 Euclid Ave, Chino
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### **South Central Coast Air Basin: CMA**

The sensitive receptors within 1 mile of CMA are shown in Figure 4.3-5 and listed below.

S10	Ventura Training Center Academy	0.4 mile	425 Durley Ave, Camarillo
S17	Frontier High School	0.5 mile	545 Airport Way, Camarillo
S18	Gateway Community School	0.7 mile	200 Horizon Way, Camarillo





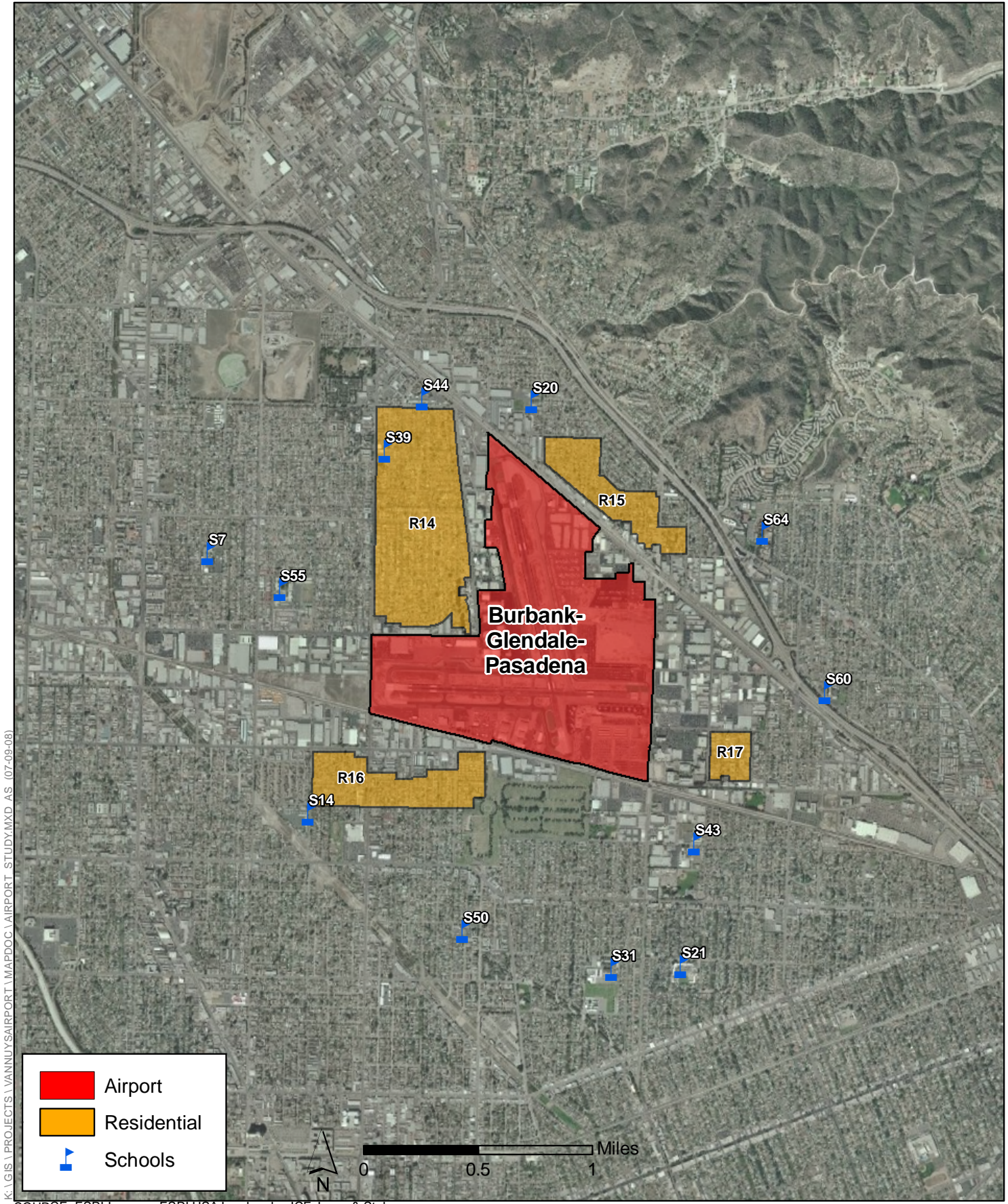
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SOURCE: ESRI Imagery, ESRI USA Landmarks, ICF Jones & Stokes

Figure 4.3-1  
Receptors within one mile of VNY airport  
Van Nuys Airport Noisier Aircraft Phaseout EIR







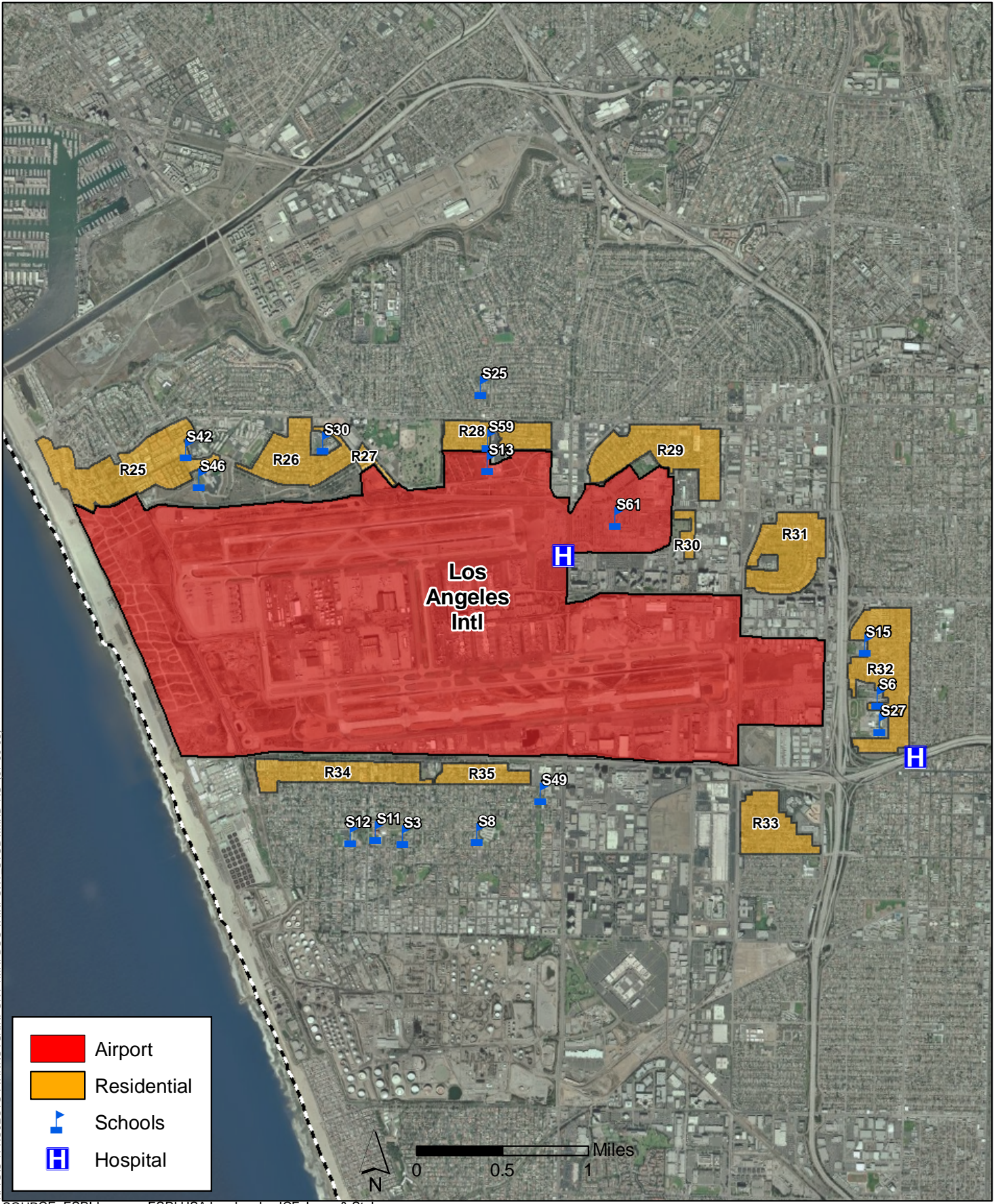
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SOURCE: ESRI Imagery, ESRI USA Landmarks, ICF Jones & Stokes

Figure 4.3-2  
Receptors within one mile of BUR airport  
Van Nuys Airport Noisier Aircraft Phaseout EIR







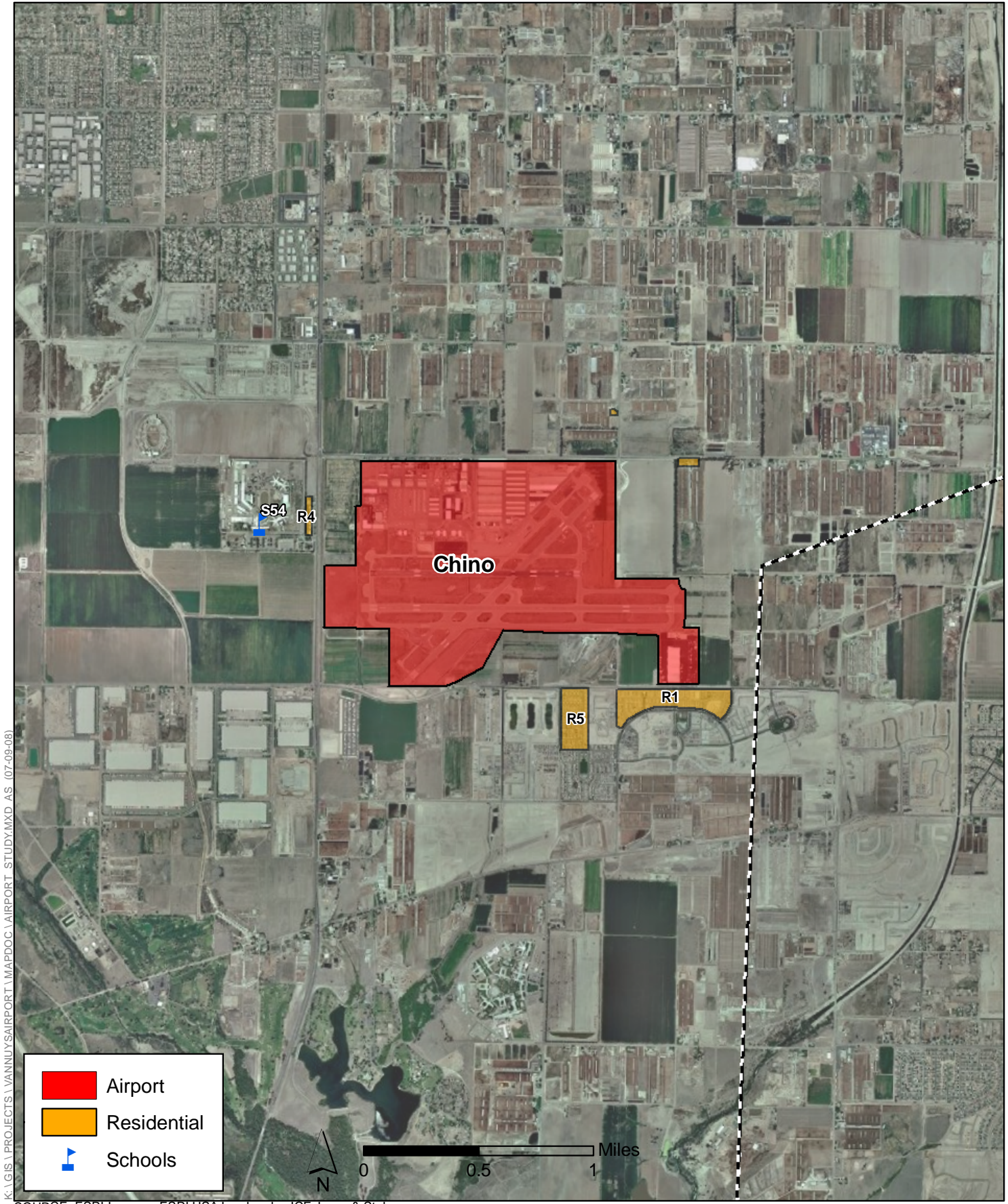
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SOURCE: ESRI Imagery, ESRI USA Landmarks, ICF Jones & Stokes

Figure 4.3-3  
Receptors within one mile of LAX airport  
Van Nuys Airport Noisier Aircraft Phaseout EIR







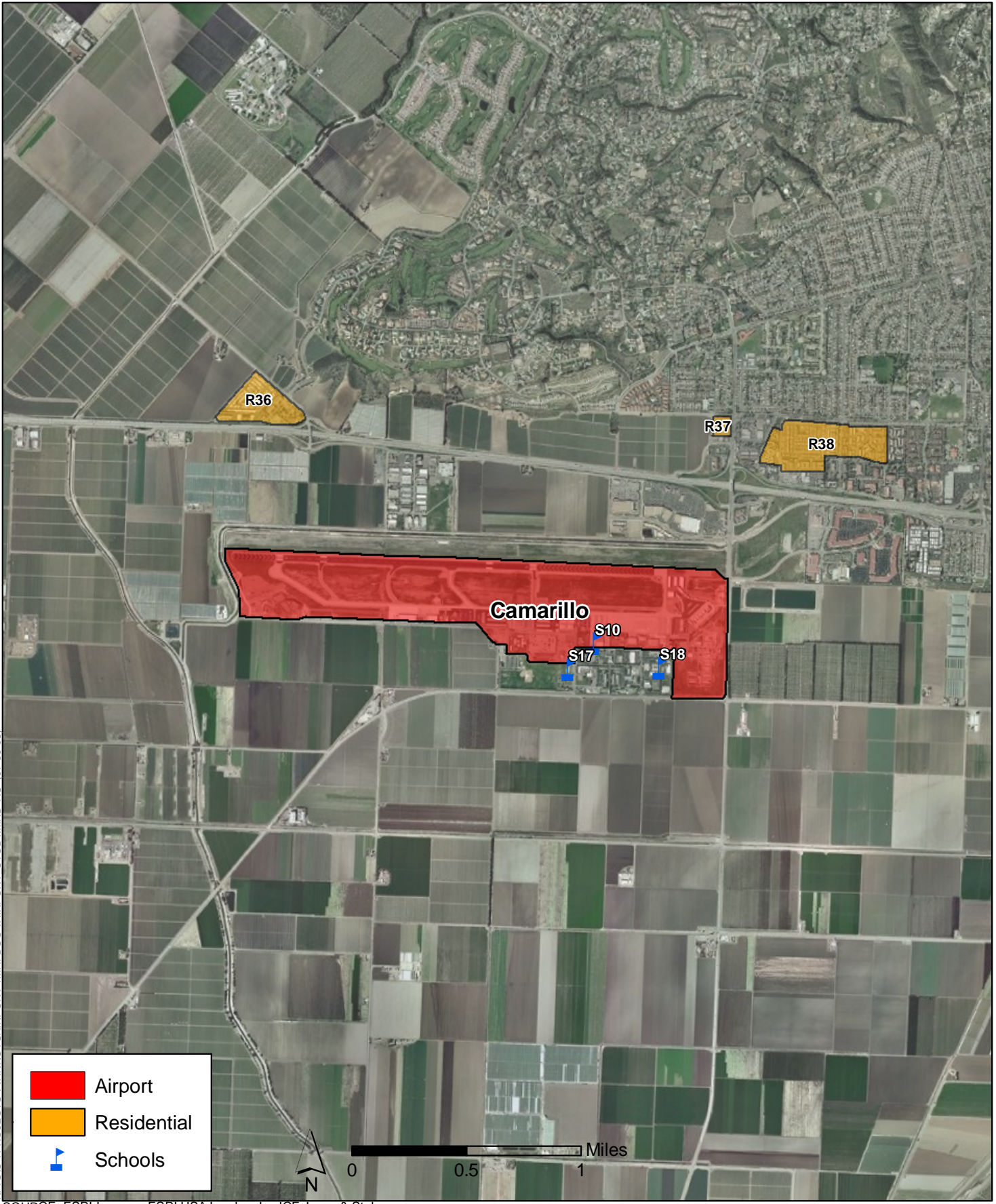
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SOURCE: ESRI Imagery, ESRI USA Landmarks, ICF Jones & Stokes

Figure 4.3-4  
Sensitive receptors within one mile of CNO airport  
Van Nuys Airport Noisier Aircraft Phaseout EIR







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SOURCE: ESRI Imagery, ESRI USA Landmarks, ICF Jones & Stokes

Figure 4.3-5  
Receptors within one mile of CMA airport  
Van Nuys Airport Noisier Aircraft Phaseout EIR



## **Mojave Desert Air Basin: WJF**

There are no sensitive receptors within 1 mile of WJF. A GIS diagram of the airport and the surrounding residences is shown in Figure 4.3-6.

### **4.3.4 Air Quality Analysis Methodology**

#### **4.3.4.1 Construction Emissions Impact Approach**

There is no construction activity associated with the project. Therefore, no construction emissions analysis was performed.

#### **4.3.4.2 Operational Emissions Impact Approach**

##### **Criteria Pollutant Emissions**

Emissions associated with aircraft flights and related support equipment are expected during operation of the project. All project-related aircraft are jet engine driven aircraft. Modern jet engine fuel is primarily composed of kerosene, and does not contain lead. In a jet engine, the fuel and an oxidizer combust (or burn) and the products of that combustion are exhausted through a narrow opening at high speed. Because leaded fuel (tetraethyl lead) is not used in jet engine aircraft, emissions of lead particles will not occur from proposed project-related aircraft activities. Criteria air pollutants associated with airport operation include CO, NO<sub>2</sub>, ozone, PM<sub>10</sub>, PM<sub>2.5</sub>, and SO<sub>2</sub>. One of these pollutants, ozone, is a photochemical oxidant that is not directly emitted, but forms from precursor compounds that react in the presence of sunlight. Therefore, the analysis of ozone is accomplished by estimating emissions of its precursors, which are VOCs and NO<sub>x</sub>. Aircraft flight data used in the analysis is based on data compiled by SH&E (SH&E 2008). Emissions from both aircraft and non-aircraft activities is estimated, as described below, for the 2014 and 2016 project scenarios.

##### **Toxic Air Contaminants**

Potential TAC impacts are evaluated by conducting a review of the TACs of concern around typical airports in southern California, as guided by CARB's Air Quality and Land Use Handbook: A Community Health Perspective (April 2005). The screening-level evaluation consists of reviewing the project location to identify any new or modified TAC emission sources, and downwind sensitive receptor locations within 1 mile. If it is determined that the project would significantly increase TACs, or modify an existing TAC exposure on the nearby sensitive receptors, then a HRA would be required to determine project impacts.

For the TAC emission inventories, the chemicals of potential concern generated by sources located on airport property will be included. The chemicals of potential concern will consist of those TACs that are known or expected to be emitted by sources at the airport which are also listed federal HAPs identified in the federal CAA and/or California's AB 2588 Toxic Hot Spots program. Hydrocarbon and particulate matter emissions will be used to estimate TAC emissions for both aircraft and nonaircraft sources, including both metals and diesel exhaust particulate matter. The emission rates of specific chemicals of potential concern will then be estimated using speciation profiles suitable for each source/pollutant.

Eight TACs of concern for aircraft-related sources were selected: acetaldehyde; acrolein; benzene; 1,3-butadiene; chromium; formaldehyde; lead; and naphthalene. In combination, these TACs are expected to account for about 99% of all potency-weighted emissions that could be associated with aircraft operations.

### **Climate Change and Greenhouse Gas Emissions**

No federal, state or regional air quality agency has adopted a methodology or quantitative threshold that can be applied to evaluate the significance of an individual project's contribution to GHG emissions, such as the quantitative thresholds that exist for criteria pollutants. Based on the threshold prescribed above, for the purpose of determining the impacts from GHG emissions for this project, any increase in GHG emissions would be considered a significant impact. Since the proposed project would result in reallocation of existing aircraft (and associated emissions) to different airports and no new emissions sources would result from the proposed project, there would be no adverse climate change or GHG impacts.

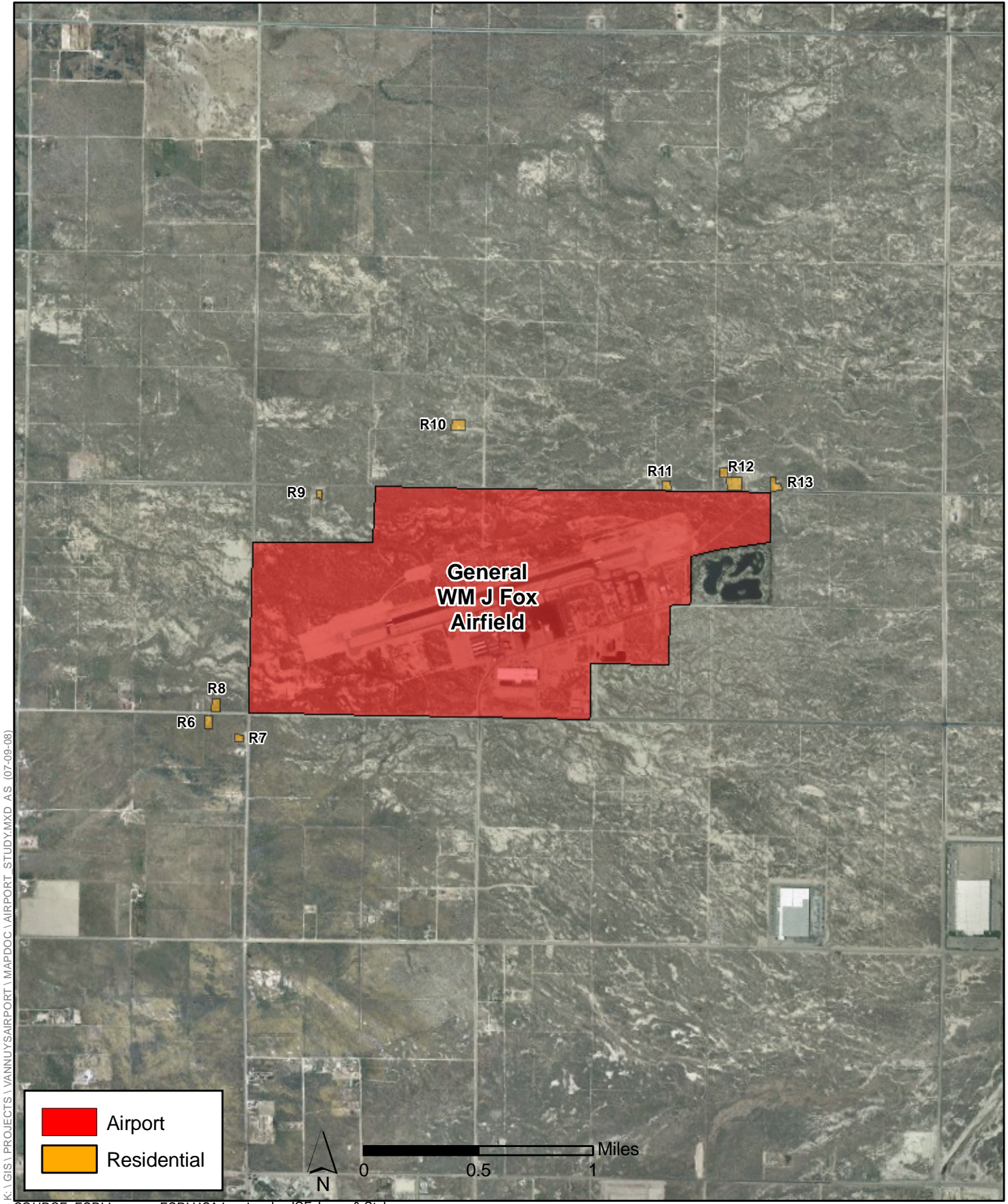
#### **4.3.4.3 Analysis Scenarios**

The primary air quality-related concern with the project is the potential air quality effects of the project on the potential diversion airports. As operations shift from VNY to the five diversion airports, the emissions of air pollutants by the planes during take-offs and landings would be relocated as well.

Additionally, with the conversion of selected noisy aircraft to quieter and more modern aircraft that would continue operations at VNY, it is possible that emissions of some pollutants may actually increase at VNY because of the different characteristics and emission profiles of the newer engines.

In this section, the air pollutant emissions by aircraft moving from VNY to the diversion airports, or aircraft staying at VNY with aircraft and/or engine conversions, are estimated under the project. Emissions at diversion airports are expected to increase in proportion to the number of aircraft operations being transferred to each airport and the emission levels per operation for each type of aircraft. Emissions at VNY would drop to zero for aircraft that are being phased out, and would either increase or decrease for aircraft that are converting and staying at VNY.





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SOURCE: ESRI Imagery, ESRI USA Landmarks, ICF Jones & Stokes

Figure 4.3-6  
Sensitive receptors within one mile of WJF airport  
Van Nuys Airport Noisier Aircraft Phaseout EIR





Project scenarios are for the years 2014 and 2016, as appropriate for each diversion airport. Emissions at diversion airports are evaluated as project-related increases only, without consideration for aircraft that are already operating at these airports. The emissions calculated for the year 2014 for aircraft moving to BUR, LAX, and CMA under the With Project scenario would directly increase in proportion to the number of operations and the emission profiles for each aircraft and associated power units and ground support equipment. The emissions calculated for the year 2016 for aircraft moving to CNO and WJFs would increase in a similar fashion. The No Project scenario for these diversion airports would be zero emissions for all aircraft in the study, and the calculated increases would be compared to significance thresholds for each region, as outlined in Section 4.3.2.4.

Emissions at VNY, on the other hand, are calculated for the years 2014 and 2016 under the With Project scenario (with aircraft converting in-place at VNY and vacating from VNY), and then compared to the emissions calculated for the No Project scenario. The differences in emissions between the two scenarios would be compared to the significance thresholds for the region, as outlined in Section 4.3.2.4. The analysis scenarios are summarized in Table 4.3-18 for each airport and each year.

**Table 4.3-18.** Analysis Scenarios of Project-Related Aircraft Emission Changes by Airport and Year

Airport	Analysis Year	No Project	With Project
VNY	2014 and 2016	X	X
BUR	2014	(all zero)	X
LAX	2014	(all zero)	X
CMA	2014	(all zero)	X
CNO	2016	(all zero)	X
WJF	2016	(all zero)	X

X = denotes the scenarios where emissions were evaluated for the respective airports.

#### 4.3.4.4 Aircraft Emissions

Aircraft emissions were estimated using the Emissions and Dispersion Modeling System (EDMS) version 5.0.2, released by FAA on June 29, 2007. EDMS is the model required by EPA and FAA for evaluating emissions from airports, and provides estimates for hydrocarbons, CO, NO<sub>x</sub>, SO<sub>x</sub>, and PM<sub>10</sub>.

EDMS is a combined emissions inventory and dispersion model used for assessing air quality at civilian airports and military air bases. The model incorporates both EPA-approved emissions inventory methodologies and dispersion models to ensure that analyses performed with the application conform to EPA guidelines. The model includes emissions and dispersion calculations, a rather comprehensive list of aircraft

engines, aerospace ground support equipment, auxiliary power units, and vehicular and stationary source emission factor data. The model incorporates options for modifying some data to accurately represent unique characteristics at airfield locations, and also allows the user to add customized aircraft types to the system database.

The pollutants currently included in the emission inventory are CO, VOC, NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. Emissions of TACs may be estimated using VOC and particulate matter emissions and speciation factors based on the proportions of each TAC in the criteria pollutants for each emission source category and/or fuel characteristics. The model also provides fuel consumption data, which can be used to estimate CO<sub>2</sub> emissions for analysis of Greenhouse Gas and climate change effects.

EDMS was used in accordance with the guidelines set forth in the FAA's Air Quality Procedures for Civilian Airport and Air Force Bases (Federal Aviation Administration 1997). According to the FAA's guidance, the aircraft emission inventory should be based on emissions occurring within the portion of the atmosphere that is completely mixed, beginning at the ground surface and extending to the mixing height. In general, the mixing height is assumed to have a default height above ground level of 3,000 feet. As used throughout this EIR, an aircraft operation is generally defined as a takeoff or a landing. As these relate to the FAA analysis procedures, these operations occur in the "landing and takeoff (LTO) cycle." The standard LTO cycle begins when the aircraft enters the mixing zone as it approaches the airport on its descent from cruising altitude, lands, and taxis to the gate. The cycle continues as the aircraft taxis back out to the runway, takes off, and climbs out of the mixing zone and back up to cruising altitude. The five specific operating modes in a standard LTO cycle are approach, taxi or idle in, taxi or idle out, takeoff, and climb-out. The approach, taxi, and idle-in modes relate to landing operations; the taxi, idle-out, takeoff, and climb-out modes relate to takeoff operations.

For each aircraft type involved in the action, the following steps were taken to calculate the emissions.

1. Determine the number of each type of aircraft and the number and type of engines per aircraft.
2. Determine the annual number of operations conducted per aircraft.
3. Determine the power settings for each operating mode in order to determine the fuel flow per engine and appropriate emission factors (usually given as pounds of pollutant per 1,000 pounds of fuel used).
4. Determine the time-in-mode for each operating mode.
5. Multiply the number of operations per aircraft for each operating mode by the number of aircraft, fuel flow rate per engine, number of engines, emission factor, time-in-mode and appropriate conversion factors to obtain the total emissions in tons per year for each operating mode.

6. Sum the emissions for all operating modes to obtain the total daily and annual emissions for the aircraft type.

EDMS default settings were used for engine emission factors, power settings, time-in-mode data, auxiliary power units, ground support equipment, and other parameters for each aircraft taking off and landing at the various airports. The data used in the model, including the aircraft-engine combinations and the number of operations by each type of aircraft at each airport for each of the study years and scenarios, were based on data compiled by SH&E (Phaseout of Noisy Aircraft at Van Nuys Regional Airport, 3/13/2008; SH&E Memorandum from LAWA: CEQA Airports Baseline Business Jet Fleet Forecast, 10/3/2007; personal communications with SH&E). In some cases, EDMS engines did not match the engine specified for a particular aircraft, in which case the EDMS default aircraft-engine pair was used instead. In the case of the L-39 Czech-made ~~Albatross~~ Albatros trainer, no data were available in EDMS so the emissions were calculated based on engine data for the T-38 aircraft in place of the L-39. The aircraft-engine combinations used in the EDMS model for each type of aircraft are shown in Table 4.3-19.

**Table 4.3-19.** Aircraft-Engine Combinations Used in Emissions Modeling

<b>Aircraft Code</b>	<b>Aircraft Name</b>	<b>Engine Specification</b>	<b>Aircraft used in EDMS</b>	<b>Engine used in EDMS</b>
B721	Boeing 727-100	JT8D-9	Boeing 727-100 Series	JT8D-9 Series Smoke Fix
B722	Boeing 727-200	JT8D-17	Boeing 727-200 Series	JT8D-17 Smoke Fix
B727	Boeing 727	JT8D-17	Boeing 727-200 Series	JT8D-17 Smoke Fix
F5	US-made military F-5	(no data)	Northrup F-5E/F Tiger II	J85-GE-5F
GLF2	Gulfstream II/G200	<del>(no data)</del> SPEY MK.511-8	Gulfstream II	SPEY MK.511-8
GLF3	Gulfstream III/G300	<del>GHB/GHI</del> SPEY MK.511-8	Gulfstream G300	SPEY MK.511-8
H25A	BAe HS 125-600A (Hawker 600)	Viper 601-22	Hawker HS-125 Series 600	TFE731-2-2B
L39	Czech L39 Albatros trainer	<del>(no data)</del> Ivchenko AI- 25TL Turbofan	T-38 Talon	J85-GE-5H (w/AB)
LJ24	Bombadier Learjet 24D	CJ610-6	Bombadier Learjet 24D	CJ610-6
L25	Bombadier Learjet 25D	CJ610-8A	Bombadier Learjet 25	CJ610-6
L28	Bombadier Learjet 28	<del>(no data)</del> CJ610-8A	Bombadier Learjet 28	CJ610-6
L35	Bombadier Learjet 35/36	<del>(no data)</del> TFE 731-2	Bombadier Learjet 35	TFE731-2-2B
SBR1	Rockwell Sabre 60	JT12A-8	Rockwell Sabreliner 60	CF700-2D
T38	US-made military T-38	(no data)	T-38 Talon	J85-GE-5H (w/AB)

Note: This table was revised in the Final EIR to clarify engine types for the aircraft potentially affected by the proposed phaseout. The modifications do not affect the impact analysis

One aircraft operation is considered either a take-off or a landing, so, for each aircraft, the annual number of operations was divided by two for entry of LTO cycles (takeoffs and landings) into the model.

Peak daily operations at VNY were estimated using the assumption that operations are distributed evenly throughout the year. That is, the annual operations for each of the project-related aircraft types were divided by 365.25 (the number of days in a year, averaged to account for leap years) and rounded up, so that the minimum number of flights per day for each aircraft type based at VNY would be one flight per day, rather than a fractional number (in accordance with EDMS input requirements). For example, projections for the year 2014 under the No Project scenario predict 624

383 annual take-offs and ~~624~~ 383 annual landings of GLF2 aircraft during 2014 at VNY. Dividing by 365.25 and rounding up to the nearest whole number results in a prediction that there would be a daily average of ~~two take-offs~~ one take-off and ~~two landings~~ one landing of GLF2 aircraft during 2014 at VNY. By this method, each project-related aircraft type yields at least a fraction of a daily flight at VNY, and therefore the analysis assumed that all aircraft types would be operating on the same day. That is, the peak daily emissions for each aircraft type are summed to determine the peak daily emissions at VNY for a given year.

For the diversion airports, reliance on annual averages to determine daily peak emissions would yield unrealistically conservative results, because it would assume that in one day all aircraft types that are diverted to a particular airport would go through one LTO cycle. To provide a more realistic depiction of peak days at the diversion airports, SH&E reviewed the available 2006 data to determine the single day at VNY with the most operations by noise ordinance-affected aircraft, for each of the two analysis years. The busiest day at VNY for aircraft affected by the proposed 2014 noise limits was identified as having multiple operations of Gulfstream 2, Gulfstream 3, and ~~H25~~ Hawker 600, and a single operation of a Boeing 727; these operations would be diverted to LAX, BUR, and CMA, in accordance with the diversion methodology established by SH&E. The busiest day at VNY for aircraft affected by the 2016 expiration of the maintenance and historic-aircraft exemptions was identified as having multiple operations of Gulfstream 2, Gulfstream 3, and ~~T34~~ T38, and a single operation of a ~~Lear 39~~ L39 Albatros; these operations would be diverted to CNO and WJF, in accordance with the diversion methodology established by SH&E.

The EDMS modeling method, required by the FAA policy (FAA Orders 1050 and 5050), does not allow fractions of LTO cycles to be input, and as a result can yield a ~~very conservative~~ conservatively high estimate of project impacts, especially where the number of additional operations at a particular airport is small, because it can end up counting the same diverted LTO cycle multiple times. For example, one ~~Boeing 727~~ Hawker 600 operation occurring at VNY on a peak day would be transferred to three diversion airports (according to the diversion methodology established by ~~SH&E~~ SH&E), equating to an estimated 0.6 operation per day at BUR, 0.3 operation per day at CMA, and 0.1 operation per day at LAX. For input into the EDMS model, which allows a minimum of one flight per day, these numbers were divided by two and rounded up, resulting in one LTO at each of the three airports. Thus, the resulting modeled emissions are elevated and can be considered conservative. Actual project-related emissions are expected to be lower.

Table 4.3-20 shows the annual number of aircraft LTOs (i.e., one LTO equals one take-off and one landing, or two aircraft operations) used in the EDMS model for each type of aircraft at each airport. The numbers of operations shown in this table include only those aircraft types that have been identified as “noisy” aircraft and either are being converted to quieter aircraft and staying at the VNY or are moving to diversion airports by 2014 or 2016 as dictated by stricter noise ordinances at VNY. Projections for anticipated natural decreases in these populations under the No Project scenario are indicated in the first three columns under VNY for calendar years 2009, 2014, and 2016. The remaining columns show the expected number of

landings and take-offs—LTOs of noisy aircraft or converted aircraft at each airport under the With Project (WP) scenario.

**Table 4.3-20. Annual Landing and Take-Off Cycles at Each Airport (Noisy or Converted Aircraft)**

	VNY					BUR	LAX	CMA	CNO	WJF
	2009	2014	2016	2014	2016	2014	2014	2014	2016	2016
<b>Aircraft</b>	<b>NP</b>			<b>WP</b>		<b>WP</b>				
B721	7	6	4	—	—	—	6	—	—	—
B722	3	<del>32</del>	<del>21</del>	—	—	—	<del>32</del>	—	—	—
B727	9	8	<del>54</del>	—	—	—	8	—	—	—
F5	2	2	2	2	—	—	—	—	2	—
GLF2	624	383	<del>346</del> <u>315</u>	65	—	12	2	7	—	65
GLF3	835	461	364	696	508	37	6	22	—	65
H25A	5	2	<del>21</del>	—	—	2	1	1	—	—
L39	29	29	29	29	—	—	—	—	29	—
LJ24	47	<del>4615</del>	10	—	—	9	2	6	—	—
LJ25	371	<del>245</del> <u>244</u>	207	—	—	38	6	23	—	—
LJ28	5	1	1	—	—	1	1	1	—	—
LJ35	—	—	—	<del>179</del> <u>178</u>	<del>152</del> <u>151</u>	—	—	—	—	—
SBR1	6	<del>21</del>	1	—	—	1	1	1	—	—
T38	19	19	19	19	—	—	—	—	19	—
<b>Total per Year</b>	<b>1,962</b>	<del><b>1,177</b></del> <b><u>1,173</u></b>	<del><b>962</b></del> <b><u>958</u></b>	<b>990</b>	<b>660</b>	<b>100</b>	<b><del>3635</del></b> <b><u>3635</u></b>	<b>61</b>	<b>50</b>	<b>130</b>

NP = No Project; WP = Project

Source: SH&E, Phaseout of Noisy Aircraft at Van Nuys Regional Airport, 3/13/2008; SH&E, personal communications, 10/29/08.

Note: This table has been revised in the Final EIR to correct minor clerical errors. The modifications do not affect the impact conclusions.

Table 4.3-21 shows the peak daily number of aircraft LTO cycles used in the EDMS model for a single day under the No Project and With Project scenarios for each type of aircraft at each airport. The numbers of operations shown in this table include only those aircraft types that have been identified as noisy aircraft and either are being converted to quieter aircraft and staying at the VNY or are moving to diversion airports by 2014 or 2016 as dictated by stricter noise ordinances at VNY. Aircraft types that did not operate on the peak day identified at VNY are not listed in the table. Projections for anticipated natural decreases in these populations under the No

Project scenario are indicated in the first three columns under VNY for calendar years 2009, 2014, and 2016. The remaining columns show the expected number of landings and take-offs of noisy aircraft or converted aircraft at each airport under the Project scenario. Aircraft types that are not being moved or converted and will continue to operate at these airports are not included in this table.

**Table 4.3-21. Peak Daily Landings and Take-Offs at Each Airport (Noisy or Converted Aircraft)**

Aircraft	Number of LTO (Landings and Take-Offs)									
	VNY			BUR	LAX	CMA	CNO	WJF		
	2009	2014	2016	2014	2016	2014	2014	2014	2016	2016
	NP			WP		WP				
B721	+	+	+	—	—	—	—	—	—	—
B722	+	+	+	—	—	—	—	—	—	—
B727	1	1	1	—	—	<del>1</del>	1	<del>1</del>	—	—
E5	+	+	+	+	—	—	—	—	—	—
GLF2	2	2	1	1	—	<del>2</del> 1	1	1	—	1
GLF3	3	2	1	2	2	<del>2</del> 1	1	1	—	<del>2</del> 1
H25A	1	1	1	—	—	1	1	1	—	—
L39	1	1	1	1	—	—	—	—	1	—
LJ24	+	+	+	—	—	—	—	—	—	—
LJ25	<del>2</del>	+	+	—	—	—	—	—	—	—
LJ28	+	+	+	—	—	—	—	—	—	—
LJ35	—	—	—	+	+	—	—	—	—	—
SBR1	+	+	+	—	—	—	—	—	—	—
T38	1	1	1	1	—	—	—	—	1	—
<b>Total Per Day</b>	<b><del>47</del> 9</b>	<b><del>45</del> 8</b>	<b><del>43</del> 6</b>	<b><del>7</del> 5</b>	<b><del>3</del> 2</b>	<b><del>6</del> 3</b>	<b>4</b>	<b><del>4</del> 3</b>	<b>2</b>	<b><del>3</del> 2</b>

NP = No Project; WP = Project

Source: SH&E, Phaseout of Noisy Aircraft at Van Nuys Regional Airport, 3/13/2008; SH&E, personal communications, 9/17/2008 and 10/29/08.

Note: This table has been revised in the Final EIR because the version presented in the Draft EIR erroneously showed LTOs for aircraft that did not operate during the peak operational day identified at VNY.

## 4.3.5 Impact Analysis

The project involves only aircraft emissions and emissions from auxiliary power units (APU) and ground support equipment (GSE) that are directly related to aircraft

operations. No construction activities or changes in any other operational activities are expected to occur as a result of the implementation of the project. In other words, no indirect vehicular activity, no aircraft maintenance, and no additional energy consumption related to increases in building occupancy or other physical changes would result from the project.

### 4.3.5.1 Projected Emissions and Levels of Significance

#### South Coast Air Basin: VNY, BUR, LAX, and CNOs

##### Van Nuys Airport

###### *Consistency with Regional Air Quality Management Plan*

SCAQMD is required, pursuant to the CAA, to reduce emissions of criteria pollutants for which the South Coast Air Basin is in nonattainment (i.e., ozone, PM10, and PM2.5). The project would be subject to the SCAQMD's AQMP. The AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. These strategies are developed, in part, based on regional population, housing, and employment projections prepared by SCAG.

The project site is consistent with the City of Los Angeles General Plan. The project site is classified as public airport, consistent with the General Industrial in the Land Use Element of the General Plan. The project is consistent with this classification, as the whole of the project would consist of aircraft operations and supporting land uses.

Because the project is consistent with the local general plan, pursuant to SCAQMD guidelines, it is also considered consistent with the region's AQMP. As such, aircraft-related emissions are accounted for in the AQMP, which is crafted to bring the South Coast Air Basin into attainment for all criteria pollutants. Accordingly, the project would be consistent with the projections in the AQMP, and would have a less-than-significant impact.

A project is consistent with the AQMP if it is consistent with the population, housing, and employment assumptions that were used in the development of the AQMP. The 2007 AQMP, the most recent AQMP adopted by the SCAQMD, incorporates SCAG's 2004 Regional Transportation Plan socioeconomic forecasts of regional population and employment growth. The project would reallocate aircraft within the ASA region. It is expected that under the project aircraft operations reallocated from VNY to other airports would remain at the same level currently projected in the AQMP. Such levels of aircraft operation growth and aircraft fleet turnover are consistent with the aircraft forecasts for the region as adopted by SCAG. Because SCAQMD has incorporated these same projections into the AQMP, it can be concluded that the project would be consistent with the projections in the AQMP. In summary, the reduction in emissions that will occur at VNY would not conflict with or obstruct implementation of the AQMP. No mitigation is required.



***Violation of any Air Quality Standard or Substantial Contribution to an Existing or Projected Air Quality Violation***

The transfer of aircraft away from VNY and the conversion of noisy aircraft to quieter models staying at VNY would result in a change in aircraft-related emissions at VNY that would be proportional to the changes in operational activity for each aircraft type and the emission factors for each aircraft and related support equipment, as outlined in the methodology section, above. SCAQMD evaluates the significance of project impacts based on daily emissions only (i.e., significance is not based on annual project-related emissions) of CO, ROGs (equivalent to VOCs), NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>, as delineated in Table 4.3-4. The changes in peak daily emissions that would result from the project in calendar years 2014 and 2016 are summarized and compared to SCAQMD's daily significance thresholds in Tables 4-22 and 4-23, respectively. As shown in the two tables, the project would result in decreases in aircraft-related emissions at VNY for all six pollutants in 2014, relative to the No Project scenario based on the peak daily operational data shown in Table 4.3-21. In 2016, emissions would be even lower due to the retirement or reduced usage of older aircraft that is expected to occur independent of the project. Because the emissions at VNY would be lower under the With Project scenario than under the No Project scenario, emissions from the project would remain below the significance thresholds. Therefore, the VNY emissions impact is considered less than significant in 2014 and 2016 planning years.

**Table 4.3-22.** Changes in Aircraft-Related Peak Daily Emissions at VNY Resulting from the Project (Calendar Year 2014)

Aircraft	Changes in Peak Daily Emissions (pounds per day)					
	CO	VOC	NOx	SOx	PM10	PM2.5
B721	-58	-31	-23	-4	-1	-1
B722	-58	-36	-30	-5	-2	-2
B727	-58	<del>-2336</del>	<del>-2930</del>	<del>-45</del>	-2	-2
LJ24	-83	-12	-1	-1	—	—
LJ25	-83	-12	-1	-1	—	—
LJ28	-83	-12	-1	-1	—	—
LJ35	-12	5	1	—	—	—
GLF3	—	—	—	—	—	—
GLF2	-32	<del>-47</del>	<del>-1717</del>	<del>-22</del>	-1	-1
H25A	-12	-5	-1	—	—	—
F-5	—	—	—	—	—	—
SBR1	-81	-15	-2	-1	—	—
L-39	—	—	—	—	—	—
T-38	—	—	—	—	—	—
<b>Peak Daily Total</b>	<b><del>-102</del></b> <b>536</b>	<b><del>-30161</del></b>	<b><del>-47105</del></b>	<b><del>-620</del></b>	<b><del>-46</del></b>	<b><del>-46</del></b>
<i>Significance Threshold</i>	550	75	55	150	150	55
<i>Threshold Exceeded?</i>	No	No	No	No	No	No

Note: This table has been revised in the Final EIR because the version presented in the Draft EIR erroneously showed emissions reductions related to LTOs for aircraft that did not operate during the peak operational day identified at VNY.

**Table 4.3-23.** Changes in Aircraft-Related Peak Daily Emissions at VNY Resulting from the Project (Calendar Year 2016)

Aircraft	Changes in Peak Daily Emissions (pounds per day)					
	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM10	PM2.5
<del>B721</del>	-58	-31	-23	-4	-1	-1
<del>B722</del>	-58	-36	-30	-5	-2	-2
B727	-58	<del>-2336</del>	<del>-2930</del>	-45	-2	-2
<del>LJ24</del>	-83	-12	-1	-1	—	—
<del>LJ25</del>	-83	-12	-1	-1	—	—
<del>LJ28</del>	-83	-12	-1	-1	—	—
<del>LJ35</del>	+12	+5	+1	—	—	—
GLF3	+31	+47	+17	+32	<del>—+1</del>	<del>—+1</del>
GLF2	-32	-47	-17	-23	—	—
H25A	-12	-5	-1	—	—	—
<del>F-5</del>	-102	-32	-2	-1	-1	-1
<del>SBR1</del>	-81	-15	-2	-1	—	—
L-39	-101	<del>-913</del>	-2	-1	—	—
T-38	-101	<del>-913</del>	-2	-1	—	—
<b>Peak Daily Total</b>	<del>-273809</del>	<del>-46212</del>	<del>-3494</del>	<del>-522</del>	<del>-25</del>	<del>-25</del>
<i>Significance Threshold</i>	550	75	55	150	150	55
<i>Threshold Exceeded?</i>	No	No	No	No	No	No

Note: This table has been revised in the Final EIR because the version presented in the Draft EIR erroneously showed emissions reductions related to LTOs for aircraft that did not operate during the peak operational day identified at VNY.

