



## **Appendix H – General Responses to Public Comments**

### **2018 Amendments to the HUULL, IRNMN, and RYDRR Arrival Routes**

#### **Los Angeles International Airport Los Angeles, California**

Prepared by:

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## Introduction

The purpose of this document is to provide the public with topical responses to comments received on the draft environmental review for the May 2018 amendments to three area navigation (RNAV) arrival routes at Los Angeles International Airport (KLAX). The FAA originally established the arrival routes as a part of the 2016 Southern California Metroplex project (SoCal Metroplex project), specifically as the HUULL ONE ARRIVAL (RNAV) (HUULL ONE), IRNMN ONE ARRIVAL (RNAV) (IRNMN ONE), and RYDRR ONE ARRIVAL (RNAV) (RYDRR ONE). The FAA implemented amendments in May 2018 and the arrival routes were up-numbered to the HULLL TWO ARRIVAL (RNAV) (HUULL TWO), IRNMN TWO ARRIVAL (RNAV) (IRNMN TWO), and the RYDRR TWO ARRIVAL (RNAV) (IRNMN TWO) as a result of publication. The May 2018 amendments incorporated in the HUULL TWO, IRNMN TWO, and RYDRR TWO procedures comprise the Action considered in this environmental review.

The FAA received a total of ten public comments in the form of emails and letters. The public comments were reviewed and grouped into ten general categories as presented in the Public Comments Summary Table (next page). The FAA's general responses to these comments are provided in the corresponding sub-sections below. Each topic includes general definitions pertaining to its subject matter. Refer to the final environmental review for the FAA's analyses.

In addition to the topical responses provided in this appendix, the following supplemental analyses and consultation activities were conducted based on the substantive public comments received, and are included in the final environmental review as follows:

- Consultation with the City of Malibu under Section 106 (see section 4.2.5) and Section 4(f) (see Section 4.2.8)
- Supplemental socioeconomics and environmental justice analysis (see Section 4.2.12)
- Supplemental Section 106 and Section 4(f) resources review (see Sections 4.2.5, 4.2.8, and Appendix F)
- Supplemental noise modeling report (see Section 4.2.11 and Appendix G)

**Public Comments Summary Table**

<b>Tracking Number</b>	<b>Date</b>	<b>Location of Concern</b>	<b>Applicable Responses Addressing Comments</b>
1	10/10/2023	Studio City	2, 5, 7, 8, 9
2	10/10/2023	Studio City	2, 5, 7, 8, 9
3	10/30/2023	A community in the area between DAHJR and GADDO, Los Angeles	1, 2, 3, 4, 5, 8, 9, 10
4	10/31/2023	Jefferson Park, Los Angeles	2
5	11/1/2023	Culver City	2, 3, 4, 6, 8, 9
6	11/1/2023	Jefferson Park, Los Angeles	1, 2
7	11/1/2023	Not specified	1, 2, 3, 4, 7, 8, 9, 10
8	11/1/2023	Malibu	1, 2, 3, 4, 7, 8, 9, 10. CATEX Sections 4.2.5 and 4.2.8.
9	11/1/2023	Los Angeles	2, 3, 4, 8, 9, 10
10	12/14/2023	City of Malibu	1, 2, 3, 4, 8

## 1. Air Quality

### General Definition

Air quality is the measure of the condition of the air expressed in terms of ambient pollutant concentrations and their temporal and spatial distribution. Air quality regulations in the United States are based on concerns that high concentrations of air pollutants can harm human health, especially for children, the elderly, and people with compromised health conditions, as well as adversely affect public welfare by damage to crops, vegetation, buildings, and other property.

The study area for air quality should be defined as the entire geographic area that could be either directly or indirectly affected by the proposed project. For example, air quality impacts from construction may be limited to a project site and immediate adjacent areas. However, air quality impacts from operations (e.g., aircraft flight) may extend beyond a project site and immediately adjacent areas and extend vertically up to the mixing height. Dispersion of air pollutants can be affected by meteorology, topography, the type of pollutant, and other factors. In addition, a federal action can lead to air pollutant emissions that may occur at some distance from a project site, such as exhaust from project-generated vehicle traffic on the surrounding road network. Therefore, the study area for a project's air quality analysis could encompass many square miles and/or multiple air basins.

The General Conformity Rule for air quality establishes the procedures and criteria for determining whether certain federal actions conform to state or Federal (United States Environmental Protection Agency [EPA]) air quality implementation plans. Hence, the General Conformity Rule is only considered when a federal action is proposed to occur in an area designated by the EPA as a nonattainment or maintenance area for specific air pollutants. To determine whether conformity requirements apply to a proposed action, the FAA considers the following:

- The nonattainment or maintenance status of the area
- Emissions budget
- Exemptions from conformity
- FAA-specific activities that are presumed to conform (72 *Federal Register* 41565–41580 [July 30, 2007])
- Response to emergency or disaster

According to FAA Order 1050.1F, Exhibit 4-1, an emissions impact is significant if “[t]he action would cause pollutant concentrations to exceed one or more of the National Ambient Air Quality Standards, as established by the EPA under the Clean Air Act, for any of the time periods analyzed, or to increase the frequency or severity of any such existing violations.”

Under Section 176(c)(4) of the Clean Air Act (42 U.S.C. § 7506(c)) and EPA regulations at 40 CFR Parts 51 and 93 (commonly referred to as the General Conformity Rule), the FAA must ensure that its activities do not cause or contribute to new violations of the National Ambient Air Quality Standards, worsen existing violations of the National Ambient Air Quality Standards, or

delay attainment of the National Ambient Air Quality Standards. When developing the General Conformity Rule, the EPA recognized that many actions conducted by federal agencies do not result in substantial increases in air pollutant emissions in nonattainment and maintenance areas. Therefore, the EPA established threshold levels (also referred to as de minimis levels) for emissions of each of the criteria pollutants. When the sum of the increases from the direct and indirect emissions of a project would be less than the de minimis levels, a project would not require a general conformity determination.

The General Conformity Rule also allows federal agencies to develop a list of actions that are presumed to conform to a State Implementation Plan. This can be done by clearly demonstrating that the total direct and indirect emissions from these types of activities would not cause or contribute to any new violation of any standard in any area; interfere with provisions in the applicable State Implementation Plan for maintenance of any standard; increase the frequency or severity of any existing violation of any standard in any area; or delay timely attainment of any standard or any required interim emission reductions or other milestones in any area, including emission levels specified in the applicable State Implementation Plan. Alternatively, federal agencies can establish actions that are presumed to conform by providing documentation that emissions from these types of actions are below the applicable de minimis levels.

The FAA published a list of *Presumed to Conform* activities in the Federal Register on July 30, 2007. That list exempts the conformity determination requirement from all “Air Traffic Control Activities and Adopting Approach, Departure and Enroute Procedures for Air Operations.” The exemption does not only apply above the “mixing height” (generally 3,000 feet above ground level [AGL]). The Federal Register notice explains that longstanding research indicates that any operations above 1,500 feet AGL have “little if any effect on emissions and ground concentrations.” Operations at that low altitude are tightly constrained by any number of factors. “Accordingly, air traffic actions below the mixing height are also presumed to conform when modifications to routes and procedures are designed to enhance operational efficiency, increase fuel efficiency, or reduce community noise impacts by means of thrust reductions.” Ibid.

The FAA received comments pertaining to air quality impacts. Commenters specifically mentioned pollution and particulate matter.

### **Topical Response**

The FAA prepared the appropriate level of environmental analysis for the Action in accordance with the National Environmental Policy Act (NEPA) under the Council on Environmental Quality Regulations and FAA Order 1050.1F. The air quality evaluation in Section 4.2.1 of the final environmental review document discusses the existing air quality conditions and possible impacts from the Action within the study area. Typically, significant air quality impacts would be identified if an action would result in the exceedance of one or more of the National Ambient Air Quality Standards, established by the EPA, for any time period analyzed. According to FAA Order 1050.1F, Exhibit 4-1, an emissions impact is significant if “[t]he action would cause pollutant concentrations to exceed one or more of the NAAQS, as established by the EPA under the Clean Air Act, for any of the time periods analyzed, or to increase the frequency or severity of any such existing violations.”

The FAA determined that project-related aircraft emissions released into the atmosphere below the “mixing height” (generally 3,000 feet AGL) can be presumed to conform when modifications to routes and procedures are designed to enhance operational efficiency (i.e., to reduce delay), increase fuel efficiency, or reduce community noise impacts by means of engine thrust reductions.

More specifically, the Action would not affect the number or type of aircraft operations in the study area, or the time aircraft spend below the mixing height. The Action is limited to minor amendments to existing flight procedures and does not increase flight time or route lengths. See Section 1 of the final environmental review for a thorough description of the Action. All of the changes that are part of the Action are at or above 3,000 feet AGL. As a result, it would not change the total emissions of air pollutants below the mixing height. The Action is presumed to conform because the amendments are intended to enhance operational efficiency.

Greenhouse gases are naturally occurring and man-made gases that trap heat in the earth's atmosphere. The potential effects of proposed greenhouse gas emissions are by nature global and cumulative impacts. An appreciable impact on global climate change would only occur when proposed greenhouse gas emissions combine with greenhouse gas emissions from other human-made activities on a global scale. According to the EPA, the General Accounting Office in 2009 reported that domestic aviation contributed approximately three percent of total national carbon dioxide emissions. Similarly, in its 2010 Environmental Report, the International Civil Aviation Organization estimated that aviation accounted for approximately three percent of all global carbon dioxide emissions resulting from human activity. The FAA considers carbon dioxide emissions from aircraft to be the primary greenhouse gas of concern.

