DRAFT
ENVIRONMENTAL ASSESSMENT

EASTGATE AIR CARGO FACILITY

San Bernardino International Airport
San Bernardino, San Bernardino County, California

Prepared for:

San Bernardino International Airport Authority

and

U.S. Department of Transportation
Federal Aviation Administration
As lead Federal Agency pursuant to the National Environmental Policy Act of 1969

Prepared by:

Environmental Science Associates, Inc.

July 2019

This environmental assessment becomes a Federal document when evaluated, signed, and dated by the Responsible FAA Official.
WHAT IS IN THIS DOCUMENT? This Draft Environmental Assessment (EA) was prepared for the San Bernardino International Airport Authority’s (SBIAA) proposed Eastgate Air Cargo Facility at San Bernardino International Airport (SBD). This Draft EA provides information on the Proposed Project; discusses the purpose of and need for the Proposed Project; describes alternatives considered; and discloses the analysis and findings of potential environmental, social, and economic impacts associated with the Proposed Project and reasonable alternatives. Information on how to comment on the Draft EA and the Public Hearing are also included in this document.

BACKGROUND: SBD is owned and operated by the SBIAA. The airport was initially built as Norton Air Force Base by the United States Air Force (USAF). Under the Base Realignment and Closure Act of 1990, Norton Air Force base was closed and disposed of by the USAF for a civilian aviation reuse in 1994. The airport was transferred to the SBIAA and has been operated since that time as a public-use general aviation airport that accommodates aircraft ranging from piston-powered propeller aircraft to multi-engine jet aircraft including large air cargo aircraft. The SBIAA proposes to develop the Eastgate Air Cargo Facility to accommodate the demand for air cargo logistics operations at the SBD. This development includes construction of taxilanes and an aircraft parking apron to accommodate up to 14 aircraft, a 658,500-square-foot warehouse, two 25,000-square-foot maintenance buildings, and automobile parking with approximately 2,000 parking stalls. The aviation related facilities would be designed to meet Federal Aviation Administration (FAA) airport design standards contained in FAA Advisory Circular 150/5300-13A, Airport Design.

WHAT SHOULD YOU DO? Read this Draft EA and attend the public workshop and public hearing on this proposed project. Copies of the document are available for review at various libraries in the San Bernardino area and the FAA’s Western-Pacific Region, Office of Airports, in El Segundo, California. A list of these and other locations where the document may be viewed can be found in Chapter 5. If you have important information that has not been considered in this document or comments about the conclusions, you may submit your written comments by U.S. mail to the address below.

San Bernardino International Airport Authority
Attention: Mark Gibbs – Director of Aviation
1601 East Third Street, Suite 100
San Bernardino California 92408

Comments should be as specific as possible and address the adequacy of the proposed action, the merits of alternatives, the analysis of potential environmental impacts, and the mitigation being considered. The cutoff date for comment submission is not later than 5:00 PM – Pacific Daylight Time, August 19, 2019. Please allow enough time for mailing. The SBIAA must receive your comments by the deadline, not simply postmarked, by that date.

Before including your name, address and telephone number, email or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information - may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

WHAT HAPPENS AFTER THIS? The SBIAA will prepare and submit a Final EA to the FAA. The FAA will independently review the Final EA to determine its adequacy under the National Environmental Policy Act (NEPA), Council on Environmental Quality's regulations implementing NEPA (40 CFR Part 1500), and FAA Orders 1050.1F and 5050.4B. If the Final EA is determined to be adequate, the FAA will decide to either issue a Finding of No Significant Impact (FONSI) or prepare a Federal Environmental Impact Statement (EIS).
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CHAPTER 1
Purpose and Need

1.1 Introduction

The San Bernardino International Airport Authority (SBIAA) proposes a project to develop the Eastgate Air Cargo Facility (Proposed Project) within the San Bernardino International Airport (SBD or Airport) property boundaries to accommodate the demand for air cargo logistics operations at the Airport. The SBIAA, which owns and operates the Airport, seeks the Federal Aviation Administration’s (FAA) unconditional approval of that portion of the Airport Layout Plan that depicts the proposed improvements. The Proposed Project would develop a package sorting and distribution center with an air cargo hub that would satisfy an unmet need for large-scale air cargo facilities in the San Bernardino area. A detailed description of the Proposed Project is provided in Section 1.4.

This Environmental Assessment (EA) has been prepared pursuant to the requirements of Section 102(2)(c) of the National Environmental Policy Act of 1969 (NEPA), President’s Council on Environmental Quality Regulations (CEQ) Title 40, Code of Federal Regulations (CFR) §§ 1500-1508, the implementing regulations for NEPA, and Section 509(b)(5) of the Airport and Airway Improvement Act of 1982, as amended. This EA has also been prepared in accordance with FAA Order 1050.1F, Environmental Impacts: Policies and Procedures, and FAA Order 5050.4B, National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions. This EA has been prepared to identify and consider the potential environmental impacts associated with the Proposed Project. The FAA is the lead federal agency to ensure compliance with NEPA for the purpose of the Proposed Project.

This chapter provides: a brief description of the Airport; a description of the Proposed Project; a discussion of the purpose and need for the Proposed Action; a description of the requested federal actions; and a description of the format of this EA.

1.2 Airport Information

1.2.1 Airport Physical Setting

SBD is a public airport located less than two miles southeast of the city center of San Bernardino, California, in San Bernardino County, California. The Airport covers 1,329 acres and has one runway, oriented northeast/southwest—Runway 6-24. Runway 6-24 is 10,001 feet long by 200 feet wide. The Airport has a parallel and connecting taxiway system to provide access to Airport facilities and aircraft parking areas. Taxiway A is a full-length parallel taxiway to Runway 6-24.
The Airport is located on the site of the former Norton Air Force Base and is currently operating as a general aviation and cargo airport. Norton Air Force Base was originally built in 1942 as the San Bernardino Air Depot and decommissioned in March 1994 under the Defense Base Realignment and Closure Act of 1990. SBD began civilian operation in 1996 and towered operations on November 9, 2008. Figure 1-1 depicts the regional location of the Airport.

Airport facilities include the ground-based facilities that support the aircraft and pilot/passenger handling functions. These facilities include domestic and international terminal buildings, a fixed base operator (FBO), aircraft storage hangars, aircraft maintenance hangars, aircraft parking aprons, and support facilities such as fuel storage, automobile parking, utilities, and aircraft rescue and firefighting facilities. The Airport also provides a non-federal Air Traffic Control Tower (ATCT), managed under contract by Serco company personnel. In addition, the U.S. Forest Service operates a 20-acre aerial tanker base on the northwest side of the airfield. The Airport layout is depicted on Figure 1-2. Additional Airport details are shown on the Airport Layout Plan (included as Appendix A).

The Airport is located within an urban environment, situated within the Upper Santa Ana River Valley that is bounded to the northwest by the San Gabriel Mountains, to the northeast by the San Bernardino Mountains, to the south by the Crafton Hills, the Badlands, and Box Springs Mountains, and to the southwest by a low escarpment along the San Jacinto fault.

1.2.2 Airport Role, Services, and Activity

SBD is a public-use airport and is included in the FAA’s National Plan of Integrated Airport Systems (NPIAS). The Airport is classified as a Regional general aviation airport and its Service Level is classified as a Reliever airport.

In 2017, SBD accommodated 64,465 aircraft operations with the majority being general aviation operations. Activity at SBD is forecasted to increase to nearly 68,637 operations by 2024 without the Proposed Project. Table 1-1 presents historical and forecasted annual aircraft operations at the Airport through 2024.

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2 Reliever airports are airports designated by the FAA to relieve congestion at Commercial Service airports.
3 Aircraft Operation is either one takeoff or one landing. (Advisory Circular 150/5000-17, Critical Aircraft and Regular Use Determination, U.S Department of Transportation, Federal Aviation Administration. May 6, 2017).
Figure 1-1
Regional Location
San Bernardino International Airport
Figure 1-2
Proposed Project Location
### 1.3 Proposal for New Air Cargo Facilities at SBD

In 2018, the SBIAA and the project proponent, Hillwood Enterprises, L.P. (Hillwood), a private company, entered into an agreement to develop facilities at the Airport to accommodate the unmet demand for air cargo facilities in San Bernardino through the development of the Proposed Project and supporting infrastructure at SBD. The agreement proposes the development and operation of an air cargo facility at SBD. A decision by the FAA to approve the Proposed Action would be necessary for the Proposed Project to proceed. In the event that FAA does not approve the Proposed Action, the Proposed Project may be deferred, and the Airport may not be able to accommodate the unmet demand for air cargo facilities.

### 1.4 Description of the Proposed Project

The following sections describe the Proposed Project. The proposed location and layout of the Proposed Project components are shown in Figure 1-3.
Figure 1-3
Project Site Plan
San Bernardino International Airport
1.4.1 Proposed Project

The Proposed Project involves development of various facilities and supporting infrastructure on an approximately 101.5-acre site on the northern side of the Airport property. The Proposed Project includes:

- Construction of a 658,500-square-foot (sf) sort, distribution, and office building (the Air Cargo Sort Building) ranging between 50 and 63 feet in height. The Air Cargo Sort Building would include approximately 77 dock doors on the northern side, approximately 24 dock doors on the western side, and approximately 20 doors to accommodate air cargo containers on the southern side of the Air Cargo Sort Building.

- Construction of taxilanes and aircraft parking apron to support 14 aircraft concurrently ranging from Boeing-737 to Boeing-767 aircraft meeting FAA Airplane Design Group IV standards.

- Construction of approximately 12 acres of ground support equipment (GSE) parking and operational support areas.

- Construction of two separate 25,000-sf maintenance buildings.

- Construction of approximately 2000 employee auto parking stalls and 380 trailer parking stalls. Employee parking would be located on the eastern portion of the Proposed Project site. Trailer parking would be located on the northern and western portions of the Proposed Project site.

- Construction of two new driveways into the Proposed Project site, including two clear-span bridges crossing the City Creek Bypass Channel.

- Construction of 3rd Street modifications to tie-in road gradients and turning lanes with bridge entrances.

- Installation of new security fencing, vehicle and pedestrian gates, and a guard shack.

- Installation of pole-mounted and/or building-mounted exterior lights for vehicle and truck parking lots, the Air Cargo Sort Building, and aircraft parking apron.

- Installation of appropriate airfield lights and signage for the aircraft parking apron and taxilanes.

- Land clearing, demolition of concrete, excavation, embankment, and grading.

- Extension of utilities to the Proposed Project site including electrical, natural gas, water, sanitary sewer, communications, and other related infrastructure.

- Installation of stormwater management systems and infrastructure.

- Landscaping.

1.4.2 Induced Activity

Opening day aircraft operations for the Proposed Project would include 12 daily take-offs and landings (24 total aircraft operations). The project proponent anticipates aircraft operations
would occur seven days per week, with four daytime (7:00 a.m.–6:59 p.m.) take-offs and six daytime landings, with two evening (7:00 p.m.–9:59 p.m.) take-offs and two evening landings, and with six nighttime (10:00 p.m.–6:59 a.m.) take-offs and four nighttime landings.

Cargo aircraft serving the proposed Eastgate Air Cargo Facility would be operated by contracted third-party air carriers. These aircraft would carry cargo to and from the Airport. The operating certificates issued by the FAA and held by these third-party air carriers specify that their aircraft are to be used for transport of air cargo. Accordingly, these air carriers would not require amendment of this specification to serve the proposed Eastgate Air Cargo Facility. These operators would continue to conform with the regulatory requirements of their operating certificates in accordance with current FAA regulations.

Five years into the operation of the Proposed Project, the project proponent anticipates a gradual increase in aircraft operations commensurate with an anticipated increase in demand for air cargo services. The number of project-related take-offs and landings are estimated to gradually increase to 26 take-offs and landings per day (52 total operations), which would require a total of 14 aircraft parking positions. During this period in the future, it is anticipated that ten daytime take-offs and thirteen daytime landings, three evening take-offs and three evening landings, and thirteen nighttime take-offs and ten nighttime landings would occur daily.

The Proposed Project would operate seven days per week with three daily shifts.

- **Day:** 0700-1500 / Full Shift
  - Transition period: 1500-1600

- **Twilight:** 1600-2300 / Full Shift
  - Transition period: 2300-2400

- **Night:** 2400-0600 / Full-Shift
  - Transition period: 0600-0700

On opening day, the Proposed Project would employ an estimated 1,700 people. It is anticipated that at full operation the Proposed Project would employ an estimated 3,900 people, with a temporary increase to about 6,000 employees during the peak holiday season from mid-November through December.

1.4.3 Proposed Project Implementation Schedule

If the Proposed Action is approved by FAA, construction of the proposed warehouse and aircraft parking apron is anticipated to take one full year and would begin as early as possible in 2019. SBIAA proposes that construction would comprise eight-hour work days for five days per week. The estimated maximum daily number of employees working on site during each phase of construction is assumed to be approximately 200.

If approved, SBIAA anticipates that the proposed air cargo flight operations at SBD would begin around December 1, 2019, prior to completion of the new facilities. Aircraft would be parked at
available locations around the airport until the new facilities are ready for use. Thus, a phased move-in would occur utilizing tenable portions of the proposed air cargo building and an existing eight-acre asphalt aircraft ramp located within the Proposed Project’s future aircraft ramp footprint to support air cargo activities from about December 1, 2019 through the remaining construction period. Thus, if the Proposed Project is approved by FAA, construction of the new facilities is anticipated to begin in 2019.