**Objectionable Odors from Aircraft and Related Support Equipment**

Aircraft operations can generate potential odors and gaseous fumes by evaporative emissions and tailpipe emissions from aircraft, GSE, and APU during operations. Because the project would reduce operations at VNY, it would result in a reduction in odor emissions at VNY. Therefore, odor impacts would be less than significant. No mitigation is required.

**Bob Hope Airport, Burbank (BUR)****Consistency with Regional Air Quality Management Plan**

Refer to the discussion on consistency with AQMP under the VNY section. In summary, the project would not conflict with or obstruct implementation of the AQMP. This impact is less than significant at BUR, and no mitigation is required.

***Violation of any Air Quality Standard or Substantial Contribution to an Existing or Projected Air Quality Violation***

The transfer of aircraft to BUR would result in an increase in aircraft-related emissions at BUR that would be proportional to the increase in operational activity for each aircraft type and the emission factors for each aircraft and related support equipment, as outlined in the methodology section, above. SCAQMD evaluates significance of project impacts based on daily emissions only (i.e., significance is not based on annual project-related emissions) of CO, ROG (equivalent to VOCs), NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>, as delineated in Table 4.3-4. As discussed in Section 4.3.2, ROG (equivalent to VOC) and NO<sub>x</sub> are regional pollutants, contributing to elevated ozone levels due to atmospheric photochemical reactions occurring significantly downwind of the source of the emissions. Therefore, when emission sources (i.e., aircraft) are transferred from one location within the South Coast Air Basin to another, as they are when aircraft are diverted from VNY to BUR, no changes in regional air pollution are expected to occur. On the other hand, pollutants such as CO, SO<sub>x</sub>, Pb, and PM are considered local pollutants because they tend to accumulate near the emissions source, and then disperse rapidly with distance. Because no new emissions of the regional pollutants ROG and NO<sub>x</sub> would occur within the South Coast Air Basin as a result of diverting operations from VNY to BUR, analysis of these pollutants is not presented. Analysis of CO, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> are included in order to evaluate local emissions of these pollutants at BUR.

The peak daily emissions that would result from aircraft being transferred to BUR in calendar year 2014 are summarized and compared to the SCAQMD's daily significance thresholds in Table 4.3-24. As shown in the table, the increase in peak daily emissions at BUR resulting from the transfer of aircraft from VNY to BUR in 2014, based on the peak daily operational data shown in Table 4.3-21, is expected to be below the significance thresholds. The diversions occurring in 2016 would be fewer than in 2014, and would also be below the significance thresholds. Therefore, the impact is considered less than significant. No mitigation is required.

**Table 4.3-24.** Aircraft-Related Peak Daily Emission Increases at BUR Resulting from the Project (Calendar Year 2014)

Aircraft	Peak Daily Emissions Increases (pounds per day)			
	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
GLF3	<del>3163</del>	<del>25</del>	<del>&lt; 14</del>	<del>&lt; 14</del>
GLF2	<del>3163</del>	<del>25</del>	<del>&lt; 14</del>	<del>&lt; 14</del>
H25A	12	< 1	< 1	< 1
<del>B727</del>	<del>57</del>	<del>5</del>	<del>2</del>	<del>2</del>
<b>Peak Daily Total</b>	<b><del>74195</del></b>	<b><del>415</del></b>	<b><del>&lt; 14</del></b>	<b><del>&lt; 14</del></b>
<i>Significance Threshold</i>	550	150	150	55
<i>Exceeding Threshold?</i>	No	No	No	No

Note: This table has been revised in the Final EIR because the version presented in the Draft EIR erroneously indicated that a Boeing 727 would be diverted to BUR. All project-related Boeing 727 operations are anticipated to divert to LAX.

#### ***Objectionable Odors from Aircraft and Related Support Equipment***

Aircraft have the potential to introduce objectionable odors and/or noxious fumes that could impact on- and off-site receptors. Under the peak-day scenario, the 6 LTO cycles per day would not generate a substantial amount of new odors that would result in such an impact. Odor impacts would be less than significant at BUR. No mitigation is required.

#### **Los Angeles International Airport**

##### ***Consistency with Regional Air Quality Management Plan***

Refer to the discussion on consistency with AQMP under the VNY section. In summary, the project would not conflict with or obstruct implementation of the AQMP. This impact is less than significant, and no mitigation is required.

##### ***Violation of any Air Quality Standard or Substantial Contribution to an Existing or Projected Air Quality Violation***

The transfer of aircraft to LAX would result in an increase in aircraft-related emissions at LAX that would be proportional to the increase in operational activity for each aircraft type and the emission factors for each aircraft and related support equipment, as outlined in the methodology section, above. SCAQMD evaluates significance of project impacts based on daily emissions only (i.e., significance is not based on annual project-related emissions) of CO, ROG (equivalent to VOC), NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>, as delineated in Table 4.3-4. As discussed in Section 4.3.2 and in the BUR section, above, the regional pollutants ROG and NO<sub>x</sub> are not included in the analysis because diverting aircraft from VNY to LAX would redistribute these regional pollutants within the South Coast Air Basin, and would not result in new emissions. Because the emissions are shifting from VNY to LAX, which are both within the South Coast Air Basin, no changes in regional air pollution

are expected to occur as a result of the proposed project. The local pollutants CO, SO<sub>x</sub>, and PM are included in order to evaluate their local impacts near LAX.

The peak daily emissions resulting from aircraft being transferred to LAX in calendar year 2014 are summarized and compared to SCAQMD's daily significance thresholds in Table 4.3-25. As shown in the table, the increase in peak daily emissions at LAX resulting from the transfer of aircraft from VNY to LAX in 2014, based on the peak daily operational data shown in Table 4.3-21, is expected to be below the significance thresholds. The diversions occurring in 2016 would be fewer than in 2014, and would also be below the significance thresholds. Therefore, the impact is considered less than significant. No mitigation is required.

**Table 4.3-25.** Aircraft-Related Peak Daily Emission Increases at LAX Resulting from the Project (Calendar Year 2014)

Aircraft	Peak Daily Emission Increases (pounds per day)			
	CO	SO <sub>x</sub>	PM10	PM2.5
B727	57	<del>45</del>	2	2
GLF3	31	2	< 1	< 1
GLF2	31	2	< 1	< 1
H25A	12	< 1	< 1	< 1
<b>Peak Daily Total</b>	<b>131</b>	<b><del>89</del></b>	<b>2</b>	<b>2</b>
<i>Significance Threshold</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
<i>Exceeding Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

Note: This table has been revised in the Final EIR to reflect changes made to Table 4.3-21 above.

#### Objectionable Odors from Aircraft and Related Support Equipment

Aircraft have the potential to introduce objectionable odors and/or noxious fumes that could impact on- and off-site receptors. Under the peak-day scenario, the 4 LTO cycles per day would not generate a substantial amount of new odors that would result in such an impact. Odor impacts would be less than significant at LAX. No mitigation is required.

#### **Chino Airport**

##### Consistency with Regional Air Quality Management Plan

Refer to the discussion on consistency with AQMP under the VNY section. In summary, the project would not conflict with or obstruct implementation of the AQMP. This impact is less than significant, and no mitigation is required.

### Violation of any Air Quality Standard or Substantial Contribution to an Existing or Projected Air Quality Violation

The transfer of aircraft to CNO would result in an increase in aircraft-related emissions at CNO that would be proportional to the increase in operational activity for each aircraft type and the emission factors for each aircraft and related support equipment, as outlined in the methodology section, above. SCAQMD evaluates the significance of project impacts based on daily emissions only (i.e., significance is not based on annual project-related emissions) of CO, VOC, NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>, as delineated in Table 4.3-4. As discussed in Section 4.3.2 and in the BUR section, above, the regional pollutants ROG (equivalent to VOC) and NO<sub>x</sub> are not included in the analysis because diverting aircraft from VNY to CNO would redistribute these regional pollutants within the South Coast Air Basin, and would not result in new emissions. Because the emissions are shifting from VNY to CNO, which are both within the South Coast Air Basin, no changes in regional air pollution are expected to occur as a result of the proposed project. The local pollutants CO, SO<sub>x</sub>, and PM are included in order to evaluate their local impacts near CNO.

Diversions to CNO would not occur until 2016. The peak daily emissions resulting from aircraft being transferred to CNO in calendar year 2016 are summarized and compared to the SCAQMD's daily significance thresholds in Table 4.3-26. As shown in the table, the increase in peak daily emissions at CNO resulting from the transfer of aircraft from VNY to CNO in 2016, based on the peak daily operational data shown in Table 4.3-21, is expected to be below the significance thresholds. Therefore, the impact is considered less than significant. No mitigation is required.

**Table 4.3-26.** Aircraft-Related Peak Daily Emission Increases at CNO Resulting from the Project (Calendar Year 2016)

Aircraft	Peak Daily Emission Increases (pounds per day)			
	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
L-39	100	1	< 1	< 1
T-38	100	1	< 1	< 1
<b>Peak Daily Total</b>	<b>200</b>	<b>2</b>	<b>&lt; 1</b>	<b>&lt; 1</b>
<i>Significance Threshold</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
<i>Exceeding Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

### Objectionable Odors from Aircraft and Related Support Equipment

Aircraft have the potential to introduce objectionable odors and/or noxious fumes that could impact on- and off-site receptors. Under the peak-day scenario, the 2 LTO cycles per day would not generate a substantial amount of new odors that would result in such an impact. Odor impacts would be less than significant at CNO. No mitigation is required.

## South Central Coast Air Basin: CMA

### Camarillo Airport

#### Consistency with Regional Air Quality Management Plan

VCAPCD is required, pursuant to the CAA, to reduce emissions of criteria pollutants for which the South Central Coast Air Basin is in nonattainment (i.e., ozone, PM10, and PM2.5). The project would be subject to the VCAPCD's 2007 AQMP. The AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. These strategies are developed, in part, based on regional population, housing, and employment projections prepared by SCAG.

The project site is consistent with the City of Camarillo General Plan. The project site is classified as public airport, consistent with the General Industrial in the Land Use Element of the General Plan. The project is consistent with this classification, as the whole of the project would consist of aircraft operations and maintenance land uses.

Because the project is consistent with the local general plan, pursuant to VCAPCD guidelines, the project is also considered consistent with the region's AQMP. As such, aircraft-related emissions are accounted for in the AQMP, which is crafted to bring the South Central Coast Air Basin into attainment for all criteria pollutants. Accordingly, the project would be consistent with the projections in the AQMP, and would have a less-than-significant impact.

A project is consistent with the AQMP if it is consistent with the population, housing, and employment assumptions that were used in the development of the AQMP. The 2007 AQMP, the most recent AQMP adopted by VCAPCD, incorporates SCAG's 2004 Regional Transportation Plan socioeconomic forecasts of regional population and employment growth. The project would reallocate aircraft within the ASA region. Under the project, aircraft operations reallocated from VNY to CMA and other airports would remain at the same level currently projected in the AQMP. Such levels of aircraft operation growth and aircraft fleet turnover are consistent with the aircraft forecasts for the region as adopted by SCAG. Because VCAPCD has incorporated these same projections into the AQMP, it can be concluded that the project would be consistent with the projections in the AQMP. In summary, the project would not conflict with or obstruct implementation of the AQMP. This impact is less than significant, and no mitigation is required.

#### Violation of any Air Quality Standard or Substantial Contribution to an Existing or Projected Air Quality Violation

The transfer of aircraft to CMA would result in an increase in aircraft-related emissions at CMA that is proportional to the increase in operational activity for each aircraft type and the emission factors for each aircraft and related support equipment, as outlined in the methodology section, above. VCAPCD evaluates the significance of project impacts based on daily emissions only (i.e., significance is not based on annual project-related emissions) of VOC and NO<sub>x</sub>, as delineated in Table 4.3-5. Diverting aircraft from VNY to CMA represents a transfer of emissions from the South Coast Air Basin to the South Central Coast Air Basin; therefore, the regional



pollutants VOC and NOx were analyzed for this airport, along with the pollutants that would have an effect on local air quality.

The peak daily emissions resulting from aircraft being transferred to CMA in calendar year 2014 are summarized and compared to the VCAPCD's daily significance thresholds in Table 4.3-27. As shown in the table, the increases in emissions at CMA resulting from the transfer of aircraft from VNY to CMA in 2014, based on the operational data shown in Table 4.3-21, would exceed the emissions thresholds for ~~VOC and NOx~~. Because the peak daily emissions for ~~VOC and NOx~~ would be exceeded at CMA, the project would result in a significant air quality impact at CMA. The project-related diversions occurring at CMA in 2016 and beyond would be fewer than in 2014, and fewer emissions would result, but ~~VOC and NOx~~ emissions would still likely exceed the respective thresholds.

**Table 4.3-27.** Aircraft-Related Peak Daily Emission Increases at CMA Resulting from the Project (Calendar Year 2014)

Aircraft	Peak Daily Emission Increases (pounds per day)					
	CO	VOC	NOx	SOx	PM10	PM2.5
GLF3	32	<del>47</del>	16	<del>23</del>	< 1	< 1
GLF2	32	<del>47</del>	16	<del>23</del>	< 1	< 1
H25A	12	5	1	< 1	< 1	< 1
<del>B727</del>	<del>58</del>	<del>36</del>	<del>28</del>	<del>5</del>	<del>2</del>	<del>2</del>
<b>Peak Daily Total</b>	<b><del>7658</del></b>	<b><del>1355</del></b>	<b><del>3361</del></b>	<b><del>411</del></b>	<b><del>&lt; 12</del></b>	<b><del>&lt; 12</del></b>
<i>Significance Threshold</i>	<i>None</i>	<i>25</i>	<i>25</i>	<i>None</i>	<i>None</i>	<i>None</i>
<i>Threshold Exceeded?</i>	—	<del>Yes/No</del>	Yes	—	—	—

Note: This table has been revised in the Final EIR because the version presented in the Draft EIR erroneously indicated that a Boeing 727 would be diverted to CMA. All project-related Boeing 727 operations are anticipated to divert to LAX.

#### **Significant Impact AQ-1: Exceedance of Ventura County Air Quality Management–Pollution Control District Daily Emissions Thresholds at CMA**

The project would result in emissions of ~~VOC and NOx~~ at CMA that exceed ~~VCAQMD VCAPCD~~ daily thresholds.

#### **Mitigation Measures**

There are no feasible measures to mitigate the project's exceedance of the ~~VCAQMD thresholds VCAPCD threshold~~ for ~~VOC and NOx~~. To avoid or reduce this impact to a less-than-significant level, emissions from the project-related diversions to CMA would have to be eliminated or reduced in individual aircraft. Technology to reduce these aircraft emissions is not available, and cannot be imposed on the operating aircraft. Therefore, mitigation is infeasible and this is a significant and unavoidable impact.

Emissions at CMA represent pollutants that are being transferred to the South Central Coast Air Basin from the South Coast Air Basin. Therefore, they are new pollutants that are not accounted for in the 2007 AQMP. Because the South Central Coast Air Basin is in nonattainment for ozone and particulate matter and project-related emissions would contribute to this, the project would contribute to a significant cumulative impact. This issue is further discussed in Chapter 5 of this EIR.

#### Objectionable Odors from Aircraft and Related Support Equipment

The project would generate potential increases in odors and gaseous fumes by evaporative emissions and tailpipe emissions from aircraft, GSE, and APU. Odor impacts would be limited to the airport circulation routes and apron parking areas. Operation of the project may create a nuisance when located in close proximity to sensitive receptors. However, these potential increases in odors are not expected to affect a substantial number of sensitive receptor land uses for an extended period of time. Therefore, odor impacts would be less than significant. No mitigation is required.

### **Mojave Desert Air Basin: WJF**

#### **William J. Fox Airport in Lancaster**

##### Consistency with Regional Air Quality Management Plan

AVAQMD is required, pursuant to the CAA, to reduce emissions of criteria pollutants for which the Mojave Desert Air Basin is in nonattainment (i.e., ozone, PM10, and PM2.5). The project would be subject to the AVAQMD's Ozone Attainment Plan, which contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. These strategies are developed, in part, based on regional population, housing, and employment projections prepared by SCAG.

The project site is consistent with the City of Lancaster General Plan. The project site is classified as public airport, consistent with the General Industrial in the Land Use Element of the General Plan. The project is consistent with this classification, as the whole of the project would consist of aircraft operations and maintenance land uses.

Because the project is consistent with the local general plan, pursuant to AVAQMD guidelines, the project is also considered consistent with the region's Ozone Attainment Plan. As such, aircraft-related emissions are accounted for in the Ozone Attainment Plan, which is crafted to bring the Mojave Desert Air Basin into attainment for all criteria pollutants. Accordingly, the project would be consistent with the projections in the Ozone Attainment Plan, and would have a less-than-significant impact.

A project is consistent with the Ozone Attainment Plan if it is consistent with the population, housing, and employment assumptions that were used in the development of the Ozone Attainment Plan. The most recent Ozone Attainment Plan adopted by the AVAQMD incorporates SCAG's 2004 Regional Transportation Plan

socioeconomic forecasts of regional population and employment growth. The project would reallocate aircraft within the ASA region. The aircraft operations reallocated from VNY in Los Angeles County to WJF and other airports would remain at the same level currently projected in the AQMP. Such levels of aircraft operation growth and aircraft fleet turnover are consistent with the aircraft forecasts for the region as adopted by SCAG. Because AVAQMD has incorporated these same projections into the OAP, the project would be consistent with the projections in the Ozone Attainment Plan. In summary, project development would not conflict with or obstruct implementation of the Ozone Attainment Plan. No mitigation is required.

**Violation of any Air Quality Standard or Substantial Contribution to an Existing or Projected Air Quality Violation**

The transfer of aircraft to WJF would result in an increase in aircraft-related emissions at WJF (and the Mojave Desert Air Basin) that is proportional to the increase in operational activity for each aircraft type and the emission factors for each aircraft and related support equipment, as outlined in the methodology section, above. AVAQMD evaluates significance of project impacts based on peak daily and annual emissions of CO, VOC, NO<sub>x</sub>, SO<sub>x</sub>, and PM<sub>10</sub>, as delineated in Table 4.3-6. Diverting aircraft from VNY to WJF represents a transfer of emissions from the South Coast Air Basin to the Mojave Desert Air Basin; therefore, VOC and NO<sub>x</sub> were analyzed along with the pollutants that would have an effect on local air quality.

Diversions to WJF would not occur until 2016. The peak daily and annual emissions resulting from aircraft being transferred to WJF in calendar year 2016 are summarized and compared to AVAQMD's daily and annual significance thresholds in Tables 4-28 and 4-29, respectively. As shown in the tables, the increases in peak daily and annual emissions at WJF resulting from the transfer of aircraft from VNY to WJF in 2016, based on the peak daily operational data shown in Tables 4.3-20 and 4.3-21, respectively, are expected to be below the significance threshold. Therefore, the impact is considered less than significant.

**Table 4.3-28. Aircraft-Related Peak Daily Emission Increases at WJF Resulting from the Project (Calendar Year 2016)**

Aircraft	Peak Daily Emission Increases (pounds per day)					
	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
GLF3	<del>3263</del>	<del>414</del>	<del>1735</del>	<del>25</del>	<del>&lt; 14</del>	<del>&lt; 14</del>
GLF2	32	<del>47</del>	17	<del>23</del>	< 1	< 1
<b>Peak Daily Total</b>	<b><del>6495</del></b>	<b><del>821</del></b>	<b><del>3452</del></b>	<b><del>48</del></b>	<b><del>&lt; 14</del></b>	<b><del>&lt; 14</del></b>
<i>Significance Threshold</i>	548	137	137	137	82	None
<i>Threshold Exceeded?</i>	No	No	No	No	No	—

Note: This table has been revised in the Final EIR to reflect changes made to Table 4.3-21 above.

**Table 4.3-29.** Aircraft-Related Annual Emission Increases at WJF Resulting from the Project (Calendar Year 2016)

Aircraft	Annual Emission Increases (pounds per year)					
	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM10	PM2.5
GLF3	2,048	450	1,132	163	20	20
GLF2	2,048	450	1,132	163	20	20
<b>Peak Annual Total (lbs)</b>	<b>4,097</b>	<b>901</b>	<b>2,263</b>	<b>326</b>	<b>40</b>	<b>40</b>
<b>Peak Annual Total (tons)</b>	<b>2.0</b>	<b>0.5</b>	<b>1.1</b>	<b>0.2</b>	<b>&lt; 0.1</b>	<b>&lt; 0.1</b>
<i>Significance Threshold (tons)</i>	<i>100</i>	<i>25</i>	<i>25</i>	<i>25</i>	<i>15</i>	<i>None</i>
<i>Threshold Exceeded?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>—</i>

Emissions at WJF represent pollutants that are being transferred to the Mojave Desert Air Basin from the South Coast Air Basin. Therefore, they are new pollutants that are not accounted for in the 2007 AQMP. Because the Mojave Desert Air Basin is in nonattainment for ozone and particulate matter and project-related emissions would contribute to this, the project would contribute to a significant cumulative impact. This issue is further discussed in Chapter 5 of this EIR.

#### Objectionable Odors from Aircraft and Related Support Equipment

The project would generate potential increases in odors and gaseous fumes by evaporative emissions and tailpipe emissions from aircraft, GSE, and APU during operations. Odor impacts would be limited to the airport circulation routes and apron parking areas. Operation of the project may create a nuisance when located in close proximity to sensitive receptors. However, these increases in potential odors are not expected to affect a substantial number of sensitive receptor land uses for an extended period of time. Therefore, odor impacts would be less than significant. No mitigation is required.

### 4.3.5.2 Health Risk Associated with Airport Emissions

Based on CARB guidelines for determining the need for preparing Health Risk Assessments (HRA) for toxic air contaminants, a detailed OEHHA-methodology HRA is not warranted for this project due to the fact that all identified sensitive receptors are beyond one-quarter mile from diversion airports (California Air Resources Board, Air Quality and Land Use Handbook: A Community Health Perspective, April 2005). Therefore, a screening level HRA analysis was performed based on CARB guidance.

The screening level HRA evaluation was conducted in the following steps:

1. Estimation of chemical emissions from operational sources;
2. Calculation of possible impacts to air quality using emissions estimates;

3. Selection of TACs of concern for airport operations;
4. Evaluation of possible exposures to TACs; and,
5. Review of the Health Risk Assessment performed for the LAX Master Plan EIS/EIR.

CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (April 2005) provides recommendations for siting new sensitive land uses near major emission sources such as airports that may emit TACs.

Speciation profiles have been developed by CARB for various types of sources. Speciation profiles provide a breakdown of individual components of hydrocarbon emissions and particulate emissions. For aircraft engines, CARB had developed both an organic speciation profile and particulate matter speciation profile for aircraft engines. The speciation profile for organics was based on data presented in a report prepared in 1984. Since that time, other environmental planning documents (Oakland Airport Master Plan SEIR, LAX Master Plan EIS/EIR) have evaluated the applicability of that speciation profile and other source test data for aircraft engines.

It should be noted that the methods used in conducting an HRA are conservative; as a result, they are more likely to overestimate than underestimate possible health risks. For example, risks and hazards are calculated for individuals that are likely to be exposed at locations where TAC concentrations are predicted to be highest. Further, individuals are assumed to be exposed for 250 days of the year 24 hours per day, and for as many as (70) years to maximize estimates of possible exposure. It should also be noted that the estimated peak daily aircraft flights are very conservative for the proposed project. Consequently, the resulting incremental cancer risk estimates represent upper-range predictions of exposure, and therefore health risk, which may be associated with living near or working near and breathing emissions from the airports.

Peak daily and annual changes in TAC emissions that would occur at each airport as a result of the project are presented in Tables 4-30 and 4-31, respectively.

**Table 4.3-30.** Peak Daily Aircraft-Related Emission Changes in Toxic Air Contaminant Emissions at VNY and Diversion Airports as a Result of the Project

Toxic Air Contaminant	Peak Daily Emission Increases (pounds per day)							
	Aircraft Total*	VNY 2014	VNY 2016	BUR 2014	LAX 2014	CMA 2014	CNO 2016	WJF 2016
1,3-Butadiene	309.6	-3.4	-4.4	1.5	1.2	1.2	0.6	0.4
Formaldehyde	2,541.2	-28.9	-37.7	12.4	9.8	9.8	4.8	3.7
Acetaldehyde	790.3	-8.9	-11.7	3.8	3.0	3.0	1.5	1.2
Acrolein	-	-4.4	-5.7	1.9	1.5	1.5	0.7	0.6
Benzene	388.7	-3.7	-4.9	1.6	1.3	1.3	0.6	0.5
Naphthalene	97.2	-1.1	-1.4	0.5	0.4	0.4	0.2	0.1
Chromium	—	—	—	—	—	—	—	—
Lead	3.99	—	—	—	—	—	—	—

Note:

Negative values denote decreases in emissions as a result of the project.

\*Source: SCAQMD MATES III Study, Appendix VIII, 2005 Emissions by Major Source Category.

**Table 4.3-31.** Annual Aircraft-Related Changes in Toxic Air Contaminant Emissions at VNY and Diversion Airports as a Result of the Project

Toxic Air Contaminant	Annual Emission Increases (tons per year)							
	LA County Total**	VNY 2014	VNY 2016	BUR 2014	LAX 2014	CMA 2014	CNO 2016	WJF 2016
1,3-Butadiene	437	-0.04	-0.04	0.01	0.01	0.01	0.01	0.01
Formaldehyde	3,350	-0.31	-0.37	0.09	0.07	0.05	0.06	0.08
Acetaldehyde	1,343	-0.10	-0.12	0.03	0.02	0.02	0.02	0.02
Acrolein	-	-0.05	-0.06	0.01	0.01	0.01	0.01	0.01
Benzene	2,143	-0.04	-0.05	0.01	0.01	0.01	0.01	0.01
Naphthalene	—	-0.01	-0.01	—	—	—	—	—
Chromium	0.07*	—	—	—	—	—	—	—
Lead	—	—	—	—	—	—	—	—

Note:

\* Includes only hexavalent chromium, which is a subset of total chromium emissions.

\*\*Source: California Air Resources Board, 2008 California Almanac, Appendix C, Emissions, Air Quality, and Health Risk for Ten Toxic Air Contaminants.

As indicated in Tables 4.3-30 and 4.3-31, under the project, the aircraft TAC emissions would be reallocated to different airports within the ASA region. The reduction in aircraft TAC emissions at VNY and WJM airports would offset the TAC emission increases at BUR, LAX, CMA, and CNOs. Table 4.3-30 presents the total daily TAC emissions for all aircraft in the South Coast Air Basin, as estimated in SCAQMD's *Multiple Air Toxics Exposure Study III* (South Coast Air Quality Management District 2008). The table also presents the net changes in the project's daily TAC emissions to the MATES III values using the same toxic speciation factors. Table 4.3-31 compares the net change in the annual project TAC emissions to the total annual TAC emissions from all sources in Los Angeles County, as provided by CARB in their *2008 California Almanac*. The reallocated aircraft operations and the net changes in TAC emissions from the project were already accounted for in the MATES III study. Therefore, impacts from regional TACs would be less than significant. No mitigation is required.

On the local level, the increase in TAC emissions at BUR, LAX, CMA, and CNO resulting from the project's phaseout at VNY may be a subject of concern to local communities. CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (April 2005) provides CARB for the siting of new sensitive land uses near major sources of emissions. CARB's air pollution studies indicate that sensitive receptors close to major sources of emissions may lead to adverse health effects beyond those associated with regional TAC emissions. There are five carcinogenic TACs that constitute the majority of the known health risk from aircraft: 1,3-butadiene, formaldehyde, acetaldehyde, benzene, and lead.

For the purpose of further evaluating the potential health risks on sensitive receptors near the diversion airports, a review of the HRA study from the LAX Master Plan (April 2004) was conducted. In April 2004, LAWA certified the LAX Master Plan EIR/EIS (LAWA 2004). The study contained the forecasted flight operations from 763,866 annual operations in 1996 to an unconstrained and conservative forecast of 1,004,591 annual operations in 2015. The addition of aircraft operations to the diversion airports as a result of the VNY phaseout under consideration in this EIR is far smaller than the addition of operations studied at LAX.

Due to changes in activity levels at airports associated with implementation of the proposed project, increased emissions of TAC are possible. According to the LAX Master Plan EIR/EIS under the No Project Scenario for year 2015, the predicted incremental cancer risks for residents would be 330 in ten million. The risk estimate was derived from a mathematical model that calculates risks to a hypothetically maximally exposed individual (MEI). The value represents an estimate of the greatest possible impact for any person on location near LAX. For the sensitive receptors, the LAX Master Plan EIR report also found that the incremental cancer risks would be lower for the MEI school child. The greatest incremental cancer risk would be 1 in 1 million, compared to the year 2000 condition. The largest incremental non-cancer hazard for the MEI school child would be 0.4 when compared to the year 2000 condition. Based on the LAX Master Plan EIR/EIS, the resultant health risks impacts on school children were found to be less than significant. The increases at the proposed VNY phaseout does not propose

operations beyond the conservative estimate reviewed in the LAX Master Plan EIR/EIS; therefore, the project's impacts at LAX would also be less than significant.

CARB studies show that TAC levels can be significantly higher within 0.25 mile of major emission sources such as airports and then diminish rapidly as distance from the source increases. Actual concentrations of TAC will vary at a particular location depending on total aircraft volume, type of aircraft, prevailing winds and other variables. Based on the information provided in Section 4.3.3.5, Sensitive Receptors, all sensitive receptors were found to be located more than 0.25 mile from the airports. Therefore, it is unlikely that sensitive receptors downwind of more than 0.25 mile from the airport site would experience any significant cancer risk directly associated with aircraft TAC emissions from the project. As stated above in Section 4.3.3.5, there are no sensitive receptors located within 0.25 mile of the diversion airports that would receive additional emissions. In comparison to the LAX Master Plan EIR/EIS, which estimated a less-than-significant health-risk assessment for large-scale increases in operational traffic at LAX, it can be inferred that the proposed project related aircraft operations at BUR, LAX, CMA, and CNO would not incrementally increase the MEI cancer risk to above the 10 in 1 million threshold, nor would it exceed the 1.0 non-cancer hazard index for the MEI school child. Impacts would also be less than significant at WJF, because there are no sensitive receptors in the vicinity of that airport. Therefore, the impacts from local TACs associated with the project would be considered less than significant. No mitigation is required.

## 4.3.6 Summary of Significant Impacts and Mitigation Measures

### Significant Impact AQ-1: Exceedance of Ventura County Air Quality Management Pollution Control District Daily Emissions Thresholds at CMA

The project would result in emissions of ~~VOC and~~ NO<sub>x</sub> at CMA that exceed the ~~VCAQMD-VCAPCD~~ daily ~~thresholds~~ threshold.

### Mitigation Measures

There are no feasible measures to mitigate the project's exceedance of ~~VCAQMD VCAPCD~~ thresholds. To avoid or reduce this impact to a less-than-significant level, emissions from the project-related diversions to CMA would have to be eliminated or reduced in individual planes. Technology to reduce these aircraft emissions is not available, and cannot be imposed on the operating aircraft. Therefore, mitigation is infeasible and this is a significant and unavoidable impact.



# 5.0

## OTHER CEQA CONSIDERATIONS

### 5.1 Alternatives Analysis

Section 15126.6 of the State CEQA Guidelines requires an EIR to evaluate a "...range of reasonable alternatives to the project, or to the location of the project, which could feasibly attain the basic objectives of the project." Alternatives discussion should focus on those "capable of eliminating any significant adverse impacts or reducing them to below a level of significance, even if these alternatives could impede to some degree the attainment of the project objectives or would be more costly." Alternatives are to include a "no project" alternative that would allow decision makers to compare a project's impacts to those that would result from not approving the project. The guidelines further direct that alternatives' environmental impacts "shall be discussed, but in less detail than the significant effects of the project as proposed." An EIR must identify an "environmentally superior" alternative; if the "no project" alternative is the environmentally superior alternative, then the EIR must identify which of the other alternatives is environmentally superior.

Alternatives are intended to be feasible, as determined by such factors as site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and the availability of potential alternative sites. However, inclusion of an alternative in an EIR does not constitute definitive evidence that the alternative is in fact feasible.<sup>1</sup> Rather, the final decision regarding alternatives' respective feasibility lies with the project's decision-making body, which must make the necessary findings addressing the potential feasibility of reducing the severity of significant environmental impacts. (Public Resources Code, §21081; see also CEQA Guidelines, §15091)

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<sup>1</sup> CEQA Guidelines define *feasible* to mean "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." When making the decision as to whether an alternative is feasible or infeasible, the decision-making body may consider the stated project objectives in an EIR in light of any relevant economic, environmental, social, and technological factors.

This alternatives analysis considers the environmental implications of implementing the No Project Alternative (Alternative 1) and the Phaseout with Stage 3 and Stage 4 Exemptions Alternative (Alternative 2). The latter alternative represents a variation in the project's phase-out program for noise reduction, adding an exemption for all Stage 3 and Stage 4, allowing them to continue to operate at VNY despite their takeoff noise levels.

## 5.1.1 Alternatives Determined to Be Infeasible

For this project, the range of potential alternatives is fairly limited. Project alternatives cannot include alternative locations in this instance, as the project is inherent to reducing noise at VNY, the first project objective. Alternative diversion airports cannot be selected, because the list of diversion airports analyzed in this Draft EIR was determined by qualified professionals' best estimates of how aircraft operations will redistribute themselves, and not by any authority that LAWA has or will have for redirecting flights and specifying diversion airports. Therefore, there are legal factors that make this alternative infeasible, and it is not analyzed in detail in this EIR.

Another prospective alternative would be implementing a phaseout ordinance similar to that proposed by the project, but adding to it the requirement that the planes prohibited from operating at VNY under the ordinance be grounded and retired. This would preclude their shifting to any diversion airports. The noise and air quality effects of this alternative would be identical to those of the project at VNY. Because aircraft operations would not be diverted to the five diversion airports, this alternative would not result in any air quality impacts at the diversion airports. Significant project-level impacts assessed at CMA (see Section 4.3 above) would be avoided, as would considerable contributions to significant cumulative impacts assessed at CMA and WJF (see Section 5.2.3 below.) However, LAWA has no authority to ground aircraft that depart from VNY. Therefore, there are legal factors that make this alternative infeasible, and it is not analyzed in detail this EIR.

## 5.1.2 Alternative 1 – No Project

Under Alternative 1, the phased program of noise limitations proposed in the project would not be imposed. Flight activity would generally continue to increase at VNY and the diversion airports as they are anticipated to occur under forecast conditions, though certain types of operations at some airports are anticipated to remain the same or decrease between the baseline and forecast timeframes.<sup>2</sup> Tables 5.1-1 through 5.1-6 present estimates of operations at VNY and the diversion airports, comparing the 2007 baseline to anticipated increases or decreases under forecast conditions.<sup>3</sup>

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<sup>2</sup> Alternative 1 assumes that the U. S. Senate Bill S.1300 and House Bill H. R. 2881—two legislative proposals to phase out Stage 2 aircraft nationwide—would not be approved, as neither of those bills had passed at the time of this EIR's publication, and the assumption of those bills' approval would be speculative. The proposed legislation

**Table 5-1.** Baseline and Forecast Operations at VNY: 2007, 2014, and 2016

Activity Type	2007 Baseline	2014 Forecast	2016 Forecast
Air Carrier/Commuter	0	0	0
Business Jet	48,143	83,449	97,335
GA Non-Jet Itinerant	166,169	212,026	219,945
GA Non-Jet Local	98,715	90,354	92,485
Military	980	952	952
<b>Total</b>	<b>314,007</b>	<b>386,781</b>	<b>410,717</b>

Source: SH&E, personal communication, 2008

**Table 5-2.** Baseline and Forecast Operations at BUR: 2007, 2014, and 2016

Activity Type	2007 Baseline	2014 Forecast	2016 Forecast
Air Carrier/Commuter	70,448	79,086	81,741
Business Jet	18,863	32,744	37,439
GA Non-Jet Itinerant	26,174	30,626	31,446
GA Non-Jet Local	5,060	5,332	5,413
Military (active and former)	265	265	265
<b>Total</b>	<b>120,810</b>	<b>148,053</b>	<b>156,303</b>

Source: HMMH & SH&E, 2008

would impose a nation-wide phaseout of Stage 2 aircraft operations. As currently proposed, the House version of the bill would prohibit Stage 2 aircraft effective December 31, 2012, allowing an exemption for “transport of persons and goods in relieve of emergency situations,” and does not include an option for airports to opt out of the Stage 2 prohibition. The Senate version of the bill would prohibit Stage 2 aircraft three years following enactment of the bill, with no exemption for emergency-related operations, and including an opt-out option for airports desiring to allow Stage 2 aircraft to continue.

<sup>3</sup> Anticipated changes in operations at the subject airports were determined by SH&E’s forecasting analysis that utilized FAA tower counts and local and industry-wide trends to project future increases or decreases in various types of aircraft operations. The tables presenting the diversion airport forecasts are based on information provided in Appendix B. The VNY table is based on email communication with SH&E. In the tables provided in this section, “itinerant” operations include aircraft that arrive from or depart to airports located beyond a 20-mile radius of the respective airport; “local” operations arrive from and depart to airports within that radius. “Military” operations in these tables include those of active military aircraft and former, privately-owned military aircraft.

**Table 5-3.** Baseline and Forecast Operations at LAX: 2007, 2014, and 2016

Activity Type	2007 Baseline	2014 Forecast	2016 Forecast
Air Carrier/Commuter	642,337	808,002	856,874
Business Jet	21,013	28,454	31,131
GA Non-Jet Itinerant	11,981	13,035	13,352
GA Non-Jet Local	—	—	—
Military (active and former)	2,573	2,502	2,482
<b>Total</b>	<b>677,904</b>	<b>851,992</b>	<b>903,839</b>

Source: HMMH & SH&E, 2008

**Table 5-4.** Baseline and Forecast Operations at CMA: 2007, 2014, and 2016

Activity Type	2007 Baseline	2014 Forecast	2016 Forecast
Air Carrier/Commuter	—	—	—
Business Jet	4,883	8,764	10,395
GA Non-Jet Itinerant	74,601	90,386	92,157
GA Non-Jet Local	63,860	64,781	64,781
Military (active and former)	1,740	1,740	1,740
<b>Total</b>	<b>145,083</b>	<b>165,671</b>	<b>169,073</b>

Source: HMMH & SH&E, 2008

**Table 5-5.** Baseline and Forecast Operations at CNO: 2007, 2014, and 2016

Activity Type	2007 Baseline	2014 Forecast	2016 Forecast
Air Carrier/Commuter	—	—	—
Business Jet	2,037	2,132	2,349
GA Non-Jet Itinerant	67,590	74,983	76,567
GA Non-Jet Local	96,376	101,121	101,121
Military (active and former)	594	594	594
<b>Total</b>	<b>166,596</b>	<b>178,830</b>	<b>180,631</b>

Source: HMMH & SH&E, 2008

**Table 5-6.** Baseline and Forecast Operations at WJF: 2007, 2014, and 2016

Activity Type	2007 Baseline	2014 Forecast	2016 Forecast
Air Carrier/Commuter	—	—	—
Business Jet	508	583	606
GA Non-Jet Itinerant	31,738	35,048	35,304
GA Non-Jet Local	32,291	32,394	32,716
Military (active and former)	1,513	1,513	1,513
<b>Total</b>	<b>66,049</b>	<b>69,537</b>	<b>70,139</b>

Source: HMMH & SH&E, 2008

As shown in the tables, aircraft operations are anticipated to increase at VNY and all of the diversion airports between 2007 and the forecast years. The noise and air quality implications of implementing Alternative 1, compared with those of the project, are discussed below, including impacts at VNY and the diversion airports. As discussed in section 4.1, the project is anticipated to have no impact or a less than significant impact on aesthetics, agricultural resources, biological resources, cultural resources, geology/soils, hazards and hazardous materials, hydrology/water quality, land use/planning, mineral resources, population/housing, public services, recreation, transportation/traffic, and utilities/service systems. There is little or no difference between project impacts and Alternative 1 impacts for these environmental issue areas.

Alternative 1 would not attain the main project objective listed in Section 2.3 of this EIR, which is to reduce aircraft noise near VNY, primarily for residential receptors. The other objectives would be met. Without the proposed ordinance, there would be no limit on takeoff noise, thereby eliminating the burden on aircraft owners and operators; and there would be no burden on maintenance providers. Without the proposed ordinance, there would be no program of penalties for violators. Without the proposed ordinance, military aircraft older than 1950 would continue to be accommodated at VNY, supporting the objective for achieving this accommodation stated in the VNY Master Plan.

Alternative 1 would avoid ~~both of~~ the significant project-level air quality impact identified for the project and all three of the significant cumulative air quality impacts identified for the project. Alternative 1 is the environmentally superior alternative, but because it is the No Project Alternative, CEQA requires that another alternative be identified as such.

### 5.1.2.1 Noise

Section 4.2 includes a comparison of the project's noise impacts to Alternative 1 noise impacts. This comparison is summarized below.

Under Alternative 1, increases in aircraft operations—which will occur with or without the project—are estimated to increase the CNEL in the vicinity of VNY by 0.8 dB between the 2007 baseline conditions and the 2014 forecast conditions, as shown in Table 4.2-48 of this EIR. This is 0.4 dB greater than the 0.4-dB increase that would result if the project's noise limits were imposed. The area within the airport's 65-dB contour is anticipated to increase by 13.3% during that same timeframe, 6.7% greater than estimated for the project. Noise increases and expansion of the noise contours by 2014 under Alternative 1 would require noise insulation for an estimated 2,497 additional residences within the 65- to 70-dB contour, and 61 additional residences within the 70- to 75-dB contour, compared to 2,399 and 1, respectively, under the project. Increases in operations are also anticipated to continue at VNY between 2014 and 2016 without implementation of the project. If the proposed phaseout program is not put in place, then aircraft noise at VNY would be higher in 2016 than it would under the proposed project. Therefore, Alternative 1 would result in greater noise impacts at VNY than the project, however these impacts would be less than significant.

At BUR, future increases in aircraft operations under Alternative 1 are anticipated to increase the CNEL by 0.9 dB over existing conditions and increase the 65-dB contour area by 14.6% in 2014, as shown in Table 4.2-53 of this EIR. This is less than the 1.0 dB CNEL increase and the 16.3% increase that was assessed for the project. Without the addition of project-related diversion operations in 2016, noise levels at BUR would also be lower in 2016 under Alternative 1 than they would be under the project. Therefore, BUR noise impacts of Alternative 1 would be less than those of the project and would be less than significant.

At LAX, future increases in aircraft operations under Alternative 1 are anticipated to increase the CNEL in 2014 by ~~±0.4~~ dB over existing conditions and increase the 65-dB contour area by 6.0%, as shown in Table 4.2-57 of this EIR. These numbers are the same as assessed for the project, indicating the imperceptible noise change between the estimated project conditions and no-project conditions. Noise under Alternative 1 is anticipated to continue beyond 2014, through the 2016 planning year and beyond. The Alternative 1 numbers in 2016 would generally be the same as those of the project. Therefore, LAX noise impacts of Alternative 1 would be the same as those of the project and would be less than significant.

At CMA, future increases in aircraft operations under Alternative 1 are anticipated to increase the CNEL by 0.8 dB over existing conditions and increase the 65-dB contour area by 13.8% in 2014, as shown in Table 4.2-60 of this EIR. This is less than the 1.1 dB CNEL increase and the 19.8% increase that was assessed for the project. Without the addition of project-related diversion operations in 2016, noise levels at CMA would also be lower in 2016 under Alternative 1 than they would be under the project. Therefore, CMA noise impacts of Alternative 1 would be less than those of the project, and would be less than significant.

At CNO, future reductions in aircraft operations under Alternative 1 are anticipated to *decrease* the CNEL by 0.1 dB over existing conditions and *decrease* the 65-dB contour area by 1.5% in 2016, as shown in Table 4.2-63 of this EIR. The project is anticipated to increase both of these measurements, by 0.4 dB and 5.9%, respectively.

Therefore, CNO noise impacts of Alternative 1 would be less than those of the project, and would be less than significant.

At WJF, future reductions in aircraft operations under Alternative 1 are also anticipated to *decrease* the CNEL by 0.5 dB and the 65-dB contour area by 8.5%, in 2016, as shown in Table 4.2-66. The project would also reduce the CNEL and the 65-dB contour area, but the reduction would be less, at 0.3 dB and 4.9%, respectively. Therefore, WJF noise impacts of Alternative 1 would be less than those of the project, and would be less than significant.

In summary, when compared to the proposed project, Alternative 1 would have a greater noise impact at VNY and lesser noise impacts at the five diversion airports. The lesser impacts of Alternative 1 at the diversion airports would be beneficial but very minor; furthermore, significant impacts were not identified at any of the diversion airports for the project, so implementing Alternative 1 would not serve to avoid any significant impacts.

### 5.1.2.2 Air Quality

Under Alternative 1, increases in aircraft operations would continue to occur as they would without project implementation at VNY and all diversion airports, as described above and shown in Tables 5.1-1 through 5.1-6. Air-pollutant emissions would increase at VNY and the diversion airports between the 2007 and the 2014 and 2016 forecast years due to the overall increase in operations activity that is anticipated to occur. Because Alternative 1 would preclude the phased restrictions at VNY, more aircraft operations would occur at VNY under Alternative 1 than under the proposed project, and emissions would be slightly higher at VNY under Alternative 1 than they would be under the project. Because no aircraft operations would be added to the diversion airports, the project-related increases in pollutant emissions would not occur at the five diversion airports under Alternative 1, and Alternative 1 would result in fewer air pollutant emissions at the diversion airports than under the proposed project.

Alternative 1 would avoid the significant project-level air quality impact identified for the project: Significant Impact AQ-1, the excess at CMA of ~~VCAQMD~~ VCAPCD standards for ~~VOC and~~ NO<sub>x</sub>. Alternative 1 would also avoid the three significant cumulative impacts identified for the project: Significant Impact CAQ-1, new contribution at WJF of air pollutants to the Mojave Desert Air Basin; Significant Impact CAQ-2, new contribution at CMA of air pollutants to the South Central Coast Air Basin; and Significant Impact CAQ-3, excess at CMA of VCAPCD thresholds.

### 5.1.3 Alternative 2 – Phaseout with Stage 3 and Stage 4 Exemptions

Alternative 2 would implement a phased program of noise limitations similar to that proposed in the project, but would also include an exemption (in addition to the maintenance and former military aircraft exemptions) allowing continued operation at VNY of Stage 3 and Stage 4 aircraft. The version of the phaseout ordinance proposed in Alternative 2 is included as Appendix A.1 of this EIR. Under Alternative 2, all aircraft certified as either Stage 3 or Stage 4, regardless of their takeoff noise levels, would be allowed to operate out of VNY. In terms of the aircraft types forecast to operate at VNY, Alternative 2 would only affect Boeing 727 models. This alternative was included in response to a scoping comment submitted on behalf of the National Business Aviation Association, which noted that the 77-dBA limit proposed for 2016 might unfairly restrict some recertified Stage 3 aircraft, and is consistent with the BOAC's original intent, as defined in its September 27, 1989 request that the Executive Director investigate and prepare proposals to phase out Stage 2 aircraft from VNY.