There are currently no accepted methods of determining significance applicable to aviation projects given the small percentage of emissions they contribute, nor has the FAA identified specific factors to consider in making a significance determination for greenhouse gas emissions.

The estimated level of greenhouse gas emissions can serve as a reasonable proxy for assessing potential climate change impacts. Because the Action does not increase flight time or route length, aircraft emissions will not change, and the Action would not have an appreciable effect on climate change. Therefore, cumulative impacts to global climate change from implementation of the Action would be less than significant. Furthermore, the Action is covered by the Presumed to Conform notice. Because it is presumed to conform under the General Conformity Rule, there are no significant air quality effects under NEPA.

## 2. Noise

### **General Definition**

Sound is a physical phenomenon consisting of pressure fluctuations that travel through a medium, such as air, and are sensed by the human ear. Noise is considered unwanted sound that can disturb routine activities (e.g., sleep, conversation, student learning) and can cause annoyance. Aviation noise primarily results from the operation of fixed and rotary wing aircraft, such as departures, arrivals, overflights, taxiing, and engine run-ups. Noise is often the predominant aviation environmental concern of the public. Aircraft noise in communities around airports has historically generated most of the noise issues. There are increasing concerns in suburban and rural areas farther from airports where ambient noise is lower than it is in the more urbanized areas that tend to surround many commercial service airports. There are also special noise sensitivities with respect to certain resources such as national parks.

The compatibility of existing and planned land uses with proposed aviation actions is usually determined in relation to the level of aircraft noise. Federal compatible land use guidelines for a variety of land uses are provided in Table 1 in Appendix A of 14 CFR Part 150, *Land Use Compatibility with Yearly Day-Night Average Sound Levels*.

For aviation noise analyses, the FAA has determined that the cumulative noise energy exposure of individuals to noise resulting from aviation activities must be established in terms of Day Night Average Sound Level (DNL), the FAA's primary noise metric. DNL accounts for the noise levels of all individual aircraft events, the number of times those events occur, and the period of day/night in which they occur.<sup>1</sup> Both noise metrics logarithmically average aircraft sound levels at a location over a complete 24-hour period, with a 10 decibel (dB) adjustment added to those noise events occurring from 10:00 p.m. and up to 7:00 a.m. the following morning. The 10 dB adjustment has been added because of the increased sensitivity to noise during normal nighttime hours and because ambient (without aircraft) sound levels during nighttime are typically about 10-dB lower than during daytime hours.

All of the public comments received included comments related to noise impacts.

### **Topical Response**

The noise and noise compatible land use for noise evaluation in Section 4.2.11 of the final environmental review outlines noise and land use compatibility criteria applicable to the evaluation of noise impacts. The compatibility of existing and planned land uses with aviation actions is usually determined in relation to the level of aircraft noise by comparing the DNL values to the land use compatibility guidelines in 14 CFR, Part 150. DNL is the FAA's required noise metric for the assessment of aircraft noise and was adopted through 14 CFR Part 150 to meet the provisions of the Aviation Safety and Noise Abatement Act of 1979.

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<sup>1</sup> **Average Sound Level** means the level, in decibels, of the mean-square, A-weighted sound pressure during a specified period, with reference to the square of the standard reference sound pressure of 20 micropascals. **Day-Night Average Sound Level (DNL)** means the 24-hour average sound level, in decibels, for the period from midnight to midnight, obtained after the addition of ten decibels to sound levels for the periods between midnight and 7 a.m., and between 10 p.m., and midnight, local time. **Yearly Day-Night Average Sound Level (YDNL)** means the 365-day average, in decibels, of the day-night average sound level.

14 CFR, Part 150, identifies a DNL level of 65 dB and below as compatible with residential and most other uses. The DNL does not measure sound as it occurs in real time but represents noise as it occurs over an averaged 24-hour period, while giving extra weight to nighttime noise. In determining DNL, the metric assumes that the A-weighted decibel noise levels occurring at night (defined as 10 p.m. to 7 a.m. local) are 10 dB louder than actuality. This 10 dB increase is applied to account for the fact that there is a greater sensitivity to nighttime noise, and the fact that events at night are often perceived to be more intrusive because nighttime ambient noise is less than daytime ambient noise.

To determine whether aircraft noise impacts are significant under NEPA, the FAA considers whether the predicted increase in noise associated with the Action exceed defined thresholds of significance. For aircraft noise, that threshold is an increase of DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the No Action Alternative for the same timeframe. FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, notes that special consideration needs to be given to the evaluation of the significance of noise impacts on certain noise sensitive areas (including, but not limited to, noise sensitive areas within national parks; national wildlife and waterfowl refuges; and historic sites, including traditional cultural properties) where the land use compatibility guidelines in 14 CFR Part 150 may not be sufficient to determine the noise impact.

The FAA may also rely on the Part 150 guidelines to evaluate impacts on historic properties that are in use as residences. The Part 150 guidelines may be insufficient to determine the noise impact on historic properties where a quiet setting is a generally recognized purpose and attribute, such as a historic village preserved specifically to convey the atmosphere of rural life in an earlier era or a traditional cultural property. However, if architecture is the relevant characteristic of a historic neighborhood or resource, then project-related noise would not substantially impair the characteristics that led to eligibility for or listing on the National Register of Historic Places (NRHP) and the Part 150 guidelines pertaining to noise and land use compatibility apply.

To identify the potential for impacts on the noise levels of noise sensitive areas, the FAA conducts an initial noise evaluation using a “screening tool.” Screening tools use simplified but conservative modeling assumptions to provide estimates of where noise increases may occur. The noise screening identifies areas that may be exposed to significant noise impacts (i.e., an increase of DNL 1.5 dB or more in an area that is exposed to noise at or above the DNL 65 dB noise exposure level). The noise screening tool also identifies certain areas with potential increases in areas exposed to lower levels of noise, specifically:

- For DNL 60 dB to less than 65 dB:  $\pm 3$  dB
- For DNL 45 dB to less than 60 dB:  $\pm 5$  dB

The FAA refers to any change in noise exposure levels meeting these criteria as “reportable.” Although they do not exceed the threshold of significance for most land uses, for certain land

uses where the Part 150 land use guidelines may not be sufficient to account for the noise impact, they are factors to consider in whether there are extraordinary circumstances rendering a categorical exclusion inapplicable.

The FAA applied the Altitude/Operations Test for noise screening to complete the evaluation of potential noise impacts associated with changes in aircraft noise exposure levels as a result of implementation of the Action. The FAA used that test to determine if changes in the number of operations or altitudes, or both, were enough to cause a change in DNL exceeding the noise thresholds. The procedure amendments involve changes in altitudes at fixes along each procedure with no change in operational use. The FAA analyzed these amendments, and the results of the noise evaluation indicate no significant or reportable noise impacts on land uses covered by the Part 150 noise compatibility guidelines were expected to result from the implementation of the Action compared to the No Action Alternative.

Because the FAA received comments expressing concern about noise impacts, the FAA completed supplemental noise modeling to validate the Altitude/Operations Test noise screening results. The FAA used the Terminal Area Route Generation Evaluation and Traffic Simulation (TARGETS) Environmental Plug-in tool, which uses the Aviation Environmental Design Tool to calculate noise. The FAA obtained historic radar track data for KLAX from the Performance Data Analysis and Reporting System (PDARS). Dates where runways were closed for construction projects were removed from consideration and dates were randomly selected from the remaining available dates within a recent 12-month period (May 2017 through April 2018). The FAA selected random dates to represent average typical runway usage, flight paths, and day/night traffic ratios by capturing a range of temperature and wind conditions.

After the removal of overflights and incomplete track segments, 103,503 total tracks were used for the analysis. The FAA considered the altitude of the historical tracks and set a range ring to contain the area where most of the tracks reached above 10,000 feet AGL. This established the study area for the supplemental noise analysis. In the case of KLAX, the range was set at 60 nautical miles (NM) and the study area for the supplemental noise model was an area approximately 5 NM on either side of the procedure paths. Note that this is a much larger area than the original study area (1 NM around the procedure lines) used in the draft environmental review and is responsive to public comments requesting FAA expand its study area to evaluate noise impacts.

The noise output files from the Aviation Environmental Design Tool for both the baseline and alternative noise exposures consist of a series of equally spaced grid points, each showing a DNL value. The noise grid (receptor set) consists of grid points (receptors) spaced 0.5 NM apart. The noise impact is a comparison between the baseline and the alternative noise exposure that depicts any reportable and significant noise changes at all affected receptors per the criteria indicated in FAA Order 1050.1F and Chapter 32 of FAA Order 7400.2P. The FAA's supplemental noise modeling found no reportable and no significant increase in noise resulting from the Action. The supplemental noise modeling report is included in Appendix G of the final environmental review.

### 3. Section 106

#### **General Definition**

The National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA) are two individual statutes, with separate sets of implementing regulations. Under NEPA, the FAA is responsible for analyzing the impacts of its action on historical, architectural, archeological, and cultural resources as part of a broader review of the human environment. Historical, architectural, archeological, and cultural resources encompass a range of sites, properties, and physical resources relating to human activities, society, and cultural institutions. Such resources include past and present expressions of human culture and history in the physical environment—such as prehistoric and historic archaeological sites, structures, objects, and districts—which are considered important to a culture or community. Historical, architectural, archeological, and cultural resources also include aspects of the physical environment, namely natural features and biota, which are a part of traditional ways of life and practices and are associated with community values and institutions.