1.4.4 Project Cost and Funding

The Proposed Project’s development cost is approximately $300 million. Funding for the Proposed Project will be from Hillwood.

1.4.5 Project Commitments

The following commitments would be included in the Proposed Project as a condition of project approval.

- **Project Commitment 1: Require Use of Electric Ground Support Equipment.** With the exception of the fuel trucks and lavatory service trucks, which are assumed to operate on diesel fuel, the SBIAA will require the use of ground support equipment that can operate on electric battery power.

- **Project Commitment 2: Construct a Second Eastbound Left Turn Lane and a Second Westbound Left Turn Lane at Victoria Avenue and 3rd Street.** SBIAA shall be responsible for constructing a second eastbound left-turn lane and a second westbound left-turn lane at Victoria Avenue and 3rd Street.

1.5 Purpose and Need

Pursuant to NEPA and FAA Orders 1050.1F and 5050.4B, an EA must include a description of the purpose for a proposed action and why it is needed. Identification of the purpose and need for a proposed action provides the rationale for the proposed action and forms the foundation for identification of reasonable alternatives that can meet the purpose of the action and therefore, address the need or problem.

The FAA’s statutory mission is to ensure the safe and efficient use of navigable airspace in the United States pursuant to Title 49, United States Code (USC) § 47101(a)(1). In Advisory Circular 150/5300-13A, *Airport Design*, the FAA provides airport design standards for airport operators to use (FAA, 2014). Implementation of the Proposed Project at SBD would result in new facilities designed to meet applicable airport design standards. Thus, FAA’s purpose and need is to ensure the proposed air cargo facility does not derogate aviation safety and meets FAA airport design standards at SBD.

The purpose of the Proposed Project is to develop and provide facilities that would support large-scale air cargo operations with on-airport package sorting capabilities. The Airport’s current development plan was devised to efficiently accommodate potential aviation demand. The current ALP designates the project site for development of future air cargo uses. Furthermore,
the SBIAA and Hillwood have identified a demand for air cargo facilities at the Airport that cannot be met with existing facilities because they are not available or large enough to accommodate what Hillwood plans to build.

In 2002, Hillwood approached SBIAA regarding a proposal to develop air cargo facilities in and around the San Bernardino area. Hillwood described the need for an air cargo logistics center with regional hub capabilities in order to meet immediate and long-term operational goals. In 2016, SBIAA and Hillwood agreed to develop, if feasible, air cargo facilities to accommodate unmet demand.

The need for this project is that the Airport does not have existing facilities that meet Hillwood’s requirements. Hillwood requires a facility large enough to serve as a regional air hub and adequate land available on Airport in the area currently designated for development of air cargo uses to accommodate this facility. Demand for air cargo facilities in this region of Southern California has grown substantially in recent years, as have the advances in technology, facility design, and network service requirements and capabilities. This results in a market need for larger, centralized, multi-functional air and ground sorting facilities. Per the Airport’s current development plan, the development of new facilities on the Airport is demand-based, to be constructed if needed to meet demand. Currently, there is a verifiable, unmet demand for adequate air cargo facilities which clearly satisfies this requirement. The Contracted third-party air carriers servicing the Proposed Project would be anticipated to operate scheduled bi-directional air freighters to the Airport. These flights will serve and support ground operations delivering goods to and from other in-network distribution facilities within the region (generally within a 50-80-mile radius).

The SBIAA and Hillwood have an existing agreement for Hillwood to develop and lease an air cargo facility at SBD. To meet Hillwood’s operational goals for the facility, integration of airside, landside, and sorting facilities is required. This integration allows for limited flexibility in the variation of layout, orientation, and proximity to airside and surface transportation facilities. To meet operational requirements, Hillwood proposed to SBIAA, at a minimum, an on-airport development site that has the following characteristics:

- A minimum of 100 contiguous acres of land, configurable for direct landside and airside access for an over 650,000 square foot air cargo sorting building and 14 wide body aircraft parking positions.
- Direct airfield access for both day time and night time flight operations.
- Access to major surface transportation corridors (i.e., Interstate 10/215 and State Route 210).
- The facility should have initial operational capability within a year of the beginning of construction.

The development of the air cargo facility would require sufficient on-airport land areas that could be co-located with existing air and surface transportation infrastructure.
1.6 Requested Federal Action

The requested FAA action includes the following:

- Unconditional approval of the portion of the Airport Layout Plan (ALP) for the Airport depicting the proposed improvements pursuant to 49 U.S.C. § 40103(b), § 44718, and § 47107(a)(16); 14 Code of Federal Regulations (CFR) Part 77, Safe, Efficient Use, and Preservation of the Navigable Airspace; and 14 CFR Part 157, Notice of Construction, Alteration, Activation, and Deactivation of Airports.

- Determination under 49 U.S.C. § 44502(b) that the Proposed Action is reasonably necessary for use in air commerce or in the interest of national defense.

1.7 Document Organization

This EA contains the following chapters:

**Chapter 1, Purpose and Need:** provides a brief description of the Airport and the Proposed Action, its purpose, and why it is needed.

**Chapter 2, Alternatives:** provides an overview of the identification and screening of alternatives considered as a part of the environmental evaluation process.

**Chapter 3, Affected Environment:** describes existing environmental conditions within the project study area.

**Chapter 4, Environmental Consequences:** discusses and compares the environmental impacts associated with the Proposed Action, the No Action Alternative, and mitigation options considered.

**Chapter 5, Coordination and Public Involvement:** describes the coordination and public involvement associated with the EA process and presents a list of federal, state, and local agencies and other interested parties that have been involved in EA coordination efforts.

**Chapter 6, List of Preparers.**

**Chapter 7, References.**

The **Appendices** contain various reference materials, technical studies prepared in support of the EA, and records of coordination activities.
CHAPTER 2
Alternatives

2.1 Introduction

2.1.1 Scope of the Alternatives Analysis

This chapter summarizes the screening process conducted to identify, compare, and evaluate alternatives to the Proposed Project (the Proposed Eastgate Air Cargo Facility described in Chapter 1 of this EA). This chapter presents the following:

- An overview of the structure of the alternatives screening process and analysis used for this EA.
- A description of the reasonable alternatives to the Proposed Action considered, including the No Action alternative.
- A concise statement explaining why some alternatives considered have been eliminated from evaluation in this EA.
- Identification of reasonable alternatives retained for further evaluation in this EA.
- A list of applicable laws, regulations, executive orders and associated permits, licenses, and/or reviews.

Five alternatives were evaluated, using the screening criteria described below. Alternatives that did not meet the purpose and need were not advanced for further analysis. As required under Title 40, Code of Federal Regulations (CFR) § 1502.14(d), the No Action Alternative was advanced through the alternatives analysis as a basis of comparison against which the impacts of the other alternatives were evaluated.

2.1.2 Requirements of the National Environmental Policy Act

The Council on Environmental Quality (CEQ) regulations (40 CFR § 1502.14) for implementing the National Environmental Policy Act of 1969 (NEPA)(42 U.S.C. 4321 et seq.) require that federal agencies perform the following tasks:

- Rigorously explore and objectively evaluate all reasonable alternatives and, for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.
- Devote substantial treatment to each alternative considered in detail, including the Proposed Action, so that reviewers may evaluate their comparative merits.
- Include reasonable alternatives not within the jurisdiction of the lead agency.
• Include the alternative of no action.

2.2 Alternatives Screening and Evaluation

The San Bernardino International Airport Authority (SBIAA) has determined that there is an unmet demand for an air cargo facility at San Bernardino International Airport (SBD or the Airport). As discussed in Section 1.5 of this EA, the purpose of the Proposed Project is to satisfy the unmet demand for large-scale air cargo operations at SBD. As discussed in Section 1.3 of this EA, the SBIAA and the project proponent, Hillwood Enterprises, L.P. (Hillwood), a private company, entered into an agreement to develop facilities at the Airport to accommodate the unmet demand for air cargo facilities at SBD through the development of the Proposed Project and supporting infrastructure at SBD. The agreement requires the development and operation of an air cargo facility at SBD. A decision by the FAA approving the Proposed Action would be necessary for the Proposed Project to proceed. In the event that FAA does not approve the Proposed Action, the Proposed Project may be deferred, and the Airport may not be able to accommodate the unmet demand for air cargo facilities.

Reasonable alternatives to the Proposed Project, including the No Action Alternative, are identified and evaluated in this EA in accordance with NEPA and its implementing regulations and FAA guidance and policy.

2.2.1 Alternatives Screening Process Overview

The alternatives evaluation involves a three-step screening process. Figure 2-1 depicts this screening process. The first step addresses whether the alternatives meet the purpose and need for the Proposed Action as identified in Chapter 1, Purpose and Need. This is satisfied through demonstration that the alternative includes enough land for development of large-scale air cargo facilities at the Airport including an aircraft parking apron to accommodate about 14 aircraft. This would also include parking for trucks and employee parking. The second step is to determine if the alternatives would be practical and feasible from a technical and economic standpoint, including constructability and operational considerations. This is established by determining whether the alternative could accommodate the functional needs and implementation requirements of the proposed project. The third step entails further analysis in this EA. Alternatives that did not meet the evaluation criteria established at steps one and/or two were eliminated from further consideration and were not subject to a detailed analysis of environmental impacts in this EA.

2.2.1.1 Step 1: Meet the Purpose and Need

The first step of this evaluation focused on whether an alternative met the purpose and need for the Proposed Project as described in Chapter 1, Purpose and Need. Alternatives that did not meet the purpose and need criteria were eliminated from further consideration. As discussed in Section 1.5 of this EA, the SBIAA has identified that there is an unmet demand for air cargo facilities at SBD. This includes demand for a large-scale air cargo facility with access to airfield facilities capable of supporting large cargo aircraft with access to roadway networks to allow the movement of cargo throughout the region. To determine whether the alternative meets the purpose and need for the Proposed Action, the following evaluation criteria is employed.
2. Alternatives

Alternatives Screening Evaluation

Step 1
Meet the Purpose and Need
Would the alternative meet the unmet demand for large-scale air cargo facilities at the Airport?

1. Does the alternative meet the purpose and need by providing enough land for development to accommodate a large air cargo operation including support facilities?

- Yes
- No

Eliminate from Further Consideration

Step 2
Constructability and Operational Considerations
Could the alternative accommodate the proposed facilities?

1. 100 contiguous acres of land;
2. Direct airfield access;
3. Access to major surface transportation corridors (i.e., Interstate 10/215 and State Route 210)

- Yes
- No

Eliminate from Further Consideration

Step 3
Further detailed analysis of environmental impacts in the EA

2. Alternatives

**Evaluation Criteria:**

- **Adequate Land Available for Development.** This criterion considers whether an alternative site is available at the Airport or elsewhere that could provide enough land for development to accommodate a large-scale air cargo operation including supporting facilities and an aircraft parking apron that can accommodate approximately 14 aircraft and parking for trucks and employees.

2.2.1.2 Step 2: Constructability and Operational Considerations

The second step of this evaluation focused on whether the alternatives would be practical and feasible from a technical and economic standpoint, including constructability and operational considerations. To determine whether the alternative is practical and feasible, the following evaluation criteria is employed.

**Evaluation Criterion:**

- **Ability to Accommodate the Proposed Facilities.** This criterion is based on an assessment of the technical and logistical factors for each alternative. The proposed facilities include:
  
  - 100 contiguous acres of land.
  
  - Direct airfield access, which will ensure efficient air cargo aircraft operations.
  
  - Access to major surface transportation corridors (i.e., Interstate 10/215 and State Route 210).

2.3 Alternatives Considered

2.3.1 Proposed Project Alternative

The Proposed Project is described in detail in Section 1.4.1. In summary, the project components would include:

- Construction of a 658,500-square-foot (sf) sort, distribution, and office building (the Air Cargo Sort Building) ranging between 50 and 63 feet in height. The Air Cargo Sort Building would include approximately 77 dock doors on the northern side, approximately 24 dock doors on the western side, and approximately 20 doors to accommodate air cargo containers on the southern side of the Air Cargo Sort Building.

- Construction of taxilanes and aircraft parking apron to support 14 aircraft concurrently ranging from Boeing-737 to Boeing-767 aircraft meeting FAA Airplane Design Group IV standards.

- Construction of approximately 12 acres of ground support equipment (GSE) parking and operational support areas.

- Construction of two separate 25,000-sf GSE maintenance buildings.

- Construction of approximately 2,000 employee auto parking stalls and 380 trailer parking stalls. Employee parking would be located on the eastern portion of the Proposed Project site. Trailer parking would be located on the northern and western portions of the Proposed Project site.
2. Alternatives

- Construction of two new driveways into the Proposed Project site, including two clear-span bridges crossing the City Creek Bypass Channel.
- Construction of 3rd Street modifications to tie-in road gradients and turning lanes with bridge entrances.
- Installation of new security fencing, vehicle and pedestrian gates, and a guard shack.
- Installation of pole-mounted and/or building-mounted exterior lights for vehicle and truck parking lots, the Air Cargo Sort Building, and aircraft parking apron.
- Installation of appropriate airfield lights and signage for the aircraft parking apron and taxilanes.
- Land clearing, demolition, excavation, embankment, and grading.
- Extension of utilities to the Proposed Project site including electrical, natural gas, water, sanitary sewer, communications, and other related infrastructure.
- Installation of stormwater management systems and infrastructure.
- Landscaping.