Operations under Alternative 2 would be the same as in the project up to December 31, 2013, the day before the allowable takeoff noise level limit is reduced to 80 dB. In 2014, the additional exemption would allow an estimated 32 more business-jet operations at VNY than under the project during the same planning year. All 32 of these operations were anticipated to shift to LAX under the project, and would remain at VNY under Alternative 2 because of the proposed exemption. Aircraft operations activity would also continue to increase at VNY and the diversion airports as they would under the project's estimated forecast conditions, which would result in increases in non-project-related noise and air pollutant emissions. The noise and air quality implications of implementing Alternative 2, compared with those of the project, are discussed below, including impacts at VNY and the diversion airports. As discussed in section 4.1 for the project, Alternative 2 is anticipated to have no impact or negligible less-than-significant impact on aesthetics, agricultural resources, biological resources, cultural resources, geology/soils, hazards and hazardous materials, hydrology/water quality, land use/planning, mineral resources, population/housing, public services, recreation, transportation/traffic, and utilities/service systems.

Alternative 2 would attain the main project objective of reducing aircraft noise near VNY, although slightly less successfully than the project, and would meet all other objectives of reducing burden on various existing operators, providing a feasible penalty program for violators, and allowing military aircraft older than 1950 to be accommodated at VNY, in support of the VNY Master Plan goal for achieving this accommodation.

Alternative 2 does not completely avoid any significant project-level or cumulative impacts identified for the project; however, it would result in lower noise levels and fewer pollutant emissions at LAX than under the proposed project. Therefore, Alternative 2 is considered the next environmentally superior alternative after the No Project Alternative—though it should be noted that the benefit is limited, because



Alternative 2's lower noise and emissions levels at LAX, when compared to those of the project, equate to higher noise and emissions levels at VNY than in the project.

### 5.1.3.1 Noise

Section 4.2 includes a comparison of the project's noise impacts to Alternative 2 noise impacts. This comparison is summarized below.

Under Alternative 2, increases in aircraft operations—which will occur with or without the project—are estimated to increase the CNEL in the vicinity of VNY by 1.1 dB between the 2007 baseline conditions and the 2014 planning-year conditions. Noise levels in 2016 would be greater than in 2007 at VNY, but these would be slightly less than the 2014 levels due to anticipated, non-project-related retirement and reduced usage of older aircraft. This is the same as was assessed to the project. Under Alternative 2, the area within the airport's 65-dB contour is anticipated to increase by 19.8% during that same timeframe, also the same as in the project. Generally speaking, the difference between the noise increases at VNY for the project and Alternative 2 would be imperceptible. Noise increases and expansion of the noise contours by 2014 under Alternative 2 would require noise insulation for an estimated 2,400 additional residences within the 65- to 70-dB contour (one more than under the project), and 1 additional residence within the 70- to 75-dB contour (the same as under the project). Figure 4.2-4 depicts the imperceptible difference between the project CNEL contour and that of Alternative 2. Overall, Alternative 2 would result in very similar—although slightly greater—noise impacts at VNY than under the project by allowing an additional 32 annual operations (estimated) to continue at VNY that otherwise would have been restricted by the 2014 noise limitation. As under the proposed project, Alternative 2 noise impacts at VNY would be less than significant.

The only diversion airport anticipated to be affected by the Alternative 2 exemption is LAX, where approximately 32 aircraft operations per year—all associated with privately owned Boeing 727s—would not occur. LAX was determined to be the likely recipient of these Boeing 727 operations because LAX possesses appropriate facilities for accommodating operations at servicing for these types of aircraft, and because its close proximity and short driving distance to VNY make it the most convenient alternative to the affected operators. At LAX, future increases in aircraft operations under Alternative 2 are anticipated to increase the CNEL by ±0.4 dB over existing conditions and increase the 65-dB contour area by 6.0% in 2014. As with the project, this change is imperceptible when compared to the estimated 2014 baseline conditions, as the amount of air traffic generated by Alternative 2 (and the project) is inconsequential when viewed in light of the heavy commercial air traffic LAX accommodates on a daily basis. Therefore, LAX noise impacts of Alternative 2 would be virtually identical to those of the project, and would be less than significant. Impacts at the other four diversion airports under Alternative 2 would be identical to those of the proposed project, and would also be less than significant.

In summary, Alternative 2 would have noise impacts that are almost the same as those of the project. Comparing Alternative 2 and the project, there is no perceptible difference in CNEL levels or in the percentage increase in 65-dB contour area at VNY or any of the diversion airports. Alternative 2's noise impacts would be slightly greater because the minimally larger 65-dB contour would include one residence not included under the project. Neither Alternative 2 nor the project would result in significant noise impacts, but the project's level of noise impact would be slightly less than that of Alternative 2; therefore, Alternative 2 does not avoid any significant project-level or cumulative noise impacts.

### 5.1.3.2 Air Quality

Under Alternative 2, increases in aircraft operations would continue to occur as they would regardless of project implementation at VNY and all diversion airports; Alternative 2 would contribute to this increase at the diversion airports, but would result in a smaller emissions increase at VNY than without project implementation. Air-pollutant emissions would increase at VNY and the diversion airports between the 2007 and the 2014 and 2016 forecast years due to the overall increase in operations activity that is anticipated to occur. Implementing the Alternative 2 phase-out plan would keep an estimated 32 Boeing 727 operations at VNY that are anticipated to transfer to LAX from VNY under the proposed project. No other diversion airports are affected by the Alternative 2 exemption. According to estimations presented in Section 4.3, Boeing 727 operations in the 2014 peak day analyzed for project impacts would emit 57 pounds per day of CO, ~~54~~ pounds per day of SO<sub>x</sub>, 2 pounds per day of particulate matter of 10 microns or less (PM<sub>10</sub>), and 2 pounds per day of particulate matter of 2.5 microns or less (PM<sub>2.5</sub>). Under Alternative 2, emissions of these local pollutants would occur at VNY instead of LAX, and VNY emissions would be higher than they would be under the project. Even with these additional emissions, however, levels at VNY under Alternative 2 would still be less than emissions estimated for no-project conditions because of the ordinance-related diversion to other identified airports. LAX emissions would be lower with Alternative 2 in comparison to the project, as shown below in Table 5-7.

**Table 5-7.** Aircraft-Related Peak Daily Emission Increases at LAX under the Project and Alternative 2 (2014)

	Peak Daily Emission Increases (pounds per day)			
	CO	SO <sub>x</sub>	PM10	PM2.5
<b>Project</b>	131	98	2	2
Significance Threshold	550	150	150	55
Threshold Exceeded?	No	No	No	No
<b>Alternative 2</b>	74	4	<1	<1
Significance Threshold	550	150	150	55
Threshold Exceeded?	No	No	No	No

Note: This table has been revised in the Final EIR to reflect changes made to Table 4.3-25 above.

As with the project, the Alternative 2 diversions from VNY to LAX would result in transferring emissions from one location within the South Coast Air Basin to another; therefore, Alternative 2 would have no effect on the emissions of the regional pollutants VOC and NO<sub>x</sub>, and they are not specifically addressed in Table 5-7 above. The analysis concentrates on the local pollutants CO, SO<sub>x</sub>, PM10, and PM2.5, as the effects of those pollutants are experienced closer to the emissions source, and transferring them from one location to another within a particular air basin would be relevant. As Table 5-7 shows, Alternative 2 emissions of the local pollutants do not exceed the respective emissions thresholds established by SCAPCD; therefore, the impact is less than significant.

Alternative 2 would have no bearing on the emissions at any of the other diversion airports, and Significant Impact AQ-1—the excess of ~~VCAQMD thresholds~~ the VCAPCD threshold for VOC and NO<sub>x</sub>—would occur with implementation of this alternative; and Alternative 2 would also not avoid the significant cumulative impacts CAQ-1, CAQ-2, and CAQ3, as discussed below in Section 5.2.3. Although Alternative 2 would slightly reduce emissions at LAX, there is no considerable air quality benefit to implementing Alternative 2 because pollutants not transferring to LAX would continue to be emitted at VNY.

## 5.1.4 Alternatives Impact Comparison

Table 5-8 lists the significant project-level and cumulative air quality impacts that have been identified for the project (see Section 4.3 and 5.2.3), and compares how implementing the two alternatives would affect these impacts. Instances where the alternatives would avoid the respective impacts are shown in italicized text.

**Table 5-8.** Comparison of Significant Impacts Occurring Under the Project and Alternatives

<b>Significant Impact</b>	<b>Alternative</b>	<b>Level of Significance</b>
AQ-1: Exceedance of Ventura County Air Quality Management-Pollution Control District Daily Emissions Thresholds at CMA	Proposed Project	Significant
	<i>Alternative 1</i>	<i>No Impact</i>
	<i>Alternative 2</i>	Significant
CAQ-1: Contribution of air pollutants to the Mojave Desert Air Basin	Proposed Project	Significant
	<i>Alternative 1</i>	<i>No Impact</i>
	<i>Alternative 2</i>	Significant
CAQ-2: Contribution of air pollutants to the South Central Coast Air Basin	Proposed Project	Significant
	<i>Alternative 1</i>	<i>No Impact</i>
	<i>Alternative 2</i>	Significant
CAQ-3: Exceedance of Ventura County Air Pollution Control District Thresholds at CMA	Proposed Project	Significant
	<i>Alternative 1</i>	<i>No Impact</i>
	<i>Alternative 2</i>	Significant

## 5.2 Cumulative Impacts

Section 15130 of the State CEQA Guidelines provides guidance for analyzing a project's cumulative impacts, or those impacts of a project that may not be considerable when viewed individually, but that combine with the impacts of other projects to produce more substantial effects on the environment. According to this section, the discussion of cumulative impacts "...need not provide as great a detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness." The discussion should also focus only on significant effects resulting from the project's incremental effects and the effects of other projects. If the environmental conditions would essentially be the same with or without the proposed project's contribution, then it may be concluded that the effect is not significant. According to Section 15130(a)(1), "an EIR should not discuss impacts which do not result in part from the project evaluated in the EIR." The basis for the analysis of cumulative impacts is dependent on the nature of the issue. Cumulative impact analysis may be conducted and presented by either of two methods: 1) itemizing past, present, and probable activities producing related or cumulative impacts; or 2) summarizing projections contained in an adopted general plan or related planning document.–

## 5.2.1 Cumulative Methodology

Cumulative analysis for this project relied on the projections method consistent with CEQA Guidelines Section 15130(b)(1)(B). Cumulative growth at VNY and the five diversion airports was estimated based on growth projections published in the FAA's Terminal Area Forecasts (December 2006), and, in an effort to provide the most accurate and up-to-date projections possible, were augmented by information from several available data sources, including the U.S. Department of Transportation's T100 database and Aircraft Situation Display to Industry data stream; the FAA's Air Traffic Activity Data System and Enhanced Traffic Management System Counts; modeling inputs in the FAA's Integrated Noise Model (for LAX); and individual airport master plans.<sup>4</sup> Using these tools, forecasts for future growth at the project-related airports were estimated for 2014 and 2016, the years in which the proposed phaseout would have the greatest impact. These forecast projections were an integral part of the noise analysis provided in Section 4.2 of this Draft EIR, which considers the project's incremental effects as noise limits are phased in and compares project conditions to non-project-related forecast conditions in 2014 and 2016. Detail on the cumulative growth in aircraft operations at the project-related airports is presented above in Section 5.1.2.

Though the project does not propose structural development or land use modification at VNY or any of the diversion airports, it is important to note that the environmental effects associated with the project would occur within areas that are developed (to varying degrees) and that, as a result, currently experience varying degrees of urban conditions due to past projects. The area surrounding VNY is built out—developed with a combination of residential, commercial, industrial, and public uses. BUR is located in an area that is primarily developed, and the airport is immediately surrounded by industrial and commercial development to the east, residential development to the west, industrial development and a cemetery to the south, and industrial and residential development to north. LAX is located in a primarily built out area, with the surrounding lands developed with a mixture of residential, commercial, industrial, and public uses, and with the undeveloped Los Angeles/El Segundo dunes and the Pacific Ocean located west of the airport. CMA is located just outside the City of Camarillo, southwest of the city's incorporated boundaries. Land surrounding the airport is primarily used for agricultural and industrial purposes, though residential and commercial development within the city is located further northeast. CNO is located approximately three miles southeast of central Chino, within an area characterized by open space, active agricultural land, and industrial development, with some scattered residential development located south of the airport. Land south and southeast of CNO is designated for future residential and commercial development. WJF is located in a primarily undeveloped area approximately 3 miles northeast of the developed center of Lancaster, with a few scattered residential uses located closer to the airport.

The Southern California Association of Governments (SCAG) compiles and publishes population forecasts for the growing Southern California region, including

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<sup>4</sup> See Section 8.1 of the Noise Report (Appendix B) for additional explanation.

growth projections within the jurisdictional boundaries each city and county. The latest SCAG population forecasts for cities and counties are the 2008 Regional Transportation Growth Forecasts, which are available on the SCAG website.<sup>5</sup> To depict how the areas around each of the project-related airports are anticipated to accommodate future growth, Table 5-9 shows SCAG's latest population projections for the city and county jurisdictional areas within which the airports are located.

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<sup>5</sup> <http://www.scag.ca.gov/forecast/index.htm>

**Table 5-9.** Population Growth Projections in Areas Surrounding Project-Related Airports

<b>Relevant Airport</b>	<b>Jurisdiction</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>
VNY	City of Los Angeles	3,955,392	4,057,484	4,128,125	4,204,329	4,277,732	4,348,281	4,415,772
BUR	City of Burbank	106,493	112,103	116,430	120,890	125,213	129,390	133,391
BUR	City of Glendale	206,047	210,950	214,200	217,744	221,154	224,431	227,561
BUR	City of Pasadena	145,726	149,854	152,719	155,786	158,759	161,648	164,433
LAX	City of El Segundo	16,944	17,268	17,495	17,500	17,505	17,510	17,515
LAX	City of Inglewood	117,789	118,466	120,185	120,678	121,065	121,669	122,200
CMA	City of Camarillo	63,302	68,622	73,030	75,072	76,800	78,311	79,284
CNO	City of Chino	77,146	81,998	87,313	93,823	100,142	106,220	112,038
WJF	City of Lancaster	135,672	160,650	181,493	202,406	222,761	242,523	261,501
WJF	Unincorporated Northern LA County	132,797	194,704	244,463	294,120	342,578	389,595	434,773

As the table shows, population is expected to increase in the areas surrounding each of the project-related airports. Population increases will accompany additional development, leading the jurisdictions to expand the limits of their built area and increase the density within existing developed areas. This in turn will bring the increases in traffic, noise, air pollutant emissions, and demand on public services and utilities that generally accompany urban growth.

Discussion of the project's contribution to cumulative impacts on noise, air quality, hazards and hazardous materials, public services, traffic and transportation, and utilities and service systems is provided below. As stated in Section 4.1, the project would have no impact on aesthetics, agricultural resources, biological resources, cultural resources, geology/soils, hydrology/water quality, land use/planning, mineral resources, population and housing, and recreation. Therefore, the project would not contribute to any cumulative impacts related to those issue areas, and a cumulative discussion for those areas is not warranted.

## 5.2.2 Cumulative Noise

Existing aircraft operational noise at VNY and the diversion airports currently contributes to noise conditions received in the vicinity of the airports. Around the airports that are located within densely developed urban settings (VNY, BUR, and LAX), this aircraft noise combines with other sources of common urban noise—primarily vehicular traffic noise—to create cumulatively noisy conditions. Around the airports located less developed areas (CMA, CNO, and WJF), there are fewer cumulative noise sources and, therefore, less cumulative noise. Anticipated growth in the areas surrounding all of the project-related airports is likely to increase this urban noise.

As discussed in Section 4.2, the project's proposed phaseout plan would decrease noise levels generated at VNY and increase noise levels generated at the diversion airports, though the project's effect is very minor and were found to be less than significant on a project level. —At VNY, the project would lead to smaller increases in future aircraft noise received by the surrounding area than is anticipated without the implementation of the project's noise-reduction program. As shown in Table 4.2-48, the 2014 project conditions, including noise from project-specific and cumulative operations, are anticipated to increase noise by 0.4 dB compared to 2007 baseline conditions. This is 0.4 dB lower than the 0.8 dB that would occur if the project were not implemented. Therefore, the project would have a beneficial contribution to cumulative noise by reducing future noise levels emitted by aircraft at VNY, and reducing the cumulative noise received by residents of the densely developed surrounding area. The project's contribution would not be cumulatively considerable.

Table 5-10 shows the estimated increases or decreases due to cumulative operations, including a comparison of the project conditions to depict the project's contribution to these cumulative conditions. Noise levels at three of the five diversion airports—BUR, LAX, and CMA—are anticipated to rise between the 2007 baseline and the 2014 forecast years due to project-related and cumulative increases in aircraft



operations. Increases would continue into the 2016 forecast year due to expected increases in non-project-related aircraft. These cumulative aircraft-related noise increases would add to increases in vehicular noise and noise from other urban sources that are likely to occur in the areas surrounding each of the project-related airports. At CNO and WJF, noise levels are anticipated to lower between the 2007 baseline and the 2016 forecast years, despite the fact that the numbers of cumulative and project-related aircraft operations are expected to increase. This is due to the retirement and reduced usage of older, noisier aircraft that is anticipated to occur independent of the project. As with the areas near BUR, LAX, and CMA, non-aircraft noise is likely to increase in these areas due to the growth that is anticipated to occur.

**Table 5-10.** Changes in Cumulative Noise at Diversion Airports (in), Compared to 2007 Baseline

<b>Airport</b>	<b>2014/2016 Forecast Conditions (Cumulative without project)</b>	<b>2014/2016 Project Conditions (Cumulative with project)</b>	<b>Project Contribution</b>
BUR (2014)	+0.9 dB	+1.0 dB	+0.1 dB
LAX (2014)	+0.4 dB	+0.4 dB	+0.0 dB
CMA (2014)	+0.8 dB	+1.1 dB	+0.3 dB
CNO (2016)	-0.1 dB	+0.4 dB	+0.5 dB
WJF (2016)	-0.5 dB	-0.3	+0.2 dB

As shown in the table, the cumulative increases in aircraft operational noise are all well below 1.5 dB, the threshold used to indicate significant noise impacts for this project (as explained in Section 4.2.4.1 of this EIR). Therefore, there are no significant cumulative impacts to which the project would contribute.

### 5.2.3 Cumulative Air Quality

As with noise, air pollutant emissions are anticipated to increase in the areas surrounding the project-related airports due to projected growth, and emissions from aircraft operations at the project-related airports generally contribute to this. As discussed in Section 4.3, the project would reduce emissions at VNY and increase emissions at BUR, LAX, CMA, CNO, and WJF. When considered on a regional level, the project would neither add new emissions nor reduce existing emissions, but rather would transfer emissions from one location to another. This includes emissions transfers within the South Coast Air Basin (VNY, BUR, LAX, and CNO) and reallocation of emissions from the South Coast Air Basin to the Mojave Desert Air Basin (new operations at WJF) and South Central Coast Air Basin (new operations at CMA).

Generally speaking, air pollutant emissions are expected to increase at all three of these affected air basins due to the cumulative growth depicted above in Table 5-9, and anticipated increases in aircraft operations at the project-related airports— independent of the project—play a role in this growth. All of the project-related air basins have non-attainment status for ozone and particulate matter, and future increases (independent of the project) are anticipated to exacerbate these conditions. Therefore, significant cumulative impacts occur in each of these air basins. For this cumulative analysis, any project-related net increase in emissions in these non-attainment air basins would be a considerable contribution to significant cumulative impacts.

Section 4.3.2.4 discusses the significance thresholds established by the three air pollution control districts potentially affected by the project. These districts have established their respective thresholds in acknowledgement of a cumulative impact within their respective basins and in an attempt at future reduction of these cumulative impacts. Where the project would transfer emissions from the South Coast Air Basin to other basins (South Central Coast and Mojave Desert), any exceedance of the respective districts' thresholds (Tables 4.3-5 and 4.3-6), would constitute the project's considerable contribution to significant cumulative emissions impacts in the respective basins.

By diverting aircraft from VNY to BUR, LAX, and CNO, the project would transfer emissions to different locations within the South Coast Air Basin. Therefore, the project would not result in a net increase in pollutants within the South Coast Air Basin and would not contribute to cumulative impacts in this basin.

By diverting aircraft from VNY to WJF and CMA, however, the project would transfer emissions from the South Coast Air Basin to the Mojave Desert Air Basin and South Central Coast Air Basin, respectively. The respective air quality management districts have established air quality management plans for each of the basins in an attempt to reduce emissions and achieve attainment of the relevant standards. Airport emissions and projected increases in aircraft operations are factored into these air quality management plans, but the project would increase emissions in the Mojave Desert and South Central Coast Air Basins beyond the growth factored into the plans. The project would contribute to cumulative impacts because these emissions are not accounted for in the respective air quality management plans.

#### **Significant Impact CAQ-1: New Cumulatively Considerable Contribution of Air Pollutants to the Mojave Desert Air Basin**

The project would add emissions of ozone precursors (VOCs and NO<sub>x</sub>) and particulate matter into the Mojave Desert Air Basin as a result of diversions to WJF, contributing to the basin's continued non-attainment status for ozone and particulate matter. The basin's existing and future non-attainment status is the result of past, present, and future regional pollutant emissions, and represents a significant cumulative impact. As shown in Tables 4.3-28 and 4.3-29, project-related increases in this basin are not considered significant on a project level. However, the project's minor additions are significant on a cumulative level

because of the project's cumulatively considerable contribution to non-attainment status, causing an excess of levels incorporated into the respective air quality management plan. There is no feasible mitigation that would reduce these impacts to less-than-significant levels, as further discussed below.

Alternative 1 would avoid this significant contribution to air quality impacts by avoiding the project-related increase in emissions to the Mojave Desert Air Basin. However, because these operations would remain at VNY, the pollutant emissions that would be transferred as part of the project would continue to be emitted in the South Coast Air Basin under Alternative 1, continuing to contribute to that basin's pollutant non-attainment status. Therefore, there is no overall air quality benefit to implementing Alternative 1. Alternative 2 would not affect the project's transfer of emissions to the Mojave Desert Air Basin because the alternative's exemption would have no bearing on operational diversions to WJF. Therefore, Alternative 2 would result in a considerable contribution to a significant air quality impact in the Mojave Desert Air Basin.

#### **Significant Impact CAQ-2: New Cumulatively Considerable Contribution of Air Pollutants to the South Central Coast Air Basin**

The project would add emissions of ozone precursors (VOCs and NOx) and also add particulate matter into the South Central Coast Air Basin as a result of diversions to CMA, contributing to the basin's continued non-attainment status for ozone and particulate matter. The basin's existing and future non-attainment status is the result of past, present, and future regional pollutant emissions, and represents a significant cumulative impact. Project-related increases are shown in Table 4.3-27 and described in text below the table. A significant project-level and cumulative impact was also identified for these increases in NOx, as they exceed the thresholds established by the VCAQMD/VCAPCD. There is no feasible mitigation that would reduce these impacts to less-than-significant levels, as further discussed below.

Alternative 1 would avoid this significant contribution to air quality impacts by avoiding the project-related increase of emissions to the South Central Coast Air Basin. However, the pollutant emissions that would be transferred as part of the project would remain in the South Coast Air Basin under Alternative 1, continuing to contribute to that basin's pollutant non-attainment status. Therefore, there is no overall air quality benefit to implementing Alternative 1. Alternative 2 would not affect the project's shift of emissions to the South Central Coast Air Basin. Therefore, Alternative 2 would result in a considerable contribution to a significant air quality impact in the South Central Coast Air Basin.

Table 4.3-27 shows that, in addition to presenting new pollutants to the South Central Coast Air Basin, the project-related emissions of VOC and NOx at CMA would exceed VCAQMD thresholds the VCAPCD threshold for these pollutants this pollutant. Therefore, the project would result in a considerable contribution to the significant cumulative impact for these pollutants this pollutant within the basin.

**Significant Impact CAQ-3: Cumulatively Considerable Emissions at CMA, Causing Exceedance of Ventura County Air Pollution Control District Thresholds**

The project would result in emissions of VOC and NOx at CMA that exceed ~~the VCAQMD—VCAPCD daily thresholds~~ threshold, thereby presenting a cumulatively considerable contribution to significant cumulative impacts in the South Central Coast Air Basin. There is no feasible mitigation that would reduce ~~these impacts—this impact~~ to a less-than-significant level, as further discussed below.

Alternative 1 would avoid this significant contribution to air quality impacts by avoiding the project-related increase in emissions to the South Central Coast Air Basin. However, the pollutant emissions that would be transferred as part of the project would remain in the South Coast Air Basin under Alternative 1, continuing to contribute to that basin's pollutant non-attainment status. Therefore, there is no overall air quality benefit to implementing Alternative 1. Alternative 2 would not affect the project's shift of emissions to the South Central Coast Air Basin. Therefore, Alternative 2 would result in a considerable contribution to a significant air quality impact in the South Central Coast Air Basin.

**Mitigation Measures**

There are no feasible measures to mitigate the project's cumulative contribution to emissions within these air basins. To mitigate this impact, emissions from the project-related diversion would have to be eliminated. Technology to accomplish this elimination is not available, and cannot be imposed on the operating aircraft. Therefore, mitigation is not feasible and these are significant and unavoidable impacts.

## 5.2.4 Cumulative Hazards and Hazardous Materials

As discussed in Section 4.1.6, the project would result in less than significant impacts with respect to routine use of hazardous materials at the project-related airports—namely the small amounts of fuel and other common petroleum products used to power and maintain aircraft. Generally speaking, cumulative development that is likely to occur in the areas surrounding the airports would also increase the transport, use, and storage of similarly common hazardous materials. This cumulative usage would not combine to create a significant hazard, as all such usage is regulated by federal, state, and local law, and would keep these materials from posing a combined health risk. Therefore, there is no significant cumulative impact to which the project would contribute.

## 5.2.5 Cumulative Public Services

Growth that is anticipated to occur in the areas surrounding each of the project-related airports would increase demand on fire, police, schools, parks, and other government buildings and services. Cumulative aircraft operations at the project-related airports represent a very small contribution to demands on fire, police, and solid waste by increasing the activity in the area in and around the airports. The project would contribute to this increase in services demand at the diversion airports, but contribute to a reduction in services demand at VNY. Proper land use and facilities planning, as undertaken by the respective jurisdictions within which the airports are located, identifies future needs for the relevant service providers, and prevents significant cumulative impacts from occurring to these services. There is no significant cumulative impact to which the project would contribute.

## 5.2.6 Cumulative Traffic and Transportation

Growth that is anticipated to occur in the areas surrounding each of the project-related airports would increase vehicular traffic by adding cars to the road and by adding traffic sources and destinations. The road systems surrounding VNY, BUR, and LAX are highly congested due to past development, and future growth is likely to worsen these conditions. Traffic is less congested at CMA, CNO, and WJF. Cumulative growth in aircraft operations at the project-related airports would continue to contribute to the future increase in traffic congestion. At VNY, the project would reduce the amount of cumulative vehicle traffic by reducing the number of flights operating out of that airport. At the diversion airports, the project would add vehicle trips; however, the project's contribution of ground-based traffic would be so small that it would not be noticeable. As shown in Table 2-5 (Chapter 2 of this EIR), project-related diversions to BUR, LAX, and CMA in 2014 average one half of one operation per day or less—or one trip every two or more days. As shown in Table 2-6, the daily average of 2016 diversion operations is 0.3 at CNO and 0.7 at WJF. Adding such a small amount of traffic to the local roadways, even those roads that are already congested, would not be considered a significant contribution to cumulative traffic impacts.

## 5.2.7 Cumulative Utilities and Service Systems

Growth that is anticipated to occur in the areas surrounding each of the project-related airports would increase demand on water, wastewater, storm water, and solid waste facilities. Cumulative aircraft operations at the project-related airports represent a small contribution to demands on these facilities. The project would contribute to this increase in infrastructure demand at the diversion airports, but contribute to a reduction in services demand at VNY. Proper land use and facilities planning, as undertaken by the respective jurisdictions within which the airports are located, identifies future needs for the relevant facilities, and prevents significant

cumulative impacts from occurring to these services. There is no significant cumulative impact to which the project would contribute.

## 5.3 Growth-Inducing Impacts

The project-related transfer of airport operations would result in minor increases in air traffic at the five identified diversion airports, accompanied by a similarly minor increase in ground-based activity at those airports. No permanent physical changes are proposed at the diversion airports, and the increase in activity would not be of a scale that would require substantial physical changes at the airports or the respective areas surrounding the airports. The diversion airports are subject to their own airport land use plans, and project-related activity is not anticipated to substantially affect the implementation of those plans.

The diversion airports are variously located in areas that range from fully developed to vacant, undeveloped land. Land use and future development in these areas is subject to the planning guidance provided by the local jurisdictions, and in some cases growth in the vicinity of the airports may be planned by the respective jurisdictions. In all cases, the project-related increase in activity at the diversion airports would not directly or indirectly affect the rate, type, or amount of growth already approved for land beyond the airports. The project proposes no infrastructure into new, unserved areas, and would not require new or expanded infrastructure, housing, or other similar permanent physical changes to the environment to accommodate the increased operations at the diversion airports. Therefore, the project is not growth inducing, and no further analysis is required with respect to growth.

## 5.4 Significant Unavoidable Impacts

The proposed project would result in significant unavoidable impacts related to its emissions at CMA and its contribution to cumulative air pollutant emissions at CMA and WJF. The project would shift emissions from the South Coast Air Basin to the Mojave Desert Air Basin and the South Central Coast Air Basin, both of which are in non-attainment of criteria for ozone and particulate matter. Alternative 1 would avoid these impacts, but would continue to emit the pollutants at VNY. Alternative 2 would not avoid these impacts. There is no feasible mitigation to address these impacts, and they are considered significant and unavoidable, as discussed in Section 4.3.5 and 5.2.3.

## 5.5 Irreversible Commitment of Resources

The project would not result in irreversible commitment of resources. With project implementation, usage of fossil fuel that is currently related to certain VNY

operations would be shifted to the diversion airports, resulting in no net-gain in the amount of fuel used. The project entails no construction or land development; therefore, no resources will be used for building materials or extracted from the ground, and no undisturbed land will be converted to developed uses. There are no other aspects of the project that would affect natural resources.





# 6.0

## REFERENCES AND PREPARERS

### 6.1 Organizations and Persons Consulted

#### Los Angeles World Airports

Roger Johnson, Deputy Executive Director

Karen Hoo, Environmental Management Division

Bob Holden, Noise Management Division

Scott Tatro, Noise Management Division

#### City of Los Angeles

Lynn Mayo, City Attorney's Office

#### Van Nuys Airport

Selena Birk, Airport Manager

### 6.2 List of Preparers

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Michael Slavick, Senior Air Quality Specialist

David Lingner, Senior Air Quality Specialist

Alex Hardy, Associate Consultant

Aaron Sutton, Graphics Specialist

Keira Perkins, Publications Specialist

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Sean M. Doyle, Staff Consultant

Michael J. Hamilton, Staff Consultant

Nicholas P. Miller, Supervisory Consultant

Brad L. Nicholas, Senior Consultant

### **SH&E - Forecasts**

Peter Stumpp, Vice President

Beverly Jones, Vice President

### **CommuniQuest – Public Scoping**

Christine Eberhard, President

## **6.3 References**

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Bob Hope Airport website: <http://www.burbankairport.com/intro.html>; accessed April 2008.

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# 7.0

## RESPONSE TO COMMENTS ON THE DRAFT EIR

LAWA received comments on the Draft EIR from eight agencies, five organizations, and nine individuals during the circulation period. This chapter presents copies of the comment letters, pursuant to Section 15132(b) of the State CEQA Guidelines, with the responses to the comments following each individual letter, pursuant to Section 15132(d) of the State CEQA Guidelines. The comment letters appear alphabetically within three categories: Agencies and Jurisdictions, Organizations, and Individuals. Each letter is assigned a number, and each comment within each letter is also assigned a number to aid in the organization and identification of the responses that follow the letters. Table 7-1 provides a list of the parties commenting on the Draft EIR, pursuant to Section 15132(c) of the State CEQA Guidelines.

**Table 7-1.** List of Parties Commenting on the Draft EIR

<b>Letter No.</b>	<b>Commenting Party</b>	<b>Letter Date</b>
<i>Agencies and Jurisdictions:</i>		
1.	Governor's Office of Planning and Research	12/02/08
2.	Antelope Valley Air Quality Management District	10/09/08
3.	Burbank-Glendale-Pasadena Airport Authority	11/25/08
4.	City of Burbank	11/19/08
5.	City of Chino	11/25/08
6.	City of El Segundo	11/25/08
7.	County of San Bernardino Department of Airports	11/24/08
8.	Ventura County Air Pollution Control District	12/03/08
9.	County of Ventura Department of Airports	10/31/08
<i>Organizations:</i>		
10.	Aircraft Owners and Pilots Association	11/17/08
11.	Encino Neighborhood Council	11/13/08
12.	Los Angeles International Airport Advisory Committee	10/10/08
13.	National Business Aviation Association, Inc.	12/01/08
14.	Valley Industry & Commerce Association	11/25/08
<i>Individuals:</i>		
15.	Bilski, Jonathan	12/02/08
16.	Howell, David	12/01/08
17.	Karczag, Brenda	12/01/08
18.	Olivarez, Richard & Toni	12/01/08
19.	Prisk, Daniel	11/08/08
20.	Scarcelli, Ernie	12/01/08
21.	Sheeran, Phil	12/01/08
22.	Zlotorynski, Rita	12/01/08
23.	[No signature]	12/01/08

**Comment Letter 1, Governor's Office of Planning and Research**



ARNOLD SCHWARZENEGGER  
GOVERNOR

STATE OF CALIFORNIA  
GOVERNOR'S OFFICE of PLANNING AND RESEARCH  
STATE CLEARINGHOUSE AND PLANNING UNIT



CYNTHIA BRYANT  
DIRECTOR

December 2, 2008

Karen Hoo  
Los Angeles World Airports  
7301 World Way West, 3rd Floor  
Los Angeles, CA 90045

Subject: Van Nuys Airport Phaseout of Noisier Aircraft  
SCH#: 2007101110

Dear Karen Hoo:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on December 1, 2008, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

1-1

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Terry Roberts  
Director, State Clearinghouse

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044  
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

**Comment Letter 1**

**Document Details Report  
State Clearinghouse Data Base**

**SCH#** 2007101110  
**Project Title** Van Nuys Airport Phaseout of Noisier Aircraft  
**Lead Agency** Los Angeles World Airports

**Type** EIR Draft EIR  
**Description** Los Angeles World Airports (LAWA) proposes to establish a maximum noise level for aircraft arriving at and departing from Van Nuys Airport. This would be accomplished by gradually phasing out aircraft that generate noise in excess of the established level of 77 dBA, beginning with the noisiest aircraft and periodically lowering the maximum noise level. The project proposes no physical development or change in land use, only operational modifications at the existing facility.

**Lead Agency Contact**

**Name** Karen Hoo  
**Agency** Los Angeles World Airports  
**Phone** 310-646-3853 x 1003 **Fax**  
**email**  
**Address** 7301 World Way West, 3rd Floor  
**City** Los Angeles **State** CA **Zip** 90045

**Project Location**

**County** Los Angeles  
**City** Los Angeles, City of, Van Nuys  
**Region**  
**Lat / Long**  
**Cross Streets** Roscoe Boulevard and Balboa Boulevard  
**Parcel No.** 2205-010-905  
**Township** **Range** **Section** **Base**

**Proximity to:**

**Highways** I-405  
**Airports** Van Nuys Airport  
**Railways** SPRR / MTA  
**Waterways** none  
**Schools** various  
**Land Use** GP land Use; Light Industrial  
 Zoning: [Q]M2-1VL; [T][Q]M2-1VL (Heavy Manufacturing)

**Project Issues** Air Quality

**Reviewing Agencies** Resources Agency; Department of Fish and Game, Region 5; Department of Parks and Recreation; Department of Water Resources; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 7; Air Resources Board, Airport Projects; Regional Water Quality Control Board, Region 4; Native American Heritage Commission

**Date Received** 10/01/2008 **Start of Review** 10/01/2008 **End of Review** 12/01/2008

Note: Blanks in data fields result from insufficient information provided by lead agency.



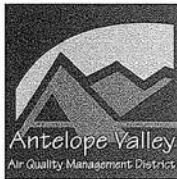
## **Response to Comment Letter 1, Governor's Office of Planning and Research**

### **Response to Comment 1-1**

This is not a comment but an acknowledgement that no State agencies submitted comments on the Draft EIR during the public review process. No response is necessary.

**Comment Letter 2, Antelope Valley Air Quality Management District**

OCT 15 AM 10:20 CR



Antelope Valley Air Quality Management District  
43301 Division St., Suite 206  
Lancaster, CA 93535-4649

661.723.8070  
Fax 661.723.3450

Eldon Heaston, Executive Director

October 9, 2008

Karen Hoo  
Los Angeles World Airports  
Environmental Planning  
7301 World Way West, 3<sup>rd</sup> Floor  
Los Angeles, CA 90045

**Subject Project: Van Nuys Airport Phaseout of Noisier Aircraft**

Dear Ms. Hoo:

The Antelope Valley Air Quality Management District (AVAQMD) has received the Notice of Availability and Public Meeting on Draft EIR for the Van Nuys Airport Phaseout of Noisier Aircraft Project. The project entails establishment of a maximum noise level for all aircraft arriving at and departing from Van Nuys Airport by gradually phasing out aircraft that generate noise in excess of the established level of 77 dBA. The project proposes no physical development or change in land use, only operational modifications at the existing facility. It is anticipated that aircraft unable to comply with the noise restrictions would most likely divert to one of the following airports: Bob Hope (Burbank), Los Angeles International, Camarillo, Chino, and William J. Fox Airfield.

We have reviewed the project and, based on the information available to us at this time, we have no comments. **2-1**

Thank you for the opportunity to review this planning document. If you have any questions regarding this letter, please contact me at (760) 245-1661, extension 6726, or Tracy Walters at extension 6122.

Sincerely,

Alan J. De Salvio  
Supervising Air Quality Engineer

TW/AJD

VNA Phaseout

Printed on recycled paper



## **Response to Comment Letter 2, Antelope Valley Air Quality Management District**

### **Response to Comment 2-1**

LAWA appreciates Antelope Valley Air Quality Management District's participation in the environmental review process for this project.

**Comment Letter 3, Burbank-Glendale-Pasadena Airport Authority**

**McDermott  
Will & Emery**

Boston Brussels Chicago Düsseldorf Houston London Los Angeles Miami Munich  
New York Orange County Rome San Diego Silicon Valley Washington, D.C.  
Strategic alliance with MWE China Law Offices (Shanghai)

Thomas A. Ryan  
Attorney at Law  
tryan@mwe.com  
+1 310 551 9326

November 25, 2008

Karen Hoo  
Los Angeles World Airport  
7301 World Way West, 3rd Floor  
Los Angeles, California 90045

Re: Draft Environmental Impact Report  
Van Nuys Airport Noisier Aircraft Phaseout

Dear Ms. Hoo:

This firm represents the Burbank-Glendale-Pasadena Airport Authority ("Airport Authority"), the owner and operator of the Bob Hope Airport. The Airport Authority has requested that we forward this letter on its behalf, setting forth its comment on the City of Los Angeles Draft Environmental Impact Report ("DEIR") for the proposed phaseout of certain jet aircraft at the Van Nuys Airport (the "Project"). On November 3, 2008, the Authority adopted Resolution 420 opposing the Project as it is currently proposed. (Copy of Resolution 420 attached).

1. The Project

We understand the Project, as currently defined in the DEIR, would authorize Los Angeles World Airports ("LAWA") to ban Stage 2 and certain Stage 3 aircraft from taking off or landing at Van Nuys Airport per the following schedule:

- January 1, 2009 — Aircraft at or above 85 dBA takeoff noise;
- January 1, 2011 — Aircraft at or above 83 dBA takeoff noise;
- January 1, 2014 — Aircraft at or above 80 dBA takeoff noise; and
- January 1, 2016 — Aircraft at or above 77 dBA takeoff noise.

In short, in less than 60 days, LAWA will attempt to ban a number of aircraft which LAWA describes as "Noisy" from using the Van Nuys Airport.

U.S. practice conducted through McDermott Will & Emery LLP.

2049 Century Park East, Suite 3800 Los Angeles, California 90067-3208 Telephone: 310.277.4110 Facsimile: 310.277.4730 www.mwe.com  
LAS99 1707359-1.019424.0050

Comment Letter 3

Karen Hoo  
November 25, 2008  
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2. LAWA's Project Will Shift Noise In The Valley

3-1

First, as LAWA's DEIR acknowledges, the defined Project will cause primarily Stage 2 aircraft operations to shift from Van Nuys Airport to the Bob Hope Airport, which is less than nine miles away. Given this shift, the Airport Authority is surprised that LAWA is pushing ahead with the Project when only 5 months ago LAWA publicly criticized the Airport Authority's draft Part 161 Application, which would essentially make the current voluntary nighttime curfew for Stage 3 aircraft operations at the Bob Hope Airport mandatory. At that time, LAWA objected to the Airport Authority's draft Part 161 Application, in part, by contending that a mandatory curfew would divert operations from a noise problem airport, the Bob Hope Airport, to another noise problem airport, the Van Nuys Airport, and would merely shift noise and not reduce noise. LAWA further criticized the Airport Authority for "ignoring" its "critical" role in the regional air transportation system by ignoring its obligation to accommodate its share of operations. (A copy of the LAWA comment is attached).

3. LAWA's Unilateral Act To Shift Noise In The Valley Violates Federal Law

Placing aside the above inconsistency, LAWA's Project appears to violate federal law.

3-2

A. Airport Noise and Capacity Act of 1990 ("ANCA")

LAWA's website and its DEIR both make reference to the fact that the Project is "grandfathered" under the Airport Noise and Capacity Act of 1990, currently codified at 49 U.S.C. Section 47521 *et seq* and implemented through regulations set forth in 14 F.A.R. Part 161 ("Part 161"). In support of its claim, LAWA references an August 1997 letter from the Federal Aviation Administration ("FAA") (a copy of which is attached).

The August 1997 letter does not, however, say the project at issue here – a phase out – is grandfathered. Rather, the August 1997 FAA letter deals with a non-addition rule and an extension of hours to its existing curfew. This letter followed prior correspondence between LAWA and the FAA during which LAWA asserted that while it claimed grandfathered status for these two proposed restrictions, it had complied with the procedural requirements of ANCA for a Stage 2 restriction, including preparation of a cost benefit analysis.<sup>1</sup> (See copy of August 1997 LAWA letter).

<sup>1</sup> It should be noted that the LAWA economic analysis of those restrictions concluded that economic losses would be significant and could approach \$200 million. No such analysis has yet been made available by LAWA to the public concerning the current Project.

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In an earlier April 14, 1997 letter to the FAA, the City specifically represented that for the curfew extension, the non-addition rule, and a single-step phase out project different from the Project studied in the DEIR it had already complied with the procedural requirements of ANCA:

3-2  
(cont'd)

“It should be noted, notwithstanding the claim of grandfather status, that the City has fully completed the procedural requirements stated in Section 47524 (1) through (4) above, thus entitling it to adopt its regulation without further compliance with federal statutory or regulatory procedure.”

Moreover, when LAWA actually wrote the FAA in 2000 inquiring whether a phase out rule was actually grandfathered, the FAA expressly said no. In an April 17, 2000 letter, the FAA stated that the single-step phase out rule then contemplated by LAWA was not grandfathered and that any different proposed phase out (such as the four-step Project at issue here) should be forwarded to the FAA for review with respect to ANCA and other applicable federal laws. (Copy of FAA letter attached).<sup>2</sup> In particular, the FAA stated that:

“Such restrictions must be fair and reasonable, may not be unjustly discriminatory, and may not impose an undue burden on interstate commerce. Based upon the information available, FAA has serious concerns about the ability of the “phase-out” rule to meet those requirements.” (Emphasis supplied).

B. The Airport and Airway Improvement Act of 1982

3-3

As also indicated in the FAA’s April 2000 letter, federal law, independent of ANCA, is a bar to the Project. See also the Airport and Airway Improvement Act of 1982, 49 U.S.C. Section 47107, *et seq*; City of Naples Airport Authority v. FAA, 409 F.3d 431 (D.C. Cir. 2005) (stating that notwithstanding compliance with ANCA, the FAA has the ability to review and disapprove a noise restriction it deems unreasonable). The Naples decision makes clear that a proposed Stage 2 operational restriction can be unreasonable and/or discriminatory and thus violate federal law and grant assurance independent of ANCA. The Project cannot be deemed “reasonable” without some indication that its benefits bear some reasonable relationship to its costs. No such indication has yet been provided by LAWA for the proposed four-step phase out Project.

<sup>2</sup> The actual correspondence between the City of Los Angeles and FAA is also relatively clear that a restriction on Stage 3 aircraft operations of the form proposed by LAWA would never be deemed “grandfathered” by the FAA.

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Comment Letter 3

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4. LAWA'S Unilateral Act to Shift Noise In The Valley Also Violates California State Law

The DEIR acknowledges that the Project will cause a shift of primarily Stage 2 aircraft operations from Van Nuys Airport (and the resulting noise impacts on Los Angeles residents who live near that airport) eastward to the Bob Hope Airport (and the Burbank and Los Angeles residents who live near it). However, the DEIR is nonetheless misleading as to the actual extent aircraft operations and thus noise and air pollution will shift eastward and thus violates the California Environmental Quality Act, codified at California Public Resource Code Section 21000 *et seq* and implemented through regulations set forth at Title 14, California Code of Regulations Section 15000 *et seq* (collectively, "CEQA"). The Airport Authority, pursuant to CEQA Sections 15087 and 15088, therefore hereby submits the following comments as to how the DEIR is legally inadequate.

3-4

First, the DEIR improperly defines the Project and/or improperly segments the Project in violation of CEQA Section 15124. It is a matter of public record, as posted on the LAWA website, that LAWA is currently pursuing the adoption of nine identified noise abatement measures at the Van Nuys Airport, including, but not limited to, the phase out studied in the DEIR. They are: (1) incentive/disincentives in differential rental rates; (2) incentive/disincentives in differential landing fees; (3) establishing maximum daytime noise limits for all aircraft of 77 dBA; (4) establishing a limit on Stage 3 based jets; (5) establishing a cap or phase-out of helicopters; (6) phase-out of Stage 2 aircraft, (7) extending the current curfew to 9 a.m. on weekends and holidays; (8) establishing fines for violations of VNY Noise Abatement Policies; and (9) expansion of the VNY curfew to include non-emergency jets and helicopters.

3-5

The DEIR as currently written improperly segments out some of these measures for analysis with the effect of minimizing the overall noise shifting and air pollution shifting impact of the actual total contemplated Project. The omission of these measures from discussion in the DEIR not only renders the Project definition inaccurate, it also renders the alternative analysis of the DEIR inadequate, thus violating CEQA Section 14124. Similarly, it renders the mitigation analysis flawed, violating CEQA Section 15065. In short, either the other measures are part of the Project or possible alternatives to the Project are ways to mitigate the noise shifted to Bob Hope airport.

3-6

Finally and most importantly, the DEIR violates CEQA Sections 15126, 15126.2 and 15126.4 in that it fails to adequately disclose the actual environmental impacts of the improperly segmented Project.

3-7

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**Comment Letter 3**

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This failure is based on a systemic under-disclosure of the real shift in the number of jet operations to the Bob Hope Airport that will be caused by the Project.

3-7  
(cont'd)

A. Untenable Assumption

For example, the DEIR assumes at 6.5% growth rate in jet operations between now and 2014, significantly less than the 10.5% growth rate forecast by the FAA or the historical rate for Van Nuys Airport in jet operations. The DEIR justifies this assumption due to a spike in fuel prices earlier this year. This assumption is not defensible in light of recent events. Since the price of jet fuel reached approximately \$140 per barrel earlier this year, it has fallen to almost \$60 a barrel. To deviate from the historical rate of growth of jet activity, based on a spike in jet fuel prices that has already ended violates CEQA.