Section 106 of the NHPA focuses on a specific subset of historical, architectural, archeological, and cultural resources: those properties that are listed on or meet the eligibility criteria for the National Register of Historic Preservation (NRHP). The Section 106 implementing regulations use the term *undertaking* to mean a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including those carried out by or on behalf of a federal agency; those carried out with federal financial assistance; and those requiring a federal permit, license, or approval (see 36 CFR § 800.16(y)). This term is analogous to a proposed federal action, as used in the NEPA context.

Consultation under Section 106 is not required if the undertaking has no potential to affect historic properties. The regulations implementing Section 106 state “If the undertaking is a type of activity that does not have the potential to cause effects on historic properties, assuming such historic properties were present, the agency official has no further obligations under Section 106 or this part.” 36 CFR § 800.3(a)(1). Note that this initial determination is based on the characteristics of the activity, independent of whether any historic properties are known or suspected to be present in the affected area. Section 106 reviews must be completed prior to making a categorical exclusion determination.

#### **Topical Response**

Section 4.2.8. of the final environmental review assesses the effects of the Action on resources protected under Section 106 of the NHPA. Section 106 requires the FAA to consider the effects of its undertakings on properties listed or eligible for listing in the NRHP. In assessing whether an undertaking has the potential to affect historic properties (i.e., properties listed or eligible for listing on the NRHP) in a way that alters any of the characteristics that make the property significant, the FAA must consider both direct and indirect effects. Direct effects are defined as the physical removal or alteration of historic resources. Indirect effects are defined as changes in noise, vehicular traffic, light emissions, or other changes that could interfere substantially with the use or character of the resource.

Adverse effects on historic properties under Section 106 of the NHPA that also have the potential for significant impact under NEPA constitute an extraordinary circumstance under paragraph 5-2 of FAA Order 1050.1F, and thus would preclude the use of an otherwise applicable categorical exclusion. Such effects are considered “adverse” if they would diminish the integrity of a property’s significant historic features (including its setting, provided the setting is a contributing factor to the property’s historic significance). However, adverse effects that would not be significant under NEPA (including, for example, those that are fully resolved through the Section 106 process) would not preclude use of an otherwise applicable categorical exclusion.

If the undertaking will have no effect on historic properties, a finding of “no historic properties affected” is appropriate. Based on the characteristics of the Action, the FAA determined the Action does not have the potential to affect historic properties and thus did not require consultation. However, in accordance with the court’s holding in *City of Los Angeles v. Dickson*, No. No. 19-71581, 2021 WL 2850586 (9th Cir. July 8, 2021) and in good faith, the FAA proceeded to conduct Section 106 consultation activities as documented in Section 4.2.8.1 of the final environmental review.

The FAA’s noise evaluation indicated that the Action did not result in changes to noise exposure that exceed the FAA’s significant noise threshold. The FAA also conducted supplemental noise modeling to respond to public comments and to validate the findings of the noise screening. The supplemental noise modeling confirms that the Action does not have the potential for significant or reportable noise impacts on historic resources.

As illustrated in Figure 13 of Appendix B in the final environmental review, the FAA compared the procedure changes with historic flight tracks and determined that there are no new areas overflowed by the Action compared to the No Action Alternative. Therefore, the Action has no potential for the introduction of new visual, atmospheric, or auditory elements that would diminish the integrity of a historic or cultural resource. In addition, the historic and cultural resources identified in the Area of Potential Effects were evaluated to determine the rationale given for their local, state, or federal historic significance.

The FAA recognizes that the Part 150 guidelines may be insufficient to determine the noise impact on historic properties where a quiet setting is a generally recognized purpose and attribute, such as a historic village preserved specifically to convey the atmosphere of rural life in an earlier era or a traditional cultural property. However, if architecture is the relevant characteristic of a historic neighborhood or resource, then project-related noise would not substantially impair the characteristics that led to eligibility for or listing on the NRHP and the Part 150 guidelines pertaining to noise and land use compatibility apply.

Working with various stakeholders, including the City of Los Angeles, the City of Culver City, the City of Malibu, and the County of Los Angeles, the FAA identified a combined total of 5,504 Section 106 and Section 4(f) resources during the course of this review. An undertaking would have an effect on a historic property if it alters the characteristics qualifying that property for the NRHP (36 CFR 800.16(i), 800.5(a)(a)). Such effects are considered “adverse” if they would

diminish the integrity of a property's location, design, setting, materials, workmanship, feeling, or association (36 CFR 800.5(a)). The undertaking does not require land acquisition, construction, or ground disturbance, and there are no direct or physical effects to historic properties. However, the FAA recognizes that for certain types of historic properties, particularly those where the property's historical significance is especially reliant on its setting or feeling, the introduction of visual, atmospheric, or audible elements could diminish the property's integrity. In such cases, changes in aircraft operations could result in indirect, non-physical effects.

The FAA performed a supplemental review of the identified resources in support of the final environmental review to identify those historic and cultural resources whose significance depends in whole, or in part, upon a setting that is sensitive to auditory or visual changes. See Appendix F. The FAA identified a total of 201 historic and cultural resources in the supplemental review that could potentially be considered to have a quiet setting as a generally recognized purpose or attribute contributing to its historic significance. These resources are listed in Table 16 of the final environmental review.

Based on the available information and the limited scope of the Action, no new areas were overflowed by the Action compared to the No Action Alternative, and so there was no introduction of a new visual or audible element to any historic or cultural resources present within the study area. These resources were overflowed by the previous iteration of the procedures (the No Action Alternative). Per Section 4.2.11 below, pertaining to Noise and Noise-Compatible Land Use, there were no significant or reportable noise impacts in connection with the Action.

The FAA's NEPA procedures also note that special consideration should be given to the evaluation of the significance of noise impacts on noise sensitive areas within historic sites, including traditional cultural properties, where the land use compatibility guidelines in 14 CFR Part 150 are not relevant to the value, significance, and enjoyment of the area in question. For example, the day-night average sound level (DNL) 65 dB significant noise threshold may not adequately address the impacts of noise on areas where other noise is very low, and a quiet setting is a generally recognized purpose and attribute. Therefore, the FAA's reportable noise threshold is taken into consideration for these noise sensitive resources. The reportable noise threshold is more conservative than the 14 CFR Part 150 land use compatibility guidelines and includes noise impacts ranging from:

- DNL 60 dB to <65 dB with an increase of up to 3 dB
- DNL 45 dB to <60 dB with an increase of up to 5 dB

The FAA conducted supplemental noise modeling to verify the FAA's initial noise screening analysis, which confirmed that the Action did not have the potential to cause significant or reportable noise impacts on noise sensitive resources. Refer to Section 4.2.11 and Appendix G. As the Action does not exceed the significant or reportable noise threshold criteria, the Action does not have the potential to substantially interfere with the use or character of these resources through indirect effects. Therefore, the FAA has concluded that the Action does not have the potential to diminish the integrity of any Section 106 resource.

The FAA sent a Section 106 determination letter to the California State Historic Preservation office (SHPO) on September 15, 2023, with a finding of “no historic properties affected.” The FAA received a response of “no objections” to its finding from the California SHPO on October 16, 2023.

When the FAA published its draft environmental review, the City of Los Angeles submitted comments objecting to the FAA’s consultation efforts. A summary of consultation activities conducted is provided in Appendix E. The consultation efforts with the City of Los Angeles are included below for reference. The level of consultation conducted exceeds the Agency’s standards for similarly scoped projects where environmental impacts are not identified during the course of the review and a categorical exclusion is appropriate. All resources identified by all consulting parties and commenters, including the City of Los Angeles, were considered by the FAA in its review.

<b>Summary of FAA Consultation Activities with City of Los Angeles</b>	
<b>Date</b>	<b>Activity</b>
4/22/2022	The FAA initiated Section 106 and 4(f) consultation with the City of Los Angeles Planning Department and the Recreation and Parks Department on May 4, 2022, by sending a letter inviting them to participate in the Section 106 process.
6/1/2022	The City of Los Angeles responded on June 1, 2022, expressing an interest in participating in the Section 106 consultation process and requested clarification regarding the list of historic properties the FAA provided. The City of Los Angeles also requested geographic coordinates of the Area of Potential Effects. Over the next few months, a series of letters were exchanged between the FAA, Culver City, and Los Angeles, wherein the FAA continued working on the consultations while the cities sought a personal meeting with the FAA Administrator to discuss the FAA’s compliance with the Court’s order.
11/16/2022	On November 16, 2022, the FAA provided the City of Los Angeles with additional information to facilitate the consultation process including ArcGIS shapefiles in a zip format of the Area of Potential Effects, a helpful tutorial with instructions for accessing the files, and the availability of Google Earth files, if needed. The FAA continued communicating with the City of Los Angeles over the next several months and provided information about the undertaking with the goal of receiving information from the City of Los Angeles on historical resources and particularly resources that have quiet as a generally recognized feature or attribute.
4/19/2023	Having heard nothing more after the City of Los Angeles’ email on January 26, 2023, stating that they were confirming with the City's IT staff to determine if any additional information was needed, the FAA contacted the City of Los Angeles on April 19, 2023, to inform them that consultation was expected to be complete by June 14, 2023, and to contact the FAA if the City of Los Angeles desired to continue consultation. On April 19, 2023, the City of Los Angeles responded they were working on a response to the FAA’s April 19, 2023, communication.