2.3.1.1 Step 1: Meet the Purpose and Need

The Proposed Project would satisfy the unmet demand for large-scale air cargo facilities at SBD. The Proposed Project site would provide a large area of land, configurable for direct landside and airside access, and wide body aircraft parking positions and sufficient area for truck and employee parking.

2.3.1.2 Step 2: Constructability and Operational Considerations

The Proposed Project would accommodate the proposed facilities. There is adequate space on Airport property (more than 100 acres) to develop the Proposed Project in the location currently identified for the Proposed Project. The project site has direct access to the airfield, would provide direct access to area roadways leading to major surface transportation corridors, and is planned for operation within a year of the beginning of construction.

2.3.1.3 Conclusion

The Proposed Project satisfied the Step 2 screening criteria and was carried forward for detailed evaluation in the EA.

2.3.2 Other Vacant Sites on Airport

This alternative would develop a large-scale air cargo facility at one of various vacant sites on the Airport. Figure 2-2 shows the three largest vacant sites on the Airport.
Figure 2-2
Other Vacant Sites on Airport
San Bernardino International Airport
2.3.2.1 Step 1: Meet the Purpose and Need

The Airport has various areas of vacant space. However, the vacant land on the Airport does not meet the size or configuration criteria to support the air cargo service provider’s operational requirements and business needs. Site A is approximately 49 acres, Site B is approximately 23 acres, and Site C is approximately 44 acres. As all three sites are less than 100 acres in size, they would not provide for an adequate amount of contiguous land to develop large-scale air cargo facility and associated facilities in the required layout or configuration.

Because the other vacant land available on Airport does not provide enough contiguous space for development, these sites could not be developed to accommodate the required facility and thus would not satisfy the unmet demand for large-scale air cargo facilities at the Airport.

2.3.2.2 Conclusion

This alternative did not satisfy the criteria included under Step 1 of the screening analysis. No further evaluation of this alternative is warranted.

2.3.3 Reuse/Repurpose of Other Sites on Airport

This alternative would reuse or repurpose other buildings on Airport to provide a large-scale air cargo facility. Buildings considered include aircraft hangars and the domestic terminal building.

2.3.3.1 Step 1: Meet the Purpose and Need

The Airport includes numerous buildings that theoretically could be repurposed as air cargo facilities. Currently, there are six aircraft hangars in excess of 25,000 square feet. All but one hangar is of insufficient size to support a large-scale air cargo logistics operation; this hangar was retained for screening in Step 2.

The existing domestic terminal is approximately 190,000 square feet, and underwent extensive renovations that were completed in 2011. The building is not of sufficient size to be repurposed as a large-scale air cargo facility. Furthermore, SBIAA intends to maintain its significant investment in this building to meet future domestic passenger demand. Repurposing of this building to meet the unmet demand for a large-scale air cargo facility would require a future unfunded investment to construct a new terminal in order to meet future passenger demand which is not yet feasible for the SBIAA. Accordingly, these facilities are currently devoted to other uses and are generally of insufficient size to meet the purpose and need for the project.

Because the remaining existing aircraft hangars and domestic terminal building would not meet the requirements for a large-scale air cargo logistics facility, there remains a need to provide buildings and facilities capable of supporting this unmet demand.

2.3.1.2 Step 2: Constructability and Operational Considerations

The largest hangar is approximately 524,000 square feet in size, which meets the Purpose and Need identified in step 1 because it provides an area large enough for large-scale air cargo facilities. However, this building is subdivided into smaller sections and occupied by multiple long-term
tenants that use the building as an aeronautical facility in accordance with its intended use for aircraft maintenance. In addition, this hangar is not currently equipped to serve as an air cargo facility and would require significant repurposing of the building and displacement of existing tenants.

Because the largest hangar does not provide enough space for development, this alternative would not satisfy constructability for large-scale air cargo facilities at the Airport.

2.3.3.2 Conclusion

This alternative did not satisfy the criteria included under Step 2 of the screening analysis. No further evaluation of this alternative is warranted.

2.3.4 Use Other Area Airports

This alternative would construct a large-scale air cargo facility at another airport. The two closest airports to SBD that can accommodate large cargo aircraft (e.g., Boeing 767) are March Air Reserve Base/March Inland Port in Riverside, California (approximately 13.7 miles south of SBD), and Ontario International Airport in Ontario, California (approximately 21.1 miles west of SBD. Figure 2-3 identifies both of these facilities relative to SBD.

2.3.4.1 Step 1: Meet the Purpose and Need

March Air Reserve Base/March Inland Port

March Air Reserve Base (Base/March Inland Port) is a large facility with areas of open space where a large-scale air cargo facility and associated facilities could be developed. The March Inland Port is located in nearby Riverside, California, and, similar to SBD, provides access to major transportation corridors that serve the Inland Empire region and beyond.

However, development of a large-scale air cargo facility and associated facilities at the March Inland Port would not meet the SBIAA’s need to develop an air cargo facility at SBD. If the Proposed Action was located at the March Inland Port, the air cargo facility would not be located at SBD and would not satisfy the unmet demand for air cargo services at SBD. It should also be noted that development of a new air cargo facility at the March Inland Port to serve SBD would add hours to daily delivery times due to adverse surface traffic on highways that connect the two facilities, including Interstate 215 and State Route 91. The added hours of delivery time would be detrimental to air cargo operations.

---

4 As identified on the March Joint Powers Authority website (https://marchjpa.com/marchinlandportauthority.php), the March Inland Port has more than 350 acres of runway-accessible property available for development. Website accessed on October 28, 2018.
**Ontario International Airport**

While Ontario International Airport (ONT) is a large facility in the nearby community of Ontario with access to major transportation corridors that serve the Inland Empire region and beyond, there is no room on Airport for development of a new large-scale air cargo facility and associated facilities. ONT currently accommodates air cargo facilities both on the airport and off-airport through the airport’s fence. FAA notes that this through-the-fence operation is secure. It would not be physically possible to develop the large-scale air cargo facility and associated facilities at this location. Even if adequate space were available, if the Proposed Action was located at ONT, the air cargo facility would not be located at SBD and would not satisfy the unmet demand for air cargo services at SBD.

**2.3.4.2 Conclusion**

This alternative did not satisfy the criteria included under Step 1 of the screening analysis. No further evaluation of this alternative is warranted.

**2.3.5 No Action Alternative**

Under the No Action Alternative, the Proposed Eastgate Air Cargo Facility would not be built. Aircraft and airport operations at SBD would continue.

*Table 2-1* summarizes the results of the alternatives screening evaluation. In accordance with NEPA requirements, the No Action Alternative is evaluated throughout the EA for comparison against other alternatives.
### TABLE 2-1
**ALTERNATIVES COMPARISON SUMMARY**

<table>
<thead>
<tr>
<th>Screening Level</th>
<th>Screening Criteria</th>
<th>Proposed Action</th>
<th>Other Vacant Sites on Airport</th>
<th>Reuse/Repurpose of Other Sites on Airport</th>
<th>Other Airports</th>
<th>No Action Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td>Meet the Purpose and Need</td>
<td>Meet unmet demand for air cargo facilities at SBD. An area of land that is large enough to accommodate a large-scale air cargo facility, aircraft parking positions and truck and employee parking.</td>
<td>Meets unmet demand for air cargo facilities at SBD. The Airport has a large area of land that can accommodate a large-scale air cargo facility, aircraft parking positions and truck and employee parking.</td>
<td>Meets unmet demand for air cargo facilities at SBD. The Airport does not have other vacant sites with a large area of land that can accommodate a large-scale air cargo facility, aircraft parking positions and truck and employee parking.</td>
<td>Does not meet unmet demand for air cargo facilities at SBD. The Airport has one hangar that is large enough to accommodate a large-scale air cargo facility. Other sites on airport are not large enough to accommodate these facilities.</td>
<td>Does not meet unmet demand for air cargo facilities at SBD. Other airports in the region do not have areas large enough to accommodate a large-scale air cargo facility, aircraft parking positions and truck and employee parking.</td>
</tr>
<tr>
<td><strong>Continue to Step 2 evaluation?</strong></td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td>Construct-ability and Operational Considerations</td>
<td>1. A minimum of 100 contiguous acres of land.</td>
<td>The Proposed Project includes more than 100 acres of contiguous land.</td>
<td>--</td>
<td>--</td>
<td>Not applicable.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Direct airfield access.</td>
<td>The Proposed Project has direct access to the airfield.</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Access to major surface transportation corridors (i.e., Interstate 10/215 and State Route 210).</td>
<td>The Proposed Project would provide direct access to area roadways leading to major surface transportation corridors.</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Retain for detailed analysis in EA?</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

2.4 Alternatives Retained for Further Analysis

The Proposed Project and No Action Alternative have been retained for further analysis in this EA. These alternatives are discussed in further detail below. Figure 2-4 depicts the No Action Alternative and Figure 2-5 depicts the Proposed Project.

2.4.1 Proposed Action

The Proposed Project is a reasonable alternative because it meets the purpose and need of the Proposed Action by satisfying the unmet demand for air cargo facilities at SBD.

2.4.2 No Action Alternative

The purpose and need of the Proposed Action is not satisfied by the No Action Alternative as the No Action Alternative would not satisfy the unmet demand for air cargo facilities at SBD. As a result, the demand for air cargo services at the Airport would not be accommodated.

While the No Action Alternative does not meet the Proposed Action’s purpose and need, it has been retained for detailed analysis under 40 CFR § 1502.14(b)\textsuperscript{5} for comparison purposes with the Proposed Action and other reasonable alternatives.

2.4.3 Summary of Alternatives Analysis

For the reasons presented above, the alternatives retained for consideration were the Proposed Action and the No Action Alternative.

\textsuperscript{5} CEQ §1502.14(d) requires the alternatives analysis “to include the alternative of no action.”
SOURCE: Google Earth, 2018

Figure 2-4
No Action Alternative
San Bernardino International Airport
2.5 Federal Laws and Regulations Considered

Relevant federal laws and statutes, executive orders, and other federal regulations considered during preparation of this EA are listed in Table 2-2, Table 2-3, and Table 2-4.

<table>
<thead>
<tr>
<th>Table 2-2</th>
<th>FEDERAL LAWS AND STATUTES CONSIDERED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airport and Airway Improvement Act of 1982, as amended</td>
<td>42 U.S.C. 7401 et seq.</td>
</tr>
<tr>
<td>FAA Modernization and Reform Act of 2012</td>
<td>49 U.S.C. 40101</td>
</tr>
<tr>
<td>Noise Control Act of 1972</td>
<td>P.L. 92-574; 42 U.S.C. Section 4901</td>
</tr>
<tr>
<td>Clean Air Act of 1970, as amended</td>
<td>42 USC 4321 et seq.</td>
</tr>
<tr>
<td>Policy on Lands, Wildlife and Waterfowl Refuges, and Historic Sites [recodified from and formerly known as Section 4(f) of the Department of Transportation Act of 1966]</td>
<td>49 U.S.C. Section 303</td>
</tr>
<tr>
<td>Clean Water Act, as amended</td>
<td>33 U.S.C. 1251 et seq.</td>
</tr>
<tr>
<td>Uniform Relocation Assistance and Real Property Acquisition Policies for Federal and Federally Assisted Programs</td>
<td>42 U.S.C. 61</td>
</tr>
</tbody>
</table>

Abbreviations: U.S.C. = United States Code, P.L. = Public Law
### Table 2-3
**Executive Orders Considered**

<table>
<thead>
<tr>
<th>Executive Order</th>
<th>Order Title</th>
<th>Federal Register</th>
</tr>
</thead>
<tbody>
<tr>
<td>11593</td>
<td>“Protection and Enhancement of the Cultural Environment”</td>
<td>36</td>
</tr>
<tr>
<td>11988</td>
<td>“Floodplain Management”</td>
<td>43</td>
</tr>
<tr>
<td>11296</td>
<td>“Flood Hazard Evaluation Guidelines”</td>
<td>31</td>
</tr>
<tr>
<td>11514</td>
<td>“Protection and Enhancement of Environmental Quality”</td>
<td>35</td>
</tr>
<tr>
<td>13166</td>
<td>“Improving Access to Services for Persons with Limited English Proficiency”</td>
<td>65</td>
</tr>
<tr>
<td>11990</td>
<td>“Protection of Wetlands”</td>
<td>42</td>
</tr>
<tr>
<td>12898</td>
<td>“Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations”</td>
<td>59</td>
</tr>
<tr>
<td>13045</td>
<td>“Protection of Children from Environmental Health Risks and Safety Risks”</td>
<td>62</td>
</tr>
</tbody>
</table>
### TABLE 2-4
**FAA ORDERS, ADVISORY CIRCULARS, AND FEDERAL REGULATIONS CONSIDERED**