3-8

B. The Retreat Assumption

Next, the DEIR simply “assumes away” more than 75% of the noise likely to be shifted from Van Nuys Airport to Bob Hope Airport by assuming that the 50 loudest aircraft impacted by the proposed Project will be retired, retrofitted or replaced, rather than shift operations less than nine miles away. Unbelievably, this claim is apparently made without LAWA asking the owners and operators of the aircraft whether this assumption is accurate. LAWA also makes this assumption despite the substantial economic disincentive for the owners of these Stage 2 jets to retire, retrofit or replace those jets to meet the new noise limit. Simply put, the aircraft won’t “retire” or become less “noisy”-- they will likely fly less than nine miles to the east and use the Bob Hope Airport.

3-9

C. The Camarillo Assumption

Finally, after first assuming away close to 50% of the historical growth rate of jet operations, and then more than 75% of the remaining jet operations, the DEIR assumes that more than a third of the jets which will not retire or become less noisy will choose to fly 39 miles to the west of Van Nuys, and outside the Valley and into another county, rather than flying less than nine miles east to Bob Hope Airport. The DEIR assumes an unbelievable 34% of aircraft operations will shift to Camarillo instead of to Bob Hope Airport. To support this counter-intuitive assumption, LAWA again apparently did not ask the owners and operators of these aircraft where they would fly, but instead assumed that as drive times during congested hours is only twice that between Van Nuys and

3-10

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Comment Letter 3

Karen Hoo  
November 25, 2008  
Page 6

Camarillo as it is between Van Nuys and Bob Hope Airport, that a third would go to Camarillo and two-thirds to Bob Hope. This is not realistic. The passengers on those jets live and work in Los Angeles, not Ventura. They will choose Bob Hope Airport. Likewise, the pilots of those jets will choose the higher level of air traffic control services of Bob Hope Airport over Camarillo. Finally, the owners of the jets will likely choose the secure, guarded facilities at the air-carrier certified Bob Hope Airport, rather than the lower-security general aviation-certified Camarillo Airport. That is why historically, only 7% of jet traffic in the area uses Camarillo – a far cry from the 34% assumed by the DEIR.

↑  
3-10  
(cont'd)

5. The City Should Seek Federal Approval of Nighttime Noise Relief For All Its Valley Residents

Despite the plethora of noise abatement measures that the City of Los Angeles is proposing through the four step phase-out of Stage 2 jets and the nine various measures contemplated by the LAWA Part 161 study, none of these measures implements what hundreds of Los Angeles and Burbank residents told the Airport Authority is their greatest concern about noise—achieving meaningful nighttime noise relief. The extensive outreach that has accompanied the Airport Authority’s eight-year effort to seek a curfew on Stage 3 nighttime aircraft operations at Bob Hope Airport has yielded that clear mandate from affected residents. The Airport Authority believes that all residents of the San Fernando Valley should enjoy the benefits of meaningful nighttime noise relief.

3-11

Accordingly, the Airport Authority believes that LAWA should redirect its efforts to study, and implement, a nighttime curfew on Stage 3 operations at Van Nuys Airport, just as the Airport Authority is pursuing at Bob Hope Airport. Had LAWA conducted and completed a comprehensive Part 161 Study before proposing the Project that is the subject of the DEIR, LAWA would undoubtedly have received the same type of public input that the Airport Authority received, and could have acted accordingly.

3-12

In closing, there are a myriad of legal problems with LAWA’s Project and the DEIR. If LAWA believes that the Project really has merit, it should comply with federal law and seek FAA approval for its restrictions, as the Airport Authority is doing with its ongoing Part 161 study and it should be prepared, as the Airport Authority is, to show in its Part 161 Application that the benefits to the entire Valley outweigh the costs to the entire Valley of a noise restriction. Indeed, the Airport Authority would support LAWA

3-13  
↓

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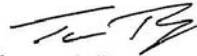
Comment Letter 3

Karen Hoo  
November 25, 2008  
Page 7

seeking through a Part 161 Application the same nighttime noise relief that the Bob Hope Airport is seeking for residents of the Valley.

↑ 3-13  
(cont'd)

Sincerely,



Thomas A. Ryan

TAR/jp

Enclosures

LAS99 1707359-1.019424.0050

**Comment Letter 3**

**RESOLUTION NO. 420**

**3-14**

**A RESOLUTION OF THE  
BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY  
OPPOSING THE LOS ANGELES WORLD AIRPORTS'  
VAN NUYS AIRPORT NOISIER AIRCRAFT PHASEOUT PROJECT  
AS IT IS CURRENTLY PROPOSED**

WHEREAS, pursuant to the Airport Noise and Capacity Act of 1990 ("ANCA") and Federal Aviation Administration ("FAA") regulations codified at 14 C.F.R. Pt. 161 ("Part 161"), airport operators must satisfy certain procedural and substantive requirements prior to adopting new noise restrictions on aircraft;

WHEREAS, the Burbank-Glendale-Pasadena Airport Authority ("Authority") is the owner and operator of the Bob Hope Airport ("BUR");

WHEREAS, the Authority has a pre-ANCA mandatory 10 p.m. to 7 a.m. curfew at BUR for stage II aircraft and strictly enforces such curfew; and

WHEREAS, the Authority has a long-standing voluntary 10 p.m. to 7 a.m. curfew at BUR for stage III jets; and

WHEREAS, the Authority has devoted more than eight years and spent more than \$6 million complying with ANCA and the Part 161 regulations in an attempt to obtain meaningful nighttime noise relief for Burbank and Los Angeles residents who live in the vicinity of BUR; and

WHEREAS, Los Angeles World Airports ("LAWA") is the owner and operator of Van Nuys Airport ("VNY"); and

WHEREAS, LAWA has a long-standing 10 p.m. to 7 a.m. departure curfew at VNY on aircraft whose takeoff noise exceeds 74 A-weighted decibels; and

WHEREAS, LAWA is proposing a Van Nuys Airport Noisier Aircraft Phaseout Project ("Phaseout Project") that circumvents ANCA and seeks to implement, beginning January 1, 2009, a four-phase around-the-clock (24 hours-per-day) elimination from VNY of older, noisier stage II aircraft and some stage III aircraft; and

WHEREAS, LAWA has circulated for public review a draft environmental impact report ("EIR") for its proposed Phaseout Project; and

WHEREAS, LAWA's draft EIR makes erroneous assumptions regarding the number of aircraft expected to be impacted by the proposed Phaseout Project and the number of stage II aircraft expected to be shifted, during daytime hours, to BUR and other airports in the Southern California area, and



Comment Letter 3



3-14  
(cont'd)

WHEREAS, BUR already fulfills its regional role with respect to the acceptance of stage II jets during daytime hours; and

WHEREAS, the Commission believes it is appropriate for LAWA to pursue the same nighttime noise relief measures for VNY neighbors that the Authority is seeking for BUR neighbors; and

WHEREAS, the Commission does not believe it is appropriate for LAWA to implement noise relief measures at VNY that violate federal law and exacerbate daytime noise exposure at BUR from stage II jets.

NOW, THEREFORE, THE COMMISSION RESOLVES AS FOLLOWS:

Section 1. The Commission opposes the effort by LAWA to circumvent the provisions of ANCA and improperly "grandfather" a phased elimination from VNY of older, noisier stage II aircraft.

Section 2. The Commission opposes any effort by LAWA to shift older, noisier stage II jets from VNY to BUR.

Section 3. The Commission encourages and would support an effort by LAWA to pursue meaningful nighttime noise relief at VNY in the form and manner that the Authority is currently pursuing for BUR, and in strict compliance with ANCA requirements including a demonstration of a positive benefit-cost ratio.

Section 4. The Commission directs staff to provide written comments to LAWA on the draft EIR for the proposed Phaseout Project. At a minimum, such comments shall challenge (i) the basis for a grandfathered phase out of noisier jets; and (ii) the assumptions made regarding the numbers of stage II aircraft that could shift operations to BUR during daytime and evening hours.

ADOPTED this 3<sup>rd</sup> day of November 2008.

Bill Wiggins, President  
Burbank-Glendale-Pasadena Airport Authority

Attest:

  
Rafi Manoukian, Secretary

Resolution No. 420

**Comment Letter 3**

STATE OF CALIFORNIA        )  
COUNTY OF LOS ANGELES    )

I, Dan Feger, do hereby certify that the foregoing resolution was duly and regularly adopted by the Commissioners of the Burbank-Glendale-Pasadena Airport Authority at the Authority's regular meeting on November 3, 2008, by the following vote:

AYES:       Commissioners Brown, Lombardo, Quintero, Streater,  
              Holden, Manoukian, Logan and Wiggins

NOES:       None

ABSENT:     Commissioner Povilaitis

  
Dan Feger  
Assistant Secretary

Resolution 420



Los Angeles World Airports

May 29, 2008

JUN 11 2008

RECEIVED

Part 161 Study Comment Docket  
 Burbank-Glendale-Pasadena Airport Authority  
 Bob Hope Airport  
 2627 Hollywood Way  
 Burbank, CA 91505

LAX

LA/Ontario

LA/Palmdale

Van Nuys

City of Los Angeles

Antonio R. Villarraigosa  
MayorBoard of Airport  
CommissionersAlan I. Rothenberg  
PresidentValeria C. Velasco  
Vice PresidentJoseph A. Aredas  
Michael A. Lawson  
Sylvia Patsouras  
Fernando M. Torres-Gil  
Walter ZifkinGina Marie Lindsey  
Executive Director

Re: Los Angeles World Airports Comments on the Bob Hope Airport Part 161  
 Study Draft Application

To Whom It May Concern:

Los Angeles World Airports (LAWA) appreciates this opportunity to comment on the Part 161 Study draft application by the Burbank-Glendale-Pasadena Airport Authority (Authority) for a proposed curfew at Bob Hope Airport (BUR). LAWA owns and operates four airports in Southern California, including Los Angeles International Airport (LAX), LA/Ontario International Airport (LA/ONT), LA/Palmdale Regional Airport and Van Nuys Airport (VNY).

LAWA has reviewed the draft application and offers the following comments, which fall into three primary areas:

1. The benefit-cost ratios calculated for the proposed restriction and alternatives are based on a significant overstatement of benefits, by taking credit for noise reduction around BUR resulting from the diversion of operations to other noise-sensitive airports.

One of the principal conditions that Part 161 sets for demonstrating the lack of undue burden on commerce is verifying that "the estimated potential benefits of the restriction have a reasonable chance to exceed the estimated potential cost of the adverse effects on interstate and foreign commerce."

The draft Part 161 application estimates the net present value, in 2006 dollars, of the benefits and costs from 2008 to 2015 for each of the three nighttime restrictions under consideration. In response to FAA comments (May 2004) on the Authority's draft "Evaluation" document (October 2003), the draft Part 161 "monetizes" benefits, based on estimates of increased residential property values and reduced acoustical treatment expenses, for comparison to estimated costs to passengers, airlines, and general aviation users. All three alternatives are shown as having benefit-cost ratios greater than one. The proposed full curfew has the lowest benefit-cost ratio (1.21, slightly lower than the 1.22 ratio for the noise-based curfew, but less than half the 2.54 ratio for the departure curfew).

However, all of these benefit-cost ratios are overstated, because all three alternatives would divert operations to VNY and LAX, and two of the three would

<sup>1</sup> 14 C.F.R. Part 161.305(e)(2)(ii)(A)(1)



divert operations to LA/ONT. These three LAWA-operated airports – like BUR – are designated as "noise problem airports" under Section 5012 of Title 21, Subchapter 6 of the California Code of Regulations (Noise Standards). LAWA operates these airports under variances granted by the Caltrans Division of Aeronautics conditioned on LAWA's commitment to reduce the noise impact area to zero. The Authority operates BUR under a similar variance.

A restriction at BUR that diverts operations to other problem airports represents a *shifting* of the noise impact – not a *reduction* in the noise impact. The BUR Part 161 application should not count benefits from operations shifted to other problem airports.

The draft Part 161 application predicts that the proposed full curfew will divert a total of approximately 62.7 daily operations to other airports in 2015: 33.2 to VNY, 16.3 to LA/ONT, 5.1 to LAX, 6.2 to Whiteman, 1.3 to Long Beach, and 0.6 to Camarillo. A majority of the diverted operations – 87% – are to LAWA-operated noise problem airports; and since Long Beach also is a noise problem airport, approximately 89% of the diverted operations are to noise problem airports overall. Discounting the benefits of the proposed curfew to reflect this shift in impact would be likely to result in a benefit-cost ratio significantly below 1.0 and potentially close to zero.

**2. The draft submission ignores the critical role that BUR fills in the Los Angeles regional air transportation system and BUR's obligation to accommodate its share of commercial air transportation.**

A review of the Authority's website home page states that the Authority's mission is: "To provide state of the art regional airport facilities and related services which are efficient, safe, convenient, and user friendly; while being a good neighbor."

While LAWA appreciates the Authority's commitment to using a regional strategy to meet Southern California's demand for air transportation services, we find it discouraging that BUR's proposed curfew conflicts both with this regional strategy and with the Authority's mission statement by shifting commercial air carrier operations from BUR to LAX, LA/ONT, and other commercial airports in the region during the noise sensitive curfew hours.

The Southern California Association of Governments has recently completed the 2008 Regional Transportation Plan (RTP). This plan reinforces the established regional aviation policy supporting a decentralized regional aviation system and the growth of outlying airports in the region. The aviation policy's guiding principles include recognition of environmental justice and local quality of life considerations affecting surrounding communities. We believe that the Authority has failed adequately to take these factors into account in the draft Part 161 application in proposing to divert air traffic to LAWA's noise problem airports.

Chapter 10 of the draft Part 161 application addresses the effect of the proposed curfew and alternatives on the national aviation system. Consistent with the theme of regionalization, the analysis focuses entirely on assessment of operations shifted from BUR to other airports in the Los Angeles region. However, the analysis is very limited; in effect, it concludes that there is no effect on the "aviation system" because the operations projected to be shifted to other airports represent a small percentage of forecast activity at those airports. This simplistic approach ignores issues related to BUR's role in the regional airport system, and the Authority's commitment to fulfilling that role.

3. The proposed restriction represents a "discretionary action" that meets the definition of a project under the California Environmental Quality Act (CEQA), for which the Authority is obliged to analyze and disclose potential effects on the environment and to allow public participation in the environmental review process.

According to the Part 161 Application, the proposed restriction would be adopted as an Airport Noise Rule by resolution of the Authority. Adoption of such resolution is a discretionary action that meets the definition of project under CEQA. Accordingly, the Authority must provide environmental analysis of the proposed restriction, consistent with CEQA, to evaluate the potential noise and air quality impacts that may occur as a result of the project. Even if the Authority is successful in obtaining FAA approval of its application for a full curfew, completion of the Part 161 process does not release the Authority from its obligations under CEQA. The Authority has already recognized that the diverted operations have the potential to result in environmental impacts at other affected airports, including LAWA-owned airports. In an email dated May 10, 2007, one of the lead authors of your Part 161 application (Mr. Mark Johnson of Jacobs Consultancy) contacted LAWA with an extensive request for information on LAWA airports, "to enable us to complete our analysis of the potential effects on other airports, and the costs to BUR airport users, of implementing a curfew (and two less restrictive alternatives) at BUR." LAWA responded to that request to the maximum feasible extent, including provision of extensive noise-related information for LAX, LA/ONT, and VNY. To the best of our understanding, the Authority was satisfied by our response. Despite LAWA's cooperation with that request, the Part 161 application does not include noise analysis for any of the affected LAWA-owned airports.

Further, failure to analyze noise impacts at other affected airports results in an incomplete Part 161 application. Required analysis and conditions for approval of proposed restrictions on Stage 3 operations includes "[a]n adequate environmental assessment of the proposed restriction or adequate information supporting a categorical exclusion in accordance with FAA orders and procedures regarding compliance with the National Environmental Policy Act of 1969 (42 U.S.C. 4321)," (14 C.F.R. 161.305(c).) The Part 161 application does not meet this requirement as it does not provide any environmental assessment of noise or air quality impacts at affected LAWA-owned and other airports. We acknowledge that the application states that the Authority will prepare a categorical exclusion for the proposed restriction. However, approval of a Part 161 restriction may only be excluded under FAA Orders 1050.1E and 5050.4B if it does not cause a significant noise impact at the airport seeking the restriction or at other airports serving the restricted aircraft. (FAA Order 5050.4B, Table 6-1; FAA Order 1050.1E, Part 307u.)

In contrast, LAWA is addressing its obligations under CEQA in connection with the proposed "phaseout of noisier aircraft operations" at VNY. LAWA is in the process of preparing an Environmental Impact Report (EIR) under CEQA for that project. LAWA completed a scoping process for that project on November 30, 2007. As part of the scoping process, a "Notice of Preparation" for the EIR was sent via certified mail to the Authority's Executive Director.

CEQA requires a thorough and rigorous analysis of the potential noise and air quality impacts of BUR's proposed restriction. LAWA looks forward to the opportunity to review such an analysis when the Authority makes it available. Please ensure that LAWA receives notice of the Authority's CEQA-compliant environmental review and a copy of any environmental document prepared as part of this review.



**Comment Letter 3**

Thank you for this opportunity to provide comments. Please contact Mr. Roger A. Johnson, Deputy Executive Director, at (310) 417-0693 if you require clarification of the issues raised in this letter.

Sincerely,

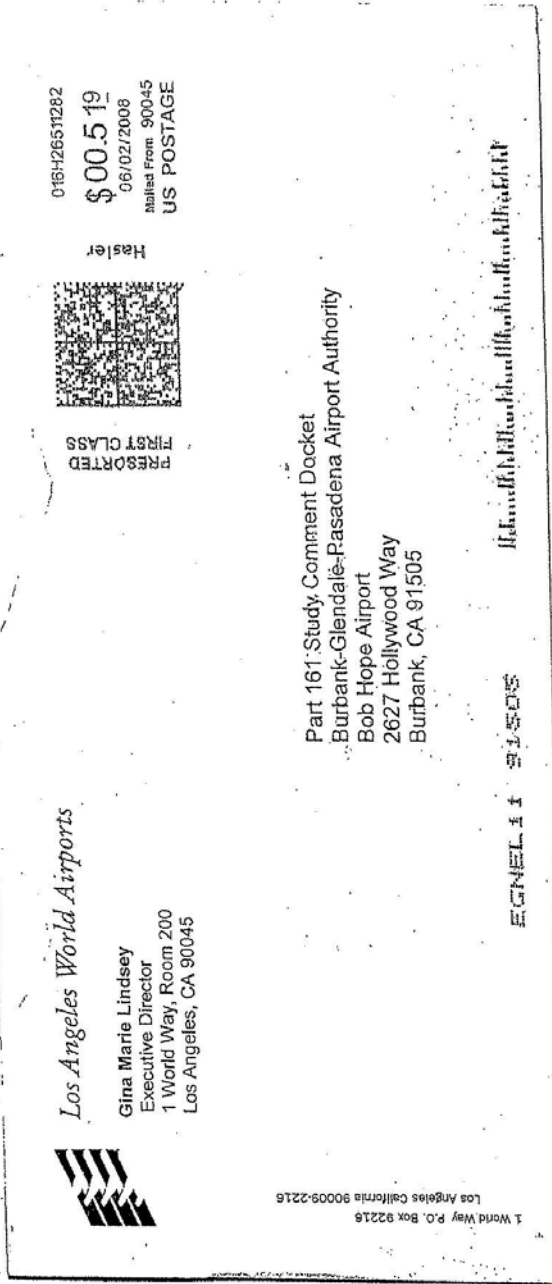


Gina Marie Lindsay  
Executive Director

- GML:RJ:rbh

CC: R. Johnson

Comment Letter 3





U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

Aug 28, 1997

Mr. Breton K. Lobner  
Senior Assistant City Attorney  
Office of the City Attorney  
1 World Way  
P.O. Box 92216  
Los Angeles, CA 90009-2216

Dear Mr. Lobner:

This responds to your May 2 letter concerning curfew, non-addition, and helicopter regulations at Van Nuys Airport (VNY).

I appreciate your sincere and vigilant efforts over the past several months to resolve the concerns of the Federal Aviation Administration (FAA) before the City Council took action on Resolution 19529. Since June 1990, when the city made its first curfew and non-addition proposals, FAA officials have been informally working with you and other city officials to address various proposals to amend the 1981 VNY Noise Control Regulation. The curfew and non-addition regulations and the proposed new helicopter regulations are addressed below.

In your May 2 letter, you explained the city's latest proposals to revise its Noise Control Ordinance. You provided a draft ordinance for our consideration as an attachment to an earlier letter dated April 14. Based upon our review of all information provided, action by the city of Los Angeles, as owner of VNY, to extend application of the decibel limit on nighttime departures by 1 hour from 11 p.m. to 10 p.m. and to adopt a non-addition rule on operations by Stage 2 aircraft, as described in the draft ordinance and revised according to your May letter, would be exempt from the notice and analysis requirements of 14 CFR Part 161 and the former Airport Noise and Capacity Act of 1990 (ANCA), as recodified at 49 U.S.C. 47521 et seq. Specifically, the Stage 2 restrictions in the proposal would be exempt under 49 U.S.C. 47533. Further, the approach that you have outlined to address operations by Stage 3 aircraft would satisfactorily resolve the concerns expressed in the FAA's letter to the President of the City Council, John Ferraro, dated July 17, 1996. Detailed comments on the draft ordinance, as revised by letter dated May 2, are enclosed.

## Comment Letter 3

2

You also provided a draft helicopter curfew regulation and requested clarification regarding the applicability of ANCA and Part 161 to such regulations. Enclosed is a copy of a letter that the FAA recently sent to the Helicopter Association International. In that letter, we clarified that ANCA applies to proposed restrictions on helicopters as Stage 2 aircraft.

This is not an opinion concerning the ability of an airport user adversely affected by any amendment to challenge any aspect of it, except as to one aspect relating to unjust discrimination, nor is it an appealable final agency order within the meaning of 49 U.S.C. 46110. The information submitted by the city does not disclose a complete analysis or conclusions regarding effects of the curfew or non-addition rule on operators at VNY. We note that any proposals to "grandfather" Stage 2 aircraft based at VNY and "exempt" Stage 2 aircraft that visit the airport for major repairs and refurbishment should enhance the reasonableness of the proposal under other applicable Federal laws and requirements. As a matter of policy, the FAA does not consider the use of aircraft stage designations in combination with single event noise limits to be unjustly discriminatory per see Properly-comparing aircraft between stages means comparing aircraft of similar gross takeoff weights and, for a given weight, a Stage 3 aircraft will always be quieter than a Stage 2 aircraft based upon the classifications in the FAA Advisory Circular 36 series.

I hope this letter is helpful. The FAA pledges its continued support to the city in its efforts to developed balanced programs to improve airport noise compatibility.

Sincerely,

Susan L. Kurland

Associate Administrator for Airports

Enclosures



U.S. Department  
of Transportation  
Federal Aviation  
Administration

Apr 17, 2000

Mr. Breton K. Lobner  
Senior Assistant City Attorney  
Office of the City Attorney  
1 World Way  
P.O. Box 92216  
Los Angeles, CA 90009

Dear Mr. Lobner:

This is a follow-up to my February 18 letter regarding Van Nuys Airport. I am responding to the following question that was posed in your January 27 letter; your other questions were addressed in my February 18 response. You asked:

"Whether the grandfather authorization granted by the FAA for the non-addition rule at Van Nuys Airport pertains to the proposed 1990 phase-out rule or whether the 1990 proposed Van Nuys phase-out is also grandfathered under the provisions of ANCA and 14 CFR Part 161?"

Your question focuses on whether the "phase-out rule" proposed in 1990 is grandfathered under the Airport Noise and Capacity Act of 1990 (ANCA), an issue the FAA has not specifically addressed to date. Section 47533(2) of ANCA provides that, except as provided in Section 47524, the statute "does not affect... any proposed airport noise or access restriction at a general aviation airport if the airport proprietor has formally initiated a regulatory or legislative process before October 2, 1990." (Section 47524 applies to airport noise and access restrictions proposed after October 1, 1990, with exceptions not here relevant.)

The proposed 1990 "phase-out" rule (section 3 of Exhibit D to your January 27 letter) would have "phased out" Stage 2 aircraft exceeding certain takeoff noise levels in four phases over a period of seven years beginning in 1991. At the end of this period, all aircraft with certified takeoff noise levels of 77 dB A or higher would have been prohibited from operating at VNY. The originally proposed phase-out dates have now passed (the last was January 1, 1998). As you stated in your January 27 letter, adoption of the phase-out rule now "would prohibit the operation at Van Nuys Airport of all aircraft exceeding 77 dBA." No such immediate ban was proposed in 1990. Thus, immediate implementation of a 77 dBA

noise limit is, in effect, a very different "proposal" than was in the proposed 1990 "phase-out" rule. As a result, it is not exempt or grandfathered under Section 47533(2) of ANCA.

The current proposed rule is not comparable to the staged airport noise and access programs that are exempt under Section 47524(d)(6) of ANCA. As we have previously notified airport proprietors, a proposal would have to be essentially the same as originally proposed or less restrictive than originally proposed to retain its grandfather status under ANCA. If the City elects to reconsider the proposed 1990 "phase-out" rule along these lines, then the FAA would review such a proposal together with the City's reasons that would support a finding that the proposal qualifies for grandfathering and is indeed essentially unchanged or less restrictive.

This is not an appealable final agency order within the meaning of 49 U.S.C. 46110. This letter focuses upon the applicability of ANCA to the proposed "phase-out" rule. In addition to ANCA, airport noise and access restrictions must also meet standards under pre-existing federal law, including federal grant obligations. Such restrictions must be fair and reasonable, may not be unjustly discriminatory, and may not impose an undue burden on interstate or foreign commerce. Based upon the information available, FAA has serious concerns about the ability of the "phase-out" rule to meet these requirements. The City of Los Angeles would have to thoroughly examine these requirements as part of the local process to consider its adoption. A determination of noncompliance would affect the eligibility of the City of Los Angeles to continue to receive grants of federal funding at all airports owned by the City.

hope this letter is responsive to your request. This response has been coordinated with our Office of the Chief Counsel. As an alternative to mandatory restrictions, we encourage the City to pursue discussions with airport users about potential voluntary measures to obtain desired noise reductions at Van Nuys Airport. The FAA would be happy to assist in voluntary discussions and answer any additional questions you or the City Council may have on this matter.

Sincerely,

Woodie Woodward  
Acting Associate Administrator for Airports

## **Response to Comment Letter 3, Burbank-Glendale-Pasadena Airport Authority**

### **Response to Comment 3-1**

As shown in Table 2-5 of the EIR, the project is anticipated to result in diversion of 193 annual general aviation jet operations from VNY to BUR in 2014, the year of the greatest effect of the proposed ordinance. (Please note that this table has been revised in the Final EIR to correct minor clerical errors realized after publication of the Draft EIR.) The breakdown of the aircraft types that are anticipated to divert to BUR and their number of operations is shown in Table 4.2-46. Please also note that BUR is identified in Section 2.2.2 of the Draft EIR as a noise-problem airport as defined by the provisions of the California Airport Noise Standards. The Airport Authority's opinion on the project in light of BUR's Part 161 study is noted and will be forwarded to the project decision makers for their consideration. This is a comment directed at LAWA's airport policies, and it does not specifically address the project's significant environmental issues or the adequacy of the EIR. Therefore, no additional response is required.

### **Response to Comment 3-2**

LAWA will comply with ANCA to the extent required by law. It should be noted that the April 17, 2000, letter from the FAA that is referenced in this letter did not address grandfathering of the project as currently proposed. Rather the letter addressed an "immediate ban." This comment will be forwarded to the project decision makers for their consideration; however, no further response is necessary as this comment does not address the project's significant environmental issues or the adequacy of this EIR.

### **Response to Comment 3-3**

LAWA will comply with ANCA to the extent required by law. This comment will be forwarded to the project decision makers for their consideration; however, no further response is necessary as this comment does not address the project's significant environmental issues or the adequacy of this EIR.

### **Response to Comment 3-4**

The environmental analysis presented in the EIR is based on diversion estimates performed by qualified professionals utilizing the best available data. The environmental analysis of the proposed project was properly conducted, adequately portrays the potential impacts of implementing the project, and was incorporated into Chapters 4 and 5 of the Draft EIR in an appropriate manner. Therefore, the Draft EIR is legally adequate. Responses to subsequent, more specific comments from this letter are provided below.

### **Response to Comment 3-5**

Chapter 2 of the Draft EIR includes all relevant project description information required under California Code of Regulations, Title 14, Chapter 3, (“State CEQA Guidelines”) Section 15124, including the precise location and boundaries, a statement of the project objectives, a description of the project characteristics, and a statement of the EIR’s intended uses. Therefore, the Draft EIR does not violate State CEQA Guidelines Section 15124. The project at issue in the EIR is accurately and properly defined in Section 2.1.1 of the Draft EIR as—in summary—a gradual phaseout of noisier aircraft operations from VNY, with several exemptions.

The other noise-abatement measures listed in this comment are part of the noise phaseout program that LAWA is studying pursuant to the FAA’s Part 161 process, and are not a part of the project for which this EIR has been prepared. Accordingly, the other noise-abatement measures are not listed as part of the project in Section 2.1. The proposed project analyzed in the EIR has independent utility from the Part 161 process and does not commit LAWA to adoption of the measures listed in the comment letter. Furthermore, at this point in time it is too speculative to analyze the environmental effects of any noise-restriction program which may or may not be adopted through the ongoing Part 161 study because of the variety and complexity of the program under review. The Part 161 study is examining a series of nine restrictions, which are properly listed in this comment. The study results will provide benefit-cost information for each restriction. The BOAC will use that information to determine which of the restrictions under consideration will be pursued in a formal submission to the FAA, including, potentially, all nine of the measures. At this time, LAWA cannot predict what combination of measures will be selected, nor can LAWA gauge FAA’s eventual response to the proposed restrictions or predict with certainty which restrictions ultimately will be implemented. Analyzing the full extent of the environmental effects of implementing all nine alternatives might identify impacts that were unrealistically high and speculative; similarly, analyzing the effects of some smaller combination of certain of the measures would be speculative. For the reasons discussed above, the EIR does not improperly segment out the project from a larger program, and, accordingly, impact analysis was properly conducted in the EIR.

### **Response to Comment 3-6**

As stated in the response to comment 3-5, Section 2.1.1 of the Draft EIR presents an accurate description of the project under consideration by LAWA. This accurate project description frames the environmental impact analysis presented in the EIR, including the identification of significant impacts and the conclusion that there are no feasible mitigation measures available to reduce the impacts to less-than-significant levels. Therefore, the Draft EIR’s “mitigation analysis” is proper and not flawed, as suggested in this comment. Conclusions as to the project’s impacts were properly made based upon substantial evidence.



The EIR's proper account of the project description also adequately informs the discussion of the range of reasonable alternatives that are presented and analyzed in the Draft EIR (see the summary of alternatives presented in Section 2.1.2, and the full alternatives analysis presented in Section 5.1). (It should be noted that the Draft EIR included a typographical error on page 5-1 that omitted the header for Section 5.1; this has been corrected in the Final EIR.) Therefore, the Draft EIR is in compliance with State CEQA Guidelines Section 15126.6. Furthermore, the noise abatement measures that are listed in comment 3-5 and that are the subject of comment 3-6 would not reduce or avoid impacts of the proposed project. As summarized in Section 4.3.6 of the EIR, the project would result in significant air quality impacts at CMA; and, as stated in Section 5.1.3 of the EIR, the project would result in cumulatively considerable contributions to significant air quality impacts at CMA and WJF. None of the measures being examined in the Part 161 study would reduce emissions at CMA and WJF and, therefore, they are not required to be considered as alternatives for the purposes of CEQA compliance pursuant to State CEQA Guidelines Section 15126.6.

### **Response to Comment 3-7**

As discussed in the response to comment 3-4, the environmental analysis presented in the EIR is based on diversion estimates performed by qualified professionals utilizing the best data available, and there is no "systemic under-disclosure" of impacts, as suggested in the subject comment. Subsequently numbered responses below respond to specific comments on aspects of the environmental analysis conducted for the project, and further support the conclusions of the Draft EIR.

Pursuant to State CEQA Guidelines Section 15126 and 15126.2, the Draft EIR properly analyzes and addresses the range of potential environmental impacts, with consideration for all phases of the project (i.e., the phases of reduction in the acceptable noise-level (see Chapter 4). Also pursuant to State CEQA Guidelines Section 15126 and 15126.2, the Draft EIR lists the project's significant environmental impacts (see statements in Section 4.3), lists the significant environmental impacts that cannot be avoided if the project were to be implemented (see Section 5.4), discusses the potential irreversible changes assessed to the project (see Section 5.5), discusses the project's growth-inducing impacts (see Section 5.3), discusses the lack of feasible mitigation for the project's significant impacts (see statements in Section 4.3), and analyzes alternatives to the proposed project (see Section 5.1). Therefore, the Draft EIR complies with State CEQA Guidelines Section 15126 and 15126.2. With respect to Section 15126.4, the Draft EIR discusses the lack of feasible measures available to reduce the project's significant impacts to less-than-significant levels (see pages 4.3-52 and 5-20). As stated in State CEQA Guidelines Section 15126.4(a)(2), "Mitigation measures must be fully enforceable through permit conditions, agreements, or other legally-binding instruments;" because there are no enforceable measures available, the Draft EIR does not specify mitigation to reduce these impacts to less-than-significant levels. By including this

discussion, the Draft EIR complies with State CEQA Guidelines Section 15126.4.

### **Response to Comment 3-8**

As discussed on page B-21 of Appendix B, and reiterated on page 4.2-8 of the Draft EIR, the growth-rate assumptions used in the EIR's analysis are based on a review of historic trends at VNY, the general outlook for different segments of the GA market (e.g., potential future operational levels due to the viability and popularity of certain types of aircraft and aircraft activity), assumptions regarding fuel prices, and the FAA's forecast for the United States GA market—not just fuel prices. As discussed on page B-22 of Appendix B, the estimate of a 6.5% increase in business-jet operations at VNY took into account that “the rate of increase in jet operations slows significantly between 2004 and 2008 as a result of continued increases in the price of fuel but resumes the long-term historic trend of 10% per year in 2009 as fuel prices are assumed to moderate and decline slightly.” Thus, though the estimate incorporates a temporary deviation from the historical rate to reflect recognized conditions of fuel prices, the historical rate was later assumed to resume again following the temporary spike. The 6.5% annual rate of increase in business-jet operations at VNY between 2004 and 2008 is a reasonable assumption, and enabled reasonable forecasts and analysis of the project's environmental impacts. While there may be disagreement regarding the forecasts at VNY utilized in this environmental review, the calculations and assumptions provided in the Draft EIR are based on work performed by qualified professionals utilizing the best available data and are an appropriate basis for impact analysis.

### **Response to Comment 3-9**

Estimates of the number of aircraft that would be modified or replaced versus those that would divert to other airports are based in part on nine interviews with VNY operators and service providers potentially affected by the proposed phaseout, which were conducted in spring 2007. At this time additional meetings were held with representatives of three airports—CMA, CNO, and Santa Monica—to discuss the potential for the respective airports to attract project-related diversion activity. The VNY interviews were discussed on page 2-9 of the Draft EIR. Additionally, Section 2.1.4.2 has been revised in the Final EIR to provide further discussion of the interviews and clarify their relationship with the hushkitting and diversion assumptions.

Key opinions stated during the interviews include VNY's strong, positive identity as a business jet center; VNY's reputation as a popular airport for Gulfstream aircraft; and the notion that it is economically feasible to hushkit Gulfstream III aircraft, but not Gulfstream II or Lear 20 series aircraft. Operators also expressed uncertainty about the future of the economy, fuel prices, noise restrictions at other airports, and maintenance requirements. Given this uncertainty, operators were not able to definitively specify how they would react to the project-related restrictions, which would begin to

affect the greatest number of business jet operators in 2014. This lead LAWA's consultants to use their professional judgment to develop a reasonable assumption regarding which owners would install hushkits and which would divert their operations to other airports. See comment 4-9 below for additional discussion of this topic.

As to the portion of this comment that suggests project-related general aviation diversions would utilize BUR, please note that BUR was identified in the EIR as the primary recipient of these diversions. Because the interviews took place seven years before the greatest impacts of the project's proposed phaseout would be felt, in 2014, operators were unable to provide definitive answers as to which airports operators would use to carry out operations no longer permitted to occur at VNY. For this reason, an approach for identifying diversion airports and estimating diversions based on the airports' runway length and width, driving time from VNY, and operating convenience (i.e., the potential for flight delays) was used to estimate which airports would receive the diverted flights. Analysis of the costs involved in modifying or replacing noisy aircraft, including initial costs, operating cost savings, and higher residual values, support the reasonableness of the estimates that were used to generate forecasts of diverted versus modified aircraft. For the methodology used to estimate the rates at which operations would be diverted to the identified airports, please see Sections 2.1.4.3, 2.2, and 4.2.3.3 of the EIR, and Sections 7.2 and 7.3 of Appendix B.

While there may be disagreement regarding the projected diversions that would result from the proposed project, the methods, assumptions, and calculations provided in the Draft EIR are the result of work by qualified professionals utilizing the best available data, and they enable adequate analysis of the project's environmental impacts.

### **Response to Comment 3-10**

As noted in the response to comment 3-9, VNY operators interviewed for the diversion analysis were unable to provide definitive answers regarding their choice of diversion airport seven years in the future. Given that limitation, LAWA's consultants used their professional judgment to devise a reasonable methodology for determining likely diversion to nearby airports based on driving time to and operating convenience at the diversion airports, and determined that by those criteria CMA would be a likely recipient of diverted operations. While there may be disagreement regarding the number of and activity by diverted aircraft that are projected to result from the proposed project, the methods, assumptions, and calculations provided in the Draft EIR are the result of work by qualified professionals utilizing the best available data, and they enable adequate analysis of the project's environmental impacts.

### **Response to Comment 3-11**

This comment is noted and will be forwarded to the project decision makers for their consideration. This is a comment directed at LAWA's region-wide airport policies and states an opinion regarding the applicability of ANCA to the proposed project. The comment does not specifically address the project's significant environmental issues or the adequacy of the EIR. Therefore, no additional response is required.

### **Response to Comment 3-12**

This comment is noted and will be forwarded to the project decision makers for their consideration. LAWA will comply with ANCA to the extent required by law. This is a comment directed at LAWA's region-wide airport policies, and it does not specifically address the project's significant environmental issues or the adequacy of the EIR. Therefore, no additional response is required.

### **Response to Comment 3-13**

This comment is noted and will be forwarded to the project decision makers for their consideration. This is a comment directed at LAWA's region-wide airport policies, and it does not specifically address the project's significant environmental issues or the adequacy of the EIR. Therefore, no response is required.

### **Response to Comment 3-14**

Resolution 420 states an opinion that the Draft EIR makes "erroneous assumptions" regarding forecasts and diversion. Please see the responses to comments 3-8 through 3-10 for responses regarding these claims. The remainder of the resolution states opinions regarding LAWA's regional policies and compliance with ANCA, and does not specifically address the project's significant environmental issues or the adequacy of the EIR. Therefore no additional response is necessary. However, please note that this comment will be forwarded to the project decision makers for their consideration.

Comment Letter 4, City of Burbank

CITY OF BURBANK  
OFFICE OF THE CITY MANAGER

November 19, 2008

08 NOV 25 AM 11:21 CS

Ms. Karen Hoo  
Environmental Planning  
Los Angeles World Airports  
7301 World Way West, 3<sup>rd</sup> Floor  
Los Angeles, California 90045

RE: City of Burbank's Comments on Los Angeles World Airports Van Nuys Airport Noisier Aircraft Phaseout Draft Environmental Impact Report

Dear Ms. Hoo:

The City of Burbank ("City") is pleased to submit these comments on Los Angeles World Airports' ("LAWA") Draft Environmental Impact Report ("DEIR") for the proposed Noisier Aircraft Phaseout ("Phaseout") at Van Nuys Airport ("VNY"). We request that LAWA carefully consider these comments as it prepares the Final EIR.

In general, the City supports the efforts of airport proprietors to adopt appropriate noise and access restrictions to address local noise and other environmental concerns. The City recognizes that the high noise levels of Stage 2 aircraft can be particularly annoying to local residents. For this reason, the City supports a nationwide phaseout of Stage 2 aircraft, which is reflected in bills currently pending before Congress. 4-1

Notwithstanding our support for a national approach, the City recognizes LAWA's historic attention to Stage 2 aircraft, most recently reflected in the proposed ordinance that is the subject of the DEIR. Because of our responsibility to our residents, the City has focused its review of the DEIR and these comments on the predicted impacts of the proposed Phaseout within the City of Burbank. 4-2

*The City is concerned that certain key assumptions, estimates and calculations regarding the number of aircraft that will be shifted from VNY to Bob Hope Airport ("BUR") due to the Phaseout are not fully explained or supported by empirical data. As a result, the DEIR may understate the actual impacts of operations relocated to BUR.* To address this concern, Burbank recommends that LAWA reconsider the variables discussed herein, provide additional justification or revise the calculations as appropriate, and/or conduct sensitivity analyses to make clear the probable range of impacts in case LAWA's base assumptions prove to be incorrect.

In addition, the City believes the LAWA can do a better job in the EIR of making the impacts of the Phaseout understandable to the reader by: (1) providing noise contour maps for the diversion airports; (2) clarifying whether and how the Phaseout would affect helicopters; (3) providing more details regarding the ongoing VNY Part 161 Study; (4) providing additional analysis of single-event noise impacts; (4) providing information regarding possible mitigation options for 4-3

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Comment Letter 4

noise impacts; and (5) seeking clarification from the Federal Aviation Administration on whether LAWA is entitled to implement the restriction without conducting a study pursuant to the Airport Noise and Capacity Act of 1990 and its implementing regulations, 14 C.F.R. Part 161. Providing this additional detail would make the document more transparent to the general public and thus might help minimize public controversy. Given the intense public interest in the Phaseout, the City believes that these recommendations will help focus public discussion and enhance LAWA's efforts to address noise at VNY.

4-3  
cont'd

I. ASSUMPTIONS AND ESTIMATES RELATED TO NOISE IMPACTS

The DEIR makes a series of assumptions and estimates regarding the effect of the Phaseout in order to quantify future noise impacts. First, the DEIR projects both baseline and future forecasts at VNY and the so-called "diversion" airports (Bob Hope, Los Angeles International, Camarillo, Chino, and William J. Fox) without the Phaseout. Second, in order to project future forecasts with the Phaseout, the DEIR estimates the number of affected aircraft owners who would replace or retrofit aircraft with hushkits and those owners who would relocate their operations to another airport. Third, the DEIR identifies airports to which operators likely would divert their operations. Fourth, the DEIR forecasts future annual operations and fleet mix for VNY and the diversion airports with the Phaseout. Based on these projected operation levels and fleet mix, the DEIR projects potential noise impacts to the potentially impacted communities, including Burbank.

4-4

*Because each of these assumptions and estimates builds upon each other, it is possible that individually minor miscalculations could compound to dramatically alter the EIR's ultimate conclusions about the totality of noise impacts to Burbank residents.* The City has identified below several aspects of the analysis that LAWA should revisit in order to ensure that the ultimate conclusions of the EIR are sound.

a. Forecast Methods

The base year (2007) aircraft operations data for VNY was not developed from actual data. Instead, it was *extrapolated* from 2004 data. The trends from 2004-2007 plus "additional historic trends" were compiled to determine a 2014 and 2016 forecast.<sup>1</sup> Similarly, the 2007 VNY fleet mix was derived by "formulat[ing] an estimated 2004 fleet mix on which to determine the 2007 baseline."<sup>2</sup> This derived 2007 operations data and fleet mix was then used to project annual growth and to develop forecasts for the 2014 and 2016 planning years.<sup>3</sup> The City recommends that LAWA use the actual 2007 data in the DEIR, if now available, rather than derived data. At a minimum, LAWA should use the actual 2007 data to validate the derived data.

4-5

<sup>1</sup> Los Angeles World Airports, *Van Nuys Airport Noisier Aircraft Phaseout Draft EIR* (Sept. 2008) at p. 4.2-5 [hereinafter "VNY DEIR"].

<sup>2</sup> According to the VNY DEIR, LAWA considered the following additional information to generate numbers for 2008: tower counts, LAWA curfew counts at VNY, FAA radar data, the VNY database system, data from helicopter count surveys conducted in 2005 and 2006, the 2001 baseline fleet mix for the VNY Part 150 study, and the fleet mix used by LAWA to produce the 2002 through 2004 noise contours for VNY.

<sup>3</sup> VNY DEIR at p. 4.2-5.



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The City also is concerned with LAWA’s forecasts for BUR. While the DEIR estimates 58,629 air carrier operations at BUR in the 2007 base year, the forecast recently prepared by the Burbank-Glendale-Pasadena Airport Authority for BUR shows 71,949 air carrier operations at BUR in 2007.<sup>4</sup> The estimates of commuter and general aviation operations also are inconsistent between the DEIR and the Airport Authority’s forecast, as are estimates about operations by particular aircraft types. LAWA should use the best available data for purposes of identifying base year activity and developing forecasts of future year operations and fleet mix. For BUR, the best available data in most instances is available from the Burbank-Glendale-Pasadena Airport Authority, including its most recent forecast. Any differences in base year or forecast year operations and fleet mix from those of the airport operator should be rigorously analyzed and explained.

4-6

**b. Stage 2 Operations**

The DEIR recognizes that VNY is one of the busiest general aviation airports in the country and states that, between 2000 and 2006, business jet operations at VNY increased by an annual average of 8.1%.<sup>5</sup> Based on that historic growth, the DEIR predicts that the growth rate of business jets at VNY between 2004 and 2014 would be at least 6.5%.<sup>6</sup> The DEIR also estimates that in the 2007 baseline year, there were 4,764 Stage 2 operations at VNY (representing 9.9% of the total jet operations at VNY).<sup>7</sup> However, the DEIR then predicts that *even without the project*, the number of Stage 2 operations in 2014 would decrease to 2,301 operations (*i.e.*, only 2.8% of the total jet operations at VNY).<sup>8</sup> This represents a decrease of more than half of the Stage 2 operations in just 7 years.

4-7

This prediction is not supported adequately in the DEIR. First, the prediction is inconsistent with LAWA’s own recognition of a strong *growth* trend in business jet operations. With respect to Stage 2 operations in particular, the data in the DEIR does not support this marked decline. The DEIR reports that the active North American fleet of Learjet 24 and 25 aircraft went from 426 in 1989 to 324 by the end of 2007, *i.e.*, a decrease of roughly 25% over almost two decades. The active North American fleet of Gulfstream II and III aircraft decreased from 372 to 357 over the same time period – a decrease of 15 aircraft over 18 years, and a decline of less than one aircraft a year.<sup>9</sup> The DEIR provides no indication why the level of attrition is expected to increase so dramatically within the next few years.

Second, the forecast in the DEIR of Stage 2 operations at BUR without the Phaseout is inconsistent with the Burbank-Glendale-Pasadena Airport Authority’s forecast, as reflected in the following table:

4-8

<sup>4</sup> Compare VNY DEIR at p. 4.2-14 (Table 4.2-11) with Jacobs Consultancy, *Official Draft, FAR Part 161 Application for a Proposed Curfew, Bob Hope Airport*, (March 2008) at p. 1-5 (Table 1-1) [hereinafter “Burbank Part 161 Study”].  
<sup>5</sup> VNY DEIR at p. 3-1.  
<sup>6</sup> VNY DEIR at p. 4.2-8 (Table 4.2-5).  
<sup>7</sup> VNY DEIR at p. 4.2-7 (Table 4.2-4).  
<sup>8</sup> VNY DEIR at p. 4.2-10 (Table 4.2-8).  
<sup>9</sup> VNY DEIR at p. 1-3.