Summary of FAA Consultation Activities with City of Los Angeles	
Date	Activity
5/25/2023	The City of Los Angeles responded on May 25, 2023, that they had completed a comprehensive survey of its historic resources through their SurveyLA database and they had identified a large number of historic properties within the Area of Potential Effects. The City of Los Angeles provided the FAA with an online web application to share their data on historic and cultural resources within their jurisdiction.
6/23/2023	The FAA had planned to complete Section 106 consultation on June 14, 2023, and notified the City of Los Angeles of that date on April 19, 2023. On June 23, 2023, the City of Los Angeles requested the FAA provide additional time for Section 106 consultation due to their request for information on the flight track data. The City of Los Angeles also requested the public comment period for the NEPA document review be extended from 14 days to 30 days. The FAA modified the environmental review schedule to accommodate this request, and the FAA provided the flight track data to the City of Los Angeles on August 7, 2023. Under the environmental review schedule submitted to the court, FAA's consultation with City of Los Angeles concluded September 1, 2023.
7/17/2023	City of Los Angeles, Department of Recreation and Parks sent the FAA a letter suggesting FAA contact the County of Los Angeles regarding Section 4(f) properties.
8/7/2023	The FAA sent Mr. Matthew Rudnich, City of Los Angeles Department of Recreation and Parks a letter in response to their July 17, 2023. The letter indicates the FAA sent a letter to the County of Los Angeles, as suggested by the City of Los Angeles. The letter included flight track data and dispersion information as requested by the City of Los Angeles.
8/10/2023	City of Los Angeles attorney, Nate Hunt, asked the FAA if the flight track data and information provided was intended to complete FAA's response to the City of Los Angeles' request. On August 15, 2023, the Department of Justice representative for the FAA provided a response that the FAA provided the data, as requested, and no further data is planned.

#### **4. Section 4(f)**

##### **General Definition**

Section 4(f) of the U.S. Department of Transportation (DOT) Act of 1966 (now codified at 49 U.S.C. § 303) protects significant publicly owned parks, recreational areas, wildlife and waterfowl refuges, and public and private historic sites. Section 4(f) provides that the Secretary of Transportation may approve a transportation program or project requiring the use of publicly owned land off a public park, recreation area, or wildlife or waterfowl refuge of national, state, or local significance, or land of an historic site of national, State, or local significance, only if there is no feasible and prudent alternative to the using that land and the program or project includes all possible planning to minimize harm resulting from the use. The FAA should identify as early as practicable in the planning process Section 4(f) resources that implementation of the proposed action and alternative(s) could affect.

Section 4(f) resources include:

- Parks and recreational areas of national, state, or local significance that are both publicly owned and open to the public
- Publicly owned wildlife and waterfowl refuges of national, state, or local significance that are open to the public
- Historic sites of national, state, or local significance in public or private ownership regardless of whether they are open to the public

A property must be a significant resource for Section 4(f) to apply. Any part of a Section 4(f) property is presumed to be significant unless there is a statement of insignificance relative to the entire property by the federal, state, or local official having jurisdiction over the property. Any statement of insignificance is subject to review by the FAA.

Section 4(f) protects only those historic or archeological properties that are listed, or eligible for inclusion, on the National Register of Historic Places (NRHP), except in unusual circumstances. Historic sites are normally identified during the process required under Section 106 of the National Historic Preservation Act (NHPA), 54 U.S.C. § 300101 et seq., and its implementing regulations (36 CFR part 800). If an official formally provides information to indicate that a historic site not on or eligible for inclusion on the NRHP is significant, the responsible FAA official may determine that it is appropriate to apply Section 4(f). If the responsible FAA official finds that Section 4(f) does not apply, the National Environmental Protection Act (NEPA) document should include the basis for this finding (which may be based on the reasons the property was not eligible for the NRHP).

Where federal lands are administered for multiple uses, the federal official having jurisdiction over the lands shall determine whether the lands are in fact being used for park, recreation, wildlife, waterfowl, or historic purposes. National wilderness areas may serve similar purposes and shall be considered subject to Section 4(f) unless the controlling agency specifically determines that the lands are not being used for Section 4(f) purposes.

An initial assessment should be made to determine whether the proposed action and alternative(s) would result in the use of any of the properties to which Section 4(f) applies. If physical use or constructive use of a Section 4(f) property is involved, the potential impacts of the proposed action and alternative(s) on the Section 4(f) property must be described in detail. The description of the affected Section 4(f) property should include the location, size, activities, patronage, access, unique or irreplaceable qualities, relationship to similarly used lands in the vicinity, jurisdictional entity, and other factors necessary to understand and convey the extent of the impacts on the resource. Maps, plans, photos, or drawings may assist in describing the property and understanding the potential use, whether physical taking or constructive use. Any statements regarding the property's significance by officials having jurisdiction should be documented and attached.

Physical Use of Section 4(f) Property is defined as follows:

A Section 4(f) use would occur if the proposed action or alternative(s) would involve an actual physical taking of Section 4(f) property through purchase of land or a permanent easement, physical occupation of a portion or all of the property, or alteration of structures or facilities on the property. If a project would physically occupy an NRHP-listed or eligible property containing archeological resources that warrant preservation in place, there would be a Section 4(f) use. Although there may be some physical taking of land, Section 4(f) does not apply to NRHP-listed or eligible archeological properties where the responsible FAA official, after consultation with the State Historic Preservation Office (SHPO) and Tribal Historic Preservation Office (THPO), determines that the archeological resource is important chiefly for data recovery and is not important for preservation in place.

Constructive Use of Section 4(f) Property is defined as follows:

Use, within the meaning of Section 4(f), includes not only the physical taking of such property, but also "constructive use." The concept of constructive use is that a project that does not physically use land in a park, for example, may still, by means of noise, air pollution, water pollution, or other impacts, dissipate its aesthetic value, harm its wildlife, restrict its access, and take it in every practical sense. Constructive use occurs when the impacts of a project on a Section 4(f) property are so severe that the activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired. Substantial impairment occurs only when the protected activities, features, or attributes of the Section 4(f) property that contribute to its significance or enjoyment are substantially diminished. This means that the value of the Section 4(f) property, in terms of its prior significance and enjoyment, is substantially reduced or lost. For example, noise would need to be at levels high enough to have negative consequences of a substantial nature that amount to a taking of a park or portion of a park for transportation purposes.

The responsible FAA official must consult all appropriate federal, state, and local officials with jurisdiction over the affected Section 4(f) properties when determining whether project-related impacts would substantially impair the resources. Following consultation and assessment of potential impacts, the FAA is solely responsible for Section 4(f) applicability and determinations.

The land use compatibility guidelines in 14 CFR Part 150 may be relied upon by the FAA to determine whether there is a constructive use under Section 4(f) where the land uses specified in the Part 150 guidelines are relevant to the value, significance, and enjoyment of the Section 4(f) lands in question. The FAA may rely on the Part 150 guidelines in evaluating constructive use of lands devoted to traditional recreational activities. The FAA may primarily rely upon the day night average sound levels (DNL) in Part 150 rather than single event noise analysis because DNL:

1. Is the best measure of significant impact on the quality of the human environment
2. Is the only noise metric with a substantial body of scientific data on the reaction of people to noise
3. Has been systematically related to federal compatible land use guidelines

The FAA may also rely upon the Part 150 guidelines to evaluate impacts on historic properties that are in use as residences. The Part 150 guidelines may be insufficient to determine the noise impact on historic properties where a quiet setting is a generally recognized purpose and attribute, such as a historic village preserved specifically to convey the atmosphere of rural life in an earlier era or a traditional cultural property. If architecture is the relevant characteristic of a historic neighborhood, then project-related noise would not substantially impair the characteristics that led to eligibility for or listing on the NRHP. As a result, noise would not constitute a constructive use, and Section 4(f) would not be triggered. A historic property would not be considered to be constructively used for Section 4(f) purposes when the FAA issues a finding of no historic properties affected or no adverse effect under Section 106 of the NHPA, 54 U.S.C. § 300101 et seq. Findings of adverse effects do not automatically trigger Section 4(f) unless the effects would substantially impair the affected resource's historical integrity. The FAA is responsible for complying with Section 106 of the NHPA regardless of the disposition of Section 4(f).

When assessing use of Section 4(f) properties located in a quiet setting and where the setting is a generally recognized feature or attribute of the site's significance, the FAA carefully evaluates reliance on the Part 150 guidelines. The FAA must weigh additional factors in determining whether to apply the thresholds listed in the Part 150 guidelines to determine the significance of noise impacts on noise sensitive areas within Section 4(f) properties (including, but not limited to, noise sensitive areas within national parks, national wildlife and waterfowl refuges, and historic sites including traditional cultural properties). The FAA may use the Part 150 land use compatibility table as a guideline to determine the significance of noise impacts on Section 4(f) properties to the extent that the land uses specified bear relevance to the value, significance, and enjoyment of the lands in question. However, the Part 150 guidelines may not be sufficient for all historic sites as described above, and the Part 150 guidelines do not adequately address the impacts of noise on the expectations and purposes of people visiting areas within a national park or national wildlife refuge where other noise is very low and a quiet setting is a generally recognized purpose and attribute.

Exhibit 4-1 of FAA Order 1050.1F provides the FAA's significance threshold for Section 4(f) properties. A significant impact would occur when: The action involves more than a minimal

physical use of a Section 4(f) resource or constitutes a “constructive use” based on an FAA determination that the aviation project would substantially impair the Section 4(f) resource. A significant impact under NEPA would not occur if mitigation measures eliminate or reduce the effects of the use below the threshold of significance. If a project would physically use Section 4(f) property, the FAA is responsible for complying with Section 4(f) even if the impacts are less than significant for NEPA purposes.