<table>
<thead>
<tr>
<th>U.S. Department of Transportation and FAA Orders</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. DOT, FAA Order 5050.4B, <em>National Environmental Policy Act (NEPA) Implementing Instructions of Airport Actions</em></td>
</tr>
<tr>
<td>U.S. DOT, Order 5650.2, <em>Floodplain Management and Protection</em></td>
</tr>
<tr>
<td>U.S. DOT Order 5610.1C, <em>Procedures for Considering Environmental Impacts</em></td>
</tr>
<tr>
<td>U.S. DOT, Order 5660.1A, <em>Preservation of the Nation’s Wetlands</em></td>
</tr>
<tr>
<td>U.S. DOT, Order 5680.1, <em>Final Order to Address Environmental Justice in Low-Income and Minority Populations</em></td>
</tr>
<tr>
<td>U.S. DOT, FAA Joint Order 7110.65T, <em>Air Traffic Organization Policy</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FAA Advisory Circulars</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. DOT, FAA AC 150/5070-6B, <em>Airport Master Plans</em></td>
</tr>
<tr>
<td>U.S. DOT, FAA AC 150/5200-33B, <em>Hazardous Wildlife Attractants on or Near Airports</em></td>
</tr>
<tr>
<td>U.S. DOT, FAA AC 36-3H, <em>Estimated Airplane Noise Levels in A-Weighted Decibels</em></td>
</tr>
<tr>
<td>U.S. DOT, FAA AC 150/5300-13A, <em>Airport Design</em></td>
</tr>
<tr>
<td>U.S. DOT, FAA AC 150/5320-6E, <em>Airport Pavement Design and Evaluation</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code of Federal Regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title 14 CFR Part 77, <em>Safe, Efficient Use and Preservation of the Navigable Airspace</em></td>
</tr>
<tr>
<td>Title 14 CFR Part 139, <em>Airport Operations Specifications</em></td>
</tr>
<tr>
<td>Title 14 CFR Part 150, <em>Airport Noise Compatibility Planning</em></td>
</tr>
<tr>
<td>Title 14 CFR Part 151, <em>Federal Aid to Airports</em></td>
</tr>
<tr>
<td>Title 14 CFR Part 152, <em>Airport Aid Program</em></td>
</tr>
<tr>
<td>Title 14 CFR Part 157, <em>Notice of Construction, Alteration, Activation, and Deactivation of Airports</em></td>
</tr>
<tr>
<td>Title 14 CFR Part 169, <em>Expenditures of Federal Funds for Non-Military Airports or Air Navigational Facilities Thereon</em></td>
</tr>
<tr>
<td>Title 40 CFR Part 93, <em>Determining Conformity of Federal Actions to State or Federal Implementation Plans, Subpart B</em></td>
</tr>
<tr>
<td>Title 40 CFR Part 122, <em>EPA Administered Permit Programs: The National Pollutant Discharge Elimination System</em></td>
</tr>
<tr>
<td>Title 40 CFR Part 124, <em>Procedures for Decision Making</em></td>
</tr>
<tr>
<td>Title 40 CFR Parts 1500-1508, <em>President’s Council on Environmental Quality</em></td>
</tr>
</tbody>
</table>

Abbreviations: CFR = Code of Federal Regulations
CHAPTER 3
Affected Environment

3.1 Introduction

This chapter describes existing physical, natural, and human environmental conditions within those areas that would be directly, or indirectly, affected by the Proposed Project and its alternatives. The information describes the airport environs and provides information by which potential environmental impacts of the alternatives retained for detailed evaluation can be assessed and compared. The environmental resource categories described in this chapter are organized as identified in the Desk Reference for Federal Aviation Administration (FAA) Order 1050.1F, *Environmental Impacts: Policies and Procedures*. The potential environmental impacts of the Proposed Project and No Action Alternative are discussed in Chapter 4, *Environmental Consequences*.

FAA Order 5050.4B states the affected environment section of an Environmental Assessment (EA) should succinctly describe only those environmental resources the Proposed Project and its reasonable alternatives are likely to affect. The amount of information on potentially affected resources is based on the expected impact and is commensurate with the impact’s importance as directed in FAA Order 1050.1F and the 1050.1F Desk Reference.

3.1.1 Study Areas

Study areas were identified to describe existing conditions in the vicinity of San Bernardino International Airport (SBD, or the Airport) and to assess direct and indirect impacts of the Proposed Project and its alternatives. For the purposes of this EA, two study areas have been defined. The General Study Area (GSA) depicts the area surrounding the Airport. A further refined Detailed Study Area (DSA) depicts the areas that may be physically disturbed with the development of the Proposed Project. The study areas are shown in Figures 3-1 and 3-2.

Specialized study areas were also developed based on special purpose laws and other regulatory requirements. These specialized study areas include the Area of Potential Effects (APE) for Historic Resources and an Action Area (AA) for Biological Resources. These study areas are permitted by Order 1050.1F Desk Reference. Information regarding these specialized study areas is described, where applicable, within each environmental impact category.

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6 Federal Aviation Administration (FAA) Order 1050.1F Desk Reference, available at: [https://www.faa.gov/about/office_org/headquarters_offices/apl/environmental_policy_guidance/policy/faa_nepa_order/desk_ref/](https://www.faa.gov/about/office_org/headquarters_offices/apl/environmental_policy_guidance/policy/faa_nepa_order/desk_ref/)
Figure 3-1
General Study Area
San Bernardino International Airport
Figure 3-2
Detailed Study Area
San Bernardino International Airport

SOURCE: ESA, 2019
Each of the study areas in this EA serve a purpose to comply with federal legal and regulatory requirements and are designed to allow for the most appropriate level of analysis for each environmental resource.

### 3.1.1.1 General Study Area

The GSA is defined as the area where both direct and indirect impacts may result from the development of the Proposed Project. The GSA boundary lines were squared off to follow roadways and other identifiable features where available (see Figure 3-1). The purpose of the GSA is to establish the study area for the quantification of impacts to resource categories that involve issues that are regional in scope and scale, including noise, land use, socioeconomic impacts, and Section 4(f) and 6(f) resources. For the purposes of this EA, the GSA is roughly the region around the Airport within the 2024 Proposed Project community noise equivalent level (CNEL) 65 dB and higher aircraft noise contours, the Airport property, and the neighborhoods north of the Airport through which employee vehicle and truck traffic is expected to flow to and from the Proposed Project site (roughly between Tippecanoe Avenue, Highway 210, and Victoria Avenue). The GSA includes parts of the cities of San Bernardino, Highland, and Redlands, as well as areas of unincorporated San Bernardino County.

### 3.1.1.2 Detailed Study Area

The DSA is generally defined as the areas where direct physical impacts may result from the Proposed Project, and the DSA boundaries were developed using the description of the Proposed Project. The purpose of the DSA is to establish the study area for environmental considerations that deal with specific and direct physical construction or operational issues that directly affect natural resources such as water resources, air quality, and hazardous materials. The DSA represents the Proposed Project site and includes areas of potential physical disturbance due to construction of the Proposed Project. The establishment of the DSA does not preclude analysis of indirect impacts beyond the DSA.

### 3.1.2 Resource Categories Not Affected

The environmental resources that would not be affected by either the Proposed Project or the No Action Alternative are summarized below. In accordance with guidance provided in FAA Order 1050.1F, Environmental Impacts: Policies and Procedures, the 1050.1F Desk Reference, and FAA Order 5050.4B, National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions (FAA, 2006b), no further analysis of these resources is provided within this EA.

#### 3.1.2.1 Coastal Resources

San Bernardino County is outside the coastal zone and the Airport is located approximately 50 miles from the Pacific Ocean. Accordingly, the Proposed Project and its alternatives would not directly or indirectly affect coastal resources. Therefore, this resource was not evaluated in this EA. Because there would be no effect on coastal resources, federal consistency review is not required.
3.1.2.2 Farmlands

The Proposed Project does not involve land acquisition or the conversion of agricultural land to airport use. SBD was established at the Norton Air Force Base, built as the San Bernardino Air Depot in 1942. Because the Airport is not considered “farmland,” was developed prior to 1984, and is classified as urban development, the provisions of the Farmland Protection Policy Act (7 U.S.C. §§ 4201-4209) do not apply. Therefore, this resource was not evaluated in this EA.

The nearest property designated as “Prime Farmland” is located approximately 1 mile south of the Proposed Project site across the Santa Ana River (California Department of Conservation, 2018), which is within the GSA (see Figure 3-1). This farmland is a “heritage” orange grove remnant from when the area was primarily agricultural. This area is surrounded by light industrial and institutional uses and there would be no impacts on accessibility or agricultural practices. There is only citrus on this property; there are no birds or livestock. Based on the guidance in the FAA Order 1050.1F Environmental Desk Reference, there would be no direct or indirect impacts to prime farmland. For these reasons, farmlands were not evaluated further in this EA.

3.1.2.3 Wild and Scenic Rivers

There are no wild and scenic rivers in the DSA or the GSA. The nearest wild and scenic rivers, the north fork of the San Juan River and Fuller Mill Creek, are located in San Jacinto State Park, approximately 35 miles southeast of the Airport (National Wild and Scenic Rivers System, 2018). Therefore, this resource was not evaluated in this EA.

3.1.3 Existing Condition Study Year

The year used to identify existing conditions in this EA is 2017.

3.1.4 Potentially Affected Resource Categories

This chapter provides information on the current conditions for environmental resource categories or components that the Proposed Project could potentially affect. These environmental resource categories include:

- Air Quality
- Biological Resources
- Climate
- Department of Transportation Act, Section 4(f)
- Hazardous Materials, Solid Waste, and Pollution Prevention
- Historical, Architectural, Archeological, and Cultural Resources
- Land Use

3. Affected Environment

- Natural Resources and Energy Supply
- Noise and Noise-Compatible Land Use
- Socioeconomics, Environmental Justice, and Children’s Environmental Health and Safety Risks
- Water Resources

This chapter also provides a list of past, present, and reasonably foreseeable projects that may result in cumulative environmental impacts.

The following sections discuss each of the above-listed environmental resource categories in detail.

3.2 Air Quality

This section contains a brief discussion of existing air quality conditions in the GSA. Information on applicable air quality standards, current attainment/nonattainment designations, and existing air monitoring data is also provided. Air quality and climate change technical studies and supporting data are provided in Appendix B.

3.2.1 Introduction

The federal Clean Air Act of 1970 (CAA) (42 U.S.C. § 7401 et seq. [1970]), as amended, requires the U.S. Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for principle air pollutants considered harmful to public health and the environment. States are required to identify those areas where the NAAQS are not met for these air pollutants. Those areas where the NAAQS are not met are designated as being in “nonattainment.” A state with a nonattainment area must prepare a State Implementation Plan that details the programs and requirements the state will use to meet the NAAQS by the deadlines specified in the 1990 amendments to the CAA.

The EPA, under mandates of the CAA, as amended, established primary and secondary NAAQS for seven air pollutants, described as “criteria air pollutants.” These pollutants include: ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter less than or equal to 10 microns in diameter (coarse particulates, or PM₁₀), particulate matter less than or equal to 2.5 microns in diameter (fine particulates, or PM₂.₅), and lead (Pb). The primary standards were established at levels sufficient to protect public health with a satisfactory margin of safety. The secondary standards were established to protect public welfare from other adverse effects of air pollution.

The California Air Resources Board (CARB) manages air quality, regulates mobile emissions sources, and oversees the activities of county and regional air districts within California. CARB also regulates local air quality indirectly through the California Ambient Air Quality Standards (CAAQS), vehicle emissions standards, and by conducting research, planning, and coordination activities. The CAAQS are generally more stringent than the federal standards.
The Proposed Project is located in the South Coast Air Basin (Basin). The Basin falls within the jurisdiction of the South Coast Air Quality Management District (SCAQMD). SCAQMD is responsible for ensuring that federal and state air quality standards are met within the Basin, which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SCAQMD monitors ambient air pollutant levels throughout the region and implements strategies to bring the Basin into attainment of the NAAQS and CAAQS by the applicable dates.

### 3.2.2 Regulatory Context

#### 3.2.2.1 Attainment Status

The Basin’s attainment status for each of the NAAQS is provided in Table 3-1. Currently, the entire Basin is classified as nonattainment of the NAAQS for O₃ and PM 2.5; only portions of Los Angeles County fail to meet the lead NAAQS (see Table 3-1, footnote 1).

#### 3.2.2.2 Clean Air Plans

The SCAQMD is responsible for administering the Air Quality Management Plans (AQMPs) for the Basin. The SCAQMD and CARB have adopted several AQMPs that cover the Basin, as well as plans that address specific pollutants in specific areas within the Basin. The plan directly applicable to the Proposed Project area is the 2012 Air Quality Management Plan (2012 AQMP).

The purpose of the 2012 AQMP for the Basin is to set forth a program that would lead the Basin into compliance with the federal 24-hour PM$_{2.5}$ air quality standard and to provide an update of the Basin’s projections in meeting the federal 1-hour and 8-hour O₃ standards. In 2010, the SCAQMD approved the Clean Communities Plan (CCP). The CCP is an update to the 2000 Air Toxics Control Plan and 2004 Addendum. The 2010 CCP provides a strategy for the reduction of air toxics exposure on the community level.