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	Lear 25		Gulfstream II		Gulfstream IIB	
	BUR Part 161 Study <sup>10</sup>	VNY DEIR <sup>11</sup>	BUR Part 161 Study <sup>12</sup>	VNY DEIR <sup>13</sup>	BUR Part 161 Study <sup>14</sup>	VNY DEIR <sup>15</sup>
2005	522		1,153		1,152	
2007		92		215		411
2008	600		1,328		1,320	
2014		35		64		262
2015	810		1,792		1,782	
2016		30		48		234

4-8  
cont'd

The two forecasts suggest the level of Stage 2 operations moving in opposite directions: the DEIR predicts a precipitous decrease, while the Airport Authority predicts a steady climb. LAWA predicts that there will be 371 operations by Stage 2 aircraft in 2014, while the Airport Authority predicts that there will be 4,384 operations by just three types of Stage 2 aircraft in 2015.<sup>16</sup>

We encourage LAWA to address these apparent discrepancies by, at a minimum, articulating the basis for its prediction that Stage 2 operations will decline dramatically even in the absence of a Phaseout. Changes in the forecast should be made as necessary or, alternatively, LAWA should conduct a sensitivity analysis to account for greater numbers of Stage 2 operations.

**c. Likelihood of Diversion**

The DEIR predicts that of the 1,989 affected operations in 2014, more than 80%, 1,620 operations, would remain at VNY because the relevant operators would prefer to purchase a replacement aircraft or install a hushkit in order to continue to operate at VNY. Thus, the DEIR concludes that only 369 (18.6 %) of operations will shift to another airport.<sup>17</sup> LAWA arrives at this estimate by assuming that *all* owners of aircraft that historically had more than 12 annual operations at VNY will replace or hushkit their aircraft in order to remain at VNY, and only those owners of aircraft with fewer operations will elect to relocate to other airports.<sup>18</sup>

4-9

This is a key assumption: such a high percentage of replaced or hushkitted aircraft significantly reduces the number of aircraft that would relocate to other airports, which in turn, diminishes the projected increases in noise and other impacts in the areas around those diversion airports. Yet LAWA does not provide any empirical data to support its assumption that any operator with more than 12 annual operations at VNY would *not* relocate. Quite clearly, aircraft operators would need to examine the cost of hushkitting or replacing their aircraft relative to the cost of

<sup>10</sup> Burbank Part 161 Study at Appendix B, p. B-6 (Table B-2) (baseline data without curfew).  
<sup>11</sup> VNY DEIR at Appendix B, pp. B-63 (Table 47) & B-79 (Table 72).  
<sup>12</sup> Burbank Part 161 Study at Appendix B, p. B-6 (Table B-2) (baseline data without curfew).  
<sup>13</sup> VNY DEIR at Appendix B, pp. B-63 (Table 47) & B-79 (Table 72).  
<sup>14</sup> Burbank Part 161 Study at Appendix B, p. B-6 (Table B-2) (baseline data without curfew).  
<sup>15</sup> VNY DEIR at Appendix B, pp. B-62 (Table 47) & B-79 (Table 72).  
<sup>16</sup> Compare VNY DEIR at p. 4.2-17 (Table 4.2-17) with Burbank Part 161 Study at Appendix B, p. B-6 (Table B-2).  
<sup>17</sup> VNY DEIR at p. 2-6 (Table 2-3).  
<sup>18</sup> VNY DEIR at p. 2-6.



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relocating to another airport. LAWA might have based its assumption on discussions with actual operators, as it did to determine the likely effects on the existing maintenance-related operations at VNY;<sup>19</sup> however, the DEIR gives no basis for this assumption. Burbank recommends that LAWA provide a more substantial empirical basis for its assumptions. Here again, LAWA might use a sensitivity analysis to illustrate the range of impacts based on varying numbers of operators who choose to remain at VNY or relocate to a diversion airport.

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Further, there may be steps that LAWA could take to promote continued use of VNY by aircraft that comply with the noise limits imposed by the Phaseout. For example, LAWA might provide financial incentives to aircraft operators that choose to remain at VNY and/or provide temporary waivers recognizing the substantial time and cost required to replace or hush-kit an aircraft. In doing so, LAWA would not only help to ensure the accuracy of its estimates but, more importantly, avoid creating a significant noise problem at the diversion airports.

4-10

**d. Rate of Diversion to Different Airports**

The DEIR both identifies airports that would receive new operations as a result of the Phaseout and attempts to allocate operations among these diversion airports. Of the 369 operations expected to relocate to diversion airports, 192 (52%) are expected to shift to BUR, 115 (31%) are expected to shift to Camarillo Airport (“CMA”), and 62 (17%) are expected to shift to Los Angeles International (“LAX”).<sup>20</sup>

4-11

These estimates appear to be derived from just two criteria: projected drive time to a different airport and inconvenience due to delayed departures. Based on these criteria, the DEIR applied a mathematical formula to allocate traffic among the diversion airports.<sup>21</sup> While drive time and delays are important considerations, the decision on where to divert will be based on myriad other factors including, for example, available space and services at the airport, rates and charges, relationships with commercial aeronautical service providers, existence of any noise rules or access restrictions, and, perhaps most importantly, proximity to the passengers’ origin and/or destination. It does not appear that the criteria used in the DEIR fully capture these important factors, particularly as they may be experienced by individual aircraft operators at VNY. LAWA should revise its methodology for allocating operations among the diversion airports to take such factors into account, including surveys as appropriate, or document how these factors are captured in LAWA’s estimates.

**e. Diversion of 727s**

In Section 4.2, in the discussion of noise impacts, the DEIR concludes that affected Boeing 727 aircraft would only relocate to LAX, and would not shift to either BUR or CMA.<sup>22</sup> However, in Section 4.3, in the discussion of air quality impacts, the DEIR provides data showing air quality

4-12  
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<sup>19</sup> VNY DEIR at p. 2-9.  
<sup>20</sup> VNY DEIR at p. 2-8 (Table 2-5).  
<sup>21</sup> VNY DEIR at Appendix B, pp. B-47 – B-49.  
<sup>22</sup> VNY DEIR at p. 4.2-35 (Table 4.2-46).

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impacts from relocated 727s at not just LAX, but also at BUR and CMA.<sup>23</sup> Indeed, the DEIR predicts almost identical air quality impacts from 727s at LAX, BUR and CMA.

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4-12  
cont'd

LAWA should correct any such conflicting conclusions and should identify the basis for its ultimate prediction regarding the relocation of Boeing 727s.

**II. ADDITIONAL COMMENTS**

**a. Noise Contours for Diversion Airports**

While the DEIR describes and depicts impacts in terms of the noise contours at VNY, including providing detailed noise contour maps, the DEIR provides only a brief numerical table to describe the noise impacts at the diversion airports. The noise impacts at BUR are described only as “a 1.5% increase in 65 dB contour area and a 0.1 dB increase in CNEL exposure in 2014 when compared to forecast conditions.”<sup>24</sup> This information gives no indication to the public of where the contour area will grow and where the noise increases are predicted to occur. The City recommends that the EIR include noise contours at the diversion airports in order to more specifically identify the nature and location of the noise impacts.

4-13

**b. Effect on Helicopters**

It is not immediately clear to the City whether or not the Phaseout would apply to helicopters. Although the DEIR does not examine impacts to helicopters, suggesting that the intent is to exclude helicopters, the plain text of the proposed ordinance applies to “aircraft operations”, which typically would include helicopters.<sup>25</sup>

4-14

Assuming that helicopters generally are covered by the proposed ordinance, none of the exemptions would seem to apply. The proposed ordinance provides exemptions for: (1) “[a]ircraft of a type or class not included in [FAA Advisory Circular] 36-3 for which evidence has been furnished to the Board that the departure noise of the aircraft will not exceed the applicable takeoff noise level restriction set forth in Section 5.2” and also for (2) “[a]ircraft that have been identified by [FAA] in writing as having a lower takeoff noise level than ... the restriction ...”<sup>26</sup> The exemptions suggest that aircraft, including helicopters, may only avoid regulation under the proposed ordinance if the operator provides evidence that the departure noise would not exceed applicable noise restrictions, or if FAA has identified a lower takeoff noise level in writing.

Because helicopters constitute a significant portion of the VNY operations (20% in 2007<sup>27</sup> and a projected 21% in 2014<sup>28</sup>), a significant number might relocate to the diversion airports, including

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<sup>23</sup> VNY DEIR at p. 4.3-47 (Table 4.3-24) (BUR); *id.* at p. 4.3-49 (Table 4.3-25) (LAX); and *id.* at p. 4.3-52 (Table 4.3-27) (CMA).

<sup>24</sup> VNY DEIR at p. 4.2-42.

<sup>25</sup> See 14 C.F.R. § 1 (“aircraft” defined as “a device that is used or intended to be used for flight in the air.”).

<sup>26</sup> VNY DEIR at Appendix A (Draft Phaseout Ordinance With Historic and Maintenance Aircraft Exemptions), at Draft Ordinance §§ 5.3(b) & (c).

<sup>27</sup> VNY DEIR at p. 4.2-7 (Table 4.2-3). By comparison, business jets represent 15% of total operations in 2007.

<sup>28</sup> VNY DEIR at p. 4.2-9 (Table 4.2-6). By comparison, business jets represent 22% of total operations in 2014.

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BUR. The City recommends that LAWA clarify the application of the proposed ordinance to helicopters and, if appropriate, analyze the impacts attributable to helicopters subject to the Phaseout.

4-14  
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c. VNY Part 161 Study

As currently drafted, the DEIR includes only a brief mention of the ongoing Part 161 Study at VNY, which also includes a phaseout of Stage 2 aircraft along with several other alternatives. The DEIR does not explain whether the measures being reviewed in the Part 161 Study would be implemented in addition to the Phaseout or as an alternative.

4-15

Two issues are immediately apparent. First, the measures and restrictions under review in the VNY Part 161 Study might contribute *cumulatively* along with the Phaseout to noise levels at VNY and the diversion airports and therefore should be analyzed as part of the cumulative impacts assessment. Second, it may be that some elements of the VNY Part 161 Study reasonably should be deemed alternatives to the Phaseout and considered in the EIR. The City requests that LAWA provide more explanation of the interaction, if any, between the measures being examined in the pending VNY Part 161 Study and the proposed ordinance.

d. Single-Event ("Berkeley Jets") Noise Analysis

As LAWA recognizes, CEQA requires a full disclosure of the potential impacts of *individual* noise events throughout the day.<sup>29</sup> In particular, CEQA requires a meaningful analysis of the existing ambient noise levels, the number of additional flights that will occur, the frequency of those flights, and to what degree single overflights will create noise levels over and above the existing ambient noise level at a given location.<sup>30</sup> Although the DEIR recognizes this obligation and provides some supplemental analyses for this purpose, the City believes that the DEIR analysis does not fully satisfy this obligation.

4-16

While the DEIR provides some relevant supplemental data, most notably the SEL values of diverted operations, it does not provide a detailed explanation of the actual noise impacts of individual noise events that would occur at the diversion airports. Most of the data is provided in terms of percentages and averages.<sup>31</sup> In particular, there is no description of how the individual noise impacts of the relocated operations may differ from existing operations at the diversion airports. The City recommends that LAWA provide additional analysis of single-event noise impacts using, for example, supplemental noise metrics such as Lmax and/or Time-Above (or Events Above) to provide a complete disclosure of the impacts of the relocated operations, particularly as compared to the existing and forecast fleet mix.

<sup>28</sup> VNY DEIR at p. 4.2-9 (Table 4.2-6). By comparison, business jets represent 22% of total operations in 2014.  
<sup>29</sup> *Berkeley Keep Jets Over the Bay Comm. v. Bd. Of Port Comm'rs of the City of Oakland*, 91 Cal. App. 4th (2001) [hereinafter "Berkeley Jets"].  
<sup>30</sup> *Berkeley Jets*, 91 Cal. App. 4th at 1381.  
<sup>31</sup> E.g., VNY DEIR at Appendix B, p. B-8.11 (Table B.8.5) (percentages of BUR departure operations distribution by aircraft group) and id. at Appendix B, p. B-8.10 (Table B.8.4) (LAX average night departures with and without diverted operations).



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**e. Mitigation**

CEQA requires examination of feasible mitigation measures that could minimize the effects of the proposed action.<sup>32</sup> The DEIR includes no discussion of potential mitigation for possible noise impacts due to its conclusion that the Phaseout would generate no *significant* noise impacts. As identified above, however, there is a real possibility that the DEIR may have underestimated the degree of potential noise impacts. Viewed differently, there are actions that LAWA could take to help to ensure the low level of diversion. Again, such measures could include programs to encourage VNY users to install hushkits or replace non-compliant aircraft instead of relocating, or programs to assist operators to relocate to the most appropriate airport for their operations, taking into account the environmental impacts of the relocation. Because of the regional nature of the impacts, some of these measures may involve inter-jurisdiction and/or regional initiatives. The City encourages LAWA to carefully consider such measures, amend the ordinance as necessary, and consult with operators of the diversion airports.

4-17  
4-18

**f. ANCA Compliance**

As proposed in the DEIR, adoption of the proposed ordinance hinges on the successful application of the Airport Noise and Capacity Act (“ANCA”) grandfather clause. The City recommends that LAWA request a letter from FAA providing an official interpretation of whether or not the proposed ordinance would comply with ANCA and other federal laws applicable to the Phaseout. Absent such confirmation, the very viability of the proposed action – and any potential impacts – will remain uncertain.

4-19

**III. SUMMARY AND CONCLUSION**

In order to better inform the public of the potential environmental consequences of the Phaseout and to enable the public and decisionmakers to better understand the choices before them, the City recommends that LAWA address the following issues in the final EIR:

- Either use actual 2007 data for the baseline forecast and fleet mixes for VNY and the diversion airports or, at a minimum, use the actual data to validate the extrapolated data in the DEIR. 4-20
- Compare the forecast and fleet mix projections in the DEIR with those of the proprietors of the diversion airports, including Bob Hope Airport, and provide a basis for any different conclusions. 4-21
- Revisit or provide evidence to support the assumed decrease in the number of Stage 2 operations at VNY between 2007 and 2016. 4-22
- Provide empirical evidence (*e.g.*, results of interviews with affected operators) to support assumptions regarding the bases upon which operators will choose to replace or hushkit aircraft in lieu of relocating operations. 4-23

<sup>32</sup> CAL. PUB. RES. CODE § 21100 (b)(3); CAL. CODE REGS. tit. 14 § 15126.4 (a).

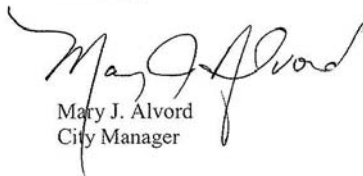
**Comment Letter 4**

- Revisit and revise as necessary the methodology for allocating relocated operations among the diversion airports. | **4-24**
- Conduct a sensitivity analysis to consider the impacts at diversion airports using more conservative numbers for each of the key assumptions (Stage 2 forecast, hush-kit or replacement numbers, allocation of diverted operations). | **4-25**
- Revise the conflicting conclusions regarding the predicted relocation of Boeing 727s. | **4-26**
- Include maps of noise contours at the diversion airports in order to provide more detailed disclosure of noise impacts. | **4-27**
- Clarify whether and how the Phaseout applies to helicopters, consider amending the proposed ordinance to clarify this issue, and, if subject to the Phaseout, examine the attendant impacts attributable to helicopter operations. | **4-28**
- Provide a better explanation of the interaction, if any, between the measure(s) being examined in the pending VNY Part 161 Study and the Phaseout. | **4-29**
- Provide additional analysis of single-event noise impacts. | **4-30**
- Identify potential opportunities to mitigate the impacts of the Phaseout and/or ensure that the impacts will be less than significant. | **4-31**
- Obtain a letter from FAA providing an official interpretation of whether or not the proposed ordinance would comply with ANCA and other federal laws. | **4-32**

\* \* \*

Thank you in advance for your attention and response to the comments presented in this letter. Should you have any questions or concerns, please contact Dennis Barlow, Burbank's City Attorney, at (818) 238-5700.

Sincerely,



Mary J. Alvord  
City Manager

## **Response to Comment Letter 4, City of Burbank**

### **Response to Comment 4-1**

This comment is noted and will be forwarded to the project decision makers for their consideration. This comment does not specifically address the project's significant environmental issues or the adequacy of the EIR. Therefore, no additional response is required.

### **Response to Comment 4-2**

LAWA appreciates the City of Burbank's participation in the environmental review process for this project, and the City of Burbank's concern for the project is noted. The environmental analysis presented in the EIR is based on diversion estimates performed by qualified professionals utilizing the best available data. Assumptions and methodology for determining baseline and forecast operations at the diversion airports, including BUR are discussed in Sections 2.1.4.3, 2.2, and 4.2.3.3 of the Draft EIR and Sections 7.2 and 7.3 of Appendix B. Responses to specific comments regarding project-related diversions to BUR and other related concerns are provided below.

### **Response to Comment 4-3**

This introductory comment is noted. Responses to specific comments regarding the presentation of impacts in the EIR and other related concerns are provided below. More specifically discussion of (1) noise contours is provided in response to comment 4-13; (2) the proposed project's applicability to helicopters is provided in response to comment 4-14; (3) VNY's ongoing Part 161 process is provided in response to comment 4-15; (4) single event noise analysis is provided in response to comment 4-16; (4) [sic] noise mitigation measures is provided in response to comments 4-10 and 4-17; and (5) Part 161 compliance is provided in response to comment 4-19.

### **Response to Comment 4-4**

This comment presents a correct summary of the general methodology by which estimates of forecast operational activity were determined. The methods, assumptions, and calculations provided in the Draft EIR are the result of work by qualified professionals utilizing the best available data, and they enable adequate analysis of the project's environmental impacts.

As to the portion of the comment dealing with miscalculations, responses to specific comments regarding diversions and their environmental impacts are provided below.

### Response to Comment 4-5

This comment misinterprets the methodology used to establish the 2007 baseline used for environmental analysis in this EIR. Baseline 2007 data for VNY was indeed developed from actual operational data beyond 2004, including data for operations occurring up to September 2007. As explained on page 4.2-5 of the Draft EIR, a previously determined 2004 base was updated for this EIR analysis by “reviewing trends that occurred between 2004 and 2007.” This methodology is further explained in pages B-10 through B-12 of Appendix B to the Draft EIR, which notes that the 2007 baseline considers various FAA and LAWA curfew counts for 2004, 2006, and January–September 2006 and 2007.

### Response to Comment 4-6

The operational forecasts for BUR, CMA, CNO, and WJF are based primarily on the 2006 FAA Terminal Area Forecasts. As the FAA states on its website, “The Terminal Area Forecast (TAF) system is the official forecast of aviation activity at FAA facilities. These forecasts are prepared to meet the budget and planning needs of FAA and provide information for use by state and local authorities, the aviation industry, and the public.”<sup>1</sup> This is explained on pages B-55 through B-59 of Appendix B to the Draft EIR. The 2006 forecasts were the latest available when the analysis was conducted, and remain relevant and appropriate for use in the EIR because they offer a reasonable understanding of baseline conditions at BUR against which to analyze the project’s environmental effects.

LAWA’s consultants were working on the Draft EIR at the same time BUR’s consultants were working on the BUR Part 161 study, and LAWA’s consultants were aware that a Part 161 study was underway for BUR. LAWA’s consultants used the TAF and other published data to prepare the BUR forecast incorporated into the EIR because the Airport Authority did not provide VNY with requested forecast information. LAWA’s consultants sent a letter to the Airport Authority on November 2, 2007, as the Draft EIR was being prepared. The Airport Authority denied this request and was unable to supply the forecast cited in this comment until after the analysis was complete and the Draft EIR was circulated. Regardless, the BUR data incorporated into this EIR enables a reasonable assessment of future volumes of aircraft operations at BUR, which in turn serves as a reasonable baseline from which to analyze the project’s environmental impacts at BUR. Please note that the focus of the EIR is on the project’s direct impacts or contribution to cumulative impacts. The EIR compares project impacts to a reasonable baseline and, in this respect, the Draft EIR presents sufficient information to conclude that the diverted operations will not entail significant environmental impacts at BUR. If the project analysis were conducted using the BUR data supplied in the referenced Part 161 analysis as the baseline, the

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<sup>1</sup> Federal Aviation Administration; Operations & Performance Data website, <<http://aspm.faa.gov/getInfo.asp?id=taf>>; accessed February 2009.

number of estimated diversions to BUR and the conclusions regarding project impacts at BUR would not vary from those published in the Draft EIR and impact conclusions would remain the same.

Please also note that the Draft EIR estimate of total operations at BUR in 2007 is 120,810—only 2.2% lower than the actual 2007 value of 123,521 recorded by the Airport Authority in the Part 161 study referenced in this comment.

While there may be disagreement among experts regarding the forecast operations at diversion airports, the calculations and assumptions provided in the Draft EIR are based on work performed by qualified professionals utilizing the best available data, and they enable adequate analysis of the project's environmental impacts.

#### **Response to Comment 4-7**

The forecasted decrease of Stage 2 business jet operations at VNY that was incorporated into the environmental analysis for this EIR is based primarily on nationwide trends in the number of *operations* by Stage 2 business jets. This comment cites recent historic trends in the *number of Stage 2 business jets in the active nationwide fleet*, and not the number of operations by those aircraft. For purposes of environmental analysis it is more important to consider the number of operations, and not the number of active jets. This is an important distinction because, while these aging business jets may remain as active members of the fleet, *operations* by these aging aircraft generally decline more rapidly than the rate of the aircraft's retirement from the fleet. As aircraft age, they are used less frequently than newer models, particularly for charter service where operators report that customers prefer flying in newer aircraft. Section 2.1.4.1, 4.2.3, and 4.2.4 of the Final EIR has been revised to clarify that the anticipated decline in operations is the result not just of aircraft's retirement but also of this reduced usage.

This comment focuses on operations by three types of Stage 2 business jets: Lear 25, Gulfstream II, and Gulfstream III (please note that Gulfstream IIB is the code used in the FAA Integrated Noise Model to designate the Gulfstream III aircraft). Data compiled in the FAA Enhanced Traffic Management System Counts (ETMSC) database indicates that from 2000 to 2007 the number of Lear 25 business jet operations at US airports decreased at an average rate of 14.6% per year, Gulfstream II operations decreased at an average rate of 10.3% per year, and Gulfstream III operations decreased at an average rate of 4.5% per year. The forecast of operations at VNY by Stage 2 business jets incorporated into the Draft EIR is consistent with these national trends, and is therefore proper to use.

While there may be disagreement regarding the projected operations at diversion airports, the calculations and assumptions provided in the Draft EIR are based on estimates performed by qualified professionals utilizing the



best available data, and they enable adequate analysis of the project's environmental impacts.

#### **Response to Comment 4-8**

See the response to comment 4-7 above regarding national trends in Stage 2 business jet operations that informed the estimates used in the EIR analysis. The table presented in this comment depicts a prediction by the Airport Authority that BUR will see a future increase in operations by three types of Stage 2 jets—Lear 25, Gulfstream II, and Gulfstream III (Gulfstream IIB). ETMSC data indicates that operations by Lear 25, Gulfstream II, and Gulfstream III aircraft all decreased at Burbank between 2000 and 2007. The Airport Authority forecast does not explain why they expect the recent trend of decreasing operations by Stage 2 business jets at BUR to reverse in the future. Having reviewed the Draft EIR forecast for VNY in light of current FAA information on trends in business jet operations, LAWA's consultants believe that Stage 2 business jet operations at BUR and VNY will continue to correspond to national trends and decrease in the future, despite the projected increase in total business jet operations by all types of aircraft.

While there may be disagreement among experts regarding the projected operations at diversion airports, the calculations and assumptions provided in the Draft EIR are based on estimates performed by qualified professionals utilizing the best available data, and they inform adequate analysis of the project's environmental impacts.

#### **Response to Comment 4-9**

Estimates of the likelihood of hushkitting or replacing aircraft versus diverting to other airports reflect the results of nine interviews held in April 2007 with charter aircraft operators and fixed base operators at VNY that may be affected by the proposed project. Additional discussion of these interviews and the relationship between the interviews and the hushkitting and diversion assumptions have been added to Section 2.1.4.2 of the Final EIR.

During the interviews, operators provided information about a range of subjects that helped create a framework for estimating reactions to the phaseout. Key opinions stated during the interviews include VNY's strong, positive identity as a business jet center; VNY's reputation as a popular airport for Gulfstream aircraft; and the notion that it is economically feasible to hushkit Gulfstream III aircraft, but not Gulfstream II or Lear 20 series aircraft. Operators also expressed uncertainty about the future of the economy, fuel prices, noise restrictions at other airports, and maintenance requirements, all of which could affect the way they operate their aircraft in the future. Given this uncertainty, operators were not able to definitively specify how they would react to the project-related restrictions, which would begin to affect the greatest number of business jet operators in 2014. As a result, LAWA's consultants developed decision rules about operators'

potential responses to the phaseout, recognizing that there was no way to determine future responses with absolute certainty. Based on the general preference to continue operating at VNY expressed in these interviews, LAWA's consultants used their professional judgment to develop the reasonable assumption that owners of the aircraft affected by the proposed restrictions that averaged at least monthly flights at VNY (24 or more operations per year)<sup>2</sup> would be expected to replace or hushkit their aircraft so they can continue to operate at VNY, while less frequent operators would be expected to divert to other airports to avoid the cost of replacing or hushkitting their aircraft. Please see the revisions to Section 2.1.4.2 of the Final EIR for additional discussion of this issue.

The assumptions relied upon in the analysis presented in the EIR are based on estimates performed by qualified professionals utilizing the best available data, and they enable adequate analysis of the project's environmental impacts.

#### **Response to Comment 4-10**

Please note that significant noise impacts were not identified at any of the diversion airports as a result of the project; therefore, the measures suggested in this comment to promote use of VNY by compliant aircraft are not necessary as mitigation or project alternatives.

#### **Response to Comment 4-11**

Summaries of the rationale behind the selection of diversion airports are provided in Section 2.2 of the Final EIR. More detailed discussion is provided in Appendix B of the Draft EIR.

As discussed in Section 7.2 of Appendix B, the following factors were part of the analysis for determining the airports aircraft were likely to divert to: "The screening criteria included runway length and width, the current level of GA jet aircraft activity, the availability of jet fuel for the potentially diverted aircraft, driving distance and travel time from VNY, and the existence of any noise restrictions that would preclude diverted VNY aircraft from operating at the respective airports." As explained in Section 7.3 of Appendix B, the method for assigning operations to the identified diversion airports included assigning numerical weighing factors for driving time and the convenience of operating at the diversion airports—specifically the potential for flight delays. Each of the main diversion airports for diverted general aviation jet operations—BUR, LAX, and CMA—possess all the other attributes and amenities necessary to handle the small number of business jet operations that would be diverted from VNY as a result of the project, and employing other factors to rate these features was not deemed necessary. LAWA's consultants believe that rating for driving time and flight delays enables a

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<sup>2</sup> It should be noted that comment 4-9 misrepresents this figure as 12 operations. The figure is 24 annual operations (12 annual flights).

reasonable model for how aircraft would divert from VNY to the identified diversions airports.

Other factors were also taken into consideration. As discussed in Section 2.2.5 of the Draft EIR, “CNO was identified as a potential receptor of the project-related diversions of former military aircraft operations from VNY (when the ordinance’s proposed exemption expires in 2016) because CNO currently has two aviation museums and a number of businesses engaged in restoring old aircraft, including former military aircraft, creating an inviting atmosphere for these project-related diversions.” Additionally, airport maintenance providers and operators were consulted when identifying diversion airports, as discussed in Section 2.1.4.2 of the Final EIR, page 2-6.

The calculations and assumptions provided in the Draft EIR are based on estimates performed by qualified professionals utilizing the best available data, and they enable adequate analysis of the project’s environmental impacts.

#### **Response to Comment 4-12**

As explained on page 4.2-34 and depicted in Table 4.2-46 of the Draft EIR, all project-related diversions of Boeing 727s are expected to divert to LAX, as this aircraft type operates frequently at LAX due to the presence of runway and storage facilities that accommodate them, and because they can be more readily serviced there than other potential diversion airports. (Note that Table 4.2-46 has been revised in the Final EIR to correct typographical errors in the names shown for aircraft types.) The assumption that some diversions of 727s would also occur at BUR and CMA, in addition to LAX, was a mistake in the Draft EIR that has been corrected in the Final EIR (see Tables 4.3-21, 4.3-24, and 4.3-27 of the Final EIR. This does not result in a change in conclusions regarding the significance of impacts; a significant air quality impact is still anticipated at CMA, and the BUR air quality impact remains less than significant.)

#### **Response to Comment 4-13**

CNEL contours were not produced for the diversion airports because screening analyses prepared under the thresholds employed for the EIR, which were based on City of Los Angeles and FAA guidelines, indicated they were unnecessary. The City guidelines for conducting aircraft noise assessments under CEQA state: “A significant impact on ambient noise levels would normally occur if noise levels at a noise sensitive use attributable to airport operations exceed 65 dB and the project increases ambient noise levels by 1.5 dB CNEL or greater.”<sup>3</sup> The City’s CEQA guidelines require use of one of four recognized aircraft noise models to

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<sup>3</sup> City of Los Angeles. 2006. *L.A. CEQA Thresholds Guide*. Environmental Affairs Department. Los Angeles, CA. p. I.4-3 – I.4-5.

calculate CNEL.<sup>4</sup> Two of the models apply to airports at which operations are dominated by helicopter or military operations, and are not appropriate for the project-related noise analysis. The other two models are the FAA's Area Equivalent Method (AEM) and the Integrated Noise Model (INM), as explained in Section 4.2.2 of the EIR. Additionally, Appendix B.4 of the Draft EIR provides a detailed description of the INM and data requirements. The AEM model and user guide are available on the FAA website at: [http://www.faa.gov/about/office\\_org/headquarters\\_offices/aep/models/aem\\_model/](http://www.faa.gov/about/office_org/headquarters_offices/aep/models/aem_model/).

The City CEQA guidelines permit the use of the AEM “as a screening tool to determine whether the more sophisticated and time-consuming INM is warranted.”<sup>5</sup> This two-step process represents accepted “best-practice,” and was employed for the project analysis presented in the Draft EIR. This methodology is consistent with CEQA as it provides a level of detail appropriate for impacts determined to be less than significant, which is consistent with State CEQA Guidelines Sections 15143, 15151, and 15204(a). It should also be noted that the method is consistent with FAA policies and procedures for compliance with the National Environmental Policy Act (NEPA).<sup>6</sup> Following these guidelines, the AEM was used as a screening tool at both VNY and the diversion airports. Since the AEM analysis did not indicate that diverted operations would generate a significant noise impact at any airport, it was not necessary to conduct further analysis of noise impacts, part of which would have been preparation of CNEL contours. At BUR, the AEM analysis indicated that the worst-case diversions, occurring in 2014, would result in approximately a 0.1 dB change in CNEL (compared to the 2014 baseline), far less than the 1.5 dB threshold of significant change in CNEL. Therefore, according to the two-step method described above, the INM method is not necessary and a noise contour map is not required to be incorporated into the analysis.

#### **Response to Comment 4-14**

As noted in Section 2.1.1.1 of the DEIR, the phaseout will be implemented through an amendment to the Van Nuys Noise Abatement and Curfew Regulation (Los Angeles Ordinance 155727). Appendix B.6 presents the full text of the existing ordinance. Section 1(b) of that ordinance defines the term “Aircraft” as “All fixed-wing aircraft driven by one or more propeller, turbojet, or turbo fan engines.” Therefore, the phaseout does not apply to “rotary-wing” aircraft; e.g., helicopters. This matter has been clarified in Section 2.1.1.1, page 2-2 of the Final EIR.

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<sup>4</sup> City of Los Angeles. Op. cit. Section 2 B., p. I.4-5.

<sup>5</sup> City of Los Angeles. Op. cit.

<sup>6</sup> Federal Aviation Administration. 2004. *Environmental impacts: Policies and procedures*. [Edition]. Order 1050.1e. Washington, DC. Appendix A, Section 14.4, p. A-61 – A-63.

### Response to Comment 4-15

As discussed in Section 1.1.1 of the Draft EIR, Resolution No. 22980 instructed the Executive Director to report back to BOAC on LAWA's plan for pursuing the Stage 2 phaseout independent of an ongoing Part 161 study that was initiated in 2005 to pursue several proposed noise-based operating restrictions at VNY. Analysis pursuant to this Part 161 process is ongoing.

Section 15130(b)(1) of the State CEQA Guidelines states that an EIR's cumulative analysis should be based either on "a list of past, present, and probable future projects" or on "a summary of projections contained in an adopted general plan or related planning document." (See also Public Resource Section 21100(e).) This comment asks LAWA to examine the cumulative impacts of one project under a "list of projects" approach. As stated in Section 5.2.1 of the Draft EIR, cumulative analysis was conducted with the "projections" method, using a combination of airport operational forecasts published by the FAA and growth projections published by SCAG. Using this projections method provides a reasonable image of both the growth in operational activity at the affected airports and the general population growth that would occur throughout the region.

It should be noted that Part 161 is a process for adopting noise restrictions taking into account economic considerations and not a CEQA-related alternative analysis. The Part 161 analysis is based upon economic considerations and a cost benefit analysis (49 U.S.C. 47523(b) and 47524(b)(4)). These are not factors typically considered under CEQA (See State CEQA Guidelines Section 15131(a). and Kostka & Zischke, *Practice Under the California Environmental Quality Act* (2d ed Cal CEB, 2008, pg. 643-644, Section 13.34 [cost benefit studies not required under CEQA].)

The measures and restrictions under review in the Part 161 analysis are also not appropriate CEQA alternatives to the proposed project as defined in State CEQA Guidelines Section 15126.6. Section 15126.6 of the State CEQA Guidelines states that alternatives should "feasibly attain most of the basic objectives of the proposed project but...avoid or substantially lessen any of the significant effects of the project." Additional measures and restrictions that LAWA considers under the Part 161 study would not serve to avoid or substantially lessen the project's significant impacts because they would not reduce air pollutant emissions at CMA and WJF, as discussed above in the response to comment 3-6. Therefore, these restrictions and measures are not analyzed as alternatives to the proposed project.

### Response to Comment 4-16

The single-event noise ("Berkeley Jets") analysis presented in the Draft EIR is proper and adequate for CEQA environmental review purposes, as it sufficiently allows a more nuanced understanding of the single-event noise impacts resulting from the project than would be offered by a simple CNEL-based analysis. However, additional rationale regarding the methodology

and the level of detail used for the single event noise analysis has been added to Section 4.2.4.1 of the Final EIR.

This comment suggests that the sound exposure level (SEL) analysis provided in the EIR “does not provide a detailed explanation of the actual noise impacts of individual noise events that would occur at the diversion airports.” As discussed in the revisions to Section 4.2.4.1, “In the event the significance threshold used here is triggered, the impact analysis would provide additional detail regarding SEL and homes likely to be affected, to aid in identifying feasible mitigation measures.” The impact analysis did not identify any significant impact pursuant to this threshold; therefore, greater detail was not incorporated into Section 4.2 of the Draft EIR. Greater detail on the Berkeley Jets analysis, including discussion of SEL noise levels, is provided in Appendix B.8. SEL is the appropriate metric to use and, had additional detail been necessary, a detailed SEL impact analysis would have been performed. As noted in footnote 9 on page 4.2-41 of the Draft EIR (footnote 10 of the Final EIR), the *Berkeley Keep Jets* decision focused on nighttime noise, specifically the failure of CNEL analysis to provide “the most fundamental information about the project’s noise impacts which specifically included the number of additional nighttime flights that would occur under the project, the frequency of those flights, and their effect on sleep.”<sup>7</sup> SEL is formally recognized as the appropriate noise metric to use in sleep-related assessments. The American National Standards Institute (ANSI) recently published a standard for estimating the likelihood of awakenings in ANSI S12.9-2008, *Quantities and Procedures for Description and Measurement of Environmental Sound—Part 6: Methods for Estimation of Awakenings Associated with Outdoor Noise Events Heard in Homes*. The Federal Interagency Committee on Aviation Noise announced in December 2008 that it recommended use of this procedure, which uses SEL for estimation of awakenings. The ANSI standard presents a formula that relates indoor SEL to “the probability that a person of average sensitivity to awakening will be awakened by a single noise event.” Therefore, SEL analysis does offer a detailed explanation of project-related noise events, and the detailed statistics presented in the Draft EIR clearly demonstrate that the diverted operations are too few in number relative to existing operations of similar noisiness to identify a significant impact at BUR or any of the diversion airports. This issue is discussed in greater detail in the response to comment 6-11.

With regard to the analysis’s use of percentages and averages, the single event analysis summarized in Section 4.2.4.3 of the Draft EIR and presented in its entirety in Appendix B.8 also provides full detail on the specific *number* of day, evening, and night operations projected to be diverted on a daily basis to each diversion airport. The information is presented in graphic and tabular form. Furthermore, this information was also included Section 4.2.3.3 (“Diversion Airports: Baseline and Forecast Aircraft Operations and

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<sup>7</sup> *Berkeley Keep the Jets Over the Bay Committee v. Board of Port Commissioners of the City of Oakland*, [2001] 91 Cal. App. 4<sup>th</sup> at 1344.

Noise”). For purposes of clarification, baseline information regarding the frequency of nighttime operations, which appears in various tables in Section 4.2 of the Draft EIR, has been added to the beginning of each diversion airports “Berkeley Jets Impacts” impact analysis in Section 4.2.4.3 of the Final EIR.

With regard to how the noise associated with diverted operations compares to that associated with existing conditions, the tables and graphics in Appendix B.8 further break down the projected numbers of diverted of day, evening, and night operations into five-decibel (dB) Sound Exposure Level (SEL) intervals, and compare them to the existing day, evening, and night operations in those bands.

With regard to this comment’s recommended use of other noise metrics, such as Lmax, Time-Above, or Events Above, the graphics and tables presenting information in five-dB SEL intervals represent a form of “Events Above” analysis; by presenting the information in bands, the analysis is even more informative than simply providing a total count of “events above” a single SEL threshold.

#### **Response to Comment 4-17**

The referenced sections of the CEQA statutes and guidelines state that an EIR shall include “Mitigation measures proposed to minimize the *significant* effects on the environment...” (PRC Section 21100[b][3], emphasis added) and that “An EIR shall describe feasible measures which could minimize *significant* adverse impacts...” (CCR Title 14, Chapter 3, Section 15126.4, emphasis added). As stated in Section 4.2 of the Draft EIR, the project is not anticipated to result in any significant noise impacts; therefore, the EIR is not required to list mitigation measures that would minimize the project’s noise effects. Comments received during the public review period for the EIR have not led to the need to identify significant noise impacts and, accordingly, no additional mitigation measures have been incorporated into the Final EIR.

#### **Response to Comment 4-18**

See the responses to comments 4-4 through 4-11 above for responses regarding this comment’s suggestion that project-related diversions were underestimated and, as a result, that noise impacts were underestimated. As discussed above in the response to comment 4-17, the project would not result in significant noise impacts. Because the project would not result in any significant noise impacts, mitigation is not necessary to minimize the project’s noise impacts.

#### **Response to Comment 4-19**

LAWA will comply with ANCA to the extent required by law. This comment will be forwarded to the project decision makers for their

consideration; however, no further response is necessary as this comment does not address significant environmental issues related to the adequacy of this EIR.

**Response to Comment 4-20**

See the response to comment 4-5 above.

**Response to Comment 4-21**

See the response to comment 4-6 above.

**Response to Comment 4-22**

See the responses to comments 4-7 and 4-8 above.

**Response to Comment 4-23**

See the response to comment 4-9 above.

**Response to Comment 4-24**

See the response to comment 4-11 above.

**Response to Comment 4-25**

See the response to comments 4-11 above.

**Response to Comment 4-26**

See the response to comment 4-12 above.

**Response to Comment 4-27**

See the response to comment 4-13 above.

**Response to Comment 4-28**

See the response to comment 4-14 above.

**Response to Comment 4-29**

See the response to comment 4-15 above.

**Response to Comment 4-30**

See the response to comment 4-16 above.



**Response to Comment 4-31**

See the response to comment 4-17 and 4-18 above.

**Response to Comment 4-32**

See the response to comment 4-19 above.

**Comment Letter 5, City of Chino**

DENNIS R. YATES  
Mayor

EUNICE M. ULLOA  
Mayor Pro Tem



**CITY of CHINO**

GLENN DUNCAN  
EARL C. ELROD  
TOM HAUGHEY  
Council Members

PATRICK J. GLOVER  
City Manager

November 25, 2008

Ms. Karen Hoo  
Los Angeles World Airports  
Environmental Planning  
7301 World Way West 3<sup>rd</sup> Floor  
Los Angeles, CA 90045

RE: Draft Environmental Impact Report for Van Nuys Noisier Aircraft Phase-Out Program – Comments from the City of Chino

Dear Ms. Hoo:

Thank you for providing the City of Chino an opportunity to review and comment on the Draft Environmental Impact Report (DEIR) for the Van Nuys (VNY) Noisier Aircraft Phase-Out Program.

Based upon staff's review of the proposed project, the City of Chino has the following comments:

A substantial number of new residential units have been and will be built near Chino Airport (CNO). The City is concerned residents near the airport may be negatively impacted by the increased aircraft operations. Furthermore, we are concerned that noisier aircraft that are no longer able to land at VNY will move to CNO, thus displacing the noise problem onto Chino's residents.

5-1

The City does not believe the DEIR is conclusive in terms of the additional aircraft operations that will occur at CNO due to the proposed phase-out program, since CNO offers a number of facilities that can accommodate larger aircraft. The City is concerned the amount of aircraft operations are grossly undercounted and the impacts to the City of Chino are not fully analyzed. It is highly recommended that further analysis is needed to assess the probable increase in future aircraft activity at CNO, due to the proposed program, as well as the resulting noise impacts.

5-2



13220 Central Avenue, Chino, California 91710  
Mailing Address: P.O. Box 667, Chino, California 91708-0667  
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Web Site: www.cityofchino.org

Comment Letter 5

LAVNY Noisier Aircraft Phase-Out Program DEIR

Page 2

November 25, 2008

Thank you again for providing the City of Chino the opportunity to comment on the VNY Noisier Aircraft Phase-Out Program DEIR. We look forward to participating in this process to assure the continued protection of the quality of life for residents surrounding the airport.

5-3

Should you have any questions, please feel free to contact me at (909) 591-9890.

Sincerely,



Brent Arnold  
City Planner

cc: Community Development Department File

## **Response to Comment Letter 5, City of Chino**

### **Response to Comment 5-1**

This comment is noted and will be forwarded to the project decision makers for their consideration. Chapter 4 of the Draft EIR presents analysis of the environmental impacts resulting from the proposed project at the identified diversion airports, including CNO. This includes analysis of impacts on residences of the City of Chino located in proximity to CNO; all project impacts at CNO were determined to be less than significant.

### **Response to Comment 5-2**

Because of its general location within the Southern California region, CNO was preliminarily included in the list of potential diversion airports for project-related general aviation aircraft diversions when the diversion analysis first began. Further screening analysis found excessive driving time between VNY and CNO, and this was considered a primary factor for eliminating CNO as a recipient of project-related diversion, other than the operations of former military aircraft in 2016. (See Draft EIR Sections 2.1.4.3 and 2.2.5, and Appendix B Sections 7.2 and 7.3 for diversion analysis.) Driving time from VNY to CNO was estimated at 1 hour and 10 minutes under uncongested traffic conditions, and was estimated to increase to 3 hours and 10 minutes with congestion—conditions that frequently exist. These times led to the conclusion that it would be unlikely that general aviation aircraft operators would choose CNO as an alternative to VNY.

The calculations and assumptions provided in the Draft EIR are based on work performed by qualified professionals utilizing the best available data. Accordingly, the estimates of diversions to CNO included in the Draft EIR were conducted with proper methodology, are appropriate for use in environmental analysis, and presented sufficient information to conclude that impacts at CNO would be less than significant. Therefore, the analysis of impacts on the City of Chino is accurate and valid, and no additional analysis is necessary.

### **Response to Comment 5-3**

LAWA appreciates the City of Chino's participation in the environmental review process for this project. As discussed in response to comments 5-1 and 5-2, the calculations and assumptions provided in the Draft EIR are based on work performed by qualified professionals utilizing the best available data, and enable adequate analysis of the project's impacts at CNO. This analysis was adequately presented in the Draft EIR, and no revisions to the EIR are necessary to address this comment.

**Comment Letter 6 , City of El Segundo**

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November 25, 2008

Karen Hoo  
Los Angeles World Airports  
Environmental Planning  
7301 World Way West, 3<sup>rd</sup> Floor  
Los Angeles, CA 90045

**Re: Comments Submitted on Behalf of the City of El Segundo on the Van Nuys Airport Noisier Aircraft Phaseout Draft EIR**

Dear Ms. Hoo:

This firm represents the City of El Segundo on matters related to Los Angeles International Airport ("LAX"). We have been asked to review the proposal by Los Angeles World Airports ("LAWA") to phase out noisier aircraft at the Van Nuys Airport ("VNY"). In the spirit of cooperation, we offer the following comments in the hope that LAWA will reconsider its plan and adopt an approach that is fair for the entire region.

The City of El Segundo is located adjacent to LAX and is directly affected by any change to the regional airport system that results in increased operations at LAX. El Segundo's primary concern is that the September 2008 Draft Environmental Impact Report ("Draft EIR") prepared for the noisier aircraft phaseout ("the Project") underestimates potential noise, air quality, and other impacts on the residents of El Segundo resulting from flight diversions from VNY to LAX.

6-1

While El Segundo certainly understands that the community surrounding VNY would like to see noisier aircraft phased out, in fairness, noise relief for one community should not come at the expense of another. In this case, it appears that implementation of the proposed Project could result in increased noise and other impacts in El Segundo. The regional decentralization approach laid out in recent planning documents such as the LAX Master Plan and the 2008 Regional Transportation Plan should guide the development of LAWA's policies with respect to VNY, thereby assuring that LAX-adjacent communities do not suffer disproportionate airport impacts.

6-2

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In order to comply with the requirements of the California Environmental Quality Act (“CEQA”), LAWA should fully analyze the impacts of diversions to LAX (including single event noise) and include mitigation measures and examine alternatives designed to decrease the shifting of noisy aircraft to other airports, particularly LAX. The EIR should also be supplemented by an analysis analogous to that presented in a Federal Aviation Administration Part 161 study. If these studies show that the costs of the Project outweigh the benefits, LAWA should not go forward with the Project.

6-3

6-4

I. California Environmental Quality Act Issues

A. The Analysis of Diverted Flights Is Incomplete.

El Segundo is concerned that the number of aircraft operations that will move to other airports has been understated in the Draft EIR due to imperfect methodology. Given the limited and predictable number of aircraft that will be affected by the Project, LAWA analysts could interview each owner of an affected aircraft to determine what the owner would do with the aircraft if the Project is implemented. This approach would help improve the accuracy of LAWA’s assumptions regarding whether individual aircraft would be retrofitted with a hush kit, replaced, or relocated to another airport elsewhere in the region.