### **Topical Response**

Section 4.2.5 of the final environmental review assesses the effects of the Action on resources protected under Section 4(f) of the U.S. DOT Act of 1966 (codified at 49 U.S.C. § 303). Resources that are protected by Section 4(f) are publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, and publicly or privately owned land from a historic site of national, state, or local significance.

Under Section 4(f), the FAA may approve a transportation project that requires the use of a Section 4(f) resource only if there is no feasible and prudent alternative to the use, and the project includes all possible planning to minimize harm resulting from the use. Use of a Section 4(f) resource can be either physical or constructive. The Action does not include land acquisition, construction, or other ground disturbance activities that result in the physical use of Section 4(f) resources. Accordingly, the FAA assessed the Action’s potential for constructive use from noise or visual impacts.

Constructive use occurs when the impacts of a project on a Section 4(f) resource are so severe that the activities, features, or attributes that qualify the resource for protection under Section 4(f) are substantially impaired.

Substantial impairment occurs only when the protected activities, features, or attributes of the Section 4(f) property that contribute to its significance or enjoyment are substantially diminished. This means that the value of the Section 4(f) property, in terms of its prior significance and enjoyment, is substantially reduced or lost. For example, noise would need to be at levels high enough to have negative consequences of a substantial nature that amount to a taking of a park or portion of a park for transportation purposes.<sup>2</sup>

The FAA is responsible for determining whether project-related impacts would substantially impair a Section 4(f) resource under FAA Order 1050.1F. The FAA identified a combined total of 5,504 Section 106 and Section 4(f) resources during the course of the environmental review. The Action does not require land acquisition, construction, or ground disturbance, and there are no direct or physical effects to resources. However, the FAA recognizes that for certain types of historic properties, particularly those where the property’s historical significance is especially reliant on its setting or feeling, the introduction of visual, atmospheric, or audible elements could diminish the property’s integrity. In such cases, changes in aircraft operations could result in indirect, non-physical effects.

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<sup>2</sup> FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, (Appendix B, Paragraph B-2.2.2) Appendix H – General Responses to Public Comments  
May 2018 Amendments to the HUULL TWO, IRNMN TWO, and RYDRR TWO STARs  
Los Angeles International Airport, Los Angeles, California  
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The FAA performed a supplemental analysis of all resources identified in support of the final environmental review to identify those historic and cultural resources whose significance depends in whole, or in part, upon a setting that is sensitive to auditory or visual changes. Through the supplemental review of the resources identified during the course of the project the FAA found a total of 201 historic and cultural resources that could be considered to have a quiet setting as a generally recognized purpose or attribute contributing to its historic significance. These resources are listed in Table 16 of Appendix A of the final environmental review.

Based on the available information and the limited scope of the Action, no new areas were overflowed by the Action compared to the No Action Alternative; therefore, there was no introduction of a new visual or audible element to any historic or cultural resources present within the study area. These resources were overflowed by the previous iteration of the procedures (the No Action Alternative). Per Section 4.2.11 of the final environmental review pertaining to Noise and Noise-Compatible Land Use, there were no significant or reportable noise impacts in connection with the Action.

The FAA's NEPA procedures also note that special consideration needs to be given to the evaluation of the significance of noise impacts on noise sensitive areas within historic sites, including traditional cultural properties, where the land use compatibility guidelines in 14 CFR Part 150 are not relevant to the value, significance, and enjoyment of the area in question. For example, the DNL 65 dB significant noise threshold may not adequately address the impacts of noise on areas where other noise is very low, and a quiet setting is a generally recognized purpose and attribute. Therefore, the FAA's reportable noise threshold is taken into consideration for these noise sensitive resources. The reportable noise threshold is more conservative than the 14 CFR Part 150 land use compatibility guidelines and includes noise impacts ranging from:

- DNL 60 dB to <65 dB with an increase of up to 3 dB
- DNL 45 dB to <60 dB with an increase of up to 5 dB

The FAA conducted supplemental noise modeling to respond to public comments and to validate the findings of the noise screening analysis, and that modeling confirms that the Action did not have the potential to cause significant or reportable noise impacts on Section 4(f) resources. Refer to Section 4.2.11 and Appendix G of the final environmental review. As the Action does not exceed the significant or reportable noise threshold criteria, the Action does not have the potential to substantially interfere with the use or character of noise sensitive resources through indirect effects. Therefore, the FAA has concluded that the Action does not result in a physical use or constructive use of properties protected by Section 4(f).

A summary of consultation activities conducted is provided in Appendix E. The Section 4(f) consultation efforts with the City of Los Angeles are included in the "Summary of FAA Consultation Activities with City of Los Angeles" table in Response #3 above. The level of consultation conducted exceeds the Agency's standards for similarly scoped projects where environmental impacts are not identified during the course of the review and a categorical exclusion is appropriate. All resources identified by all consulting parties and commenters, including the City of Los Angeles, were considered by the FAA in its review.

## 5. Biological

### **General Definition**

Biological resources are valued for their intrinsic, aesthetic, economic, and recreational qualities and include fish, wildlife, plants, and their respective habitats. Typical categories of biological resources include:

- Terrestrial and aquatic plant and animal species
- Game and non-game species
- Special status species (state or federally-listed threatened or endangered species, marine mammals, or species of concern, such as species proposed for listing or migratory birds)
- Environmentally-sensitive or critical habitats

When defining the study area for biological resources, the FAA considers both areas directly impacted (such as through vegetation and habitat removal within the construction footprint) and those areas indirectly impacted through facility lighting, noise, air emissions, and changes to water quality or quantity caused by construction equipment or facility operations.

Potential impacts on biological resources from air traffic operations are primarily related to disturbance to noise-sensitive terrestrial and aquatic animal. A noise analysis allows for an assessment of the potential impacts on these noise-sensitive species. When discussing the extent of the potential impact, areas within the vicinity of air traffic operations are considered, as well as any land area or open water (such as oceans) that aircraft would fly over.

Exhibit 4-1 of FAA Order 1050.1F provides the FAA's significance threshold for biological resources (including fish, wildlife, and plants). A significant impact to biological resources would occur when "The U.S. Fish and Wildlife Service or the National Marine Fisheries Service determines that the action would be likely to jeopardize the continued existence of a federally-listed threatened or endangered species, or would result in the destruction or adverse modification of federally-designated critical habitat." The FAA has not established a significance threshold for non-listed species.

In addition to the threshold above, FAA Order 1050.1F provides additional factors to consider in evaluating the context and intensity of potential environmental impacts for biological resources. Please note that these factors are not intended to be thresholds. If these factors exist, there is not necessarily a significant impact; rather, the FAA must evaluate these factors in light of context and intensity to determine if there are significant impacts. Factors to consider that may be applicable to biological resources include, but are not limited to, situations in which the proposed action or alternative(s) would have the potential for:

- A long-term or permanent loss of unlisted plant or wildlife species, i.e., extirpation of the species from a large project area (e.g., a new commercial service airport)
- Adverse impacts to special status species (e.g., state species of concern, species proposed for listing, migratory birds, bald and golden eagles) or their habitats

- Substantial loss, reduction, degradation, disturbance, or fragmentation of native species' habitats or their populations
- Adverse impacts on a species' reproductive success rates, natural mortality rates, non-natural mortality (e.g., road kills and hunting), or ability to sustain the minimum population levels required for population maintenance

The FAA received comments related to biological resources. Some comments were related to the potential for bird or bat strikes by aircraft. Some commenters also asked whether the Action could impact endangered or threatened species.

### **Topical Response**

The Endangered Species Act directs all federal agencies to work to conserve endangered and threatened species and to use their authorities to further the purposes of the Endangered Species Act. An impact to biological resources was not anticipated. The United States Fish and Wildlife Service's (USFWS) Information for Planning and Consultation database identified 11 threatened or endangered bird species that could potentially be located within the study area, including: California Condor, California Least Tern, Coastal California Gnatcatcher, Hawaiian Petrel, Least Bell's Vireo, Light-footed Clapper Rail, Marbled Murrelet, Short-tailed Albatross, Southwestern Willow Flycatcher, and Yellow-billed Cuckoo. In addition, the USFWS's Information for Planning and Consultation database identified 47 migratory bird species that could potentially be located within the project study area. The study area falls within the Pacific Flyway, a major north-south flyway for migratory birds. Every year, migratory birds travel some or all of this distance in spring and fall, following food sources, heading to breeding grounds, or traveling to overwintering sites.

The Action is an air traffic action only. Based on the analysis of flight track data, aircraft are currently overflying this area of the Pacific Flyway (Figure 13 of Appendix B). The greatest impacts to wildlife species would result from wildlife strikes on bird and bat species at altitudes below 3,000 feet AGL. All changes made to the IRNMN, HUULL, and RYDRR arrival routes occurred at altitudes above 3,000 feet AGL.

As the Action is an air traffic action only and did not increase the number of aircraft operations or change the aircraft fleet mix, and no new areas were overflown, the Action did not result in an impact to biological resources.