#### 3.2.2.3 Ambient Air Quality Conditions

The SCAQMD operates 37 permanent multi-pollutant air quality monitoring stations in the Basin, as well as five temporary stations monitoring for lead. The closest air quality monitoring station to the Airport is the SCAQMD Central San Bernardino Valley 1 (SRA 34) monitoring station, located approximately 1.5 miles west of the Proposed Project site. The station monitors for O₃, CO, NO$_2$, PM$_{10}$, and PM$_{2.5}$.

Table 3-2 gives most recent 3 years of data and identifies the number of days that ambient air quality standards were exceeded in the Basin. These data are considered representative of the local air quality at the Proposed Project site (EPA, 2013; CARB, 2013). Data for SO$_2$ has been omitted because attainment is regularly met in the Basin and few monitoring stations measure SO$_2$ concentrations.
### TABLE 3-1
**NATIONAL AMBIENT AIR QUALITY STANDARDS – SOUTH COAST AIR BASIN**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Primary/Secondary</th>
<th>Averaging Time</th>
<th>Federal Standard</th>
<th>Attainment Status - Basin</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ozone (O₃)</strong></td>
<td>Primary and secondary</td>
<td>1 Hour</td>
<td>0.12 ppm</td>
<td>Nonattainment (Extreme)</td>
<td>Attainment is defined when the expected number of days per calendar year, with maximum hourly average concentration greater than 0.12 ppm, is equal to or less than 1</td>
</tr>
<tr>
<td></td>
<td>Primary and secondary</td>
<td>8 Hour</td>
<td>0.070 ppm</td>
<td>Nonattainment (Extreme)</td>
<td>Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years</td>
</tr>
<tr>
<td><strong>Respirable Particulate Matter (PM₁₀)</strong></td>
<td>Primary and secondary</td>
<td>24 Hour</td>
<td>150 µg/m³</td>
<td>Attainment (Maintenance)</td>
<td>Not to be exceeded more than once per year on average over 3 years</td>
</tr>
<tr>
<td><strong>Fine Particulate Matter (PM₂.₅)</strong></td>
<td>Primary</td>
<td>1 Year</td>
<td>12 µg/m³</td>
<td>Nonattainment (Serious)</td>
<td>Annual mean, averaged over 3 years</td>
</tr>
<tr>
<td></td>
<td>Secondary</td>
<td>1 Year</td>
<td>15 µg/m³</td>
<td>Nonattainment (Serious)</td>
<td>Annual mean, averaged over 3 years</td>
</tr>
<tr>
<td></td>
<td>Primary and secondary</td>
<td>24 Hours</td>
<td>35 µg/m³</td>
<td>Nonattainment (Serious)</td>
<td>98th percentile, averaged over 3 years</td>
</tr>
<tr>
<td><strong>Carbon Monoxide (CO)</strong></td>
<td>Primary</td>
<td>1 Hour</td>
<td>35 ppm</td>
<td>Attainment (Maintenance)</td>
<td>Not to be exceeded more than once per year</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8 Hour</td>
<td>9 ppm</td>
<td>Attainment (Maintenance)</td>
<td></td>
</tr>
<tr>
<td><strong>Nitrogen Dioxide (NO₂)</strong></td>
<td>Primary</td>
<td>1 Hour</td>
<td>0.100 ppm</td>
<td>Unclassified/Attainment</td>
<td>98th percentile of 1-hour daily maximum concentrations, averaged over 3 years</td>
</tr>
<tr>
<td></td>
<td>Primary and secondary</td>
<td>1 Hour</td>
<td>0.053 ppm</td>
<td>Attainment (Maintenance)</td>
<td>Annual Mean</td>
</tr>
<tr>
<td></td>
<td>Primary</td>
<td>1 Hour</td>
<td>0.075 ppm</td>
<td>Unclassified/Attainment</td>
<td>99th percentile of 1-hour daily maximum concentrations, averaged over 3 years</td>
</tr>
<tr>
<td></td>
<td>Secondary</td>
<td>3 Hour</td>
<td>0.5 ppm</td>
<td>Unclassified/Attainment</td>
<td>Not to be exceeded more than once per year</td>
</tr>
<tr>
<td><strong>Lead (Pb)</strong></td>
<td>Primary and secondary</td>
<td>Rolling 3 month Average</td>
<td>0.15 µg/m³</td>
<td>Nonattainment (Partial)</td>
<td>Not to be exceeded</td>
</tr>
</tbody>
</table>

**NOTES:**
1 Partial Nonattainment designation – Los Angeles County portion of Basin only for near-source monitors. Expect redesignation to attainment based on current monitoring data.

n.a. = Not Applicable

Federal standards listed in this table are the primary standards. The secondary standards are not shown.

AAM = Annual Arithmetic Mean

µg/m³ = micrograms per cubic meter

NAAQS = National Ambient Air Quality Standards

PM₁₀ = particulate matter less than or equal to 10 microns in diameter

PM₂.₅ = particulate matter less than or equal to 2.5 microns in diameter

ppm = parts per million

### TABLE 3-2  
**PROJECT SITE AREA AIR QUALITY MONITORING SUMMARY 2016–2018**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Standard</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ozone (O₃)</strong></td>
<td>Maximum 8-Hour Concentration (ppm)</td>
<td>0.105</td>
<td>0.118</td>
<td>0.116</td>
</tr>
<tr>
<td></td>
<td>Number of Days Exceeding Federal 8-Hour Standard &gt; 0.075 ppm</td>
<td>49</td>
<td>38</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Number of Days Exceeding Health Advisory ≥ 0.15 ppm</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>Carbon Monoxide (CO)</strong></td>
<td>Maximum 1-Hour Concentration (ppm)</td>
<td>35 ppm</td>
<td>1.7</td>
<td>1.6</td>
</tr>
<tr>
<td></td>
<td>Maximum 8-Hour Concentration (ppm)</td>
<td>9 ppm</td>
<td>1.0</td>
<td>1.3</td>
</tr>
<tr>
<td><strong>Nitrogen Dioxide (NO₂)</strong></td>
<td>Maximum 1-Hour Concentration (ppm)</td>
<td>0.072</td>
<td>0.062</td>
<td>0.055</td>
</tr>
<tr>
<td></td>
<td>Annual Arithmetic Mean Concentration (ppm)</td>
<td>0.018</td>
<td>0.018</td>
<td>0.015</td>
</tr>
<tr>
<td></td>
<td>Number of Days Exceeding 1-Hour Standard &gt; 0.1 ppm</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Particulate Matter ≤ 10 Microns (PM₁₀)</strong></td>
<td>Maximum 24-Hour Concentration (µg/m³)</td>
<td>94</td>
<td>75</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>Number of Samples</td>
<td>61</td>
<td>43</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>Number of Samples Exceeding Federal Standard &gt; 150 µg/m³</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Particulate Matter ≤ 2.5 Microns (PM₂.₅)</strong></td>
<td>Maximum 24-Hour Concentration (µg/m³)</td>
<td>30.5</td>
<td>39.2</td>
<td>30.1</td>
</tr>
<tr>
<td></td>
<td>Annual Arithmetic Mean (µg/m³)</td>
<td>12.0</td>
<td>11.1</td>
<td>11.4</td>
</tr>
<tr>
<td></td>
<td>Number of Samples Exceeding Federal 24-Hour Standard &gt; 35 µg/m³</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Lead (Pb)</strong></td>
<td>Maximum 3-Month Average</td>
<td>0.01</td>
<td>0.01</td>
<td>.01</td>
</tr>
<tr>
<td></td>
<td>Maximum 30-Day Average</td>
<td>0.019</td>
<td>0.016</td>
<td>.012</td>
</tr>
<tr>
<td></td>
<td>Number of Samples Exceeding Federal Standard &gt;15 µg/m³</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**NOTES:**  
-- = data not available from SCAQMD or CARB  
* = There was insufficient (or no) data available to determine the value.  
**SOURCES:**  

### 3.2.2.4 Meteorological and Topographical Conditions

The distinctive climate of the Proposed Project area and the Basin is determined by its terrain and geographical location. The Basin is located in a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter. The city of San Bernardino lies in the San Bernardino foothills and the eastern portion of the San Bernardino Valley. Major geographical features of the city...
include the San Bernardino Mountains and the San Bernardino National Forest. The seasonal Santa Ana winds are felt particularly strongly in the San Bernardino area as warm and dry air are channeled through nearby Cajon Pass at times during the autumn months. San Bernardino features a Mediterranean climate with mild winters and hot, dry summers. The particularly arid climate during the summer prevents tropospheric clouds from forming, meaning temperatures tend to rise. In the winter, snow flurries occur on occasion. Over the course of the year, the temperature typically varies from 42°F to 96°F and is rarely below 35°F or above 104°F. San Bernardino gets an average of 16 inches of rain, hail, or light snow showers each year.

3.2.3 Existing Conditions Air Pollutant Emissions

The sources of air emissions associated with the Airport are typical of sources associated with most air cargo and general aviation airports and include aircraft during the landing/take-off cycle, ground support equipment (GSE), auxiliary power units (APUs), airport-related motor vehicles (e.g., pilots and passengers, airport employees, delivery trucks, buses) within the airport roadway network, and stationary sources (e.g., boilers and generators). However, the Proposed Project site is currently undeveloped; therefore, stationary sources associated with building operations were not included in the existing emissions calculations. The bulk of air pollutants emissions generated from the Airport are produced by aircraft operations and off-airport vehicular travel. No existing APU or GSE usage information was available; therefore, emissions related to this activity were not included in the existing conditions emissions inventory. However, because existing aircraft operations are dominated by small general aviation aircraft (piston-engine and turboprops) that do not use GSE or APUs (see Table 1-1), any existing condition GSE or APU emissions would be diminutive in comparison to aircraft operations emissions.

The existing conditions air pollutant emissions inventory for the Airport is presented in Table 3-3. The existing conditions emissions inventory was developed using the latest version of the FAA’s Aviation Environmental Design Tool (AEDT) (Version 2d) and the California Air Pollution Control Officers Association (CAPCOA) California Emission Estimator Model (CalEEMod) version 2016.3.2.

<table>
<thead>
<tr>
<th>Source</th>
<th>CO</th>
<th>VOC</th>
<th>NOx</th>
<th>SOx</th>
<th>PM10</th>
<th>PM2.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aircraft</td>
<td>345.76</td>
<td>13.30</td>
<td>26.58</td>
<td>3.15</td>
<td>0.50</td>
<td>0.50</td>
</tr>
<tr>
<td>Off-Airport Vehicular Travel</td>
<td>63.29</td>
<td>13.60</td>
<td>67.29</td>
<td>0.09</td>
<td>0.10</td>
<td>0.09</td>
</tr>
<tr>
<td>Total</td>
<td>409.05</td>
<td>26.90</td>
<td>93.87</td>
<td>3.24</td>
<td>0.60</td>
<td>0.59</td>
</tr>
</tbody>
</table>

NOTES:
CO = carbon monoxide
NOx = oxides of nitrogen
PM10 = particulate matter less than or equal to 10 microns in diameter
PM2.5 = particulate matter less than or equal to 2.5 microns in diameter
SOx = oxides of sulfur
VOC = volatile organic compound
3.3 Biological Resources

3.3.1 Introduction

This section describes biotic communities, including plant communities, wildlife, and protected species that could be affected by the Proposed Project. Federally listed species are present on and in the vicinity of SBD, but not in the Action Area (as described below) for the Proposed Project. Due to the proximity of federally listed species outside the Action Area, a Biological Assessment (BA) was prepared to address potential construction and operational effects of the Proposed Project (Jericho Systems, 2018). This section is based on the Biological Assessment (BA) that was prepared to address potential construction and operational effects of the Proposed Project (Jericho Systems, 2018). The BA is included as Appendix C.

Biological Assessment Action Areas

A BA was prepared for the FAA section 7 consultation with the USFWS. In accordance with the FAA 1050.1F Desk Reference, the Proposed Project’s Action Area (AA) encompasses all areas that may be affected directly or indirectly by the Proposed Project including the construction footprint, stockpile and staging areas, as well as immediate adjacent areas outside of the Proposed Project site.

The direct AA is the 101.5-acre area proposed for development and is comprised of airfield infrastructure that include existing pavement and maintained disturbed land that is currently utilized for multiple purposes including: existing taxiway, asphalt parking areas, tractor trailer storage, and material stockpiles where the actual construction and improvements will occur.

The indirect AA includes the approximate 200-foot buffer,8 adjacent area (approximately 56.8 acres) that border the Proposed Project’s AA but are not anticipated to be impacted directly by the Proposed Action. These indirect areas include: airport infrastructure such as: a concrete runway, operation facilities, tractor trailer storage facilities and security fencing structures, as well as disturbed land that is routinely disced/graded as part of normal airport operations but will not be directly impacted by the Project construction or staging. For this Draft EA, the AA comprises the direct and indirect AAs (approximately 158.3 acres) (see Figure 3-3). The indirect AA is not anticipated to be impacted directly by the Proposed Project construction or staging activities.