6-5

Instead of taking this approach, however, the Draft EIR simply assumes: “Owners of the 50 noisy aircraft that flew 12 or more flights (24 or more operations) are expected to replace or hushkit their aircraft so they can continue to operate at VNY. The others are expected to shift to other airports to avoid the cost of replacing or hushkitting their aircraft.” See Draft EIR page 2-6 and Appendix B at 42. In other words, the analysis assumes that 73% (see App. B at 43) of the noisy jet operations will not be shifted to other airports. The basis for this assumption is not made clear in the Draft EIR. Moreover, this assumption is the foundation of the noise and air pollution impact analysis that follows it. As such, the lack of substantial evidence for these numbers indicates a lack of substantial evidence for the entire Draft EIR. If this assumption proves to be wrong, LAX and other diversion airports such as Bob Hope Airport in Burbank (“BUR”) may experience many more diverted operations than are predicted by the Draft EIR, and their surrounding communities will experience more severe impacts.

6-6

B. Impacts to LAX Should Be Considered Significant.

LAX is a “noise problem airport” under Section 5000 et seq. of Title 21 of the California Code of Regulations (Noise Standards). Communities surrounding LAX, such as El Segundo, are particularly susceptible to noise and other airport impacts. While some communities near airports have the benefit of buffers that can help shield residents from the impacts of increased aviation operations, in the case of El Segundo, many residents live immediately adjacent to the airport, with no meaningful buffer to protect them. Thus, given that residents in the vicinity of

6-7





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LAX already contend with substantial noise and other impacts from existing flight operations, and are likely to experience increased impacts in the future, any additional flights at LAX may result in substantial adverse impacts.

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6-7  
cont'd

Any general aviation flights diverted to LAX from VNY would be particularly problematic for El Segundo because those flights would likely be based and serviced at the ancillary facilities located along the airport's southern boundary, adjacent to El Segundo. Additionally, although aircraft operations at LAX generally follow the airport's preferential runway policy, El Segundo has found that air cargo and other operators based in the southern area are unfortunately allowed or directed by air traffic control to deviate from this policy on a regular basis by taking off on the "outboard" runway closest to El Segundo (Runway 25L). In light of this, El Segundo is concerned that shifting flights from VNY to LAX could result in additional unnecessarily noisy operations on the south side of LAX, including more departures from Runway 25L contrary to LAX's preferential runway policy.

6-8

Furthermore, given that LAWA considers noise from the affected aircraft at VNY significant enough to warrant a proposed phaseout, the shift of those flights to LAX should also be considered significant. The Draft EIR's contrary conclusion is not supported by substantial evidence.

6-9

C. The Single Events Analysis Is Not Realistic.

The impact at LAX is further understated because the Draft EIR does not clearly explain the impact that individual diverted noisy jet operations will have on surrounding residences. How loud will these events be, and how will residents experience them? This type of analysis is particularly necessary for LAX, because citizens of El Segundo and other adjacent communities live so close to airport runways.

6-10

Recent definitive case law requires that an EIR "measure how many high noise events will take place during the noise sensitive nighttime hours [and] describe the effects of noise on normal nighttime activities such as sleep." *Berkeley Keep Jets Over the Bay Committee v. Board of Port Commissioners* (2001) 91 Cal.App.4th 1344, 1382 n. 23 ("Berkeley Jets"). The Court of Appeal in that case stressed the need to provide information in a form that is useful to help nearby residents evaluate the impact of future increased air traffic on their daily lives. In particular, the EIR must enable residents to evaluate the degree to which the "single events" of aircraft takeoffs and landings interfere with their sleep and conversation. *Id.* at 1372-83.

6-11

The Draft EIR purports to contain a thorough Berkeley Jets-style analysis in Appendix B-8 (Supplemental Berkeley Jets Analysis), with the "single events" impacts to LAX summarized on page 4.2-45 of the Draft EIR. However, the methodology of this analysis uses an averaging technique rather than disclosing the subjective experience a nearby resident will

6-12  
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have when one of the new noisy departures occurs near his home. Departures are calculated and discussed for the “average” day and night at LAX on B.8-4 to B.8-10. Because the Draft EIR predicts that new operations will occur at LAX only once every nine days, the average day is projected to bring only 1/9 of an operation, so the impact appears artificially small. A resident disturbed by a noisy jet takeoff will not discount her experience by telling herself that if the noise were averaged over the next eight nights she would not have been affected. The EIR should recognize this reality.

6-12  
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The EIR should present noise contours for each individual takeoff and landing shifted from VNY, thus giving residents important information about the noise impact of those “single events” and enabling them to evaluate the significance of that impact on sleep, conversation, and quality of life. Because LAWA knows which aircraft and operations will be affected by the Project, it would be feasible for LAWA to provide these individual noise contours. Such information would also enable LAWA to evaluate appropriate mitigation measures. Without such information, the analysis remains insufficient and the level of disclosure of impacts does not satisfy CEQA.

6-13

The significance threshold used in the Draft EIR is also unrealistic. The Draft EIR posits that the Berkeley Jets impact at LAX would only be significant if the Project were to cause a daily average of one or more additional night operations to occur at LAX. Because LAWA has assumed that the impacts do not reach this threshold, the Draft EIR deems the effects less than significant. Draft EIR at 4.2-45. The threshold should be impact-based, not frequency-based. In other words, if an operation shifted to LAX by the Project will result in a single-event noise impact for residents (e.g., interfere with sleep or conversation), that impact should be considered significant.

6-14

D. The Cumulative Impacts of the Project Should Be Examined In Context.

El Segundo is concerned that other changes underway at airports in the region could interact with this Project such that even more flights are shifted to LAX, exacerbating all the impacts discussed above. The EIR should more fully describe the present and future context for the proposed phaseout in order to adequately analyze the cumulative impacts of the Project.

6-15

First, LAWA has an ongoing Part 161 study at VNY analyzing a variety of potential noise control measures for that airport. Unfortunately this study is not mentioned in the Draft EIR and any interactions between it and the Project have been left out. El Segundo's concern is that the implementation of these measures could make VNY a less attractive airport, thus inducing aircraft to shift to LAX and elsewhere. What would be the cumulative impact of this shift combined with the shift discussed in the Draft EIR? El Segundo would like to see this relationship discussed in the EIR.

6-16



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Second, the EIR should discuss the curfew proposal at BUR. The Burbank-Glendale-Pasadena Airport Authority has recently completed a Draft Part 161 Application for a proposed nighttime curfew. That application anticipates that many flights will be shifted to VNY. Will flights anticipated to be shifted to VNY under the Burbank proposal actually end up at LAX if noisier aircraft are banned at VNY? The Burbank proposal is noted on Draft EIR page 2-11, but is never analyzed as a potential source of cumulative impacts. The EIR must analyze the impacts on communities surrounding LAX that would result if both the Project and the Burbank proposal are approved.

6-17

There may be other changes taking place at airports in the region that might interact with this Project, but none are disclosed in the Draft EIR. The EIR should be amended to explicitly disclose and analyze all reasonably foreseeable changes at nearby airports that could interact with this Project and amplify its impacts on the region.

6-18

E. The EIR Should Consider a Phaseout for All Airports

The noisy aircraft subject to the proposed phaseout at VNY are a nuisance at all LAWA airports, including LAX, and should be phased out everywhere. As part of the alternatives analysis required by CEQA, the EIR should discuss a ban that treats all LAWA airports fairly and equally. If necessary, LAWA should initiate a Part 161 study to implement the phaseout at LAX. This more comprehensive approach would ensure that needless impacts associated with outdated aircraft are not merely shifted elsewhere in the region, but rather eliminated entirely. El Segundo would be interested in exploring such an alternative with LAWA.

6-19

II. Airport Noise and Capacity Act

Other commenters continue to question LAWA's claim that the Project is exempt from the Part 161 study requirements of the Airport Noise and Capacity Act ("ANCA"). See November 30, 2007 comments of the National Business Aviation Association on the Notice of Preparation, Appendix C, 25-27, and see the Los Angeles Times article published on November 4, 2008 describing the opinion of BUR officials that the proposal is not grandfathered in under ANCA (attached). Essentially, LAWA is citing a Resolution from 1990 in order to exempt the Project from the Part 161 review process that any other airport in the region would need to undergo. The fairness of this approach is questionable at best.

6-20

In light of the serious questions raised regarding its proposed reliance on an exemption, LAWA should undertake an analysis of the Project similar to what would be required under ANCA. Under Part 161, an airport operator proposing to restrict Stage 2 aircraft must analyze, in a document made available to the public, the costs and benefits of the proposed restriction. The airport operator must also describe alternative restrictions and the alternative measures considered that do not involve aircraft restrictions, with a comparison of the costs and benefits of



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such alternative measures to the costs and benefits of the proposed restriction. A restriction at VNY that diverts operations to other noise problem airports represents a shifting of the noise impact - not a reduction in the noise impact. This kind of noise shifting benefits one community at the expense of another, resulting in no net benefit. As such, it seems unlikely that the proposed Project would pass muster in a Part 161 analysis. LAWA should perform such an analysis to address all of the concerns embodied in Part 161 regarding alternatives, benefits and burdens.

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III. Inconsistency with Regional Transportation Plan and LAX Master Plan

Any plan that shifts general aviation aircraft to LAX conflicts with the LAX Master Plan adopted by LAWA and with the 2008 Regional Transportation Plan adopted by the Southern California Association of Governments. The vision for LAX emphasizes large aircraft serving international destinations, not small aircraft serving regional destinations. See Federal Aviation Administration Record of Decision for Proposed LAX Master Plan Improvements, May 20, 2005, at 5 (“LAX in particular intends to structure its facility to accommodate international traffic to the greatest extent possible”).

6-21

Alternative D, adopted into the LAX Master Plan, responds to future demand for air transportation by encouraging other airports in the Los Angeles Basin to increase capacity to make up for the limitations of LAX. See Record of Decision at 17. The LAX Final Stipulated Settlement also shows that the intent is to encourage airports other than LAX to take on more air traffic. See LAX Final Stipulated Settlement at 1, 9, and 11. The Project, however, does the opposite by shifting small aircraft flights from VNY to LAX.

The Southern California Association of Governments has consistently endorsed and emphasized a regional aviation decentralization strategy. See 2008 Regional Transportation Plan Aviation and Airport Ground Access Report at 1-3; Regional Transportation Plan at 73 (an Aviation Decentralization Strategy is needed to meet the forecasted doubling of air passenger demand by 2030; “LAX is a very small international airport despite being the third-busiest airport in the country”). The proposed changes at VNY could undermine the feasibility of the Regional Aviation Decentralization Strategy and therefore do not fit the vision for the future of the region that has been articulated by LAWA and the Southern California Association of Governments.

6-22

IV. Request for Noticing

We request that this firm be added to the notice list to receive written - and, if available, e-mail - notification of any meetings, workshops, and hearings before LAWA on the Van Nuys Airport Noisier Aircraft Phaseout. (Email address: wolff@smwlaw.com.) Please also send this firm copies of all notices and agendas for these meetings, workshops, and hearings. We also

6-23  
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request that you provide us with a copy of any further CEQA documents for this Project once they are released for public review.

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6-23  
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Thank you for your consideration of our comments and concerns.

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP



JEANNETTE MACMILLAN  
OSA L. WOLFF

Attachment: Los Angeles Times Article, November 4, 2008

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**Comment Letter 6**

Los Angeles Times: Plan to bar jets at airport during the day is voted down

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From the Los Angeles Times

Plan to eliminate noisiest jets from Van Nuys Airport during the day is voted down

**Plan to bar jets at airport during the day is voted down**

By Dan Weikel

November 4, 2008

Operators of Bob Hope Airport on Monday voted to oppose a plan to eliminate the noisiest jets at Van Nuys Airport during the day – a proposal they say would violate federal law and shift the loudest aircraft to Bob Hope and other airports in Southern California.

The vote by the Burbank-Glendale-Pasadena Airport Authority is the latest development in a bitter battle over attempts to bar noisy aircraft at Bob Hope and Van Nuys, a general aviation facility operated by Los Angeles World Airports.

Bob Hope Airport has spent more than eight years and \$6 million to develop a nighttime curfew on the noisiest jets, while LAWA has been preparing 24-hour restrictions. Officials for both airports say the proposals would shift flights to their respective facilities.

Burbank officials say LAWA is proceeding without the approval of the Federal Aviation Administration and cannot impose the restrictions until that is obtained.

LAWA contends that the proposal is grandfathered under federal law.

Weikel is a Times staff writer.

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## **Response to Comment Letter 6, City of El Segundo**

### **Response to Comment 6-1**

This comment is noted and will be forwarded to the project decision makers for their consideration. Chapter 4 of the Draft EIR presents a reasonable and complete analysis of the environmental impacts resulting from the proposed project at the identified diversion airports, including LAX. This includes analysis of impacts on residences of the City of El Segundo located in proximity to LAX. As stated in Table 2-5, the Final EIR concludes that the proposed project would result in a total of 62 annual operations to LAX in 2014, the year of the greatest project-related impact at LAX. Averaged per day, this equates to 0.17 operations per day (this figure was rounded up to 0.2 operations per day, as presented in Table 2-5 and elsewhere in the EIR). All impacts at LAX were determined to be less than significant. Responses below address specific comments from the City of El Segundo on the methodology, analysis, and conclusions of the Draft EIR.

### **Response to Comment 6-2**

This comment is correct in noting the Draft EIR's conclusion that the project would result in noise and air quality impacts at LAX. These impacts, which include impacts that would affect the City of El Segundo, were analyzed in the Draft EIR and determined to be less than significant. The portion of this comment suggesting that LAWA should follow a regional solution to airport-related impacts is directed at LAWA's airport policies. The comment will be forwarded to the project decision makers for their consideration; however, no further response is necessary as this comment does not address significant environmental issues related to the adequacy of this EIR.

### **Response to Comment 6-3**

The Draft EIR presents a reasonable and complete analysis of the environmental impacts resulting from the proposed project at the identified diversion airports, including at LAX. Section 4.2 of the Draft EIR includes a comprehensive analysis of noise impacts (see Appendix B for greater detail), including single-event noise impacts (see Appendix B.8 for greater detail), at all of the diversion airports. Section 4.2 of the Draft EIR concludes that there would be no significant noise impacts at any of the identified diversion airports, including LAX; therefore, the EIR is not required to identify mitigation or project alternatives to minimize the project impacts at LAX. Also, see the responses to comments 6-10 through 6-14 below regarding the sufficiency of the EIR's single-event impact analysis.

### **Response to Comment 6-4**

The Part 161 process takes into account economic considerations (49 U.S.C. Sections 47523(b) and 47524(b)(4)) which are not typically a factor under

CEQA (See State CEQA Guidelines Section 15131(a)). Accordingly, these economic considerations are not examined in the EIR. The comment is noted and will be forwarded to the project decision makers for their consideration; however, no further response is necessary as this comment does not specifically address the project's significant environmental issues or the adequacy of the EIR.

### **Response to Comment 6-5**

As stated in the responses to comments 3-9 and 4-9 above, estimates of the number of aircraft that would be modified or replaced versus those that would divert to other airports incorporate information gathered during interviews with VNY operators and service providers potentially affected by the proposed phaseout.

As discussed in State CEQA Guidelines Sections 15143 and 15151, "The significant effects should be discussed with emphasis in proportion to their severity and probability of occurrence." (State CEQA Guidelines Section 15143.) "An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible." (State CEQA Guidelines Section 15151.) The Final EIR identified that 0.2 operations per day would be diverted to LAX. (See Table 2-5 in the Final EIR). There are 342 general aviation jet aircraft (according to 2006 data) that would be affected by the proposed phaseout (see page 2-6 of the Draft EIR and page B-42 of Appendix B). Interviewing each owner of these aircraft would be a considerable undertaking that would place an unnecessary burden on LAWA and its consultants. For purposes of this project's environmental review, it was determined that interviewing several potentially affected owners would provide information sufficient to reach reasonable assumptions regarding how owners would react. As further discussed above in the response to comment 3-9 and in Section 2.1.4.2 of the EIR, "operators were not able to definitively specify how they would react to the future project-related restrictions." This led LAWA's consultants to use their professional judgment to develop a reasonable assumption regarding how owners would react to the project's noise restrictions.

The methods, assumptions, and calculations provided in the Draft EIR are the result of work by qualified professionals utilizing the best available data, and they enable adequate analysis of the project's environmental impacts.

### **Response to Comment 6-6**

Please see the response to comment 6-5 above. The basis for the assumption on hushkitting or replacing as opposed to diverting to another airport is based on the results of surveys of aircraft operators potentially affected by the proposed phaseout, as explained in the responses to comments 3-9, 4-9, and 4-11. Discussion of these interviews and the relationship between the interviews and the hushkitting and diversion assumptions have been added to

Section 2.1.4.2 of the Final EIR. The interviews confirmed VNY's popularity and attractiveness as a place to operate business jets, and allowed the environmental review team to make reasonable assumptions that led to appropriate analysis of the project's impacts at the diversion airports. While the interviewees were not able to definitively predict their future responses to the proposed phaseout, their stated preference to continue operating at VNY makes it reasonable to assume that those who operate frequently at VNY will respond in ways that make it possible for them to continue operating at VNY (i.e., by hushkitting their aircraft). Had interviewees not expressed such high regard for VNY and such a strong preference to continue operating there, then LAWA's consultants may have determined that a greater number of operators would elect to divert to other airports rather than assume the expense of hushkitting their aircraft and continue operating at VNY.

### **Response to Comment 6-7**

LAWA acknowledges that—like VNY—LAX is recognized by state law as a “noise problem airport” and that surrounding residences are affected by aircraft noise from LAX. This is stated in Section 2.2.3 of the Draft EIR. This does not necessarily mean that any addition of operational noise should be considered significant. The noise analysis conducted for this EIR, as presented in 4.2.4.3 of the EIR, used significance criteria for noise impacts based on thresholds maintained by the City of Los Angeles and FAA and that were deemed appropriate for analyzing the proposed project's noise impacts. Noise levels for the project-related addition of aircraft operational noise at LAX or any of the other diversion airports did not meet the established criteria for identifying a significant impact; therefore, no significant impact was identified.

### **Response to Comment 6-8**

The LAX preferential runway use procedure is designed to minimize the use of the outboard runways for departures, thereby limiting noise received by adjacent neighborhoods. It is a LAWA policy to not impose a requirement on FAA Air Traffic Control (ATC), which has total authority over runway utilization. ATC occasionally authorizes aircraft to depart on Runway 25L in the interest of safety so as not to have aircraft cross active runways in order to depart Runway 25R. Accordingly, some project-related operations may utilize this runway, in conflict with LAWA policy, but only when directed to do so by ATC for the sole purpose of maintaining safe conditions. It should also be noted that the project would not result in diversions of cargo flights to LAX.

As discussed in response to comment 6-7 and Section 4.2.4.3 of the EIR, noise impacts at LAX were determined to be less than significant.



### **Response to Comment 6-9**

The noise analysis conducted for this EIR established significance criteria for noise impacts based on thresholds maintained by the City of Los Angeles and FAA. Noise levels for the project-related addition of aircraft operational noise at LAX or any of the other diversion airports did not meet the established criteria for identifying a significant impact; therefore, no significant noise impact was identified at LAX or any other diversion airport.

### **Response to Comment 6-10**

As discussed on page 4.2-45 of the Draft EIR, the proposed project would result in one additional operation at LAX, on average, every 4 months between the hours of 10 p.m. and 7 a.m. This is well below the Berkeley Jets (“single event”) significance threshold applied in this analysis; “result in a daily average of one additional flight during night hours (10 p.m. to 7 a.m.).” For purposes of clarification, additional information regarding the “single event” significance threshold, methodology, and level of detail has been added to the beginning of Section 4.2.4.1 of the Final EIR.

The one night-operation threshold is an appropriate measure for determining whether a significant impact would occur from the interference with sleep for this project because it provides a conservative basis for concluding that project-related nighttime flights would occur so infrequently that their potential to awaken sleeping residents would be extremely low. Additionally, more detailed information is provided in Appendix B.8, which discusses the noise levels associated with these rare nighttime diversions. As shown in Table B.8.4 of Appendix B.8, the proposed project would divert, between 10 p.m. and 7 a.m., 0.00009 aircraft operations per day at 95 dB SEL, 0.00002 aircraft operations per day at 100 dB SEL, and 0.0005 aircraft operations per day at 105 dB SEL. This would result in one nighttime operation at 95 dB SEL every 11,234 days, one nighttime operation at 100 dB SEL every 54,512 days, and one nighttime operation at 105 dB SEL every 1,825 days. Tables B.8.2, B.8.3, B.8.4, B.8.6, B.8.7, B.8.8, B.8.10, B.8.11, B.8.12, B.8.14, B.8.15, B.8.16, and B.8.18 provide the same type of information for other time periods of the day and for the other diversion airports. However, it should be noted that these SEL noise levels in the referenced tables do not directly correspond to indoor SEL noise levels at a specific sensitive receptor, as would potentially affect sleep. As can be seen in the SEL noise contours provided in Figure B.8.1 of Appendix B.8, noise levels would attenuate with distance. Figure B.2.2 in Appendix B.2 provides additional information on the relationship between indoor SEL levels and sleep.

As further discussed in the responses to comments 4-16, as well as 6-11 through 6-14 below, the single-event analysis incorporated into Section 4.2.4.3 and Appendix B.8 of the Draft EIR is proper and adequate for CEQA environmental review purposes because it provides significantly more detail than required by case law cited in comment 6-11 on how loud the diverted



operations will be, the number of diverted operations, the frequency of occurrence of the diverted operations, and the time of day in which diverted operations will occur. With regard to the manner in which residents will “experience” the diverted operations, the single event analysis in Section 4.2.4.3 and Appendix B.8 of the Draft EIR provides tabular and graphical comparisons of the statistics and single event noise levels for the diverted operations to the same information for operations at the diversion airports, for both existing and future no-project conditions. Those comparisons permit surrounding residents to place the changes associated with the diversions into the existing context with which they are personally familiar. The response to comment 6-11 provides further technical information regarding how residents will experience the diverted operations during “the sensitive nighttime hours.” As noted in that response, the detailed statistics presented in the Draft EIR clearly demonstrate that the diverted operations are too few in number, particularly relative to existing operations of similar noisiness, to identify a significant impact on nighttime sleep interference at LAX or any of the diversion airports.

### **Response to Comment 6-11**

Section 4.2.4.3 and Appendix B.8 of the Draft EIR present detailed single-event noise impact analyses that go well beyond the *Berkeley Keep Jets* case law requirement cited in the comment in several respects. For example, rather than simply listing the number of diverted operations that will take place during the sensitive nighttime hours (which the comment cites as the requirement), the analysis presents information for the full 24-hour day. The analysis goes even further by providing more detail than requested in the comment by breaking this information down into the CNEL day-, evening-, and night-time intervals. In addition, the analysis presents the diversions (by time interval) in five-decibel SEL bands (see Appendix B.8 Tables B.8.2, B.8.3, B.8.4, B.8.6, B.8.7, B.8.8, B.8.10, B.8.11, B.8.12, B.8.14, B.8.15, B.8.16, and B.8.18), rather than simply as a total number, to permit an assessment of the variation in levels. Finally, the analysis provides tabular and graphical comparisons of the statistics and single-event noise levels for the diverted operations to the same information for operations at the diversion airports, for both existing and future no-project conditions. This multidimensional analysis provides a far more detailed and nuanced description of the single-event noise characteristics of the diverted operations than the cited requirement, and permits reviewers to consider it in the context of existing and no-project conditions.

To the extent that the *Berkeley Keep Jets* decision requires the use of supplemental noise metrics beyond CNEL, SEL is the appropriate metric to use. As noted in footnote 9 on page 4.2-41 of the Draft EIR (footnote 10 in the Final EIR), that decision focused on nighttime noise, specifically the failure of CNEL to provide “the most fundamental information about the project’s noise impacts which specifically included the number of additional nighttime flights that would occur under the project, the frequency of those

flights, and their effect on sleep.”<sup>8</sup> SEL is formally recognized as the appropriate noise metric to use in sleep-related assessments. The American National Standards Institute (ANSI) recently published a standard for estimating the likelihood of awakenings in ANSI S12.9-2008, *Quantities and Procedures for Description and Measurement of Environmental Sound—Part 6: Methods for Estimation of Awakenings Associated with Outdoor Noise Events Heard in Homes*. The Federal Interagency Committee on Aviation Noise announced in December 2008 that it recommended use of this procedure, which uses SEL for estimation of awakenings.

The ANSI standard presents a formula that relates indoor SEL to “the probability that a person of average sensitivity to awakening will be awakened by a single noise event.” As documented in Appendix B.8 of the Draft EIR, the loudest diverted operations could result in outdoor SEL values of approximately 105 dB at limited areas close to some of the diversion airports. With windows partially open, the indoor SEL from these worst-case events would be approximately 90 dB at these same areas. Even at this conservatively high level, the ANSI standard projects only a five percent probability that a person of average sensitivity would be awakened. Diverted operations this loud would occur very infrequently. At Chino Airport, the airport forecast to receive the *most* diverted nighttime 105 dB SEL operations, nighttime operations this loud are forecast to occur approximately once every 92 days. Therefore, a limited number of residents living very close to the airport, and very close to or directly under a flight path, would face a five percent probability of awakening once every 92 days. Put another way, the ANSI standard suggests that a person of average sensitivity in very limited areas would be awakened by project-related operations once every 1,840 days.

The detailed statistics presented in the Draft EIR clearly demonstrate that the diverted operations are too few in number relative to existing operations of similar noisiness to identify a significant impact at LAX or any of the diversion airports. This further supports the Area Equivalent Method (AEM)-based conclusion that the changes in noise exposure are not significant. Neither the AEM analysis nor the single event analysis suggests the need for more detailed review.

### **Response to Comment 6-12**

As discussed in the responses to comments 6-10 and 6-11, the single event analysis provides far more information than averages. Some parts of Section 4.2.4.3 and Appendix B.8 of the Draft EIR provide this information in the form of averages. However, to the largest extent Section 4.2 and Appendix B of the Draft EIR provides full detail on the specific numbers—not just averages—of day, evening, and night operations projected to be diverted on a daily basis to each diversion airport, further broken down into 5-dB SEL

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<sup>8</sup> *Berkeley Keep the Jets Over the Bay Committee v. Board of Port Commissioners of the City of Oakland*, [2001] 91 Cal. App. 4<sup>th</sup> at 1344.

intervals, and also compared to the detailed numbers of existing and forecast operations in these categories for no-project conditions. Furthermore, the averages and absolute numbers are presented in both graphical and tabular format. As discussed previously, the intent is to provide far more information than required by the *Berkeley Keep Jets* precedent, permitting reviewers to understand the insignificance of the single event impacts.

### **Response to Comment 6-13**

The Draft EIR determined that noise impacts at all the diversion airports would be less than significant (See Section 4.2.4). As discussed in State CEQA Guidelines Sections 15143 and 15151, “The significant effects should be discussed with emphasis in proportion to their severity and probability of occurrence.” (State CEQA Guidelines Section 15143.) “An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible.” (State CEQA Guidelines Section 15151.) The Final EIR identified that 0.2 operations per day would be diverted to LAX from the proposed project in 2014, the year of the greatest project-related impact at LAX. (See Table 2-5 in the Final EIR). Furthermore, as discussed in response to comment 6-10, the *Berkeley Jets* analysis in the Draft EIR determined that the proposed project would result in a nighttime diversion of one aircraft every 4 months, on average, which is well below the significance threshold utilized in the analysis for this EIR. (See Draft EIR page 4.2-45). As discussed in the revisions to Section 4.2.4.1 of the Final EIR, the level of detail provided in the Draft EIR was appropriate for the less-than-significant noise impacts identified for the project.

Furthermore, there is no requirement or guidance in CEQA (or in federal environmental assessment standards) for conducting an event-by-event noise contour analysis, nor do such studies typically present such contours for each individual takeoff and landing operation shifted from an airport. Given the lack of a state or federal requirement for such an event-by-event analysis, conducting and presenting an event-by-event analysis for project-related flight diversions would represent a truly unreasonable burden on LAWA and its consultants. Figure B.8.1 presents single event contours for a takeoff and landing cycle of representative aircraft types, for reference when considering the single event level statistics presented in Appendix B.8. While not a requirement, this type of comparative graphical presentation is an often-used practice. As discussed in the response to comment 4-13, the City of Los Angeles CEQA Guidelines, on which this EIR’s significance criteria for noise impacts were based, provides very specific guidance regarding determination of the need to conduct CNEL contour analysis—which considers cumulative exposure associated with annual operations—as opposed to a single event noise level analysis. As discussed in response to comment 4-13, application of that guidance in the Draft EIR indicated that the change in exposure at the diversion airports fell far short of the threshold for identifying significant impacts and requiring preparation of CNEL contours for the affected areas. There is no justification for LAWA to

conduct a far more complex single event noise contour analysis, when the threshold was not met for preparing a CNEL analysis. Additionally, the noise analysis presented in the EIR also includes a multi-dimensional single event noise analysis that exceeds accepted requirements—as discussed in the response to comments 4-16, 6-11, and 6-12—and found these impacts to be less than significant.

### **Response to Comment 6-14**

This comment suggests that the Berkeley Jets analysis should be “impact based not frequency-based.” The Berkeley Jets significance threshold, listed on page 4.2-30 of the Draft EIR, was deemed appropriate for determining the significance of impacts related to nighttime sleep disturbance and conversation for this project because it provides a conservative basis for concluding that project-related nighttime flights would occur so infrequently that their potential to awaken sleeping residents or interfere with sleep would be extremely low. The frequency of nighttime flights was discussed throughout the *Berkeley Keep Jets* case and is an appropriate measure for determining the significance of impacts on sleep. (See *Berkeley Keep Jets v. Board of Port Commissioners of the City of Oakland* (2001) 91 Cal.App.4<sup>th</sup> 1344, 1376, 1377, 1382.) See revisions to Section 4.2.4.1 of the Final EIR regarding the significance threshold and the methodology used in the impact analysis.

As discussed in the response to Comments 4-16, 6-10, 6-11, and 6-12, the Berkeley Jets analysis presented in the Draft EIR provides detailed information which allows for a significance determination under the “single event” significance threshold provided on page 4.2-30 of the Draft EIR. More detailed information on these impacts is provided in Appendix B.8. This analysis goes well beyond impacts pursuant to the selected threshold of one additional nighttime operation, by considering the number of operations diverted to each airport in the day, evening, and night time periods over an entire year. (See Tables B.8.1, B.8.2, B.8.3, and B.8.4 in Appendix B.8 for information on impacts at LAX—the specific focus of this comment.)

Appendix B.8 of the Draft EIR compares the number of diverted operations to the existing operation in each time period. This comparison further illustrates the relative insignificance of the diverted activity. For example, at LAX (the focus of this comment), the diverted operations represent only a 0.0003% increase in nighttime operations. As discussed in the Draft EIR, this corresponds to one nighttime operation every 4 months (Draft EIR page 4.2-45). The significance threshold selected by the lead agency for analyzing single-event noise impacts allows a reasonable assessment of whether such noise impacts are significant or not, and does not require reassessment in the Final EIR. Similarly, the conclusion that the project’s single event noise impacts would be less than significant is sufficient and does not need to be revisited in the Final EIR.

**Response to Comment 6-15**

Section 15130(b)(1) of the State CEQA Guidelines states that an EIR's cumulative analysis should be based either on "a list of past, present, and probably future projects" or on "a summary of projections contained in an adopted general plan or related planning document." This comment asks LAWA to examine the cumulative impacts of one project under a "list of projects" approach. As stated in Section 5.2.1 of the Draft EIR, cumulative analysis was conducted with the "projections" method, using a combination of airport operational forecasts published by the FAA and growth projections published by SCAG. Using this projections method provides a reasonable image of both the growth in operational activity at the affected airports and the general population growth that would occur throughout the region. Therefore, no revision of the EIR is necessary to address this comment.

**Response to Comment 6-16**

As discussed in the response to comment 6-15 above, cumulative analysis was properly conducted in the EIR using the projections method rather than the list method.

**Response to Comment 6-17**

As discussed in the response to comment 6-15 above, cumulative analysis was properly conducted in the EIR using the projections method rather than the list method.

**Response to Comment 6-18**

As discussed in the response to comment 6-15 above, cumulative analysis was properly conducted in the EIR using the projections method rather than the list method.

**Response to Comment 6-19**

This comment is noted and will be forwarded to the project decision makers for their consideration. This is a comment directed at LAWA's airport policies, and it does not specifically address the project's significant environmental issues or the adequacy of the EIR. It should also be noted that implementing noise restrictions throughout LAWA-operated airports, as suggested in this comment, would not reduce or avoid impacts of the proposed project because it would not reduce air pollutant emissions at CMA or WJF. It is likely that implementing noise restrictions at other LAWA airports would divert additional aircraft to CMA and WJF. A phaseout, as suggested in the comment, would therefore not reduce or avoid air quality impacts at CMA and WJF and, therefore, is not appropriate for analysis as a project alternative pursuant to State CEQA Guidelines Section 15126.6.

### **Response to Comment 6-20**

The comment is noted. LAWA will comply with ANCA to the extent required by law. No further response is necessary as this comment does not address the project's significant environmental issues or the adequacy or conclusions of the EIR.

See also response to comment 6-4 regarding the suggested Part 161 analysis.

### **Response to Comment 6-21**

The project would not result in a material increase in general aviation operations at LAX (0.2 operations per day shifted to LAX as a result of the proposed project), and would not compromise or hinder the ability of LAX to accommodate international travel. Additionally, the anticipated increase of 0.2 operations per day at LAX would not result in the need for physically expanded facilities at that airport. Therefore, the project would not conflict with the LAX Master Plan.

### **Response to Comment 6-22**

The project does not conflict with the aircraft operations decentralization policy set forth in the SCAG Regional Transportation Plan because it does not propose a considerable shift in aircraft operations to any one airport within the region (see Draft EIR Tables 2-5 and 2-6). The project would divert a small amount of general aviation operations to certain airports, as estimated by the diversion analysis. This would not considerably increase the concentration of aircraft operations at any of the diversion airports, nor would it create the need for physically expanded facilities. Also, as indicated above in response to comment 6-22, the anticipated project-related increase of 0.2 operations per day at LAX would not cause a material change in the existing and future role of LAX within the regional airport system.

### **Response to Comment 6-23**

LAWA will honor this request.

**Comment Letter 7, County of San Bernardino Department of Airports**

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COUNTY OF SAN BERNARDINO  
PUBLIC AND SUPPORT  
SERVICES GROUP

**DEPARTMENT OF AIRPORTS**

825 East Third Street, Suite 203 San Bernardino, CA 92415-0831 (909) 387-7801  
Apple Valley Airport - Baker Airport - Barstow/Daggett Airport - Chino Airport - Needles Airport - Twentynine Palms Airport

Mike N Williams, A.A.E.  
Director

November 24, 2008

Los Angeles World Airports  
ATTN: Karen Hoo  
Environmental Planning  
7301 World Way West, 3<sup>rd</sup> Floor  
Los Angeles, CA 90045

SUBJECT: Van Nuys Airport, Draft Environmental Impact Report – Comments from the County of San Bernardino

Dear Ms. Hoo:

As the owner and operator of the Chino Airport (CNO), the County of San Bernardino, Department of Airports (AIRPORTS) appreciates the opportunity to review and comment on the above noted document. Therefore, AIRPORTS would like to offer the following comments:

- We disagree with the assumptions and justifications discussed for the impacts to the Chino Airport (CNO) and feel strongly that the impacts to CNO are understated. CNO can accommodate a wide range of aeronautical services and aviation users that might be exempted from VNY in the future. 7-1
- The projected traffic impacts discussed in the above noted document focused on the relocation of former military aircraft from Van Nuys (VNY) to CNO. This projection is based on the significant amount of military aircraft repair facilities at CNO. While CNO does provide significant facilities for the repair and maintenance of former military aircraft, CNO also has facilities and services available that will accommodate many of the proposed relocated aircraft.
- As noted in Section 2.2.5 "CNO was identified as a potential receptor of the project-related diversions of former military aircraft operations from VNY ... because CNO currently has two aviation museums and a number of businesses engaged in restoring old aircraft, including former military aircraft..." For the reasons noted above, it is our strong opinion that the impacts to CNO, should these aircraft be barred from operating at VNY are understated. Many aircraft types, in addition to former military aircraft will relocate from VNY to CNO prior to 2016, whether or not VNY continues to accommodate them. 7-2
- CNO consists of approximately 1,000 acres, with significant acreage available for development of aeronautical facilities. These facilities could house aircraft that would no longer be able to operate at VNY, including corporate and business aircraft maintenance. The current Gulfstream II maintenance provider that may have to relocate from VNY could be accommodated at CNO. 7-3



MARK UFFER  
County Administrative Officer

BRAD MITZELFELT  
PAUL BIANE  
JOSIE GONZALES

Board of Supervisors  
First District  
Second District  
Fifth District

DENNIS HANSBERGER  
GARY C. OVITT

Third District  
Fourth District

**Comment Letter 7**

**DEPARTMENT OF AIRPORTS**



COUNTY OF SAN BERNARDINO  
PUBLIC AND SUPPORT  
SERVICES GROUP

825 East Third Street, Suite 203 San Bernardino, CA 92415-0831 (909) 387-7801  
Apple Valley Airport - Baker Airport - Barstow/Daggett Airport - Chino Airport - Needles Airport - Twentynine Palms Airport

Mike N Williams, A.A.E.  
Director

Los Angeles World Airports  
November 24, 2008  
Page Two

- o CNO consists of an Instrument Landing System (ILS) and has an Air Traffic Control Tower (ATCT) which is operated and staffed by Federal Aviation Administration (FAA) personnel.
- o CNO is open for departures and takeoffs 24 hours per day, 365 days per year, with no restrictions on flight operations.
- o The Los Angeles International and Bob Hope airports both feature significant commercial airline activity. We question whether these airports can safely and efficiently accommodate the projected increase in traffic.
- o As noted in Section 2.2.4, Camarillo Airport (CMA) was selected based on it's proximity to VNY and facilities that could accommodate relocated aircraft. However, it was also noted that existing noise abatement procedures that do not allow departures between midnight and 5:00 a.m. without approval from the Airport Director. We believe this is a significant limiting factor for CMA that has not been fully anticipated.
- o As noted in Section 2.2.6, William J Fox Field (WJF) was identified as being able to accept major maintenance and repair operations from VNY. We question this justification based on discussions with just one, current maintenance operator at VNY. Additionally, WJF is located in close proximity to Edwards Air Force Base, which serves as the major flight test facility for the United States and features significant restricted airspace. We question whether WJF can adequately accommodate the projected relocations and that more justification is necessary.

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The County of San Bernardino is appreciative of the effort expended by your organization in this process. The County is working towards increasing the usage of CNO and would welcome relocated activities should this study be finalized. However, the impacts to CNO need to be fully identified so that the airport and its surrounding citizens have a clear understanding of the changes to the Airport and an opportunity to fully weigh in on their effects to the community.

Thank you for the opportunity to comment and please let us know if you require additional information.

Sincerely,  
  
Mike N Williams, A.A.E.  
Director of Airports

cc: Charles E Coe, City of Chino

MARK UFFER  
County Administrative Officer

BRAD MITZELFELT  
PAUL BIANE  
JOSIE GONZALES

Board of Supervisors  
First District  
Second District  
Fifth District

DENNIS HANSBERGER  
GARY C. OVITT

Third District  
Fourth District



## **Response to Comment Letter 7, County of San Bernardino Department of Airports**

### **Response to Comment 7-1**

As summarized in response to comment 4-11 and stated on page 2-8 of the Draft EIR, estimates of how aircraft diverted by the proposed ordinance would behave were based on a combination of operational trends, available facilities, highway distances, and driving times. (See Appendix B Sections 7.2 and 7.3 for greater detail regarding methodology used to determine the diversion airports.) In preliminary identification of diversion airports, CNO was included in the initial list of airports with potential to receive diverted general aviation operations due to its general location in the Southern California region. However, when subjected to further screening analysis, the excessive driving time between VNY and CNO (1 hour and 10 minutes under uncongested traffic conditions, 3 hours and 10 minutes with congestion) was identified as a primary factor for eliminating CNO as a recipient of diverted operations (other than the operations of former military aircraft). Chapters 4 and 5 of the EIR present discussion of the project's impacts due to diverted operations of former military aircraft to CNO. As discussed in Section 2.1.4.3 of the Draft EIR operations are not anticipated to divert to CNO prior to the former-military exemption expiration in 2016. The project's impacts on CNO and the surrounding area were not understated and are based upon diversion estimates performed by qualified professionals utilizing the best data available.

### **Response to Comment 7-2**

Please see the response to comment 7-1 above. Please also note that project-related diversions of former military aircraft to CNO are not anticipated to occur until 2016 with the expiration of the exemption for those aircraft. The environmental analysis presented in the EIR assumes this diversion of former military aircraft to CNO. All project-level and cumulative impacts were found to be less than significant at CNO. The comment also notes that other aircraft, aside from the former-military aircraft, could relocate to VNY "whether or not VNY continues to accommodate them." These diversions, if they were to occur, would not be a result of the proposed project and would therefore not be an impact of the proposed project.

### **Response to Comment 7-3**

LAWA acknowledges the fact that CNO has excellent facilities and expansion potential. The full extent of CNO's facilities were taken into consideration when identifying potential diversion airports for the project-related operations. However, as stated in the response to comment 7-1 above, CNO's location and the resultant driving distance from VNY limits its ability to serve as an alternative to VNY for project-related diversions, and it

was concluded that only the former military aircraft (beginning in 2016) would divert from VNY to CNO as a result of the project.

#### **Response to Comment 7-4**

The project is anticipated to result in a very small number of additional operations at the diversion airports (see Tables 2-5 and 2-6 of the Draft EIR.) LAX and BUR have facilities that are adequate to accommodate the addition of project-related diversions, estimated at an average of less than 1 diverted operation daily at each airport referenced in this comment (0.2/day at LAX and 0.5/day at BUR in the peak year of 2014, as shown in Table 2-5 of the Draft EIR), and these diversions would not cause any problems with safe and efficient operations at either LAX or BUR.

#### **Response to Comment 7-5**

The prohibition of takeoffs at CMA between 12:00 a.m. and 5:00 a.m. is acknowledged in Section 3.2.3 of the Draft EIR and noise restrictions are further acknowledged as a factor in the diversion analysis in Appendix B Sections 7.2 and 7.3 (see also response to comment 4-11). As stated in Section 3.1 of the Draft EIR, VNY also has a night-time curfew for certain aircraft that is variably in effect from 10 p.m. to 7 a.m. (Please note that the referenced text has been revised in the Final EIR to clarify which aircraft are subject to this curfew.) Because of this curfew, aircraft that would be affected by the proposed phaseout generally do not operate during the hours in which the referenced CMA curfew is in place. Therefore, the existence of the CMA curfew is not likely to affect the decision to operate there, and the curfew wouldn't be considered a "significant limiting factor" to project-related diversions to CMA, as suggested in this comment.

#### **Response to Comment 7-6**

The volume of project-related operations anticipated to divert to WJF when the maintenance exemption expires in 2016 is small—estimated at 260 annual operations, as noted in Table 2-6 of the Draft EIR—and WJF is anticipated to be able to accommodate these operations. While it is true that WJF is located near Edwards AFB, the restriction in airspace that accompanies the presence of this nearby military facility would not serve to significantly limit the project-related diversions, as WJF currently functions within this airspace and is anticipated to continue to grow in the future within this setting. The suitability of an airport to support maintenance activity such as would be diverted from VNY when the maintenance exemption expires in 2016 depends largely on the availability of land and access to a trained workforce. WJF has land suitable to accommodate expanded maintenance activity, and the presence of Edwards AFB could represent a potential source of trained labor, making it a suitable location for maintenance-related diversions. Therefore, WJF is suited to accommodate the maintenance-related diversions in 2016.

**Response to Comment 7-7**

LAWA appreciates the County of San Bernardino's participation in the environmental review process for this project. The Draft EIR presents a reasonable and complete analysis of the project's environmental impacts at the diversion airports, including CNO.

**Comment Letter 8, Ventura County Air Pollution Control District**



**Ventura County  
Air Pollution  
Control District**

669 County Square Drive  
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**Michael Villegas  
Air Pollution Control Officer**

December 3, 2008

Karen Hoo  
Los Angeles World Airports  
Environmental Planning  
7301 World Way West, 3<sup>rd</sup> Floor  
Los Angeles, CA 90045

Subject: Review of Draft Environmental Impact Report for the Van Nuys Airport Phase-out of Noisier Aircraft Project

Dear Ms. Hoo:

Air Pollution Control District staff has reviewed the subject project draft environmental impact report (DEIR), which evaluates the potential environmental impacts associated with implementing a proposed noisier aircraft phase-out ordinance at Van Nuys Airport.

Section 4.3 of the DEIR addresses air quality issues pertaining to the proposed project. Potential impacts to Ventura County's air quality are evaluated in the DEIR because the proposed phase-out program would divert existing aircraft unable to comply with the proposed noise restrictions to outlying airports, including the Camarillo Airport in Ventura County. Our comments address potential air quality impacts from aircraft diversion to Camarillo Airport.

Section 4.3.2.3, Local Standards and Regulations (Page 4.3-11) and Section 4.3.2.4, CEQA Thresholds of Significance (Page 4.3-14) both discuss Ventura County Air Pollution Control District and Ventura County's thresholds of significance for criteria air pollutants. Table 4.3-5 indicates that Ventura County APCD's daily significance criteria for emissions of reactive organic compounds and nitrogen oxides are both 25 pounds per day.

The transfer of aircraft to Camarillo Airport would result in an increase in emissions of 55 pounds per day ROC and 61 pounds per day NOx. This indicates that the project would result in emissions of ROC and NOx that exceed the daily thresholds, as described in 4.3.6, Summary of Significant Impacts and Mitigation Measures (Page. 4.3-59) and the discussion of Significant Impact AQ-1 on Page 4.3-52. The air impact discussion on Page 4.3-52 states: "There are no feasible measures to mitigate the project's exceedance of VCAPCD thresholds for ROG and NOx. To avoid or reduce this impact to a less-than-significant level, emissions from the project-related diversions to Camarillo Airport would have to be eliminated or reduced in individual aircraft. Technology to reduce these

8-1



Comment Letter 8

Karen Hoo/Van Nuys Airport Phase-Out  
December 3, 2008  
Page 2

aircraft emissions is not available, and cannot be imposed on the operating aircraft. Therefore mitigation is infeasible and this is a significant and unavoidable impact.”

8-1  
cont'd

We do not concur with this conclusion that mitigation is infeasible and the project’s impacts are unavoidable. Ventura County offers an offsite Transportation Demand Management (TDM) fund, as presented on Page 7-15 of the Ventura County Air Quality Assessment Guidelines, as a way to fund offsite air emissions mitigation reductions in Ventura County. The contributions to a TDM fund are commensurate with air quality reductions needed for a project. Several other local jurisdictions in Ventura County use this mitigation measure to fund offsite emission reductions for projects within their jurisdictions. Such mitigation may or may not be directly related to the project whose emissions are being mitigated.

8-2

We recommend the excess emissions from aircraft that would be diverted to Camarillo Airport be mitigated through contribution to a TDM fund to fund emissions reduction projects in Ventura County.

If you have any questions, please call me at (805) 645-1427.

Sincerely,



Chuck Thomas  
Planning and Monitoring Division

M:/Planning/CEQATracking/CEQAProjects/2008/Misc/Van Nuys Airport Phaseout

## Response to Comment Letter 8, Ventura County Air Pollution Control District

### Response to Comment 8-1

This is an accurate interpretation of the project's estimated air quality impacts at CMA published in the Draft EIR, and of the discussion of the lack of feasible mitigation to reduce the impact to a less-than-significant level. Please note that the air quality impact analysis presented in the Draft EIR contained an error related to diversion assumptions that led to the overestimation of emissions at CMA. The Final EIR has been revised to correct this error, and project-related emissions are no longer anticipated to exceed the VCAPCD threshold for volatile organic compounds (VOC). The threshold for NO<sub>x</sub> would still be exceeded, though by a much smaller margin than initially indicated in the Draft EIR. Results of these changes are shown in Table 4.3-27 of the Final EIR and the succeeding discussion.