## **6. Socioeconomics and Environmental Justice**

### **General Definition - Socioeconomics**

Socioeconomics is an umbrella term used to describe aspects of a project that are either social or economic in nature, or a combination of the two. A socioeconomic analysis evaluates how elements of the human environment such as population, employment, housing, and public services might be affected by the proposed action and alternative(s). Section 1508.14 of the Council on Environmental Quality Regulations states that “economic or social effects are not intended by themselves to require preparation of an environmental impact statement. When an environmental impact statement is prepared and economic or social and natural or physical environmental effects are interrelated, then the environmental impact statement will discuss all of these effects on the human environment.” Therefore, the requirement to prepare socioeconomic analysis in an environmental assessment or environmental impact statement is project specific and is dependent upon the existence of a relationship between natural or physical environmental effects and socioeconomic effects.

The FAA has not established a significance threshold for socioeconomic in FAA Order 1050.1F; however, the FAA has identified factors to consider when evaluating the context and intensity of potential environmental impacts for socioeconomic (see Exhibit 4-1 of FAA Order 1050.1F). The determination that significant impacts exist in the socioeconomic impact category is normally dependent on whether the potential socioeconomic impact(s) are interrelated with or inseparable from a physical or natural environmental effect. Please note that these factors are not intended to be thresholds. If these factors exist, there is not necessarily a significant impact; rather, the FAA must evaluate these factors in light of context and intensity to determine if there are significant impacts.

Factors to consider that may be applicable to socioeconomic resources, if they are interrelated with natural or physical environmental impacts (see 40 CFR § 1508.14), include, but are not limited to, situations in which the action would have the potential to:

- Induce substantial economic growth in an area, either directly or indirectly (e.g., through establishing projects in an undeveloped area)
- Disrupt or divide the physical arrangement of an established community
- Cause extensive relocation when sufficient replacement housing is unavailable
- Cause extensive relocation of community businesses that would cause severe economic hardship for affected communities
- Disrupt local traffic patterns and substantially reduce the levels of service of roads serving an airport and its surrounding communities
- Produce a substantial change in the community tax base

### **General Definition – Environmental Justice**

According to the United States Environmental Protection Agency (EPA), environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. The EPA defines fair treatment to mean that no

group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental, and commercial operations or policies. The EPA defines meaningful involvement as:

- Potentially affected populations have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health
- The public's contribution can influence the regulatory agency's decision
- The concerns of all participants will be considered in the decision making process
- The rule-writers and decision makers seek out and facilitate the involvement of those potentially affected

The combination of all study areas for the other relevant impact categories represents the potential impact area for environmental justice because environmental justice impacts may be realized in conjunction with impacts to any other impact category.

The description of the affected environment for the National Environmental Policy Act (NEPA) document should identify the minority and low-income populations located within the identified study area. The environmental document should include demographic information about the affected populations and information about the populations that have an established use for the significantly affected resource, or to whom that resource is important (e.g., subsistence fishing).

Note that not all "adverse impacts" within the meaning of DOT Order 5610.2(a) will meet or exceed a significance threshold in another environmental impact category. Some adverse impacts may not be significant impacts in another environmental impact category as defined by Exhibit 4-1 in FAA Order 1050.1F, yet they may be a significant impact when examined in the context of their effects on minority or low-income populations. As a result, the responsible FAA official must undertake a case-by-case analysis of an action's unique facts. The responsible FAA official does this to determine if impacts not otherwise rising to a level of significance for NEPA purposes nonetheless represent disproportionately high and adverse effects, and/or a significant impact for environmental justice purposes.

The FAA received comments on potential socioeconomic and environmental justice impacts including more information on the location of environmental justice communities.

### **Topical Response**

An environmental justice analysis considers the potential of federal actions to cause disproportionately high and adverse effects on low-income or minority populations. Disproportionately high and adverse effect on minority and low-income populations means an adverse effect that:

- Is predominately borne by a minority population and/or a low-income population; or
- Will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non-low-income population.

The FAA conducted supplemental analysis that is included in the final environmental review to consider the presence of low-income and minority communities within the study area (see Section 4.2.12). The analysis indicates that there are low-income communities where over 20% of the population is below the poverty level throughout the study area, including (but not limited to) areas of Oxnard, Cienega, Jefferson, Los Angeles, Boyle Heights, and Wellington Heights. A review of minority populations within the study area indicates that there are communities within or above the 80<sup>th</sup> percentile for people of color throughout the study area, including (but not limited to) areas of Oxnard, Culver City, Sentous, Cienega, and are most prevalent in, areas of Los Angeles, Jefferson, Boyle Heights, and Wellington heights toward the eastern boundary of the study area. Although minority and low-income populations are present in the study area, these communities are interspersed with middle- and high-income communities and non-minority populations within the study area. In addition, most of the study area covers areas that do not have distinct minority or low-income populations. Moreover, aircraft have historically overflowed the study area.

The environmental justice analysis in Section 4.2.12. of the final environmental review considered the potential of the Action to cause disproportionately high and adverse effects on low-income or minority populations due to the two factors stated above. In weighing whether the Action raises environmental justice concerns, the FAA's analysis draws on the findings of the other impact analyses, particularly noise, land use, and air quality. When examined in the context of their effects on minority or low-income populations, the FAA also determined the Action did not have an adverse effect. Based on this analysis, the FAA has determined that the implementation of the Action has not adversely affected air quality or land use within the study area. Additionally, the results of the noise screening analysis, when comparing the No Action Alternative, indicate that changes in noise exposure levels related to the Action are below the thresholds for significant and reportable noise impacts. The Action has no new social or economic effects on the study area compared to the No Action Alternative. Based on the findings of the other impact categories included in this review, no significant environmental impacts were identified. Therefore, there are no socioeconomic impacts and no disproportionate or adverse impacts on minority or low-income populations as a result of the Action as compared to the No Action Alternative.

## **7. Community Engagement**

### **General Definition**

FAA's Community Involvement Policy Statement (April 17, 1995) affirms the FAA's commitment to make complete, open, and effective public participation an essential part of its actions, programs, and decisions.

### **Topical Response**

According to FAA Order 1050.1F, Section 5-4, there is no requirement to notify the public when a categorical exclusion is used. However, the Council on Environmental Quality encourages agencies to determine circumstances in which the public should be engaged or notified before a categorical exclusion is used on a case-by-case basis.

Although not required based on the limited scope of the Action, the FAA provided for additional public participation and community engagement for this Action. On September 25, 2023, the FAA publicly announced on its website the release of the draft environmental review document for the Action for public review and comment. The FAA also published the draft environmental review in the Federal Register, docket number FAA-2023-1929, on October 2, 2023. Publication of the notices in the Federal Register constitutes appropriate formal public notice and is the standard source of public notifications for federal agency actions and decisions. The draft environmental review document was available for public review and comment from October 2, 2023, through November 1, 2023.

In response to substantive comments, the FAA conducted supplemental environmental review and additional consultation activities, the findings of which were incorporated in the final environmental review. For example, the City of Malibu provided comments during the public comment period indicating their interest in the project. Pursuant to these comments, the FAA invited the City of Malibu to participate as a consulting party under Section 106 and Section 4(f). The City of Malibu responded with comments and a list of important historic, cultural, and recreational resources in their jurisdiction. The resources identified and comments provided by the City of Malibu, as well as other commenters, are valuable and have been included in the FAA's final environmental review for the Action, including its analysis under Section 106 and Section 4(f). A summary of consultation activities conducted is included in Appendix E of the final environmental review.

With respect to substantive comments received during the public comment period, the final environmental review includes supplemental environmental analyses conducted in the FAA's review of the following environmental impact categories: Section 106 and Section 4(f) resources (Appendix H), noise (Appendix G), and socioeconomics, environmental justice, and children's environmental health and safety risk (Section 4.1.12.2).

The level of environmental review and public engagement that the FAA offered exceeds the Agency's standards for similarly scoped projects where environmental impacts are not identified during the course of the review and a categorical exclusion is appropriate.

## **8. Procedural Objections (NEPA)**

### **General Definition**

Comments were received with objections to the processes utilized to determine the appropriate application of the National Environmental Policy Act (NEPA).

### **Topical Response**

The FAA received comments objecting to the FAA's categorical exclusion determination for the project. A categorical exclusion, or CATEX, refers to a category of actions that the FAA has determined, based on established methodology, do not individually or cumulatively have a significant effect on the human environment except in extraordinary circumstances. A categorical exclusion is not an exemption or a waiver from NEPA; it is a level of NEPA review and compliance.

FAA Order 1050.1F, Section 5-6.5, *Categorical Exclusions for Procedural Actions*, includes the list of categorical exclusions involving establishment, modification, or application for airspace or air traffic procedures. The term "extraordinary circumstances" is formally defined under NEPA as factors or circumstances in which a normally categorically excluded action may have a significant environmental impact that then requires further analysis in an environmental assessment or environmental impact statement. For FAA actions, extraordinary circumstances exist when the action involves any of the circumstances described in Order 1050.1F, Paragraph 5-2(b), and has the potential for a significant impact.