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8 Buffer zones are areas peripheral to a specific protected area, where restrictions on resource use and special development measures are undertaken in order to enhance the conservation value of the protected area. A 200-foot buffer zone is commonly used for purposes of biological assessments.
Figure 3-3
Biological Assessment Action Areas
San Bernardino International Airport

Legend
- Airport Property
- Direct Action Area
- Indirect Action Area

Source: ESA, 2019
3. Affected Environment

Database searches performed for the BA were conducted in June 2018, July 2018, and October 2018 and included the following resources:

- U.S. Fish and Wildlife Service (USFWS) threatened and endangered species occurrence geographical information system (GIS) data overlay
- USFWS Information, Planning, and Conservation System (IPaC)
- California Natural Diversity Database
- California Native Plant Society Electronic Inventory database
- Calflora Database
- Biogeographic Information & Observation System (BIOS)
- General texts and other documents identifying potential resources on the property
- Wildlife Hazard Management Plan, San Bernardino International Airport (Mead & Hunt, January 2017)

A field survey of the AA was conducted on June 4, 2018, and July 4, 2018. The field survey was systematic and comprehensive with complete coverage of the AA when appropriate and feasible. The field surveys were designed to focus attention on the specific sensitive species that have been documented in the vicinity and/or whose habitat requirements may be present within the AA.

General wildlife species were detected during field surveys by sight, calls, tracks, scat, or other sign. In addition to species observed, expected wildlife usage of the site was determined according to known habitat preferences of regional wildlife species and knowledge of their relative distributions in the area. The focus of the BA was to identify potential habitat for special-status wildlife within the direct AA.

Land use identified within the AA includes developed areas with pavement or gravel as well as maintained land that is graded and mowed on a routine basis (Jericho Systems, 2018).

### 3.3.2 Regulatory Context

FAA Order 1050.1F identifies the factors to consider in a significance determination include whether or not the action would have the potential for: long-term or permanent loss of unlisted plant or wildlife species; adverse impacts to special-status species or their habitats; substantial loss, reduction, degradation, disturbance, or fragmentation of native species’ habitats or their populations; or adverse impacts on a species’ reproductive success rates, natural mortality rates, non-natural mortality, or ability to sustain the minimum population levels required for population maintenance.

The provisions set forth in the federal Endangered Species Act (ESA) require the FAA to determine whether a proposed project under its purview would affect a federally listed species or designated critical habitat to that species (critical habitat). In addition, candidate species, any species that either the USFWS or National Marine Fisheries Service is considering for listing as
“endangered” or “threatened,” but has not yet been the subject of a proposed rule, shall be identified in order to alert federal agencies of potential proposals or listings.

3.3.3 Existing Conditions

3.3.3.1 Plant Communities

Wildlife habitats are generally described in terms of dominant plant species and plant communities along with landform, disturbance regime, and other unique environmental characteristics. Plant communities within the AA were identified using field reconnaissance and aerial photography. Approximately 60 acres of the AA consist of disturbed vacant land that has been previously graded, and approximately 25 acres of this area has been covered in gravel/asphalt road base. The remaining 35 acres of disturbed vacant land appears to be subject to periodic discing, grubbing, and weed abatement activities. Habitat type, where it exists along the unpaved portions of the AA, consists almost entirely of non-native grasses (Bromus sp.) and other non-native and ruderal species, mostly composed of short podded mustard (Hirschfeldia incana) and Russian thistle (Salsola tragus) (Jericho Systems, Inc., 2018).

3.3.3.2 Wildlife

Field surveys conducted in the AA observed wildlife activity, including scat, trails, tracks, burrows, skeletal remains, calls, and visual sightings. Species observed included California ground squirrel (Spermophilus beecheyi), common raven (Corvus corax), side-blotched lizard (Uta stansburiana), Say’s phoebe (Sayornis saya), European starling (Sturnus vulgaris), Domestic cat (Felis catus), house finch (Haemorhous mexicanus), house sparrow (Passer domesticus), and rock dove or “pigeon” (Columba livia). Numerous ground squirrel burrows were discovered in the undeveloped portions of the direct AA (Jericho Systems, Inc., 2018).

The direct AA is within an active airport and therefore is managed, in compliance with FAA AC 150/5200-33B, Hazardous Wildlife Attractants on or near Airports, to discourage use by wildlife to the maximum extent practicable. The Airport has an active Wildlife Hazard Management Plan designed to reduce prey and predators from interfering with the safe operation of the Airport. Methods employed to reduce wildlife activity include maintaining grasses below 6 inches and employment of various means to deter wildlife.

3.3.3.3 Federally Listed Species

Federally listed species are those plants and animals that, because of their recognized rarity or vulnerability to various causes of habitat loss or population decline, receive specific protection defined by the ESA. Species that fall within this category include:

- Species listed or proposed for listing as threatened or endangered under the ESA (Title 50, Code of Federal Regulations [CFR] §17.12 [Endangered and Threatened Wildlife], 17.11 [Endangered and Threatened Plants] and various notices in the Federal Register [FR]).

- Species that are candidates for possible future listing as threatened or endangered under the ESA.
Table 3-4 presents the ESA-listed species with potential to appear in the AA. This list was based on various database searches within the USGS 7.5-minute Topographic Map for the Redlands Quadrangle and a field study.

**Table 3-4**

**FEDERALLY-LISTED SPECIES POTENTIALLY OCCURRING IN THE PROPOSED PROJECT ACTION AREA**

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Federal Status</th>
<th>Habitat</th>
<th>Potential to Occur</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mammals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Dipodomys</em></td>
<td>San Bernardino kangaroo rat</td>
<td>Endangered</td>
<td>Alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and flood plains. Needs early to intermediate seral stages.</td>
<td>Suitable habitat for this species does not exist onsite. The potential for this species to occur is none.</td>
</tr>
<tr>
<td><em>merriami</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Dipodomys</em></td>
<td>Stephens' kangaroo rat</td>
<td>Endangered</td>
<td>Primarily annual &amp; perennial grasslands, but also occurs in coastal scrub &amp; sagebrush with sparse canopy cover. Prefers buckwheat, chamise, brome grass and filaree. Will burrow into firm soil.</td>
<td>Suitable habitat for this species does not exist onsite. The potential for this species to occur is none.</td>
</tr>
<tr>
<td><strong>Birds</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Polioptila</em></td>
<td>coastal California gnatcatcher</td>
<td>Threatened</td>
<td>Obligate, permanent resident of coastal sage scrub below 2500 ft. in Southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.</td>
<td>Suitable habitat for this species does not exist onsite. The potential for this species to occur is none.</td>
</tr>
<tr>
<td><em>californica</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Vireo bellii</em></td>
<td>least Bell's vireo</td>
<td>Endangered</td>
<td>Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.</td>
<td>Suitable habitat for this species does not exist onsite. The potential for this species to occur is none.</td>
</tr>
<tr>
<td><em>pusillus</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Empidonax</em></td>
<td>Southwestern Willow Flycatcher</td>
<td>Endangered</td>
<td>Habitat consists of dense linear stands of riparian. Dominant species include <em>salix lasiolepis, salix hindsiana, populus fremontii</em>, and <em>bacharis glutinosa</em>.</td>
<td>Suitable habitat for this species does not exist onsite. The potential for this species to occur is none.</td>
</tr>
<tr>
<td><em>traillii</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>extimus</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Plants</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Berberis</em></td>
<td>Nevin's barberry</td>
<td>Endangered</td>
<td>Chaparral, cismontane woodland, coastal scrub, riparian scrub. On steep, N-facing slopes or in low-grade sandy washes. 290-1575 m.</td>
<td>Suitable habitat for this species does not exist onsite. The potential for this species to occur is none.</td>
</tr>
<tr>
<td><em>nevinii</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Dodecahema</em></td>
<td>slender-horned spineflower</td>
<td>Endangered</td>
<td>Chaparral, cismontane woodland, coastal scrub (alluvial fan sage scrub). Flood deposited terraces and washes; associates include Encelia, Dalea, Lepidosparum, etc. Sandy soils. 200-765 m.</td>
<td>Suitable habitat for this species does not exist onsite. The potential for this species to occur is none.</td>
</tr>
<tr>
<td><em>leptoceras</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Eriastrum</em></td>
<td>Santa Ana River woollystar</td>
<td>Endangered</td>
<td>Coastal scrub, chaparral. In sandy soils on river floodplains or terraced fluvial deposits. 180-700 m.</td>
<td>Suitable habitat for this species does not exist onsite. The potential for this species to occur is none.</td>
</tr>
<tr>
<td><em>densifolium</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ssp. sanctorum</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The AA is approximately 0.25-mile north of the USFWS-designated critical habitat for the San Bernardino kangaroo rat (*Dipodomys merriami parvus* [SBKR]), Santa Ana sucker (*Catostomus santaanae*), and the Santa Ana River woollystar. Runway 6/24 and its designated runway safety areas are in between the AA and the critical habitat. The SBKR depends on alluvial fan sage scrub and alluvial terraces of the Santa Ana River, which are not present within or adjacent to the AA. Additionally, there are no primary constituent elements of critical habitat for the SBKR within the AA surveyed to be considered similar to critical habitat, and the AA is separated from the critical habitat corridor by the airport taxiways and runway. The Proposed Project site, including the AA, is partially covered with asphalt or concrete, with the remaining areas covered by compacted engineered soils that contain non-native grass species that do not support appropriate SBKR habitat. Because the AA lacks appropriate soils for SBKR utilization and undergoes a routine maintenance regime to minimize/reduce wildlife utilization, it is anticipated that SBKR would not occur within and/or utilize the AA. Furthermore, SBD actively manages wildlife in accordance with the requirements of 14 CFR Part 139, *Certification of Airports*. At this time, utilization of the AA by SBKR has not been observed or reported.9

The Santa Ana sucker is located in the Santa Ana River channel and depends solely on water within the River (part of the critical habitat located 0.5-mile south of the AA), which is not present within or adjacent to the AA, or on Airport property.

### 3.3.3.4 Migratory Bird Treaty Act Listed Species

The IPAIC also lists migratory birds of concern that have been documented in the vicinity of the AA. However, the Direct AA is completely disturbed and void of any vegetation or natural features that could potentially provide suitable nesting or foraging habitat capable of supporting any of the migratory bird species identified in the IPAIC list. The complete list of migratory bird species identified by the USFWS IPAIC is included in Appendix C.

The burrowing owl, which is not a federally listed species, is listed in the Migratory Bird Treaty Act (MBTA) and is included in the BA since the USFWS monitors this species.

### 3.4 Climate

### 3.4.1 Introduction

This section defines greenhouse gases (GHGs), describes the sources of GHG emissions, and provides the context for climate change analysis in the vicinity of SBD. The climate change technical study and supporting data are provided in Appendix B.

### 3.4.1.1 Greenhouse Gas Emissions and Climate Change

GHGs include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). Increasing concentrations of

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GHGs in the atmosphere affect global climate. Anthropogenic (i.e., man-made) sources of GHG emissions are primarily associated with the combustion of fossil fuels, including aircraft fuel.

Mass emissions are calculated by converting pollutant-specific emissions to CO$_2$e emissions by applying the proper global warming potential (GWP) value. GWP represents the amount of heat captured by a mass of GHG compared to a similar mass of CO$_2$. These GWP ratios are provided by the Intergovernmental Panel on Climate Change (IPCC) in its Fourth Assessment Report (AR4) (IPCC, 2018). By applying the GWP ratios, project-related CO$_2$e emissions can be tabulated in metric tons per year. Typically, the GWP ratio corresponding to the warming potential of CO$_2$ over a 100-year period is used as a baseline. https://www.ipcc.ch/reports/

### 3.4.2 Regulatory Context

According to the FAA Order 1050.1F Desk Reference, where a proposed action would result in an increase in GHG emissions, the emissions should be assessed either qualitatively or quantitatively. Because an emissions inventory for criteria pollutants was developed for the Proposed Project, FAA guidance indicates that emission estimates for GHGs should also be prepared.

There are no significance thresholds for aviation GHG emissions, and it is not required for the NEPA analysis to attempt to link specific climate impacts to the Proposed Project or alternative(s) given the small percentage of emissions that aviation projects contribute.

### 3.4.3 Existing Conditions

Similar to the existing calculations conducted for the criteria pollutants in Section 3.2, existing GHG emissions were calculated for aircraft operations and off-airport vehicular travel. The Proposed Project site is currently undeveloped; therefore, stationary sources associated with building operations were not included in the existing emissions calculations. The bulk of air pollutants emissions generated from the Airport are produced by aircraft operations and off-airport vehicular travel. No existing APU or GSE usage information was available; therefore, emissions related to this activity were not included in the existing conditions emissions inventory. However, because existing aircraft operations are dominated by small general aviation aircraft (piston-engine and turboprops) that do not use GSE or APUs (see Table 1-1), existing APU or GSE usage would be negligible compared to emissions from aircraft operations.

Table 3-5 shows GHG emissions at the Airport for 2017. Using AEDT, Version 2d, the amount of CO$_2$ was calculated for aircraft operations. CH$_4$ and N$_2$O for aircraft were calculated using the methods found in the FAA Aviation Emissions and Air Quality Handbook (Version 3, Update 1). Emissions of GHGs from mobile sources, such as light-duty vehicles associated with passenger traffic and larger trucks for delivery of materials/goods and cargo, were calculated using CalEEMod (version 2016.3.2).