### Response to Comment 8-2

The comment letter references a TDM fund on "Page 7-15 of the Ventura County Air Quality Assessment Guidelines." LAWA is aware of the Transportation Demand Management (TDM) fund discussed in the Assessment Guidelines. Contributing to this fund is not a feasible mitigation measure. The referenced section in the guidelines does not provide an actual TDM fund currently in existence, but rather, the Guidelines provide directions for the creation of a fund. The referenced Guidelines are non-specific and state, "The lead agency should determine the basis for collection and how the funds are to be spent." (VCAPCD Assessment Guidelines page 7-15.) The comment does not provide any specific improvements which would result in the reduction of the project's air quality impacts which would be part of such a program.

Simply contributing funds toward an unspecified future improvement would not constitute mitigation under CEQA, since there is no mechanism to ensure that any specific improvements addressing the specific impacts are made. Furthermore, LAWA does not have authority in Ventura County to implement such measures or to ensure they would be enforced. As discussed in the *Anderson* and *Carson* cases, without an actual plan and a commitment by a responsible agency, a fair-share fee is not an adequate mitigation measure. (See *Anderson First Coalition v. City of Anderson* [2005] 130 Cal.App. 4<sup>th</sup> 1173, and *Carson Coalition for Healthy Families v. City of Carson* [2007] 2007 WL 3408624 at page 18 [unpublished].)

In addition, according to the VCAPCD's Air Quality Assessment Guidelines, §7.5.3, contribution to the TDM fund is intended to mitigate for impacts due to development-related projects, and not for the impacts related to the unusual air quality circumstances presented by the project. The Guidelines state that "Funds should be used for mitigation projects or programs in areas

that are directly or indirectly impacted by the development project...” (Ventura County Air Quality Assessment Guidelines, p. 7-16) For the reasons discussed, this mitigation measure is infeasible.

Furthermore, please also note that the ordinance at issue in this EIR does not explicitly propose to divert aircraft to CMA or any other airport. The EIR’s conclusion that project-related aircraft operations would divert to CMA is the result of assumptions by qualified professionals based on driving times between CMA and VNY, CMA runway length and width, and operating convenience (potential for flight delays) at CMA. While LAWA stands behind the analysis presented in the EIR, including the conclusion that project-related aircraft would divert to CMA, it should be noted that there is no explicit guarantee that project-related aircraft would do so. Accordingly, payment of fees to VCAPCD for these impacts is not appropriate mitigation.

**Comment Letter 9, County of Ventura Department of Airports**

**county of ventura**  
DEPARTMENT OF AIRPORTS  
www.ventura.org/airports



555 Airport Way ♦ Camarillo, CA 93010 ♦ (805) 388-4274 ♦ Fax: (805) 388-4366

October 31, 2008

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CS

Ms. Karen Hoo  
Los Angeles World Airports  
Environmental Planning  
7301 World Way West, 3<sup>rd</sup> Floor  
Los Angeles, CA 90045

**Re: Comment on Draft Environmental Impact Report  
Van Nuys Airport Noisier Aircraft Phaseout Project**

Dear Ms Hoo:

Thank you for the opportunity to comment on the DEIR for the above referenced project. As the Director of Airports for the County of Ventura, my comments are specific to the impacts on Camarillo Airport (CMA).

Section 4.2 "Noise Analysis" states that the noise impact created by the project would be less than significant. While this may be true under the CEQA guidelines, any additional noise created by aircraft that are essentially forced to operate out of CMA would cause an impact. The aviation forecast levels stated in the DEIR do not match those in the Camarillo Airport Master Plan Update project currently under way. We believe the forecasts stated in the DEIR are overly aggressive based on the current economic and aviation trends. This is important because the impact of the single Stage II jet that would be relocated to CMA would cause a larger percentage increase to the noise footprint of the airport based on our more conservative forecasts. Additionally, any additional Stage II jet operations at CMA will likely cause the number of noise complaints to increase substantially.

9-1  
9-2

Figure 4.3-5 depicts noise receptors within one mile of CMA. While it does accurately reflect those, it does not reflect the downtown area and communities that lie under the approach path to CMA that would be directly impacted by an additional Stage II jet operating from CMA. This should be studied further.

9-3

Section 4.3 "Air Quality" states that the impact would be significant and unavoidable due to exceeding VCAPCD levels of VOC and NOx. The "no project" alternative, however, does not create this same unavoidable impact.

9-4



**Comment Letter 9**

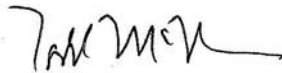
Karen Hoo – Van Nuys Airport Noisier Aircraft Phaseout  
October 31, 2008  
Page 2

With the above in mind, the County of Ventura Department of Airports opposes the project.

9-5

Thank you again for the opportunity to comment and feel free to contact me at 805-388-4200 if you have any questions.

Sincerely,



TODD L. McNAMEE, AAE  
Director of Airports

cc : Camarillo Airport Authority  
Aviation Advisory Commission  
Bob Burrow, City of Camarillo  
Michael Villegas, APCD

## **Response to Comment Letter 9, County of Ventura Department of Airports**

### **Response to Comment 9-1**

The Draft EIR presents a reasonable and complete analysis of the project's environmental impacts at the diversion airports, including the noise impacts at CMA. As this comment notes, the project's noise impacts are analyzed in terms of significance criteria identified in Section 4.2.4.1, which are based on FAA and City of Los Angeles policy. These thresholds allow an adequate assessment of whether the project's noise impacts would be considered significant pursuant to CEQA. Noise impacts at CMA were determined to be less than significant.

### **Response to Comment 9-2**

In preparation for conducting the diversion analysis at CMA, LAWA's consultants contacted the Ventura County Director of Airports for the most current available information. The most recent Master Plan information that the Director provided was from the 1996 report. This comment indicates that the County is preparing a Master Plan Update that forecasts more conservative growth than assumed in the Draft EIR. The Master Plan Update has not yet been adopted, and the Director did not provide information from the update for use in the project-related diversion analysis, nor did the comment letter provide revised forecast levels; accordingly, the referenced forecast information has not been incorporated into the analysis presented in the EIR. However, the CMA growth projections provided by the Director of Airports and incorporated into the EIR provide a depiction of future activity at CMA that serves as a reasonable baseline from which to analyze the project's environmental effects.

Please note that the focus of the EIR is on the project's impact or contribution to cumulative impacts, and not necessarily on the total level of activity at the affected airports. The EIR compares project impacts to a reasonable baseline and, in this respect, the Draft EIR presents sufficient information to conclude that the diverted operations will not create a significant noise impact. This conclusion is supported by the Area Equivalent Method (AEM) analysis in Table 4.2-60 of the Draft EIR, which shows that the CNEL projected for the with-project conditions in 2014 is only 1.1 dB higher than the 2007 CMA Baseline, even with the so-called "overly aggressive" 2014 forecasts used in the EIR. This does not exceed the 1.5 dBA significance threshold utilized in the EIR analysis. If more conservative estimates were used for non-project-related operations at CMA, the 2014 noise level would be even less than 1.1 dB higher than the 2007 CMA Baseline. Therefore, even if the County's Master Plan Update were to forecast no growth in activity at the airport, the proposed project would not result in a significant noise impact.

### **Response to Comment 9-3**

Although the referenced areas surrounding CMA may not be shown in Figure 4.3-5, the project's impacts on these areas are accounted for in the noise impact analysis presented in Section 4.2.4.2 of the Draft EIR. The AEM analysis takes into account both approach and departure operations. As discussed in the response to Comment 9-2, even an extremely conservative interpretation of the AEM analysis for CMA indicates that the diverted operations will not result in a change in CNEL that exceeds the 1.5 dB threshold of significance in any area.

### **Response to Comment 9-4**

As stated in the response to comment 8-1 above, the air quality impact analysis presented in the Draft EIR contained an error related to diversion assumptions that led to the overestimation of emissions at CMA. The Final EIR has been revised accordingly. The VCAPCD threshold for NOx is still exceeded by project emissions, but the threshold for VOC is not exceeded. The comment regarding the "no project" alternative is noted.

### **Response to Comment 9-5**

The County of Ventura's opposition to the project is noted, and this comment will be forwarded to the project decision makers for their consideration. LAWA appreciates the County of Ventura's participation in the environmental review process for this project.

**Comment Letter 10, Aircraft Owners and Pilots Association**



421 Aviation Way  
Frederick, Maryland 21701

T. 301-695-2000  
F. 301-695-2375

www.aopa.org

November 17, 2008

Ms. Karen Hoo  
Environmental Planning  
Los Angeles World Airports  
7301 World Way West, 3<sup>rd</sup> Floor  
Los Angeles, CA 90045

RE: Notice of Availability and Public Meeting on a Draft Environmental Impact Report for the Van Nuys Airport Noisier Aircraft Phaseout Project

Dear Ms. Hoo:

The Aircraft Owners and Pilots Association (AOPA) represents more than 415,000 general aviation pilots and members nationwide, of whom more than 49,600 reside in the state of California. AOPA is concerned with the Van Nuys Airport Noisier Aircraft Phaseout based on the associated impacts to surrounding general aviation airports and their communities.

**Impacts to Surrounding Airports, Communities and Businesses a Concern**

Van Nuys Airport (VNY) is the busiest general aviation airport in the United States. With more than 700 based aircraft and 500,000 operations annually, VNY is an extremely critical part of the California transportation system. As we shared with the Burbank-Glendale-Pasadena Airport Authority in response to their proposed nighttime curfew, we suggest that shifting the noise and other environmental impacts from one airport at the expense of another nearby and adjacent airport community is not a good solution and should be the basis for a Federal Aviation Administration (FAA) denial of the proposed restrictions.

10-1

In addition, AOPA has significant concerns with the inevitable shift of several business operators and additional operations to surrounding Bob Hope (BUR), Los Angeles International (LAX), Camarillo (CMA), Chino (CNO), and William J. Fox Airfield (WJF). Each of these airports is part of the Southern California airport infrastructure and the result of these proposed restrictions have a good possibility of leading to proposed restrictions at many airports in the region. The offset or shifting of operations from one airport and associated community to another sets a dangerous precedent for the eventual elimination of airport businesses and interstate commerce.

10-2

**Environmental Impacts Should Not be Ignored**

As included in the Environmental Impact Report (DEIR), the project-level impacts will be a considerable contributor to the significant cumulative impacts at surrounding airports and their communities – specifically CMA and the South Central Coast Air Basin. The shift of aircraft operations from VNY to surrounding areas and airports will result in increased pollutant emissions in their respective locations. The fact that there are no feasible mitigation measures to

10-3



AIRCRAFT OWNERS AND PILOTS ASSOCIATION

**Comment Letter 10**

Ms. Karen Hoo  
Page 2  
November 17, 2008

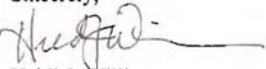
avoid or substantially lessen the project's contribution to the cumulative air quality impacts is evidence that the project is likely to create environmental hurdles for surrounding communities that cannot be overcome. AOPA suggests that the most environmentally friendly alternative in this case is a "no action" solution, which still meets the over-arching goal of noisier aircraft reduction due to anticipated aircraft retirements.

↑  
10-3  
cont'd  
10-4

**In Conclusion**

AOPA recognizes that LAWA is attempting to establish a maximum noise level for all aircraft arriving at and departing from VNY. While arguably there are positive impacts of a phaseout of noisier aircraft, the significant cumulative impacts associated with the proposed phaseout plan are of great concern and ultimately not in the best interests of the impacted airports and the surrounding community. AOPA strongly recommends that Los Angeles World Airports take no action and allow the anticipated aircraft retirements to produce the desired goals of a reduction of noisier aircraft at VNY over the coming years.

10-5

Sincerely,  
  
Heidi J. Williams  
Senior Director Airports

## **Response to Comment Letter 10, Aircraft Owners and Pilots Association**

### **Response to Comment 10-1**

The AOPA's opposition to the project and opinion regarding FAA denial of the project is noted, and this comment will be forwarded to the project decision makers for their consideration. This comment does not specifically address the project's significant environmental issues or the adequacy of the EIR. Therefore, no additional response is required.

### **Response to Comment 10-2**

The AOPA's opinion regarding the project's economic impacts is noted, and this comment will be forwarded to the project decision makers for their consideration. Please note that CEQA generally does not require the analysis of a project's economic impacts (see State CEQA Guidelines Section 15131), and the issues raised in this comment do not address significant environmental issues or the adequacy of the EIR. Therefore, no additional response is required.

### **Response to Comment 10-3**

The project's contribution to cumulative air quality impacts at the diversion airports is discussed in Section 5.2.3 of the Draft EIR. As this comment correctly points out, the project was identified as having a cumulatively considerable contribution to air quality impacts at CMA and WJF due to the fact that it would be transferring emissions from the South Coast Air Basin to the South Central Coast Air Basin and the Mojave Desert Air Basin—both of which have non-attainment status for ozone and particulate matter. As also noted in Section 5.2.3, there is no mitigation that would reduce these cumulative contributions to less-than-significant impact. The project's contributions to cumulative impacts are fully disclosed in the Draft EIR.

### **Comment Letter 10-4**

The commenter's preference for the "no-action" alternative, which is analyzed as Alternative 1 in the EIR, is noted. This comment will be forwarded to the project decision makers for their consideration.

### **Comment Letter 10-5**

The AOPA's concern for the project's impacts, which are properly analyzed and presented in Chapters 4 and 5 of the EIR, is noted. This comment will be forwarded to the project decision makers for their consideration.

**Comment Letter 11, Encino Neighborhood Council**

November 13, 2008

'08 DEC 5 PM 12:07  
*CS*

Ms. Karen Hoo  
LAWA  
Environmental Planning  
7301 World Way  
Third Floor  
Los Angeles, CA 90045

Dear Ms. Hoo,



The Encino Neighborhood Council has unanimously voted to support the grandfathered "Noisy Aircraft" phase out at Van Nuys Airport.

11-1

Our Airport Committee discussed and reviewed this issue and found that there were no exceptions regarding Stage 3 & 4 aircraft within the originally approved document. The following motion was approved unanimously by the Committee and there after by the full Council:

"The Encino Neighborhood Council supports the grandfathered "Noisy Aircraft" phase out at VNY. Furthermore we strongly urge LAWA not to add exceptions for Stage 3 & 4 aircraft to the grandfathered Phase Out."

As you are aware, the residents in the San Fernando Valley have fought and struggled long and hard to obtain the approved and then grandfathered phase out of "Noisy Aircraft". If an aircraft meets the Noise Limit within the original Phase Out Plan, then it should not matter what type of aircraft it is. If there is a designation set by the Plan it would be self defeating to add exceptions, other than those already in the Plan.

We are hopeful that LAWA will recognize this situation and delete the added exceptions that were not there in the first place.

Yours very truly,

ROB GLUSHON  
President, Encino  
Neighborhood Council

cc: Mayor Villaraigosa  
Selena Birk, VNY Mgr.  
City Councilman Jack Weiss  
City Councilman Greig Smith  
City Councilwoman Wendy Greuel



A Los Angeles Certified Neighborhood Council: P.O. Box 260439 4933 Balboa Blvd. • Encino, CA 91426-0439 • (818) 225-1040 • enc@SoCal.rr.com • www.EncinoCouncil.org

## **Response to Comment Letter 11, Encino Neighborhood Council**

### **Response to Comment 11-1**

The Encino Neighborhood Council's support for the proposed project is noted. It is also noted that the comment urges LAWA not to adopt the Stage 3 and 4 exemptions which are part of Alternative 2. This comment will be forwarded to the project decision makers for their consideration.



**Comment Letter 12, Los Angeles International Airport Advisory Committee**

**Los Angeles International Airport Advisory Committee**

Committee: Residents of El Segundo, Inglewood, Lennox, Hawthorne, Culver City and Westchester/Playa del Rey

October 10, 2008

Ms. Karen Hoo  
Environmental Planning  
Los Angeles World Airports  
7301 World Way West, 3<sup>rd</sup> floor  
Los Angeles, CA 90045

Re: Draft EIR Van Nuys Airport

Dear Ms. Hoo:

The Los Angeles International Airport Area Advisory Committee (LAXAAC) provides these comments regarding the Draft Environmental Impact Report (Draft EIR) for the proposed noisier aircraft phaseout project for the Van Nuys Airport.

As residents of communities near an airport, our Committee members sympathize with the desire to reduce noisier aircraft operations. However, this project should not be allowed to proceed given that the Draft EIR recognizes that the proposed phaseout will merely shift operations and thus noise and air pollution to other airports, including the Los Angeles International Airport (LAX).

12-1

Shifting the problem elsewhere is not an appropriate response to the problems of noise in the communities surrounding the Van Nuys Airport, particularly where you propose to shift that noise to the communities surrounding LAX, which already are afflicted with noise and air pollution from airport operations to a much greater extent than the communities near Van Nuys. Proceeding with this proposal would be particularly unjust given that the Draft EIR recognizes that there is no feasible mitigation to reduce the significant noise impacts to our communities.

12-2

We firmly believe that only a regional approach to air transportation will mitigate the transportation and security problems currently impacting the entire Southern California area. Only if the air traffic burden can be spread throughout the Southern California region, will we continue to see the economic benefits of a vibrant transportation system without unduly impacting one portion of the Southern California community.

12-3

We hope that the residents of Van Nuys and the San Fernando Valley will recognize that the benefits provided to them by the Van Nuys Airport, and not try to worsen the environment for their fellow citizens near LAX and other diversion airports.

12-4



Comment Letter 12

We recommend that the DEIR for the proposed noisier aircraft phaseout project for the Van Nuys Airport not be adopted. Please let us know if you have any questions regarding our comments.



Very truly yours,

Handwritten signature of Danna Cope.

Danna Cope, LAXAAC Chair  
Los Angeles International Airport Area Advisory Committee  
c/o LAX Community Relations  
1 World Way, P.O. Box 92216  
Los Angeles, CA 90009-2216

Enclosure

cc: Los Angeles Mayor Antonio Villaraigosa  
LAWA Board of Airport Commissioners  
Councilman Bill Rosendahl  
Gaby Pacheco, LAX Community Relations

**Comment Letter 12**

**Los Angeles International Airport Area Advisory Committee**

Committee: Residents of El Segundo, Inglewood, Lennox, Hawthorne, Culver City, and Westchester/Playa del Rey

Los Angeles International Airport Area Advisory Committee (LAXAAC)

**Background Statement**

The Los Angeles International Airport Area Advisory Committee (LAXAAC) has been in existence for more than 30 years as an advisory board to the Board of Airport Commissioners (BOAC).

Members of the committee are appointed by the appropriate legal authority in communities immediately surrounding LAX:

El Segundo,  
Lennox,  
Hawthorne,  
Inglewood,  
Culver City,  
Marina del Rey,  
and the Westchester and Playa del Rey areas of Los Angeles.

The members of LAXAAC have one overriding concern about LAX: **safety**. This concern includes safety for those who work or live near LAX in addition to air passengers, crews, and aircraft.

Other concerns for committee members are air and noise pollution and surface traffic in and around their communities.

The members of LAXAAC will continue to participate in LAX issue discussions and proposals and look forward to on-going interaction with the members of the BOAC and LAWA staff.

04/07

## **Response to Comment Letter 12, Los Angeles International Airport Advisory Committee**

### **Response to Comment 12-1**

The LAXAAC's concern for the project's impacts is noted, and this comment will be forwarded to the project decision makers for their consideration. Chapters 4 and 5 of the Draft EIR present analysis of the environmental impacts resulting from the proposed project at the identified diversion airports, including LAX. Impacts at LAX were determined to be less than significant.

### **Response to Comment 12-2**

Please note that Section 4.2.4.3 of the Draft EIR concludes that noise impacts at LAX would be less than significant due to the limited number of project-related operations that would occur at the identified diversion airports (0.2 operations per day would be shifted to LAX in the peak diversion year; see Tables 2-5 and 2-6 in the Draft EIR). Therefore, no mitigation is necessary to reduce these impacts.

### **Response to Comment 12-3**

The comment's stated opinion regarding a regional solution to aircraft operational noise is noted. This comment is directed at LAWA's airport policies, and it does not specifically address the project's significant environmental issues or the adequacy of the EIR. Furthermore, the EIR did not identify any "transportation" or "security problems" that would result from the proposed project. The comment will be forwarded to the project decision makers for their consideration.

Please also note that the regional approach discussed in this comment is not a feasible alternative to the project, as defined by Section 15364 of the State CEQA Guidelines. Such an alternative could not be accomplished "within a reasonable period of time" and would be economically infeasible. The reason for this is the extensive cross-jurisdictional coordination it would entail, with all affected local airport regulators contributing money, time, and resources for extensive impact and feasibility studies, which is not likely to occur.

### **Response to Comment 12-4**

The LAXAAC's opposition to the project is noted. LAWA appreciates the LAX Advisory Committee's participation in the environmental review process for this project.

**Comment Letter 13, National Business Aviation Association, Inc.**

ZUCKERT SCOUTT & RASENBERGER, L.L.P.  
ATTORNEYS AT LAW

888 Seventeenth Street, NW, Washington, DC 20006-3309  
Telephone [202] 298-8660 Fax [202] 342-0683

FRANK J. COSTELLO

fjcostello@zslaw.com

December 1, 2008

By Mail, E-mail, and Fax

Ms. Karen Hoo  
Los Angeles World Airports  
Environmental Planning  
Attention: VNY EIR  
7301 World Way West, 3d Floor  
Los Angeles, CA 90045

**Re: Comments of the National Business Aviation Association, Inc.**

Dear Ms. Hoo:

This letter is submitted on behalf of the National Business Aviation Association, Inc. (“NBAA”) and contains NBAA’s comments on the Draft Environmental Impact Report (“Draft EIR”) prepared with respect to the proposed exclusion of certain aircraft from Van Nuys Airport (“KVNYY”).

**Introduction**

NBAA is the principal spokesperson for companies that use general aviation in the furtherance of their businesses. It has more than 8,000 member companies, many of which are based at KVNYY or use the airport on an itinerant basis. Over the years, NBAA and its members have worked with the airport on many significant noise-mitigation measures consistent with NBAA’s pioneering “Good Neighbor” program. At the same time, NBAA has not hesitated to oppose mandatory measures that it believed were unwise and unlawful, measures such as the phase-out program examined in the Draft EIR.

KVNYY is today and always will be one of the most important business aviation airports in the nation. The crucial role that business aviation plays in the continuing economic health of the airport and the community does not have to be restated. Any measure that would further restrict access to KVNYY would be a dagger to the economic heart of the community. In other words, when NBAA takes issue with proposed access restrictions, as it does here, it does not just have the immediate interests of its members in mind. It also has the broader interests of the community as background, a perspective that is missing from the Draft EIR.

13-1

The Draft EIR begins by noting that three “primary areas of controversy” were identified in the NOP period: the impact of diverting operations to other airports; the conflict with FAA

13-2



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ZUCKERT SCOUTT & RASENBERGER, L.L.P.

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policies, *i.e.*, the conflict with federal laws and regulations; and the impact on business aviation. The report proceeds to hide the first concern and ignore the latter two on the grounds that they are not “CEQA related.” These comments look at these areas in depth, but it really can be boiled down to this:

▲  
13-2  
cont'd

- The restriction, as re-proposed after being abandoned by the City sixteen years ago, cannot proceed without complying with the procedures of the Airport Noise and Capacity Act of 1990 (“ANCA”), 49 U.S.C. § 47524, and Part 161 of the Federal Aviation Regulations, 14 C.F.R. § 161.1, *et seq.* As applied to Stage 2 aircraft, this requires a detailed review process at the local level, a process that already has begun, as well as review by the FAA. As applied to Stage 3 aircraft, it also requires the affirmative approval of the FAA before any restriction can be implemented.
- The purpose of the federal process is to assure, in advance, that the restrictions do not violate the grant assurances and other federal law. As re-proposed, the restrictions would be unlawful, in large part because the de minimis environmental “benefit” would be offset by significant adverse environmental consequences at other airports and within the region and because of the adverse economic impact. We would note that these concerns apply with or without completion of the Part 161 process.
- KVNY today has some of the most severe restrictions on Stage 2 operations in the nation, including restrictions imposed over the strenuous objections of NBAA. Further restrictions would serve no purpose other than to punish the operators of the remaining Stage 2 aircraft. Buried in the report is this fact: because of the retirement of older aircraft in any event, it is estimated that a phase-out would eliminate only 5 flights per day in 2014 an airport projected to have nearly 1,050 flights per day that year. Those five flights are very important to the operators, and to the community, but their elimination would produce almost no measurable reduction in aircraft noise or emissions at KVNY. Indeed, if the restrictions were to be imposed, the only thing the public would notice is the negative economic impact.
- There would be meaningful adverse environmental consequences from transferring these flights to smaller, nearby airports, particularly Chino, Camarillo and William J. Fox. Unilateral access restrictions imposed at airports in the Los Angeles basin serve no purpose other than to pit communities against each other.

13-3

13-4

13-5

13-6

Our detailed comments are set forth below:



## Comment Letter 13

ZUCKERT SCOUTT &amp; RASENBERGER, L.L.P.

Ms. Karen Hoo  
 Los Angeles World Airports  
 December 1, 2008  
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Discussion**(1) The New Proposal To Phase-Out Stage 2 Aircraft at KVNy Is Not Grandfathered Under ANCA and Part 161.**

The proposal to phase-out Stage 2 (and some Stage 3) aircraft at KVNy is a *new* proposal, the result of an entirely *new* “regulatory or legislative process.”<sup>1</sup> While a similar proposal was adopted by the Board of Airport Commissioners in 1990,<sup>2</sup> that proposal specifically was rejected by the City on December 4, 1992, in a transmittal from Mayor Bradley of Los Angeles to the Board of Airport Commissioners. See Attachment A hereto.<sup>3</sup> The Mayor returned the proposal “without action” and with directions to implement the recommendations in the attached report, including a recommendation to “rescind all actions related to the proposed noise regulation.” *Id.* (emphasis added). It appears that the proposed phase-out was rescinded, at least on a de facto basis. The extension of the curfew and the non-addition rule did proceed, however, and were grandfathered from the Part 161 process, as discussed below. However, a new phase-out proposal cannot take advantage of the grandfather exception to Part 161 nearly sixteen years after the City abandoned the original proposal.

ANCA and Part 161 are very specific as to what types of proposed restrictions are subject to the Part 161 review process. First, any Stage 3 restriction not in effect as of October 1, 1990 is subject to FAA review and approval.<sup>4</sup> Second, the Part 161 review process applies to any Stage 2 restriction “proposed after October 1, 1990.” 49 U.S.C. § 47524(b); 14 C.F.R. § 161.3(a). It does not say “initially” or “first” proposed, or qualify the grandfather date in any other way. The only exception to this rule applies to a Stage 2 restriction “if the airport

13-7

<sup>1</sup> The Board of Airport Commissioners adopted the new proposal on August 20, 2007.

<sup>2</sup> The new proposal is not identical to the 1990 proposal. Apart from exemptions made for the limited operation of certain Stage 2 aircraft types in the new proposal, the phase-out periods in each proposal are date-specific and reflect the passage of eighteen years between the two proposals. These differences underscore the fact that the abandonment of the phase-out in 1992 was the end of one “regulatory or legislative process” and the proposal we now are addressing is the result of a different process.

<sup>3</sup> The materials in Attachment A were obtained by an interested member of the public through a search of the Bradley Archives in UCLA’s Special Collections Department.

<sup>4</sup> The Draft EIR concedes that hush kitted 727 aircraft presently operating at KVNy meet Stage 3 requirements but would be subject to the phase-out. *Id.* Vol. 1, at 1-4 – 1-5. Nonetheless, the primary proposal would include those aircraft, and exclusion of those aircraft only is an option. Needless to say, compliance with ANCA and Part 161 is not optional on the part of the airport operator.

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proprietor has formally initiated a regulatory or legislative process before October 2, 1990.” 49 U.S.C. § 47533(2); 14 C.F.R. § 161.7(d)(2). It does not use the past tense. The syntax plainly refers to a continuing regulatory or legislative process.

13-7  
cont'd

This is confirmed by the very limited legislative history of the grandfather exception, namely, a statement made by James Busey, Administrator of FAA, which was cited by Senator Lautenberg, an initial opponent of what was to become the Part 161 process. Lautenberg stated that his concerns had been met because, according to Administrator Busey, nothing in the Conference Committee language “would preempt the accomplishments we’ve made, or efforts we are making” at the local level to address noise issues. 138 Cong. Rec. S17512 (1990). Again, the use of the present tense is consistent with the obvious desire of the conferees to grandfather any continuing regulatory or legislative process that might proceed to conclusion. At the same time, if a post-October 1, 1990 restriction could avoid the Part 161 procedures simply because at some point prior to that date a similar restriction had been considered but rejected, the overarching purpose of ANCA would be frustrated.

The only situation where continuity is not required is spelled out in 49 U.S.C. § 47524(d)(5), namely, a restriction adopted not later than October 1, 1990, but that had been stayed by court order, is grandfathered provided that the stay was lifted in whole or in part subsequent to that date. If the “regulatory or legislative process” did not require continuity, the subsection (d)(5) language would be unnecessary, *i.e.*, as long as the final restriction had been part of a pre-October 2 process, the fact of the break in continuity caused by the stay would not be material. If one were to read the continuity requirement out of section 47533(2), one would make section 47524(d)(5) meaningless. It is a basic rule of statutory construction that “all parts of statute, if at all possible, are to be given effect. Weinberger v. Hynson, 412 U.S. 609 (1973) (overturned the grandfathering of certain drugs from FDA review).<sup>5</sup>

The proper question is this: has there been a break in continuity between the phase-out rule as initially proposed prior to October 2, 1990 and the phase-out rule as proposed today? The FAA has not addressed this question previously. The August 28, 1997 letter from Associate Administrator Kurland to Mr. Lobner only agreed that grandfather status applied to the extension of the curfew and the non-addition rule. The status of the phase-out rule was not raised – for good reason, since it had been abandoned. In a later letter from Acting Associate Administrator Woodward to Mr. Lobner, dated April 17, 2000, the FAA stated that an immediately effective

<sup>5</sup> The advice given by the FAA’s Chief Counsel in a letter to Representative Sherman on January 18, 2000, is not to the contrary. The question presented there was whether a non-addition rule for KVMY that was less restrictive than the rule proposed before October 2, 1990, would be grandfathered. The Chief Counsel opined that it would be grandfathered, noting that to hold otherwise would be to defeat the purpose of ANCA by discouraging airport operators from seeking less restrictive solutions that would do less harm to the national air transportation system. Needless to say, that is not the situation presented here.



Comment Letter 13

ZUCKERT SCOUTT & RASENBERGER, L.L.P.

Ms. Karen Hoo  
Los Angeles World Airports  
December 1, 2008  
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ban on Stage 2 aircraft was most decidedly not grandfathered and that if “the City elects to reconsider the proposed 1990 ‘phase-out’ rule along these lines, then the FAA would review such a proposal together with the City’s reasons that would support a finding that the proposal qualifies for grandfathering.” The FAA still was not aware of the Mayor’s 1992 directive.

13-7  
cont'd

This is the time to review, and reject, grandfather status for a proposal that was turned down by Mayor Bradley sixteen years ago. It would do a grave injustice to the language and intent of ANCA to accord grandfather status when not only has there been nearly two decades of water passing under the bridge, but the bridge itself has been burned.

**(2) The Proposed Phase-Out Would Produce *De Minimis* Benefits At KVNY That Would, In Any Event, Be Offset By The Adverse Impact On Other Nearby Airports.**

**(a) The impact at KVNY.**

This is not 1990 when business jet operations at KVNY predominantly were comprised of Stage 2 aircraft. The increased production of Stage 3 – and now Stage 4 – business jets, the expected retirement of older aircraft and measures KVNY already has taken to restrict Stage 2 operations have eliminated any adverse impact caused by aircraft noise.

13-8

The length and complexity of the Draft EIR tends to obscure the fact that even if the phase-out were implemented, it would have a *de minimis* impact on future noise levels at KVNY. Indeed, the adverse impact at other nearby airports and on the region would more than offset any positive impact it had at KVNY. Here are the pertinent facts (from Draft EIR, Vol. 2, Appendix B, Tables 5, 9, 12 and 20):

13-9

- In 2007, there were 314,007 total operations at KVNY. Only 48,143 of total operations were conducted with business jets – 15%. Only 4,764 of total operations were conducted with Stage 2 business jets – 1.5% or approximately 13 operations per day.
- For 2014, the year in which the maximum impact of the phase-out is predicted, there would be 386,433 total operations at KVNY without a phase-out. Business jet operations are forecast to increase to 83,101 operations or 22% of the total. This assumes a 6.5% annual growth rate for business jets – a forecast that we hope proves out, but that is challenged by the new economics and long-term fuel trends. Nevertheless, because of expected aircraft retirements, the number of Stage 2 operations would decrease to 2,301 – 0.6% or approximately six operations per day.
- If the phase-out were implemented, Stage 2 operations would be reduced to 344 annually in 2014. In other words, approximately five operations a day would be eliminated at an airport with approximately 1,050 operations per day. That could not be expected to have any significant impact on noise at that airport, and the projections in the Draft EIR confirm this. The pertinent noise contour map is in the Draft EIR Appendix B, Figure 4.



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It compares the projected 2014 noise contours with and without a phase-out – the only comparison that is appropriate – and there is no meaningful difference. Indeed, the only area where the contour would shrink, and slightly, is to the south of the airport over parkland. The before and after contours from Figure 4 are enlarged in Attachment B hereto and make this point quite dramatically.

13-9  
 cont'd

- After all this effort, public perception of “noise” at the airport would not really change. Eliminating five out of over one thousand flights per day, five flights that appear “noisier” only to sophisticated sensing devices and a computer model, will go unnoticed, particularly since operations with hush-kitted 727 aircraft must continue until and unless the FAA approves a Part 161 study justifying their phase-out.

Where is the benefit in this? The Draft EIR purports to show that 158 dwellings presently not sound-insulated would be moved within the 65 dBA contour, but it is not possible to verify that number from the data provided. See Draft EIR, Appendix B, Table 92. Moreover, even if that number were accurate, the cost of any remediation measures for these dwelling units would be far less than the cost to other communities and to operators at the KVNY if the phase-out were implemented.

13-10

13-11

**(b) The impact at other airports.**

The adverse impact on nearby airports would offset any positive benefit realized at KVNY from the phase-out. Again, these are numbers that have to be parsed out from the forest of charts, but they tell a compelling story.

13-12

Accepting the underlying analyses for purposes of argument, these charts show the projected decrease or increase in (i) area within the 65 dBA contour and (ii) CNEL for the year of maximum effect (2014 at Burbank, Camarillo and Van Nuys and 2016 at Chino and William J. Fox):

**Projected Impact of Phase-Out on KVNY and Other Airports**

<u>Airport</u>	<u>Change in Area w/65 dBA</u>	<u>CNEL Change</u>
Van Nuys	-6.7%	-.4 dB
Chino	+7.5%	+.5 dB
Camarillo	+5.3%	+.3 dB
W. J. Fox	+3.9%	+.2 dB
Burbank	+1.5%	+.1 dB

Source: Draft EIR, Vol. 2, Appendix B, Tables 90 and 95-98.

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What is true for aircraft noise also is true for aircraft emissions. The impact of the phase-out on aircraft emissions at KVNY would be “less than significant.” Draft EIR, Vol. 1 at 4.3-45. However, the phase-out would cause emissions at Camarillo to exceed Ventura County Air Quality Management thresholds and would “contribute to a significant cumulative impact” on the South Central and Mojave Air Basins. Draft EIR, Vol. 1 at 4.3-52 and 5-7. For these reasons, the Draft EIR reaches this conclusion, keeping in mind that “Alternative 1” in the study is *no phase-out*:

13-13

Alternative 1 would avoid both of the significant project-level air quality impact identified for the project and all three of the cumulative air quality impacts identified for the project. *Alternative 1 [no phase-out] is the environmentally superior alternative . . .*

*Id.* at 5-5 (emphasis added).

**Conclusion**

The proposal to further restrict Stage 2 operations at KVNY addresses a perceived problem that has been and will continue to be overtaken by time. This is 2008, not 1992. The remaining Stage 2 aircraft are projected to grow old gracefully without any adverse environmental impact. Forcing them out prematurely would, however, have adverse environmental and economic consequences, consequences that can, and should, be avoided. All of this is in the draft EIR, albeit buried in the fine print. The final EIR must confront reality.

13-14

Respectfully submitted,

/Frank J. Costello/

Frank J. Costello  
Jol A. Silversmith

Attorneys for the  
National Business Aviation Association, Inc.

**Comment Letter 13**

NBAA Comments - Attachment A

*Phil Deporia*

<b>TRANSMITTAL</b>		0220-02766(E)
<b>TO</b> The Board of Airport Commissioners	<b>DATE</b> DEC 4 1992	<b>COUNCIL FILE No.</b>
<b>FROM</b> The Mayor	<b>COUNCIL DISTRICT</b>	
<p><b>Proposed Noise Regulation for Van Nuys Airport (VNY)</b></p> <p>I am returning the proposed noise regulation for VNY <u>without action</u>. Please implement the recommendations contained in the attached report of the City Administrative Officer.</p> <p style="text-align: center;">MAYOR</p>		

CAO 649-d

**Comment Letter 13**

NBAA Comments - Attachment A

**REPORT FROM**  
  
**CITY ADMINISTRATIVE OFFICER**

<b>TO</b> The Mayor	<b>DATE</b> 12/4/92	<b>CAO FILE No.</b> 0220-02766(E)
<b>REFERENCE</b> Referred October 6, 1992, for report per Executive Directive No. 39		<b>COUNCIL FILE No.</b>
<b>SUBJECT</b> Proposed Noise Regulation and Other Noise Mitigation Activities - Van Nuys Airport (VNY)		<b>COUNCIL DISTRICT</b>

**SUMMARY**

Three primary noise mitigation activities have been in process over the past four years. Starting in late 1988 the Department of Airports, in cooperation with the community, airport tenants and the Federal Aviation Administration (FAA) initiated a comprehensive study of alternatives to reduce the noise impacts on property surrounding VNY. The Study has been done in accordance with Federal Aviation Regulation Part 150; once a completed Part 150 Study has been approved by the FAA it becomes the basis for grants to mitigate noise on non-airport property.

The second activity is the proposal in 1990 by the Department to implement a stringent noise regulation by ordinance. An Environmental Impact Report (EIR) has been completed and the proposed regulation is the principal subject of this report.

Dissatisfaction with the noise regulation as proposed by the Department resulted in the formation of an Ad Hoc Committee on Noise at VNY consisting of community leaders and tenants to address problem aircraft operators and ways for the public to make meaningful noise complaints to the Department. The results of this effort over the past 2-1/2 years have been folded into the results of the Part 150 Study.

On October 5, 1992 the Board of Airport Commissioners adopted the Part 150 Study and the proposed noise regulation stating the two to be compatible. The FAA will make the final decision regarding the Part 150 Study. However, the debate over compatibility and which overall methodology should be used to mitigate noise at VNY continues unabated. This report focuses on this issue.

(Summary continued)

*N. Comm*

\_\_\_\_\_  
CITY ADMINISTRATIVE OFFICER

## Comment Letter 13

NBAA Comments - Attachment A

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As detailed in the Findings, we have concluded that adoption of the proposed, far more stringent noise regulation by ordinance to replace an existing ordinance, would not resolve the controversy and would most likely expand the debate unnecessarily to the Courts. Adoption of the regulation would be premature, and not in the best interest of the City, the community around VNY, or the tenants and Fixed Base Operators at VNY. Our concerns are as follows:

1. The proposed regulation includes a preferential runway provision that continues a potentially unsafe operating condition at night, i.e., a simultaneous take off and landing in opposing directions on the same runway is possible during the 7-1/2 hour period the FAA Control Tower is shut down at night.
2. The Part 150 Study results and the proposed regulation are not compatible. The ordinance would preempt any conflict with the Noise Control Program (NCP) approved by the FAA under Part 150. The NCP has the strong support of the community and tenant representatives on the Study Steering Committee. Adoption of this ordinance would, in all likelihood, trigger litigation. The City would be exposed to litigation costs and actual damages if the proposed noise regulation were adopted. This, in turn, would erode all support of the NCP by the tenants and the FAA. Since the FAA does not support the regulation the likelihood of grants to help mitigate noise on non-airport property is remote. The Part 150 NCP should have the chance to work. As a cooperative effort, the tenants should have the opportunity to succeed or fail under the NCP.
3. Although the City may regulate noise at its airports according to the City Attorney, the power is not unlimited. The exercise of control must be based upon a reasonable balance of the cost impacts of the regulation upon commerce to achieve the desired results against obtaining similar results at less cost. Further, the regulation should be based upon a comprehensive, reasonable and defensible quantification of effects including the economic impact of the regulation. There has been no comprehensive study of the cost impacts of the regulation or an evaluation of its effects upon commerce, the community, or the businesses operating at the airport.
4. Adoption of the proposed regulation for VNY has been tied by the FAA to its concerns regarding grants and the eligibility of the City for Passenger Facilities Charges (PFC's) at Ontario (ONT) and Los Angeles (LAX). A formal determination by the FAA that the City does not comply with the Aviation Noise and Capacity Act of 1990 because of the proposed VNY regulation, would probably be challengeable in court, according to the City Attorney. However, the planned \$350 million PFC program over the next five years to construct a much needed terminal at ONT, a people-mover at LAX and enhance noise mitigation efforts at ONT, LAX, and VNY would be seriously delayed. The FAA concerns about the City's plans to control noise appear to have already contributed to a delay in the approval of a \$38 million construction grant for the apron at the new ONT terminal.

(Recommendation attached)

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**Comment Letter 13**

NBAA Comments - Attachment A

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**RECOMMENDATION**

That the Mayor return the proposed draft noise ordinance for Van Nuys Airport (VNY) to the Board of Airport Commissioners without action, and request the Board to rescind all actions related to the adoption of the proposed noise regulation; and that prior to the future submission of any noise regulation for VNY to the City Council, the Board to complete and present a comprehensive study of the potential economic effects of the noise mitigation program at VNY. The report should also be based on sufficient and reliable aircraft operating data at VNY to demonstrate the effects of success or failure of the Part 150 NCP which remains to be approved by the FAA.

(Statement of Findings attached)

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**Comment Letter 13**

NBAA Comments - Attachment A

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**FINDINGS**

**1. Basis for the report**

The Executive Director has submitted a draft ordinance to implement a noise regulation at Van Nuys Airport (VNY). The matter has been submitted in accordance with Executive Directive No. 39 and referred to the City Administrative Officer for a report back.

The proposed regulation and two related issues were considered by the Board of Airport Commissioners at a regular meeting at VNY on October 5, 1992. The actions taken by the Board and status of the file are summarized in the following Background. The draft ordinance submitted has not been signed by the City Attorney as to form and legality.

**2. Background**

There are three primary noise control and abatement activities at Van Nuys Airport (VNY). They are the Federal Aviation Regulation (FAR) Part 150 Noise Compatibility Study, a proposed noise control regulation and the recommendations of the Ad Hoc Working Committee concerning the proposed noise regulation.

A. **The VNY Part 150 Study** was started in December 1988. The Department/City as airport sponsor nominated a diverse group of Department Commissioners, community leaders, airport tenants and individuals with an aviation interest to serve on the Study Steering Committee.

The Part 150 Program of the Federal Aviation Administration (FAA) was established under federal law as a formalized procedure to reconcile the conflicting viewpoints of the airport sponsor, the airport users and the community about airport noise. The products of a Part 150 Study include a Basecase Noise Exposure Map (NEM) and a Five-Year Forecast that describes the current land areas around the airport affected by noise; the Forecast assumes specific mitigations are accomplished in accordance with a Noise Compatibility Program (NCP), the specific plan of operations and noise mitigation actions believed appropriate to achieve the desired noise mitigations within the Five-Year Forecast. A Study approved by the FAA becomes the basis for grants from the FAA to the sponsor/City to achieve the results agreed to by the participants in the Study, and is then the standard for the FAA to determine that the grant expenditures made comply with Program requirements and the approved Study. The Part 150 Program is the primary source of grants for noise mitigation on non-airport property. The funds are derived from the federal ticket tax.

B. In June 1990 the Board of Airport Commissioners started taking public input regarding a proposed noise control regulation for VNY. There has been significant controversy regarding the development of this regulation since. The second public hearing on the Draft Environmental Impact Report for the regulation was conducted by the Board's Hearing Officer in March 1992. The controversy continues. The proposed regulation considered at this hearing became the draft ordinance considered in this report.

(Findings continued)

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NBAA Comments - Attachment A

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- C. Dissatisfied with the proposed regulation, an Ad Hoc Committee to Reduce Airport Noise was formed in 1990 by leaders from the surrounding community and VNY aircraft tenants/operators. This Committee started its work from the perspective that the proposed regulation does **not** address the problem of certain pilots using poor and noisy take off procedures or the inability of the community to make meaningful input to the Department when pilots are the cause of noise complaints. Two of the principal recommendations of the Ad Hoc Committee focus on the acquisition of a real-time noise event measuring system that will print-out the identification of each jet aircraft departure, correlated with sound level, ground track and altitude. The desired equipment is available in the market. The recommendations of the Ad Hoc Committee have been folded into the Noise Compatibility Program (NCP) in the Part 150 Study.
- D. On October 5, 1992 the Board of Airport Commissioners considered the following Recommendations of the Executive Director:
- (1) To approve the VNY Part 150 Study results including a Five-Year Noise Exposure Map projection of a 47 percent increase in operations (i.e., approximately 8 percent per year compounded) by jet aircraft at VNY, and submit the matter to the FAA for approval.
  - (2) To authorize the Executive Director to solicit competitive proposals to expand and improve the aircraft noise monitoring and management system at VNY.
  - (3) That the regulation be held in abeyance and the Board instead adopt the non-addition rule for 77 dBA\* and above noisy aircraft for a period of 24 months. Further, the Board to direct management to acquire the necessary equipment to monitor the progress of the Part 150 Program at VNY and continue to address the concerns of the FAA regarding the regulation. In addition, management shall advise the Board as to what might be done relative to helicopter control (as brought up during the meeting).

\*Note: "dBA" means decibels, a unit that measures the level of sound or noise.

The Board adopted Recommendation (1) amended to include a Five-Year NEM Forecast of a 100 percent increase in jet operations, (i.e., approximately 15 percent per year compounded). The Board adopted Recommendation (2). Notwithstanding Recommendation (3), the Board adopted the regulation and draft ordinance as presented. The Board's action on Recommendation (3) is being held in abeyance pending receipt of the Mayor's report under Executive Directive No. 39.