The Action is an air traffic action only, with no ground-based activities. For this Action, the FAA considered the following factors, which, if they resulted in a significant impact, would preclude use of a categorical exclusion in satisfying NEPA requirements for the Action:

- An adverse effect on cultural resources protected under the NHPA of 1966, as amended, 54 U.S.C. § 300101 et seq.
- An impact on properties protected under Section 4(f) of the DOT Act
- An impact on natural, ecological, or scenic resources of federal, state, tribal, or local significance
- An impact on noise levels of noise sensitive areas
- An impact on air quality
- Impacts on the quality of the human environment that are likely to be highly controversial on environmental grounds
- Likelihood to directly, indirectly, or cumulatively create a significant impact on the human environment

This environmental review was prepared by the FAA to determine whether extraordinary circumstances exist which would preclude a categorical exclusion as the appropriate level of environmental review for the Action, which is specifically the May 2018 amendments incorporated in the HUULL TWO ARRIVAL (RNAV) (HUULL TWO), IRNMN TWO ARRIVAL (RNAV) (IRNMN TWO), and RYDRR TWO ARRIVAL (RNAV) (RYDRR TWO) flight procedures (see Section 0 of the final environmental review for a summary of

administrative background and court rulings). The final environmental review fulfills the FAA’s compliance with NEPA; implementing regulations issued by the Council on Environmental Quality (40 CFR, parts 1500–1508, updated May 2022); FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures* (FAA Order 1050.1F); and FAA Order 7400.2P, *Procedures for Handling Airspace Matters*.

The final environmental review found that the Action does not have the potential for a significant environmental impact, and therefore, extraordinary circumstances do not exist. This was determined based on the scope of the Action (minor changes to existing flight procedures) and its effects on the FAA’s impact categories in accordance with the significance determination criteria set forth in FAA Order 1050.1F.

In its comments, the City of Los Angeles asserts that the FAA cannot rely on a categorical exclusion because the effects of the Action are “likely to be highly controversial on environmental grounds.” The term “highly controversial on environmental grounds” means that “there is a substantial dispute involving reasonable disagreement over the degree, extent, or nature of a proposed action’s environmental impacts or over the action’s risks of causing environmental harm.” FAA Order 1050.1F ¶ 5-2(b)(10). “Mere opposition is not sufficient for a proposed action or its impacts to be considered highly controversial on environmental grounds. Opposition on environmental grounds by a federal, state, or local government agency or by a tribe or a substantial number of persons affected by the action should be considered in determining whether or not reasonable disagreement regarding the impacts of a proposed action exists.” FAA Order 1050.1F ¶ 5-2(b)(10).

The Action is not highly controversial on environmental grounds. The Action is *not* the 2016 Southern California Metroplex (SoCal Metroplex project) procedures themselves or the impacts of the procedures. The Action is only the May 2018 amendments incorporated in the IRNMN TWO, HUULL TWO, and RYDRR TWO procedures. The FAA has carefully analyzed the potential environmental impacts of the amendments. Based on its technical analysis, including noise screening and supplemental noise modeling, the FAA has concluded that there are no adverse impacts from the May 2018 amendments. The objections that the FAA has received from commenters do not reflect a substantial dispute about the degree, extent, or nature of the environmental impacts of the amendments. The input from several commenters, including from Los Angeles and other local governments, reflects general opposition to the procedures themselves, not to the May 2018 amendments.

The FAA previously did an analysis to consider the environmental impacts of the procedures when it designed and implemented the 2016 SoCal Metroplex project. At that time, the FAA concluded that the procedures would have no significant environmental impacts. Several parties challenged the FAA’s conclusion in court, and Los Angeles participated in that lawsuit by filing an amicus brief that objected to the noise impacts from the original routes--IRNMN ONE ARRIVAL (RNAV) (IRNMN ONE), HUULL ONE ARRIVAL (RNAV) (HUULL ONE), and RYDRR ONE ARRIVAL (RNAV) (RYDRR ONE). The court found that the FAA had complied with NEPA. *Vaughn v. FAA*, 756 Fed. App’x 8 (D.C. Cir. 2018). Since that lawsuit, the City of Los Angeles has continued to raise objections to the procedures put in place as part of the 2016

SoCal Metroplex project. The City of Los Angeles' comments on the Action show that it is still seeking to challenge those procedures, despite the court finding that the FAA complied with NEPA, including as to the implementation of the original IRNMN ONE, HUULL ONE, and RYDRR ONE procedures. The City of Los Angeles' and other commenters' objections to environmental impacts from the original procedures (IRNMN ONE, HUULL ONE, and RYDRR ONE), rather than from the May 2018 amendments made in the Action (IRNMN TWO, HULL TWO, and RYDRR TWO), are untimely and do not make the Action highly controversial. The FAA is not required to revisit its environmental analysis for the original procedures when it makes minor changes that the Agency has found will have no adverse environmental impacts.

The City of Los Angeles also states in its comments that if the FAA is not required to analyze vectored aircraft, then the FAA should prepare a supplement to the 2016 Environmental Assessment for the SoCal Metroplex project. The FAA is not required to supplement the 2016 Environmental Assessment because that action—implementing the SoCal Metroplex project—was completed several years ago, before the May 2018 amendments incorporated in the IRNMN TWO, HUULL TWO, and RYDRR TWO procedures.

The level of environmental review that the FAA conducted for this project is considerable and exceeds the Agency's standards for similarly scoped projects where environmental impacts are not identified during the course of the review for the project and a categorical exclusion is appropriate.

## **9. Outside of the Scope of the Action**

### **General definition**

Some comments were received that did not address the actual Action. This includes comments stating opposition to the 2016 Southern California Metroplex project (SoCal Metroplex project) and the original HUULL ONE ARRIVAL (RNAV) (HUULL ONE), IRNMN ONE ARRIVAL (RNAV) (IRNMN ONE), and RYDRR ONE ARRIVAL (RNAV) (RYDRR ONE) procedures, comments related to flight procedures other than those comprising the Action, comments objecting to the FAA's standard practices and methodologies for various environmental impact category analyses as outlined in the Agency's orders and guidance materials; comments related to the Agency's ongoing noise policy review and related Neighborhood Environmental Survey, and comments objecting to the Section 106 determination by the California State Historic Preservation Office (SHPO).

### **Topical Response**

The Action considered in the final environmental review is limited to the May 2018 amendments to portions of three existing Standard Terminal Arrival (STAR) routes serving one airport in the Southern California region (KLAX). The original STAR routes are HUULL ONE, IRNMN ONE, and RYDRR ONE. The Action is described in detail in Section 1 of the final environmental review and include the May 2018 amendments incorporated in the HUULL TWO ARRIVAL (RNAV) (HUULL TWO), IRNMN TWO ARRIVAL (RNAV) (IRNMN TWO), and the RYDRR TWO ARRIVAL (RNAV) (RYDRR TWO). The changes comprising the Action did not alter any of the flight paths laterally, and are limited to altitude changes, altitude restrictions, and speed restrictions to improve safety and efficiency. Graphics are available in Appendix B.

In contrast, the 2016 SoCal Metroplex project consisted of 153 satellite-based departures, arrivals, and other procedures at 6 major airports (Bob Hope "Hollywood Burbank," John Wayne/Orange County, Los Angeles International, Long Beach [Daugherty Field], Ontario International, and San Diego International) and 15 satellite airports.

The FAA implemented the SoCal Metroplex project in phases starting in November 2016 and ending in June 2017. On August 31, 2016, the FAA completed the final environmental assessment for the SoCal Metroplex project and signed its record of decision. In the environmental assessment and record of decision, the FAA conducted an environmental review of the three STAR routes at KLAX (HUULL ONE, IRNMN ONE, RYDRR ONE). On Friday, September 2, 2016, the FAA issued the notice of availability of the environmental assessment and record of decision in the Federal Register. As a legal matter, the FAA's decision became final on September 2, 2016, and will not be revisited. Several parties brought legal challenges to the FAA's record of decision, and the City of Los Angeles participated in that lawsuit by filing an amicus brief that raised concerns about noise impacts from HUULL ONE, IRNMN ONE, and RYDRR ONE procedures. In 2018, the court concluded that the FAA had complied with NEPA when it approved the SoCal Metroplex project. *Vaughn v. FAA*, 756 Fed. App'x 8 (D.C. Cir. 2018). The FAA is not required to revisit that final decision or to again examine the noise impacts from the procedures themselves. The FAA's decision to implement the May 2018

amendments to the HUULL TWO, IRNMN TWO, and RYDRR TWO procedures is the only action that is within the scope of this review. Therefore, comments regarding the SoCal Metroplex procedures themselves or impacts of the original procedures are outside of the scope of this review.

Comments received related to KLAX flight procedures other than the May 2018 amendments that the FAA incorporated in the HUULL TWO, IRNMN TWO, and RYDRR TWO are considered out of scope and are not further addressed.

A number of comments received were related to the vectoring of aircraft. The Action is limited to the May 2018 amendments incorporated in the HUULL TWO, IRNMN TWO, and RYDRR TWO procedures, which did not change the use of vectoring from the original HUULL ONE, IRNMN ONE, and RYDRR ONE procedures implemented in 2016. The FAA has addressed comments on vectoring as a separate topic (see topical response 10. Vectoring of Aircraft below).

The final environmental review fulfills the FAA's compliance with the National Environmental Policy Act (NEPA); implementing regulations issued by the Council on Environmental Quality (40 CFR, parts 1500-1508, updated May 2022); FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures* (FAA Order 1050.1F); and FAA Order 7400.2P, *Procedures for Handling Airspace Matters*. Comments objecting to the FAA's overarching policies and procedures for agency compliance with various environmental laws and regulations, or related to its ongoing noise policy review, including FAA's environmental neighborhood survey, are outside of the scope of the Action and are not further addressed.

Similarly, comments objecting to the California State Historic Preservation Office's (SHPO) Section 106 determination of no objections to FAA's finding of "no historic properties affected" are beyond the scope of this environmental review, as the California SHPO is the agency responsible for administering federally and state mandated historic preservation programs to further the identification, evaluation, registration, and protection of California's irreplaceable archaeological and historical resources. The California SHPO reviews and comments on thousands of federally sponsored projects annually pursuant to Section 106 of the National Historic Preservation Act (NHPA), including FAA air traffic projects.