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10 Chapter 3 (Climate) § 3.1.1., Overview of the NEPA Review Process.
The IPCC estimates that aviation accounted for 6.5 percent of global transportation GHG emissions in 2010 or 0.9 percent of total global GHG emissions across all sectors (IPCC, 2014). In the United States, the EPA data indicate that commercial aviation contributed 6.6 percent of total CO2 emissions in 2013, compared with other sources. The other sources include the remainder of the transportation sector (20.7 percent), industry (28.8 percent), commercial (16.9 percent), residential (16.9 percent), agricultural (9.7 percent) and U.S. territories (.05 percent) (EPA, 2015).

### 3.5 DOT Act: Section 4(f) Resources

#### 3.5.1 Introduction

This section of the EA describes recreational resources in the vicinity of SBD, as well as other resources subject to the protective provisions included in Section 4(f) of the Department of Transportation Act of 1966 (DOT Act) (re-codified and renumbered as 49 U.S.C § 303(c)).

#### 3.5.2 Regulatory Context

Section 4(f) of the DOT Act, pertains to certain resources affected by transportation projects that are funded or approved by the Department of Transportation and its administrations and agencies. Section 4(f) of the DOT Act requires that the Secretary of Transportation may approve a proposed transportation project that requires the use of publicly owned land off a public park, recreational area, or wildlife or waterfowl refuge of national, state, or local significance, or land of a historic site of national, state, or local significance only if:

1. There is no prudent and feasible alternative that would avoid using those resources.
2. The program or project includes all possible planning to minimize harm resulting from the use.

Use of a Section 4(f) property includes both physical and constructive uses. FAA Order 1050.1F states, “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” (FAA, 2015).

Section 6(f) of the Land and Water Conservation Fund Act (LWCF) (16 U.S.C. §§ 4601-4 et seq.), as amended, provides funding for the purchase and improvement of recreational lands, wildlife and waterfowl refuges, and other similar resources. The LWCF established a fund for federal acquisition of park and recreational lands and also provides matching grants to state and local governments for recreation planning, acquisition, and development. Lands purchased by this fund are protected from conversion to uses other than public outdoor recreation.

3.5.3 Existing Conditions

Figure 3-4 depicts the location of Section 4(f) resources in the GSA. There are no Section 4(f) resources within the DSA. There are no National Register– or California Register–listed historic resources in the GSA. The following parks and recreation areas have been identified within the GSA:

- Mill Center Park (approximately 1.4 miles to the west of the runway end). Mill Center Park is located adjacent to the Norton Science and Language Academy Charter School.
- Norton Gym (approximately 1.10 miles west of the Proposed Project site).
- San Bernardino Soccer Complex (approximately 1.35 miles north of the Proposed Project site).
- Speicher Park (approximately 1.35 miles north of the Proposed Project site).

There are no Section 6(f) resources in the GSA that would be directly or indirectly affected by the Proposed Project.
Figure 3-4
Section 4(f) Properties in the General Study Area
San Bernardino International Airport

SOURCE: ESA, 2018
3.6 Hazardous Materials, Solid Waste, and Pollution Prevention

3.6.1 Introduction

The DSA includes areas on the Airport with former military uses. This former land use included handling of hazardous materials and wastes in varying quantities. The discussion and analysis in this section is based primarily on the Phase I Environmental Site Assessment, Eastgate Building 1, 101.5 Acres of Vacant Land Between 3rd Street and Taxiway “E”, San Bernardino, California (Geosyntec, 2019). The Phase I Environmental Site Assessment (Phase I ESA) is provided in Appendix D.

3.6.2 Regulatory Context

Materials are defined as hazardous if they appear on a list of hazardous materials prepared by a federal, state, or local regulatory agency, or if they have characteristics defined as hazardous by such an agency. The EPA classifies a waste as hazardous if it is listed on the EPA’s list of hazardous waste and exhibits one or more of the following properties: ignitability (including oxidizers, compressed gases, and extremely flammable liquids and solids), corrosivity (including strong acids and bases), reactivity (including materials that are explosive or generate toxic fumes when exposed to air or water), or toxicity (including materials listed by the EPA as capable of inducing systemic damage in humans or animals).

The EPA has defined the term “solid waste” to include the following: any gaseous, liquid, semi-liquid, or solid material that is discarded or has served its intended purpose, unless the material is excluded from regulation. Such materials are considered wastes whether they are discarded, reused, recycled, or reclaimed.

3.6.2.1 United States Air Force Installation Restoration Program

The United States Air Force (USAF) is responsible for cleanup with oversight by the EPA, and the California Department of Toxic Substance Control (DTSC) under the terms of a Federal Facility Agreement. The USAF manages the cleanup under its Installation Restoration Program (IRP), which investigates, characterizes, and remediates contamination at military facilities. The Department of Defense implemented IRPs in 1980 to clean up hazardous substances/waste contamination on its installations. The program established a process for identifying and evaluating past disposal sites, controlling migration of contaminants, and controlling potential hazards to human health and the environment. More than 22 IRP sites were identified by the USAF within the GSA, including IRP Site 18, which is located on the Proposed Project site and is discussed below.

3.6.2.2 Hazardous Materials

Federal, state, and local laws regulate hazardous materials use, storage, transport, or disposal. Major laws and issue areas include:

- *Resources Conservation and Recovery Act (RCRA)* – hazardous waste management
3. Affected Environment

- **Hazardous and Solid Waste Amendments Act** – hazardous waste management
- **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)** – cleanup of contamination
- **Superfund Amendments and Reauthorization Act (SARA)** – cleanup of contamination
- **Emergency Planning and Community Right-to-Know (SARA Title 111)** – business inventories and emergency response planning

Specific requirements for implementation of these statutes are codified in Title 40 CFR, “Protection of the Environment.” Additional regulations that apply to workplace safety and transportation of hazardous materials are contained in CFR Titles 29 and 49, respectively.

Hazardous materials management laws in California include:
- **Hazardous Waste Control Law** – hazardous waste management
- **Safe Drinking Water and Toxic Enforcement Act** – discharges to water and public notification
- **Hazardous Substances Account Act** – cleanup of contamination
- **Hazardous Material Management Act (HMMA)** – business Plan reporting

The HMMA requires that any business that handles hazardous materials greater than specified threshold quantities (500 pounds of a solid material, 55 gallons of a liquid, or 200 cubic feet of a compressed gas stored at any one point in time) must prepare a Business Plan.

### 3.6.2.3 Solid Waste

State and local regulations provide primary oversight over solid waste as it relates to the Proposed Project. Solid waste from the Airport is handled by city of San Bernardino vendors and transferred to the San Timoteo Landfill, located approximately six miles from SBD. The **California Integrated Waste Management Act**, also known as Assembly Bill (AB) 939, required each jurisdiction in the state to divert 50 percent of its solid waste from landfill or transformation facilities by 2000. Accepted diversion methods include source reduction, recycling, and composting activities. AB 341, signed into law in 2011, declares state policy to reach 75 percent diversion of wastes from landfill, through source reduction, recycling, and composting.

The City of San Bernardino has enacted Municipal Code 8.24 that sets forth the appropriate method for containment, collection, and disposal of garbage, recyclable materials, organics waste, and byproducts. Like all California communities, the City of San Bernardino is required by the State to divert materials being landfilled through reducing waste at the source, reusing materials, recycling, and composting. Regulations aimed at helping the City to exceed the 50 percent diversion level and comply with AB 341 include the Mandatory Commercial & Multi-Family Recycling and Organic Recycling Regulations (Municipal Code, Chapter 8, Article 24 Division 90) and the Construction and Demolition Debris Recycling Program (Municipal Code, Chapter 8, Article 24, Division 100).
3.6.2.4 Pollution Prevention

The Pollution Prevention Act of 1990 (42 U.S.C. §§13101-13109) requires prevention and reduction of pollution at the source, when possible, so that waste has a reduced impact on the environment. Source reduction includes practices that reduce hazardous substances from being released into the environment prior to recycling, treatment, or disposal.

3.6.2.5 Recycling Ordinance

The City of San Bernardino participates in the Mandatory Commercial Recycling program that has been in effect since 2012. Businesses that generate 4 cubic yards or more trash per week are required to recycle.

3.6.3 Existing Conditions

Pursuant to CERCLA (42 U.S.C. § 9601 et seq.), also known as the Federal Superfund Program, the EPA developed the National Priorities List (NPL) of sites contaminated with hazardous substances, pollutants, or contaminants that warranted further investigation and potential cleanup. Upon closure of the Norton Air Force Base in 1993, the base was added to the NPL. Between 1993 and 2005, the USAF remediated over 100 contaminated sites around the Airport property under its IRP.

IRP Site 18 was a roughly 6-acre suspected spill area for aviation gasoline (avgas) and oils located within the western portion of the Proposed Project site. The site went through three rounds of assessment, which included collection and analysis of soil, soil gas (vapor), and groundwater. Based on the results, No Further Action (NFA) was selected for the site. This was documented in multiple reports, including a 2005 Record of Decision (Geosyntec, 2019).

Leakage was discovered at the former USAF Facility 805 during closure of the former Norton Air Force Base JP-4 jet fuel system. The USAF Facility 805 is located within approximately 50 feet of the Proposed Project site. The site was assessed and remediated through use of a soil vapor extraction (SVE) operation to address the jet fuel-impacted soil and soil gas (vapor). Following nearly 3 years in which SVE was conducted, a confirmation soil boring was advanced and sampled, and the site was closed under the California Regional Water Quality Control Board, Santa Ana Region (CRWQCB-SAR) in 2001 (Geosyntec, 2019).

Currently there are five groundwater contamination sites that remain within the Airport boundary (Geosyntec, 2019). The groundwater contamination is almost completely remediated. The Phase I ESA prepared for the project indicates that contaminants may exist within the DSA. Potentially hazardous materials and wastes observed onsite during the survey for the Phase I ESA included a 55-gallon steel drum of red dye diesel, a plastic 55-gallon drum with approximately 7 to 8 gallons of liquid in it (labeled as a water-based concrete curing aid and hardener), and smaller containers with waste oil, carburetor and parts cleaner, and spray paint. These containers must be lawfully transported offsite for disposal or recycling in a manner that complies with all federal, state, and local regulations for hazardous waste disposal and recycling prior to site development. Minor oil staining was noted on the soil and/or ground and is a de minimis condition.
The Phase I ESA concluded that the current environmental condition of the DSA, including IRP Site 18, may not be suitable for residential type uses without additional assessment, evaluation, and/or remediation. This conclusion is based on current screening levels, including DTSC’s screening level for lead in residential soils at 80 mg/kg. The Phase I ESA also states that it is understood that in the foreseeable future, the use of the DSA would be commercial/industrial (Airport-related) and appears generally suitable for commercial/industrial use with respect to the residual soil contaminants known and anticipated to be present.

Current activities and facilities at the Airport that involve the use of hazardous materials include fueling, maintenance, and repair of aircraft; GSE; and motor vehicles. Other operations involving hazardous materials include the use of oils and antifreeze for equipment maintenance; paints, sealants, and oils for airfield maintenance; and foam and liquid extinguishing compounds for aircraft rescue and firefighting operations. All activities and operations that entail use of hazardous materials are carried out by the Airport in accordance with applicable laws and regulations.

### 3.7 Historic, Architectural, Archaeological, and Cultural Resources

#### 3.7.1 Introduction

Historic, architectural, archaeological, and cultural resources are expressions of human culture and history in the physical environment, and may include archaeological sites, buildings, structures, objects, districts, works of art, architecture, and natural features that were important in past human events. They may consist of physical remains, but also may include areas where significant human events occurred, even though evidence of the events no longer remains. Historic, architectural, archaeological, and cultural resources also include definite locations (sites or places) of traditional cultural or religious importance to specified social and/or cultural groups.

#### 3.7.2 Regulatory Context

NEPA requires federal agencies to consider the potential effect of their actions on “the human environment,” which includes cultural as well as natural aspects of the environment. NEPA regulations (40 CFR 1502.25) encourage integration of the NEPA review process with other environmental laws. Several laws and regulations require that possible effects on historic, archaeological, and cultural resources be considered during the planning and execution of federal undertakings. The primary laws that pertain to the treatment of historic, architectural, archaeological, and cultural resources during environmental analyses are the National Historic Preservation Act (NHPA) (54 U.S.C. §§ 300101 et seq.), the Archaeological Resources Protection Act (16 U.S.C. §§ 470aa-470mm), and the Native Graves Protection and Repatriation Act (25 U.S.C. §§ 3001-3013).

#### 3.7.2.1 Compliance with Section 106 of the National Historic Preservation Act

Section 106 of the NHPA requires a federal agency with jurisdiction over a proposed federal action (referred to as an “undertaking” under the NHPA) to take into account the effects of the
undertaking on historic properties. The term “historic properties” refers to “any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register [of Historic Places]” (36 CFR 800.16(l)(1)). The Proposed Project is an undertaking with the potential to affect historic properties and therefore is subject to compliance with the requirements of Section 106 of the NHPA.