### 3. Proposed Noise Regulation

The proposed ordinance would repeal Ordinance No. 155,727. The major provisions in the proposed replacement ordinance are:

(Findings continued)

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NBAA Comments - Attachment A

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- A. The nighttime curfew period for aircraft having FAA certified takeoff noise levels exceeding 74 decibels (dBA) is extended one hour from 11:00 p.m. - 7:00 a.m. to 10:00 p.m. - 7:00 a.m.
- B. The continued prohibition of touch-and-go and other repetitive operations at night as follows:
- (1) June 21 through September 15, 10:00 p.m. - 7:00 a.m.
  - (2) September 16 through June 20, 9:00 p.m. - 7:00 a.m.
- C. The continued prohibition of engine run-ups for maintenance purposes between 7:00 p.m. and 7:00 a.m. except in areas designated in writing by the Executive Director.
- D. The imposition of a maximum permitted noise level of 85 dBA for all arriving and departing aircraft based upon the FAA Type certification on the effective date of the ordinance, followed by reductions of the noise cap according to the following schedule:
- (1) 83 dBA on January 1, 1994
  - (2) 80 dBA on January 1, 1996
  - (3) 77 dBA on January 1, 1998
- E. The addition of a non-addition rule that prohibits the introduction of newly based aircraft that equal or exceed 77 dBA on the effective date of the ordinance. An itinerant aircraft that is louder than this may use VNY no more than 30 days per year.
- F. The continuation of a preferential use runway at night between 11:00 p.m. - 7:00 a.m., weather and traffic permitting, unless instructed otherwise by the FAA Air Traffic Controller. Departures are to use Runway 16 Right (i.e., to the South); arrivals, 34 Left (i.e., to the North).
- G. Penalties added are:
- (1) Monetary
    - a. First violation of any provision - up to \$750.
    - b. Second violation within one year of prior violation - up to \$1,500.
    - c. Third violation within a three-year period - up to \$3,500.
  - (2) Operational
    - a. Three violations in three years - denial of airport use for a period of three years by the problem operator.
    - b. Violations by the same aircraft on three or more occasions in three years - the problem aircraft may be denied permission to base or operate at VNY by the Airport Manager. A new owner of the aircraft may appeal to restore the operating rights of the aircraft.

(Findings continued)

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H. Exemptions added are:

- (1) Military-type aircraft
- (2) Government-owned or operated airplanes involved in law enforcement, airport facility inspection, emergency, fire or rescue operations.
- (3) Airplanes certified by the FAA as having takeoff noise levels lower than the FAA published standards, but not listed in the standard.
- (4) Airplanes not listed in the FAA standard for which an operator can provide evidence to the Board of Airport Commissioners of not exceeding the FAA published standards.
- (5) Locally-verified or State/Federal exempted airplanes involved in bona fide medical or life saving operations.

4. **Analysis**

The attachment has been developed to compare the Part 150 Study results and the regulation to assist analysis of the compatibility between the two methods of achieving noise mitigation at VNY. The main points of concern to us are as follows:

- A. The Board adopted both the Part 150 Study and the proposed noise regulation stating that the two are compatible. The Board's conclusion contradicts the views of the majority of the representatives of the community and tenants serving on the Part 150 Study Committee, the Ad Hoc Committee on Noise (created because of dissatisfaction with the proposed regulation), the FAA and the recommendation of the Executive Director. There is no reason to believe the tenants would cooperate in achieving the Part 150 NCP if the ordinance is in place, the ordinance would prevail. On the other hand, however, there are members of the community and some elected officials that concur with the action of the Board. This minority viewpoint was vigorously represented but did not prevail in the Committee.
- B. The proposed noise regulation continues a nighttime preferential runway provision calling for departures to the South on Runway 16 Right and arrivals to the North on the **same** Runway (called 34 Left in this direction), weather and traffic permitting, or as instructed by the FAA Traffic Controller. This provision is a carryover from the prior ordinance enacted when the FAA Tower at VNY operated 24-hours per day. For several years the Tower has **not** operated between 10:45 p.m. and 6:15 a.m. the next day. Compliance presents potentially unsafe conditions, i.e., simultaneous landings and take offs. There is no assurance that two or more pilots would view traffic and weather in the same way or, absent the Tower, that a radio link could be established to prevent confusion, especially for itinerant operators who are not familiar with VNY and its surroundings.

(Findings continued)

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- C. The noise regulation would exempt military-type aircraft. There are many noisy aircraft that were military at one time but are now privately-owned. The provision appears inconsistent with the intent to control noise.
- D. Neither the Part 150 Study nor the material supporting the proposed noise regulation consider the potential impacts upon the economy in the San Fernando Valley or the business activities of the VNY tenants and Fixed Base Operators (FBO). The Part 150 Study estimates the cost effects upon the tenants and FBO's as small because there would be no preemptive termination of operating rights at VNY for any aircraft. The Study considered one Study alternative, however, (rejected by the Committee and the FAA) that would have forced the replacement of approximately 43 aircraft in the current mix at VNY over five years at a potential cost of approximately \$347 million.
- E. The potential for litigation caused by the adoption of the noise regulation is high and financial exposure significant according to the City Attorney. A 1988 report of the City Attorney indicates that regulation of noise by a local airport operator must reasonably balance the cost burdens imposed upon commerce by the regulation and the nature of the noise reductions to be achieved against achieving the reductions some other way at less cost. As noted above a comprehensive analysis of the economic impacts of the noise regulation to actually evaluate the balance required could not have been included in the Board's deliberations because a comprehensive picture of the economic tradeoffs involved has not been developed. Subsequent informal information provided to us suggests the problem of economic impact is more complex than first believed.
- F. There are approximately 28 master leases at VNY including approximately 13 FBO's. There are more than 100 subleases. Some of these provide that the Department will not impose rules or regulations that would adversely affect the lessees businesses and the "full and free" access to their leaseholds. According to the City Attorney the proposed noise regulation may expose the Airport Revenue Fund to damages for breach of lease covenants. No evaluation, however, has been made.
- G. The FAA has made a preliminary assessment of the proposed noise regulation. In summary the FAA has stated:
- (1) A reasonable range of alternatives has not been considered. Economic impacts could be more serious than warranted by the local problem.
  - (2) Only a more comprehensive analysis of economic and environmental costs and benefits can permit all affected parties to determine if the proposed regulation is a reasonable response to a demonstrated problem.
  - (3) The proposed regulation should be reviewed in light of other available alternatives of the sort required in the Part 150 Study.
  - (4) The concerns of the airport tenants and the community have not been properly addressed in the regulation.

(Findings continued)

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**Comment Letter 13**

NBAA Comments - Attachment A

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- (5) The noise regulation may cause significant spill-over effects including increased operations at LAX.

The FAA letters to the Department and the City Council indicate the Agency understands that economic effects may not be included in the Final Environmental Impact Report (FEIR) under CEQA. There appears no reason, however, not to prepare a separate report. Further, in the review of the FAA, the City has not considered the provisions of the Airport Noise and Capacity Act of 1990 and the interrelated nature of the operating relationship between LAX and VNY and the City's eligibility for noise and other grants and Passenger Facilities Charges (PFC's).

A formal determination by the FAA that the City is not in compliance with the 1990 Act, although perhaps challengeable in court according to the City Attorney, would clearly delay the presently planned five-year PFC program of \$350 million. The uncertainty regarding noise ordinances for Ontario (ONT) and LAX and VNY may have already contributed to the delay of FAA approval of an approximately \$38 million grant to construct the apron of a new terminal at Ontario to be financed in part with PFC funds from both ONT and LAX. The proposed VNY regulation is clearly viewed by the FAA as an integral part of the entire picture.

**5. Conclusion**

We conclude that presentation of the proposed noise regulation for adoption would be premature and not in the best interests of the City, the community or the tenants at VNY. Pending completion of the work to justify the ordinance, we believe the Board should rescind its actions related to approval of the ordinance to eliminate the concerns of the FAA at this time.

  
 B. A. Waitman  
 Principal Administrative Analyst

APPROVED:

  
 Assistant City Administrative Officer

BAW:dbu

19897A43

CAO 649A

**Comment Letter 13**

NBAA Comments - Attachment A

**Comparison Of Part 150 Noise Control Plan (NCP) and Proposed Noise Regulation**

	NCP	Noise Regulation
<b>1. Noise Control Method</b>		
Aircraft Criteria	Based on actual <u>performance</u> at the airport; relies on comprehensive real time noise monitoring system to measure actual noise events.	Based on aircraft FAA, <u>Type</u> , Part 36 Certification noise levels; actual aircraft noise levels could be higher than Part 36 listing depending upon actual performance.
Noise Management Monitoring System	Would require real time sophisticated equipment; benefits beyond monitoring include community complaint response, complaint management, tracking, feedback to aircraft operators, etc.	Does not require real time sophisticated equipment to determine if <u>Type</u> of aircraft complies; anticipates using equipment if installed. Assumes using Part 150 NCP, purpose related to regulation not clear.
Ad Hoc Committee Recommendations	Incorporates all recommendations of Ad Hoc Committee.	No Ad Hoc Committee recommendation in the noise regulation.
Grandfather Clause	Would allow additional "noisy" aircraft to be located on <u>existing</u> airport leaseholds <u>provided they fly quietly per industry and airport standards.</u>	Would <b>not</b> allow non-Type-compliant aircraft on existing or new leaseholds.
New Tenants	Only "quiet" aircraft permitted. (So called Stage 2 non-addition).	Only Type-compliant aircraft permitted.
Preferential Runway	Silent	Nighttime departures on Runway 16 Right; arrivals, 34 Left; weather and traffic permitting, unless under FAA Tower Control to do otherwise.
Tower Message	Would require "fly neighborly" message on departure, subject to FAA cooperation.	Silent.

**Comment Letter 13**

NBAA Comments - Attachment A

New Larger Signs	Many additional signs required to fly neighborly.	Silent.
Helicopter	Preliminary considerations to reduce noise problems.	Silent.
<b>2. Enforcement</b>		
Philosophy	Cooperative commitment by tenant representatives to operate quietly; aircraft operators and associations self-police their performance based on detail information from Department of Airports to achieve mitigation levels.	City ordinance in the Municipal Code. Civil actions by the City Attorney for violation; no commitment to operate quietly.
Noise Officer	Would require Noise Abatement Officer to report directly to VNY Airport Manager who represents the Department on-site.	Noise Abatement Officer at VNY would report to Noise Abatement Officer at LAX.
Penalties	Voluntary compliance, no monetary penalties or loss of operating rights; peer pressure based on <u>actual performance</u> data, public exposure of problem pilots and companies; potential for future ordinance if self-policing ineffective.	Based on Type of aircraft, <u>not actual performance</u> . First violation - up to \$750. Second violation - within one year of first - up to \$1,500. Third violation in three years - up to \$3,500. Problem operator denied use of VNY for three years. Problem aircraft barred for three years. Penalty process not detailed.
<b>3. Predicted Noise Reduction Effect</b>		
Modeled Noise Impact (47% increase in jet operations in five years compared)	Reduces housing units impacted within the 65 CNEL from 1,500 to 378 in 1995. (100% increase in jet operators analyzed.)	Reduces housing units impacted within the 65 CNEL from 1,599 to 121 in 1998. (100% increase in jet operations not analyzed.)

**Comment Letter 13**

NBAA Comments - Attachment A

Impact on VNY Based Aircraft	Would not eliminate any aircraft based on airport, but would require all (noisy and quiet) to fly more quietly to achieve Part 150 Five-Year Forecast NEM.	Silent; relies on rejected Part 150 Study alternative that would eliminate up to 43 of the 100 jet aircraft currently based at VNY to achieve Five-Year NEM. (47% increase in jet traffic modelled; 100% increase not modelled.).
<b>4. Economics</b>		
Equipment Replacement Costs to VNY Tenants	Predicted low cost; would not have to replace aircraft until obsolete, worn out, or required by Federal Regulation. A rejected alternative similar to the noise regulation estimates a cost of approximately \$347 million over five years (based on the value of used Stage 3 aircraft currently based at VNY as replacement for 43 aircraft in the current mix). Interest or new aircraft costs could increase the total.	Silent; debate refers to Part 150 data, not comprehensive.
Lost Business Cost to VNY Tenants	Silent.	Silent.
San Fernando Valley Economic Impact	Silent	Silent
<b>5. Litigation</b>		
Possibility	Because of the support of the community and the backing of aviation interests/tenants, has a low likelihood of litigation.	Has a high likelihood of litigation, formalized legal opposition has formed, preliminary exchanges between attorneys have occurred.
Airport Revenue Fund Risk of Costs and Damages	No significant estimated exposure identified according to the City Attorney.	Not estimated; high likelihood of significant exposure according to the City Attorney.



**Comment Letter 13**

NBAA Comments - Attachment A

**6. Community/Tenant/  
FAA Positions**

Community

Has the support of the Part 150 Steering Committee representing the community, airport tenants, FAA and local elected officials serving on the Committee.

Was rejected by most of the community and VNY tenants causing the Ad Hoc Committee to be formed. Rejected by most Part 150 Steering Committee Members.

Airport Tenants

Support

Reject

FAA

Support

Does not support.

19897A43

**Comment Letter 13**

NBAA Comments - Attachment B

**2014 Noise Contours Before And After The Phase-Out: No Difference!**



## **Response to Comment Letter 13, National Business Aviation Association, Inc.**

### **Response to Comment 13-1**

The NBAA's concern for the project's economic impacts is noted, and this comment will be forwarded to the project decision makers for their consideration. The Draft EIR presents a reasonable and complete analysis of the impacts on the physical environment resulting from the proposed project. Please note that CEQA generally does not require the analysis of a project's economic impacts, and the economic issues raised in this comment do not warrant discussion in the EIR (State CEQA Guidelines Section 15131(a)).

### **Response to Comment 13-2**

This comment correctly summarizes the areas of controversy that arose during the Notice of Preparation scoping process for this project, as presented in Section S.3 of the Draft EIR. This comment's assertion that the Draft EIR "hides" the issue of the project's environmental impacts is incorrect. As noted above in the response to comment 13-1, the Draft EIR presents proper analysis of the project's environmental impacts as required by CEQA (State CEQA Guidelines Section 15126.2(a)). The comment's suggestion that the EIR "ignores" the project's relationship to federal laws is also incorrect, as Section 1.1.1 explains the project's relationship to FAA noise regulations. LAWA will comply with ANCA to the extent required by law.

As to the statement that the EIR "ignores" the project's economic impacts, see the response to comment 13-1 above.

### **Response to Comment 13-3**

LAWA will comply with ANCA to the extent required by law. The comment will be sent to the project decision makers for their consideration; however, no further response is necessary as this comment does not address the project's significant environmental issues or the adequacy of this EIR.

### **Response to Comment 13-4**

LAWA will comply with ANCA to the extent required by law. Please also note that the EIR analyzes the project's environmental impacts at other airports, as required by CEQA, but does not include a "benefit-cost analysis" that is part of the requirements of the Part 161 process as this is not a requirement of the CEQA environmental review process. "Neither CEQA nor the State CEQA Guidelines require that an EIR include studies comparing the project's environmental costs with its benefits...the only direct comparison required in an EIR is the comparison of the project alternatives..., and a cost benefit analysis is not required in making that

comparison.” (Kostka & Zischke, *Practice Under the California Environmental Quality Act* (2d ed Cal CEB, 2008), p. 643-644, § 13.34.)

The comment will be forwarded to the project decision makers for their consideration; however, no further response is necessary as this comment does not address the project’s significant environmental issues or the adequacy of this EIR.

### **Response to Comment 13-5**

As discussed above in the response to comment 13-4, CEQA requires LAWA to analyze potentially significant environmental impacts of the proposed project, not to calculate projected benefits of the project. Nevertheless, the projected benefits within the 65 dB CNEL contour at VNY are presented for informational purposes in Tables 4.2-49, 4.2-50, and 4.2-51, and associated discussion, of the Draft EIR. As discussed in the Draft EIR pages 4.2-36 and 4.2-37, with the implementation of the proposed project, the area within the 65 dB CNEL at VNY is expected to increase by 6.6% in 2014, and the noise levels within the 65 dB CNEL contour are expected to increase by 0.4 dB CNEL, in comparison to baseline. While the project noise exposure in 2014 would be greater than the 2007 baseline noise exposure (Figure 4.2-2), the increase is the result of projected growth in airport activity that would occur independent of the project. Without the implementation of the proposed project (Alternative 1), the area within the 65 dB CNEL at VNY is expected to increase by 13.3%, and noise levels are expected to increase by 0.8 dB.

### **Response to Comment 13-6**

As stated above, the Draft EIR presents a reasonable and complete analysis of the project’s environmental impacts, including impacts at all diversion airports. Consistent with CEQA requirements, the Draft EIR included detailed analysis of impacts in communities surrounding other airports in the Los Angeles region to permit those communities to assess the effect of the proposed project.

### **Response to Comment 13-7**

LAWA will comply with ANCA to the extent required by law. It should also be noted that this comment misquotes the recommendations by the City Administrative officer that were adopted by Mayor Bradley. The Administrative Officer made two similar statements relating to the noise regulations:

*“request the Board to rescind all actions related to the adoption of the proposed noise regulation.”* (Attachment A of the Comment letter page 3), and

“rescind its actions related to the *approval of the ordinance.*”  
(Attachment A of the Comment letter page 9.)

The NBAA’s interpretation of ANCA is noted and will be forwarded to the project decision makers for their consideration. However, no further response is necessary as this comment does not address the project’s significant environmental issues or the adequacy of this EIR.

### **Response to Comment 13-8**

This is a comment directed at LAWA’s airport policies and the merits of the proposed project. Stage 2 aircraft still operate at VNY, which has been clarified in Section 1.1.1 of the Final EIR (see footnote 2). In response to ongoing community concern, LAWA has identified the need to implement the proposed phaseout in order to reduce noise from VNY aircraft operations that is received in the airport’s vicinity. This need is reflected in the initial project objective listed in Section 2.3 of the Draft EIR. The comment is noted and will be forwarded to the project decision makers for their consideration. However, the comment does not specifically address the adequacy of the EIR. Therefore, no additional response is required.

### **Response to Comment 13-9**

See the response to comment 13-4, 13-5, and 13-8 above.

### **Response to Comment 13-10**

The comment refers to the contour comparison in Figure 4 of Appendix B of the Draft EIR, which compares 2014 forecast conditions with and without the proposed project. While the contours are very similar in shape and size, the proposed project contours are slightly smaller and fall entirely within the “Alternative 1, No-Project” contours. The 65 dB CNEL contours north, southeast, and southwest of the airport fall within densely developed areas. To the southeast and southwest, the contours run through many particularly high-density multifamily areas, as shown in the figure. The estimated 158-unit reduction in encompassed dwelling units is based on careful geographic information system (GIS) area analyses applied to field-verified, parcel-by-parcel dwelling unit data. The estimate is slightly conservative because it follows LAWA and FAA practice of counting entire parcels, even if a contour only encompasses a portion of their area. Please also see response to comment 13-5 for additional discussion of the proposed projects benefits.

The comment is noted and will be forwarded to the project decision makers for their consideration. However, the comment does not specifically address the adequacy of the EIR. Therefore, no additional response is required.

### **Response to Comment 13-11**

As discussed above in the response to comment 13-10, the 158-unit reduction is accurate, based on noise-contour analysis and examination of GIS data. CEQA requires LAWA to analyze potentially significant environmental impacts of the proposed project, not to calculate projected environmental or monetary benefits, such as is suggested in this comment. As discussed in the CEQA CEB treatise “a discussion of the project’s potential benefits is not required by CEQA or the State CEQA Guidelines.” (Kostka & Zischke, *Practice Under the California Environmental Quality Act* (2d ed Cal CEB, 2008), p. 643-644, § 13.34.) Additionally, economic considerations are not typically considered under CEQA. (See State CEQA Guidelines Section 15131.) Therefore, such an analysis was not incorporated into the Draft EIR. However a comparison of the proposed project to the No Project Alternative is discussed in response to comment 13-5.

### **Response to Comment 13-12**

Section 4.2.4.3 of the Draft EIR and Section 10 of Appendix B discuss the noise impact at other (e.g. “diversion”) airports; impacts were determined to be less than significant. This comment suggests considering how the project’s benefits may be “offset” by impacts at other airports. Please note that, as discussed in the response to comment 13-4, a specific benefit-cost analysis is not required for inclusion in the EIR for the project.

### **Response to Comment 13-13**

This comment correctly notes that the project’s air quality impacts at VNY would be less than significant (as stated in Section 4.3.5.1 of the EIR), meaning that project-related changes would not increase emissions within the South Coast Air Basin beyond significance thresholds maintained by the South Coast Air Pollution Control District. This comment is also correct in noting that the Draft EIR identified a significant air quality impact at CMA due to project-related emissions at that airport exceeding thresholds established by the Ventura County Air Pollution Control District (see Section 4.3.5.1 of the EIR). However, as noted in the response to comment 8-1 above, the Final EIR has been corrected to remove an error in the diversion assumptions used to quantify air quality impacts. The project is no longer anticipated to exceed the VCAPCD threshold for VOC, though the NOx threshold would still be exceeded.

### **Response to Comment 13-14**

The Draft EIR properly analyzes the environmental impacts associated with the project, and comes to valid conclusions regarding the less-than-significant and significant impacts that would occur at the diversion airports. The environmental analysis presented in the EIR includes a comparison of the proposed project to Alternative 1—the “No Project” Alternative. As stated in Section 5.1.2.1 of the EIR, Alternative 1 would result in greater

impacts at VNY than the proposed project, but lesser impacts at the diversion airports. As discussed above in response to comment 13-1, discussion of economic impacts in the EIR is not warranted.

**Comment Letter 14, Valley Industry & Commerce Association**

November 25, 2008



Ms. Karen Hoo  
Environmental Planning  
Los Angeles World Airports  
7301 World Way West, 3<sup>rd</sup> Floor  
Los Angeles, California 90045

**SUBJECT: DEIR Van Nuys Aircraft Phase-out, SCH#2007101110**

Dear Ms. Hoo:

The Valley Industry and Commerce Association (VICA) is responding to the call for comments for the above referenced DEIR, for two primary reasons.

First, we believe that the 2014 Business Jet Operations forecast is flawed. It overstates community noise impact (the alleged need for the action) and the benefit derived by the proposed action because it significantly overstates the number of operations possible. That overstatement flaw is a result of having conducted the forecast without the requisite analysis of the capacity of airport land to support the number of forecasted operations. In an attached analysis based on the monthly reporting of Operations from the Van Nuys Airport Noise Management Office, it can be seen that, unless there is a dramatic change in the Itinerant/Local Operations Mix, the land required to support the forecasted Total Operations, based on the historic Itinerant/Local Operations mix, is deficient by approximately 75 acres, or an error equal to approximately 64% of the available aircraft basing land. It should be noted that this statement of the error may in itself be understated because it does not include the additional land requirements for support of the growth in Itinerant Operations of Business Jet Aircraft.

14-1

Secondly, we believe that the underlying assumption for the proposed direct Phase-out Program is wholly invalid in its assumption that the proposal is permitted as a Pre-ANCA action. Based on correspondence generated by former Deputy City Attorney Breton Lobner, it was discovered that there was a communication from Mayor Tom Bradley, Transmittal 0220-02766(E), dated December 4, 1992, directing the Board of Airport Commissioners to "implement the recommendations" cited in a Report from the City Administrative Officer dated December 4, 1992, and bearing the CAO file Number 0220-02766(E). The Recommendation of the City Administrative Officer referenced by the Mayor advises, "That the Mayor return the proposed draft noise ordinance... to the Board of Airport Commissioner without action, and request the Board to rescind all actions related to the adoption of the proposed noise regulation..."

14-2



**Comment Letter 14**

DEIR Van Nuys Aircraft Phase-out  
VICA - November 25, 2008  
Page 2

Though the right to act on a Pre-ANCA plan has been argued as the basis for allowing the proposed action, that Grandfathering is eliminated by two key elements:

1. The rescission of all prior requisite Board Resolutions by the Chief Executive of the City, Mayor Bradley.
2. The recognition in the CAO's recommendation, as reinforced by the Mayor's transmittal, that the document returned by the Mayor is a "proposed draft noise ordinance" and thus not fully a "formally initiated regulatory process..."

↑  
14-2  
cont'd

We urge that you will accordingly cease the actions contemplated by the DEIR, and abandon plans for direct implementation of the Aircraft Phase-out.

14-3

Sincerely,



Greg Lippe  
Chairman



Robert L. Rodine  
Vice Chair and Co-Chair  
VICA Aviation Committee

**Comment Letter 14**

2004 Based Business Jet Inventory by Leasehold

Lessee	2004 Aircraft Count	Jet Basing Acreage
Aerolease West	20	10.1952
Air Sources	6	19.4704
Clay Lacy	42	8.077
J&D	12	13.884
Castle & Cooke	27	3.9806
Peterson	12	9.4609
Raytheon	22	12.6215
Schaefer	1	2.4552
Skytrails South	19	5.6847
Southwest	2	2.0751
Thornton	1	1.4896
<b>Total</b>	<b>164</b>	<b>69.3942</b>
<b>Aircraft per Acre</b>		<b>0.5450866</b>

Leaseholds not Supporting Business Aircraft in 2004

Air Center		4.3253
Aerolease East		5.5617
Jet Center	1	7.285
Skytrails North	3	11.6225
<b>Total Added Acres</b>		<b>28.7945</b>
<b>Total Acres for Basing Aircraft</b>		<b>118.1887</b>

Local Operations                      6963    Local Ops per Acre                      77.890959

SH&E Forecasted Business Jet Ops at 2014                      83,449  
 Itinerant %                      0.82                      68,428  
 Local %                      0.18                      15,021  
 Local Ops/Acre                      77.890959  
 Total Acres to Support Ops                      192.84651

**Comment Letter 14**

VNY Noise Study Based Departures

Noise Study Data - Raw Departures

1	2000	11022
2	2001	11943
3	2002	14892
4	2003	14831
5	2004	16414
6	2005	18467
7	2006	18417
8	2007	17830
9	2008	8025

Twelve Month Southbound Departure Totals Adjusted for Missing Monthly Data

1	2000	12024
2	2001	13029
3	2002	14892
4	2003	14831
5	2004	16414
6	2005	18467
7	2006	18417
8	2007	17830
9	2008	16050

Adjusted 12 Month North and Southbound Departure Totals 85.0% =Southbound

1	2000	14148
2	2001	16328
3	2002	17520
4	2003	17566
5	2004	19311
6	2005	21726
7	2006	21667
8	2007	20976

VNY Analysis of Operations

Adjusted 12 Month North and Southbound Operations = Departures2 Totals

1	2000	28282	8527	19765	13877	8527	22204	6088	28282	
2	2001	30656	10769	19867	13762	10769	24531	6125	30656	
3	2002	35040	16408	18632	12893	16408	28301	5739	35040	
4	2003	35132	13931	21201	14671	13931	28602	6530	35132	
5	2004	38622	16016	22608	16643	16016	31659	6963	38622	
6	2005	43452	15281	28171	19494	15281	34775	8677	43452	
7	2006	43334	16157	27177	18806	16157	34963	8371	43334	
8	2007	41852	15840	26012	18000	15840	33840	8012	41852	
2004 Percentage Mix										
									82.0%	100.0%
									18.0%	100.0%

Comment Letter 14

VNY Traffic History  
Total Airport Traffic Record

Year	Intercarrier			Intracarrier			Local			Total All
	Air Charter	Air Taxi	Gen. Av.	Air Taxi	Gen. Av.	Military	Civil	Military	Total	
2000	0	8527	335081	491	344099	164	139102	166	141850	483365
2001	0	10769	303575	584	314928	36	141684	166	155420	456778
2002	0	16408	326291	322	343021	38	155420	86	146698	498477
2003	0	13931	299478	429	313838	86	146612	46	134714	460736
2004	0	16016	297658	247	313921	252	114766	16	114782	448681
2005	0	15281	280524	316	283027	254	112148	70	112216	410839
2006	0	16157	266554	254	265561	24	109470	24	109494	375055
2007	0	15940	249367	168	237621	168	101034	44	101078	338699
2008	0	9823	227630							

Key Data Summary

Year	Intercarrier			Local			Total All	% of Total All
	Air Taxi	Gen. Av.	Total	Civil	Military	Total		
2000	8527	335081	343608	139102	164	139102	28.8%	
2001	10769	303575	314344	141684	36	141684	31.1%	
2002	16408	326291	342699	155420	86	155420	31.2%	
2003	13931	299478	313409	146812	46	146812	31.9%	
2004	16016	297658	313674	134714	16	134714	30.0%	
2005	15281	280524	295805	114766	70	114766	28.0%	
2006	16157	266554	282711	112148	24	112148	28.4%	
2007	15940	249367	265307	109470	24	109470	29.2%	
2008	9823	227630	237453	101034	44	101034	29.8%	

Year	Intercarrier			Local			Total All	Percentage
	itin	Gen. Av.	Total	Local	Civil	Total		
2000	335081	139102	474183	0.707	0.293	0.293	30.8%	
2001	303575	141684	445259	0.682	0.318	0.318		
2002	326291	155420	481711	0.677	0.323	0.323		
2003	299478	146812	446290	0.671	0.329	0.329		
2004	297658	134714	432372	0.688	0.312	0.312		
2005	280524	114766	395290	0.71	0.29	0.29		
2006	266554	112148	378702	0.704	0.296	0.296		
2007	249367	109470	358837	0.695	0.305	0.305		
2008	227630	101034	328664	0.693	0.307	0.307		

Nine Year Itin/Local Percentages

**Comment Letter 14**

**BACKGROUND REPORT**

**TECHNICAL APPENDICES**

**VAN NUYS AIRPORT  
MASTER PLAN**

**JANUARY, 1995**

*SEE PAGE  
18*

**CITY OF LOS ANGELES  
DEPARTMENT OF AIRPORTS**

## Comment Letter 14

## A. Meteorological Conditions

Ceiling and visibility greatly affect air traffic flow. "Ceiling" is defined as "the height above the ground of the base of the lowest layer of cloud below 20,000 feet covering more than half the sky". When visibility is equal to or greater than three statute miles and the ceiling is equal to or greater than 1,000 feet, aircraft may operate under visual flight rules (VFR). If either the ceiling or the visibility falls below these specified minimums, aircraft using the airport must operate under Instrument Flight Rules (IFR). During Instrument Meteorological Conditions (IMC) runway capacity is greatly reduced as IFR separations standards are significantly greater than those used during VFR conditions. IMC weather conditions at Van Nuys Airport are estimated to occur less than nine percent of the time.

The winds at Van Nuys usually favor the use of Runways 16L and 16R. According to the *Van Nuys Airport Layout Plan Wind Rose* the winds at Van Nuys Airport are calm or up to three knots 52.6 percent of the time. During these conditions the tower uses Runways 16L and 16R. It is estimated that these runways are used 85 percent of the time. There are winds between three and 21 knots approximately 46.6 percent of the time. With any winds above three knots the tower changes the flow of traffic to Runways 34L and 34R. There are winds 21 knots and over approximately 0.7 percent of the time and winds 27 knots and over 0.1 percent of the time.

## B. Runway Use Requirements

Runway use is expressed in terms of the number, location, and orientation of active runways. It involves directions and kinds of operations using each runway. The adequacy of the existing runway system was analyzed from a number of perspectives including airfield capacity, runway orientation, runway length, and pavement strength. As Van Nuys has two runways, usage is calculated to each end of each runway.

The runways at Van Nuys Airport run north and south and are designated as runways 16L-34R and 16R-34L. Runway 16L-34R is used approximately ninety percent of the time while Runway 16R-34L is used approximately ten percent of the time.

The ultimate runway length will determine the types of aircraft that will be able to operate at Van Nuys Airport. Runway length requirements are based upon four primary factors:

- The types of aircraft expected to use the runway.
- The mean maximum daily temperature of the hottest month.
- The airport elevation.

## **Response to Comment Letter 14, Valley Industry & Commerce Association**

### **Response to Comment 14-1**

Comparisons between forecasts of future activity and past levels of activity at VNY do not support the opinion stated in this comment that VNY has insufficient space to accommodate the projected growth. The forecast used in environmental review of this project shows operations increasing without project implementation from approximately 314,000 in 2007 to approximately 386,000 in 2014 (see Tables 4.2-3 and 4.2-6 of the Draft EIR and Tables 4 and 17 of Appendix B). The number of operations forecast for 2014 is only slightly higher than the 2004 level (380,000 operations) and is well below the number of operations that VNY handled during the late 1990s (for example, operations exceeded 598,000 in 1999). Because VNY has handled a greater level of operational traffic in the past, there is no reason to assume that the airport cannot handle the lesser level of traffic suggested in the EIR's forecasts.

### **Response to Comment 14-2**

LAWA will comply with ANCA to the extent required by law. This comment will be forwarded to the project decision makers for their consideration; however, no further response is necessary as this comment does not address the project's significant environmental issues or the adequacy of this EIR.

### **Response to Comment 14-3**

The VICA's opposition to the project is noted, and this comment will be forwarded to the project decision makers for their consideration.

Comment Letter 15: Jonathan Bilski

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**From:** Jonathan Bilski [mailto:paulrelca@gmail.com]  
**Sent:** Tuesday, December 02, 2008 1:52 PM  
**To:** VNYPhaseoutair  
**Subject:** this is a horrible plan

I live near the the Burbank airport and I don't need more noise in my day. Trying to study and do work with constant noise is a huge hindrance in my concentration. I live right near a school, I'm sure the kids would enjoy hearing constant airplanes going over them while the learn, not. Van Nuys should keep it's own load of planes. I worry about safety since Van Nuys air port will be sending it's private owned planes, I remember in the news how one of those fell on someones house and almost killed the family. I also read in the Daily News most of the planes would just be differed to Burbank instead of the the other two air ports proposed, that's just wrong.

I'm against this phase out plan.

Don't do it!

15-1



## **Response to Comment Letter 15: Jonathan Bilski**

### **Response to Comment 15-1**

This comment's opposition to the project is noted. The Draft EIR presents a reasonable and complete analysis of the environmental impacts resulting from the proposed project at the identified diversion airports. Though the EIR does acknowledge that the project would result in slightly higher noise levels and additional single-event noise occurrences at BUR, these impacts are determined to be less than significant. Section 4.1.6 of the Draft EIR discusses the hazards-related impact due to the slight increase in number of operations at the diversion airports. Because of the limited number of flights and the extremely low potential for accidents due to these shifted operations, this impact is considered less than significant.

Furthermore, please also note that the ordinance at issue in this EIR does not explicitly propose to divert aircraft to BUR or any other airport. The EIR's conclusion that project-related aircraft operations would divert to BUR is the result of assumptions by qualified professionals based on driving times between BUR and VNY, BUR runway length and width, and operating convenience (potential for flight delays) at BUR. While LAWA stands behind the analysis presented in the EIR, including the conclusion that project-related aircraft would divert to BUR, it should be noted that there is no explicit guarantee that project-related aircraft would do so.

**Comment Letter 16: David Howell**

**From:** David Howell [mailto:dr.daytona@sbcglobal.net]  
**Sent:** Monday, December 01, 2008 9:27 AM  
**To:** VNYPhaseoutair  
**Subject:** Noise Battle between Burbank Airport and Van Nuys Airport

Regarding your article " Airports in a Dog fight over Jet Noise", December 1, 2008:  
Having lived in the Burbank Flight Path for more than twenty years it strikes me as  
strange that residents in Van Nuys are "squabbling" over who gets what, and when.

16-1

The easy way to decide is quite clear.....establish curfews within FAA Guidelines  
and assign them to both locations.

If Van Nuys and Burbank can not / will not agree on an acceptable solution to limit their number  
of flights, then take action to limit the increase in ambient noise levels by means of structural  
improvements, and sound deadening.

16-2

Burbank's Noise Abatement Program works.

I was one of the first to experience the dramatic improvement in the reduction of flight noise.

I also benefit from greater insulation, resulting in lower heating and cooling costs, and an  
overall improvement in my stress-levels and sleep.

The Burbank Airport Authority has spent many years and millions of dollars to improve upon the  
local resident's way of life. It has been money very well spent.

No one wants increased traffic.

16-3

Especially someone such as myself that lives so near the airport.

But, the truth of the matter is this.....if you don't like airplanes, constant flights,  
associated commuter traffic, and monetary growth.....don't live near an airport.  
Complaining about increases in noise and congestion is like bitching to Cal-Trans  
about too much traffic on the Ventura Freeway.

Venting may relieve your tension, but the fix is only momentary.

David M. Howell  
1720 North Clybourn Avenue  
Burbank, CA. 91505-1702  
(818)406-2353

## **Response to Comment Letter 16: David Howell**

### **Response to Comment 16-1**

This comment is noted and will be forwarded to the project decision makers for their consideration. This is a comment directed at LAWA's airport policies, and it does not specifically address the project's significant environmental issues or the adequacy of the EIR. Therefore, no response is required.

### **Response to Comment 16-2**

This comment is noted and will be forwarded to the project decision makers for their consideration. This does not specifically address the project's significant environmental issues or adequacy of the EIR, nor would the suggestions in the comment letter reduce or avoid significant air quality impacts at CMA and WJF. Please note that, as discussed in Section B.5.3.1 of Appendix B, LAWA has established an Airport Noise Mitigation Program at VNY to install sound insulation on existing incompatible land uses within the 65 dB CNEL contour. Section 4.2.4 of the Draft EIR discusses the estimated area within which sound installation measures are required, and how the project would affect the projected increase in that area (see Table 4.2-50 and preceding text).

### **Response to Comment 16-3**

This comment is noted and will be forwarded to the project decision makers for their consideration. This comment does not specifically address the project's significant environmental issues or the adequacy of the EIR. Therefore, no response is required.

**Comment Letter 17: Brenda Karczag**

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**From:** BKarczag@aol.com [mailto:BKarczag@aol.com]  
**Sent:** Monday, December 01, 2008 4:19 PM  
**To:** VNYPhaseoutair  
**Subject:** (no subject)

I moved here 10 years ago and they sent us letters saying that there would be no aircraft flying over our homes between 10 pm and 7 am. That is a boldface lie and those people allowing all that noise waking us up at 5:30 in the morning should be ashamed and lose their jobs. When we moved here there were no commercial flights out of Van Nuys and now they have reneged on their promises and caused our homes to be inflicted with all this noise pollution. What ever happened to quiet enjoyment of our homes? Send those planes back to LAX where they belong and return our homes and neighborhoods to peace. I would love to hear from someone what they are doing about this.  
Brenda Karczag  
818-360-9707

**17-1**

## **Response to Comment Letter 17: Brenda Karczag**

### **Response to Comment 17-1**

This comment is noted and will be forwarded to the project decision makers for their consideration. This is a comment directed at LAWA's airport policies, and it does not specifically address the project's significant environmental issues or the adequacy of the EIR. Please note that the project does not propose a curfew but a phased-in round-the-clock ban on noisier jets at VNY that is intended to reduce noise levels in the vicinity of the airport.

**Comment Letter 18: Richard & Toni Olivarez**

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**From:** cadcounselor@aol.com [mailto:cadcounselor@aol.com]  
**Sent:** Monday, December 01, 2008 10:35 AM  
**To:** VNYPhaseoutair  
**Subject:** Comment

As a longstanding Valley resident of Van Nuys, and while residing 1-200 yards away from the airport, I must say, the airport noise is continuously quite annoying on a daily basis, I am speaking of 24 hours 7 days a week. I will spare the impacting details of how it's made my life. Although, like many residents, who feel powerless over the *have's* and the *have's not's* especially when it comes down to any type of representation (voice). I would like to say, while the Burbank, Van Nuys the FAA and all thee other acronyms involved situate a resolution. May I suggest that those involved offer to compensate those residents mental anguish of noises disrespectfully given by the Van Nuys Airport, to purchase and install shatter/sound proof windows to those residents like myself who continue to bare with the stubborn disagreements, and inconsideration's of aviation ignorant needs.

18-1

18-2

Please help us seek out some serenity in our daily lives while residing in Van Nuys, CA. Thank you.

Sincerely,

Richard & Toni Olivarez  
6847 Haskell Ave. #6  
Van Nuys, CA 91406  
818-381-2084

## **Response to Comment Letter 18: Richard & Toni Olivarez**

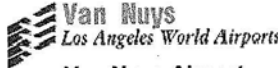
### **Response to Comment 18-1**

This comment is noted and will be forwarded to the project decision makers for their consideration. The project proposes a phased-in ban on noisier aircraft at VNY that is intended to reduce noise levels in the vicinity of the airport.

### **Response to Comment 18-2**

As discussed in Section B.5.3.1 of Appendix B, LAWA has established an Airport Noise Mitigation Program at VNY to install sound insulation on existing incompatible land uses within the 65 dB CNEL contour, including residences. Section 4.2.4 of the Draft EIR discusses the estimated area within which sound installation measures are required, and how the project would affect the projected increase in that area (see Table 4.2-50 and preceding text).

Comment Letter 19: Daniel Prisk

  
**Van Nuys Airport**  
**Public Meeting for the Noisier Aircraft Phaseout Project Draft EIR**  
 Public Meeting  
 October 7, 2008  
 VNY Fly Away 7610 Woodley Avenue, Van Nuys

'08 NOV 12 PM 4:52  
CB

Date 11-08-08 Name Daniel Prisk

Address 16648 Calabran City Alhambra Hills Zip 91343

Phone (optional) 818-266-8764 Email (optional) DRP345@AOL.com

**Comments:**  
 Please only make comments regarding the content of the Draft EIR being prepared for the potential Noisier Aircraft Phaseout Project at Van Nuys Airport (VNY). The project being evaluated in this EIR is separate from the ongoing Part 161 Study at VNY. If you would like to provide comments on the VNY Part 161 Study or other noise-related issues, please visit either the VNY Part 161 website at [www.VNYPart161.com](http://www.VNYPart161.com) or the Los Angeles World Airports (LAWA) website at [www.lawa.org](http://www.lawa.org). Thank you.

There seems to be little if any concerns on the noise aircraft that land at Van Nuys. Maybe there needs to be a mini elevation instead of Tier Top High Full Throttle Ahead. This Area is Aircraft out of Control.

Thanks

**Submit Comments by November 17, 2008 to:**  
 Karen Hoo  
 Los Angeles World Airports  
 7301 World Way West, 3<sup>rd</sup> Floor  
 Los Angeles, CA 90045  
 (Fold this sheet in thirds with the address on reverse side showing. Add a stamp and send.)  
 or submit comments on the study website: [www.lawa.org/vny/vnyEnvironment.cfm](http://www.lawa.org/vny/vnyEnvironment.cfm)



## **Response to Comment Letter 19: Daniel Prisk**

### **Response to Comment 19-1**

This comment is noted and will be forwarded to the project decision makers for their consideration. The project proposes a phased-in ban on noisier jets at VNY that is intended to reduce noise levels in the vicinity of the airport.

**Comment Letter 20: Ernie Scarcelli**

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**From:** Ernie Scarcelli [mailto:ooonsy@roadrunner.com]  
**Sent:** Monday, December 01, 2008 2:02 PM  
**To:** VNYPhaseoutair  
**Subject:** Airports, jet noise, etc

**We strongly agree that night curfews must be in order at both airports and that the airports should stop fussing with each other.**

**20-1**

**After the curfews are in place, allow each airport to deal with aircraft at their respective sites.**

**We live along the Sherman Way corridor and the night landings into Burbank constantly interfere with our sleep and peace of mind.**

**Ernest/Mary Scarcelli  
13821 Cantlay St.  
Van Nuys 91405**

## **Response to Comment Letter 20: Ernie Scarcelli**

### **Response to Comment 20-1**

This comment is noted and will be forwarded to the project decision makers for their consideration. This is a comment directed at LAWA's airport policies, and it does not specifically address the project's significant environmental issues or adequacy of the EIR. Please note that the project does not propose a curfew but a phased-in ban on noisier jets at VNY that is intended to reduce noise levels in the vicinity of the airport. The project's noise impacts at the identified diversion airports, including BUR, are discussed in Section 4.2.4 of the Draft EIR, and noise impacts were determined to be less than significant.

**Comment Letter 21: Phil Sheeran**

From: Phil Sheeran [mailto:sheerguitar@me.com]  
Sent: Monday, December 01, 2008 4:56 PM  
To: VNYPhaseouteir  
Subject: Van Nuys Airport's Phaseout plan

Just read about Van Nuys Airport's Phaseout plan. I live in North Hollhywood and object to any new (Loud) aircraft being diverted to Bob Hope Airport.

**21-1**

We have too much noise as it is!!!! WE DON'T WANT MORE NOISE!!!

I do support a Valley Wide Ban on all aircraft at night and sending older, noisy planes farther outside the city.

Phil Sheeran,  
North Hollywood, 91601

## **Response to Comment Letter 21: Phil Sheeran**

### **Response to Comment 21-1**

The commenter's opposition to the project is noted. The project's noise impacts at the identified diversion airports, including BUR, are discussed in Section 4.2.4 of the Draft EIR, and noise impacts were determined to be less than significant. Please also note that, as shown in Table 2-5 of the Draft EIR, the proposed project would divert an estimated 0.5 aircraft per day to BUR in the peak diversion year of 2014.

**Comment Letter 22: Rita Zlotorynski**

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**From:** Rita Zlotorynski [mailto:ritazlot@gmail.com]  
**Sent:** Monday, December 01, 2008 9:31 AM  
**To:** VNYPhaseoutair  
**Subject:** noise at VN airport

I have lived in the North Hills area for 35 years. The noise at the VN airport has been increasing over the years. We have been trying to stop the nosier planes for a very long time. WE DO NOT want to have to put up with the planes from Burbank. We have a right to some peace and quiet in our homes. There should be a curfew at night for all of the airports. There is no reason to land a plane at night except for an emergency. We had to spend ten thousand dollars to put in new windows just to cut out some of the noise. That is not right. What about those who are unable to change their window? They have a right to sleep at night. They have a right to be able to watch TV without interruption from the noisier planes. We need to phase out the nosier jets and add a curfew.

22-1

Thank you, rita zlotorynski

## **Response to Comment Letter 22: Rita Zlotorynski**

### **Response to Comment 22-1**

This comment is noted and will be forwarded to the project decision makers for their consideration. The project proposes a phased-in, round-the-clock ban on noisier jets at VNY that is intended to reduce noise levels in the vicinity of the airport. The project does not propose a curfew at VNY, but LAWA will continue to consider the merits of instituting such a program separate from the consideration of approval for the proposed project at issue in this EIR. Please also note that the project would not result in aircraft operations shifting from BUR to VNY.

## Comment Letter 23: [No Signature]

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**From:** TERRTHER97@aol.com [mailto:TERRTHER97@aol.com]  
**Sent:** Monday, December 01, 2008 7:36 AM  
**To:** VNYPhaseoutair  
**Subject:** Van Nuys Airport Noise

This is being written in regards to the noise generated at all hours from planes landing at Van Nuys Airport. I bought a home last year that is near the intersection of Hayvenhurst and Lassen, which is in the flight pattern for Van Nuys Airport. Perhaps I thought that the noise would be from small planes landing, like it was when I was growing up in the Valley. Never did I expect to be woken up nightly, by jets that appear to be the size of 747s, or privately owned jets coming in at ridiculous hours. When I am jolted out of sleep, the noise is so loud, that it often prevents me from returning to sleep. I often then count the number of large and loud planes that are landing, and one recent morning at 3 a.m., I counted 6 separate planes landing within half an hour. I seriously doubt that these were used for any type of emergency situation, as I was lead to understand would be the only reason they would use the airport at that time. I write this appealing to those who have control of this situation. Please institute a real curfew for landings and take-offs from Van Nuys Airport. It disrupts the sleep of many, and poses a threat to all who live in the area. This situation has gotten out of control, and when I hear that Burbank Airport is trying to divert planes to Van Nuys, I can't help but wonder what will be next. We citizens have had enough, and it is time for someone to take action. Those who make these decisions need to spend a few night waking up at all hours to what sounds like planes landing on their roof. I guarantee that changes would happen then.

23-1



## **Response to Comment Letter 23: [No Signature]**

### **Response to Comment 23-1**

This comment is noted and will be forwarded to the project decision makers for their consideration. The project proposes a phased-in, round-the-clock ban on noisier jets at VNY that is intended to reduce noise levels in the vicinity of the airport. The project does not propose a curfew at VNY, but LAWA will continue to consider the merits of instituting such a program.





*Los Angeles  
World Airports*