## **10. Vectoring of Aircraft**

### **General Definition**

The FAA received comments related to vectoring. A vector is a heading issued by air traffic control to provide aircraft navigational guidance and in most cases is accompanied by a new altitude assignment.

A vector while flying a Standard Terminal Arrival (STAR) procedure cancels the procedure entirely—including both lateral and vertical guidance. Vectors are routinely utilized to properly space aircraft onto the final approach course, while also providing the aircraft with proper lateral and vertical positioning onto the final approach course to facilitate a safe landing.

### **Topical Response**

The 2016 Southern California Metroplex project (SoCal Metroplex project) improved the flexibility and predictability of air traffic routes through increased use of performance-based navigation, including the replacement of conventional flight procedures with the use of satellite-based technology for navigation (i.e., area navigation [RNAV] procedures). One of the many advantages of RNAV procedures is that they can reduce dependence on radar vectoring, altitude, and speed assignments, which reduces air traffic control workload. However, vectoring remains a vital air traffic control tool for safe aircraft sequencing, as navigation technology has not eliminated the need for vectoring aircraft on their final approach to land at an airport.

The Action did not change the use of vectoring from the original iteration of the procedures (the No Action Alternative) that were implemented in the 2016 SoCal Metroplex project. To comply with NEPA, the FAA completed an environmental assessment for the SoCal Metroplex project in September of 2016 to analyze the potential environmental impacts of the project, which included an evaluation of the effects of vectoring planes off of these procedures. The FAA's noise modeling showed that the SoCal Metroplex project would not result in significant noise impacts in any area, including over Los Angeles. Vectoring has always been part of the original HUULL ONE ARRIVAL (RNAV) (HUULL ONE), IRNMN ONE ARRIVAL (RNAV) (IRNMN ONE), and RYDRR ONE ARRIVAL (RNAV) (RYDRR ONE) procedure designs, and the use of vectoring did not change in the May 2018 amendments incorporated in the HUULL TWO ARRIVAL (RNAV) (HUULL TWO), IRNMN TWO ARRIVAL (RNAV) (IRNMN TWO), and the RYDRR TWO ARRIVAL (RNAV) (RYDRR TWO) procedures from the original procedure designs. Refer to Figures 1, 5, and 9 in Appendix B, which illustrate the original procedures. Specifically, the original procedures include notes that direct pilots to "Expect RADAR vectors to final approach course." The environmental impacts of vectoring were thoroughly considered in the 2016 Environmental Assessment for the SoCal Metroplex Project. The May 2018 amendments that comprise the Action did not affect the use of vectoring, and the amended procedures include the identical directions to pilots to "Expect RADAR vectors to final approach course." Thus, the FAA did not need to re-evaluate vectoring for this Action.

Although comments pertaining to vectoring are considered outside of the scope of the Action, the FAA recognizes that there is concern and confusion from the public pertaining to the use of vectoring of aircraft, as well as pilot visual navigation in the airspace. Thus, the FAA is electing

to provide further discussion on these tools below as they apply to local air traffic operations, even though this topic is out of scope of the Action.

Vectors and visual approaches are critical tools that are available to air traffic control and designed to assist with the safe and efficient flow of traffic into an airport or while transitioning through multiple air traffic control sectors. Vectors and visual approaches are common practices by controllers at a majority of the airports in the U.S. and are not specific to KLAX. There are many reasons for this function to be available to air traffic control; for example, air traffic control may need to descend an aircraft to safely sequence it with traffic approaching from another direction, deconflicting an aircraft away from an unidentified target aircraft, turn aircraft away from weather, or properly sequence the aircraft into an airport. These are examples of how vectors are used daily in the National Airspace System.

Many aircraft arriving into KLAX in the vicinity of the DAHJR and GADDO waypoints may be on vectors, on alternative flight procedures, or is proceeding visually to the airport, and hence the IRNMN, HUULL, or RYDRR arrival routes are not in their clearance. The aircraft are not subject to the defined routings or altitude restrictions for the IRNMN, HUULL, and RYDDR procedures.

Aircraft that are being sequenced onto the final approach course for Runways (RWY) 24L/R must be vertically separated from aircraft that are being sequenced into the final approach course for RWYs 25L/R. Aircraft are often taken off the STAR and vectored in order to accomplish this sequence. The aircraft from the arrival routes must also be sequenced with nearby arriving aircraft approaching KLAX from the east that are already established on the final approach course for RWYs 24L/R. The aircraft entering the north final approach course must be at a lower altitude than conflicting south final approach course aircraft to support a safe turn for sequencing with other traffic along the final approach course, and to meet safe descent speeds.

There are times when the spacing with other air traffic landing KLAX will support a clearance for an RNAV approach procedure. When the opportunity for an RNAV procedure is not available due to air traffic, a controller must give vectoring instructions so that the aircraft descends to properly sequence the aircraft. The spacing of other KLAX arrivals from the east for the same runway complex—and, in some instances, the location of south runway complex arrivals—determines the location and altitude that a north downwind arrival can turn towards the final approach leg to land on RWYs 24L/R. Once a controller issues a vector or clears an aircraft for an approach procedure of any kind, that aircraft is no longer on the STAR procedure. This is part of the original procedures (HUULL ONE, IRNMN ONE, and RYDRR ONE) and the May 2018 amended procedure designs (HUULL TWO, IRNMN TWO, and RYDRR TWO), and these conditions have not changed since the original implementation of the procedures as part of the 2016 SoCal Metroplex project.

The City of Los Angeles and the City of Malibu claim in their comments that the FAA was required to evaluate the environmental effects of aircraft vectored off the procedures. The FAA is not required to do so because vectoring is not part of the Action here. Before the FAA approved the original procedures as part of the 2016 SoCal Metroplex project, the FAA complied

with NEPA by studying the noise impacts from the original procedures, which included vectoring (HUULL ONE, IRNMN ONE, and RYDRR ONE). Several parties challenged the FAA's record of decision for the SoCal Metroplex project. The City of Los Angeles participated in that lawsuit by filing an amicus brief in which it raised concerns about noise impacts from HUULL ONE, IRNMN ONE, and RYDRR ONE. The court concluded that the FAA had complied with NEPA and rejected challenges to the FAA's noise analysis. *Vaughn v. FAA*, 756 Fed. App'x 8 (D.C. Cir. 2018). In the Action, the FAA has made minor amendments to the original procedures, but the FAA made no changes to the vectoring allowed by the original procedures. Because the FAA has made no changes to vectoring, it did not need to do an environmental analysis of vectoring. The City of Los Angeles' and the City of Malibu's requests that the FAA conduct an environmental analysis of vectoring is an untimely request for the FAA to revisit the original procedures approved as part of the 2016 SoCal Metroplex project. The FAA is not required to revisit or reexamine potential noise effects that it previously studied when it complied with NEPA as part of the SoCal Metroplex project.

In their comments, the City of Los Angeles and City of Malibu note that flight track data shows that many flights are below the 6,000 feet mean sea level (MSL) minimum altitude at the GADDO and DAHJR waypoints. Many of those flights are likely to be aircraft that controllers have vectored off of the three procedures that were approved in the 2016 SoCal Metroplex project (HUULL TWO, IRNMN TWO, and RYDRR TWO). As noted above, this vectoring was allowed under the original procedures (HUULL ONE, IRNMN ONE, and RYDRR ONE) and the FAA did not change or alter that vectoring in the May 2018 amendments. When the City of Los Angeles participated in the lawsuit over the SoCal Metroplex project, it claimed that the FAA's 2016 environmental assessment did not properly account for noise impacts from aircraft flying HUULL ONE, IRNMN ONE, and RYDRR ONE below the 6,000 feet minimum altitude at the DAHJR waypoint. The court concluded that the FAA's environmental analysis was sound. The FAA is not required to revisit its decision approving the original procedures in the SoCal Metroplex when it made minor amendments to improve the safety and efficiency of those original procedures. Some of those flights also may be flights arriving from other procedures that controllers have vectored for landing on RWYs 24L/R. Those runways are the primary runways at KLAX, and controllers routinely direct many flights to land on them. This is unchanged from the conditions evaluated in the SoCal Metroplex environmental assessment.

Many arrivals to KLAX are cleared for visual approach procedures from spring through early fall, although the potential exists year-round and is weather dependent. A visual approach procedure authorizes a pilot to proceed visually (without the use of waypoints) when the pilot has either the airport or the preceding aircraft in sight, and is instructed to follow that aircraft; or, if no other aircraft are involved, the pilot is cleared for a visual approach to the appropriate runway. Visual approach procedures for simultaneous arrivals to parallel runways at KLAX typically use vertical separation (i.e., altitude separation) until the aircraft are established on final approach, at which point lateral separation can be maintained. In order to maintain visual contact with the airport and separation from simultaneous inbound aircraft to the southern runway complex, aircraft on visual approaches on the north downwind typically descend below 6,000 feet mean sea level (MSL) prior to reaching the vicinity of DAHJR waypoint. Aircraft arriving from the north into KLAX must be 1,000 feet below aircraft inbound to the southern runway

complex, not the reverse. The requirement for aircraft on the north downwind to be below the south downwind traffic is necessary because aircraft on the south downwind must remain higher to allow for arrivals and departures at the adjacent Hawthorne Municipal Airport, which is unchanged from conditions evaluated in the 2016 environmental assessment for the SoCal Metroplex project when the original procedures were implemented.