The steps of the Section 106 process are accomplished through consultation with the State Historic Preservation Office (SHPO), federally recognized Indian tribes, local governments, and other interested parties. The goal of consultation is to identify potentially affected historic properties, assess effects to such properties, and seek ways to avoid, minimize, or mitigate any adverse effects on such properties. The agency also must provide an opportunity for public involvement (36 CFR 800.1(a)). Consultation with Native American tribes regarding issues related to Section 106 must recognize the government-to-government relationship between the Federal Government and Native American tribes, as set forth in Executive Order 13175, “Consultation and Coordination with Indian Tribal Governments” and the Presidential Memorandum on Tribal Consultation, dated November 5, 2009. Documentation of the FAA’s compliance with Section 106 for the Proposed Project is provided in Appendix E and is described below.

3.7.3 Area of Potential Effect

Section 106 of the NHPA requires definition of an Area of Potential Effect (APE). APEs define the areas within which the Proposed Project and its alternatives could directly impact or indirectly cause changes in the character or use of historic properties and/or archaeological resources. The FAA has considered the Proposed Eastgate Air Cargo Facility and delineated a Direct Effects and Indirect Effects Area of Potential Effects (APE) for the proposed undertaking. FAA used the boundaries of the entire portion of the airport that would have physical disturbance to delineate the Direct Effects APE (see Figure 3-5). FAA determined these boundaries through consultation with the SBIAA on the extent of the Proposed Project. The Indirect APE consists of the areas off-Airport within the Proposed Project’s 2024 CNEL 65 dB exposure contour. The California SHPO concurred with the FAA’s delineation of the Proposed Project’s Direct and Indirect APEs on October 30, 2018 (see Appendix E).

3.7.4 Native American Consultation

Figure 3-5
Areas of Potential Effect
San Bernardino International Airport
On August 22, 2018, the FAA provided detailed information about the Proposed Project to the tribal contacts provided by the NAHC. The Twenty-nine Palms Band of Mission Indians advised they were not aware of any archaeological or cultural sites in the Proposed Project area related to their tribe. They also recommended protocol to follow in the event of an unanticipated discovery of archaeological remains or resources. The Gabrielino Kizh Nation deferred to the Serrano Tribe. The Agua Caliente Band of Cahuilla Indians deferred to the San Manuel Band of Mission Indians. The San Manuel Band of Mission Indians provided an email with information with protocol to follow in the event of an unanticipated discovery of archaeological remains or resources. The Serrano Nation of Mission Indians called the FAA and requested a walk-through of the Proposed Project site. The Serrano Nation of Mission Indians called the FAA and asked for a walk-through of the Proposed Project site. The walk-through was held on May 10, 2019. In the event any cultural resources uncovered, the Serrano Nation asked to be notified. They would claim any cultural resources uncovered and would share their claim with the San Manuel and Morongo Bands of Mission Indians. See the site visit report in Appendix E.

### 3.7.5 Cultural Resources Investigation

A cultural resources investigation was conducted and documented in a cultural resources report and is included in Appendix E. The historical/archaeological resources records search was completed at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton. Additional resources included earlier site surveys as well as other online resources. The archival investigations revealed that there were several other investigations within the Direct and Indirect APEs. The investigation also identified that the SCCIC records show more than 50 other previous studies on various tracts within a 1-mile radius of the Direct APE.

The investigation found that the Direct APE ground and the adjacent ground around it has been greatly disturbed by past activities associated with the construction of the former Norton Air Force Base. However, the report identifies that these features have been altered due to frequent maintenance and upgrading. As a result, neither of these areas demonstrate any distinctive historical characteristics.

A site previously located along the northern border of the Direct APE, known as Cram and Van Leuven Ditch (Site CA-SBR-6848H), was formally recorded. However, the cultural resources report states that the field investigation was unable to relocate this feature. The report states the only water-conveyance feature found along the course of the Cram and Van Leuven Ditch was a concrete-lined channel for the rerouted City Creek that lies on the south side of 3rd Street on the northern edge of the Direct APE. The cultural resources investigation also identified that 111 built-environment features are located within the Indirect APE. One feature, the Marigold Farms (Site 36-007139), a 750-acre agricultural enterprise, has been largely demolished and redeveloped. Forty-four of the buildings within the Indirect APE were documented on the former Norton Air Force Base. The cultural resources report states these buildings have been formally recorded into the California Historical Resources Inventory along with an abandoned Southern Pacific Railroad Bridge. The cultural resources report states the railroad bridge was demolished following recordation. One other structure, the “Morrow Hangar,” was identified in the cultural
resources investigation. However, the report states that the listing of this property remains “pending” for an unknown reason.

Based on the information contained within the cultural resources report, the FAA has determined there are no historic properties listed or eligible for listing on the National Register of Historic Places within the Direct and Indirect APEs for the Proposed Project. The California SHPO concurred with FAA’s determination. The SHPO concurrence letter, dated January 10, 2019, is included in Appendix E.

### 3.8 Land Use

#### 3.8.1 Introduction

The following discussion describes the existing land use setting in the GSA, as well as applicable land use plans, zoning ordinances, and other planning documents for jurisdictions surrounding the Airport.

#### 3.8.2 Regulatory Context

The following sections describe the land use documents applicable in the GSA.

#### 3.8.2.1 Planned Land Uses and Local Land Use Plans

The GSA includes parts of the cities of San Bernardino, Highland, and Redlands. These jurisdictions have prepared General Plans providing land use guidance for future development in areas around the Airport. Generalized existing land use in these areas are depicted on Figure 3-6.
Figure 3-6
Generalized Existing Land Uses
San Bernardino International Airport

Legend
- Airport Property
- Generalized Land Uses
- Agricultural
- Airports
- Associated Improvements
- Commercial and Office
- Industrial
- Single Family Residential
- Multi-Family Residential
- Residential (Manufactured)
- Residential (Miscellaneous)
- Mixed-Use
- Open Space, Cemeteries and Recreation
- Public Facilities and Institutions
- Planned Unit Development (PUD)
- Transportation and Parking
- Unclassified
- Utilities
- Vacant

SOURCE: San Bernardino County, 2018; Adapted by ESA, 2018
3.8.3 Existing Conditions

3.8.3.1 City of San Bernardino

The most recent General Plan, the City of San Bernardino General Plan of 2005-2030 was adopted on November 1, 2005. The Airport is located in the city of San Bernardino, immediately bordered by the city of Highland to the north and the city of Redlands to the south. The Airport is located in an area designated for Public Facility (PF) use. The areas in the city of San Bernardino surrounding the Airport are designated for Industrial Light (IL), Office Industrial Park (OIP), Residential Medium (RM), and (CG-1) General Commercial uses (San Bernardino, 2005).

**Figure 3-7** depicts the planned land uses for the city of San Bernardino. There are a number of residential properties in the Commercial and Industrial Zones near SBD; these are existing non-conforming land uses. Existing non-conforming residential properties are actively being converted to land uses consistent with existing zoning codes (see **Exhibit 3-1**). These commercial and industrial zones were established more than 30 years ago, through the 1989 City of San Bernardino General Plan.11

**Exhibit 3-1**: The image above shows the commercial and industrial land uses in the vicinity of SBD, and homes that have been acquired and demolished, consistent with existing zoning codes.

---

Detailed Study Area
General Study Area

RESIDENTIAL
- RE (1.0 density)
- RE (1.5 density)
- RO-3 (1.5 density)
- R4 (1.5 density)
- RD (0.5 density)
- RW (1.5 density)
- RM4-2 (0.75 density)
- RM-III (0.75 density)
- RM (0.75 density)

COMMERCIAL
- CB
- C1 (1.5)
- CC-1
- CD-2
- CO-5
- CP-1
- CP-2
- CR-1
- CR-2
- CR-3
- CR-4
- CR-6

INDUSTRIAL
- CIF
- IH
- IH-1
- IH-2
- HH

PUBLIC/QUASI-PUBLIC
- PUC (Parks/Recreation)
- PZ
- PX

OPEN SPACE
- PT
- CR
- PUB.

OVERLAYS
- City Boundary
- Specific Plan Boundaries
- ARO
- Hillside Management Overlay & Floodplain Zone Overlay (ROZ)

SOURCE: City of San Bernardino, 2005

Figure 3-7
General Plan Land Use - City of San Bernardino
San Bernardino International Airport
3.8.3.2 City of Highland

Planned land use in the city of Highland is shown on Figure 3-8. Planned land use in the areas of Highland, adjacent to the Airport are: Business Park (BP), Planned Commercial (PC), Industrial (I), Low-Density Residential (LD), and Medium-Density (MD) Residential (Highland, 2006).

3.8.3.3 City of Redlands

Planned land uses in the areas of Redlands located within the GSA are almost entirely devoted to Open Space, with small portions designated for Public/Institutional and Agriculture uses. Figure 3-9 depicts land use in those areas of the city of Redlands located in the GSA.

3.8.3.4 Zoning Regulations

The Airport property is identified as a PF zone in the City of San Bernardino’s Development Code. The purpose of the PF zone is to provide for the continuation of existing and development of new schools, government administrative, police, fire, libraries, social services, and other public facilities. Immediately surrounding the Airport property are areas located within six land use districts grouped together in three non-contiguous sites covered by the Alliance California Specific Plan. These districts include the Westgate, Northgate, Centergate, Southgate, 3rd Street, and Defense Finance and Accounting Services Districts. Immediately across 3rd Street from the Airport property are areas located within the Commercial General (CG-1), Residential Medium (RM), and Industrial Light (IL) zoning districts (see Figure 3-10).

3.9 Natural Resources and Energy Supply

3.9.1 Introduction

This section provides an overview of natural and mineral resources in the GSA, as well as the types and sources of energy supplied to the Airport.

3.9.2 Regulatory Context

There are no specified regulatory contexts for Natural Resource and Energy Supply.

3.9.3 Natural Resources

Water at the Airport is supplied by the San Bernardino Municipal Water Department (SBMWD). SBMWD provides domestic water to several communities including the City of San Bernardino. The 2015 San Bernardino Valley Regional Urban Water Management Plan (UWMP) identifies the sources of water and water supply within their service area, which includes SBMWD. According to the 2015 UWMP, the SBMWD obtains 100 percent of its water from the Bunker Hill Groundwater Basin, a sub-basin of the San Bernardino Basin Area (SBBA). In 2015, the total water demand for potable and raw water was 36,035 acre-feet per year (AFY). The Western Judgment established the natural safe yield of the SBBA to be 232,100 AFY for both surface water diversions and groundwater extractions.
Figure 3-8
General Plan Land Use - City of Highland
San Bernardino International Airport

SOURCE: ESA, 2018
Proposed Eastgate Air Cargo Facility Draft Environmental Assessment

Figure 3-9
General Plan Land Use - City of Redlands
San Bernardino International Airport
Figure 3-10
City of San Bernardino Zoning
San Bernardino International Airport

SOURCE: San Bernardino County, 2017; AEDT 2d; Adapted by ESA, 2018
3.9.4 Energy Supply

Electrical power is supplied to the city of San Bernardino, including the Airport, by Southern California Edison. Southern California Edison generates, transmits, and distributes electric power to 15 million people over a 50,000-square-mile service area that covers 15 counties and 180 cities in Central and Southern California. Southern California Gas provides natural gas to the city of San Bernardino, including the Airport. Supplies of electricity and natural gas are sufficient to accommodate the current demands of the Airport.

3.10 Noise and Noise-Compatible Land Use

This section addresses the existing aircraft noise environment in the area surrounding the Airport and the methodology used to determine existing aircraft noise exposure. Noise technical studies and supporting data are provided in Appendix F.

3.10.1 Introduction

The FAA has determined that the cumulative noise energy exposure of individuals to noise resulting from aviation activities must be established in terms of yearly Day/Night Average Sound Level (DNL). DNL is the FAA’s primary noise metric. However, the FAA recognizes CNEL as an acceptable alternative metric for airport projects needing approval in California. CNEL contours are a graphical representation of the distribution of noise over the surrounding area from an airport’s average annual daily aircraft operations.

3.10.2 Regulatory Context

3.10.2.1 Federal

In accordance with guidance contained in FAA Order 1050.1F, detailed noise analyses must be performed through noise modeling using an FAA-approved model. The FAA’s Aviation Environmental Design Tool version 2d (AEDT 2d) was used for the aircraft noise exposure analysis documented in this EA. The 2017 existing noise environment at the Airport is based upon data including number of operations, time of day, operation type (departure or arrival), and aircraft type.

3.10.3 Existing Conditions (2017)

3.10.3.1 Methodology

FAA Order 1050.1F requires that detailed noise analyses be performed through noise modeling using the FAA's AEDT. AEDT Version 2b, released on May 29, 2015, was used for the aircraft noise exposure analysis documented in this EA. AEDT incorporates the number of annual average daily daytime, evening, and nighttime aircraft operations, flight paths, and flight profiles of aircraft, along with its extensive internal database of aircraft noise and performance information, to calculate the CNEL at many points on the ground around an airport. From a grid of points, the AEDT contouring program draws contours of equal CNEL that can be
superimposed onto land use maps. Three standard ranges of CNEL contours are presented in this EA: CNEL 65, 70, and 75 dB\(^{12}\) and above.

### 3.10.3.2 Existing Noise Environment (2017)

The existing noise environment in the area surrounding the Airport was evaluated based on the existing number of aircraft operations at the Airport and associated airport operational characteristics (e.g., runway use, flight track locations, etc.). Additional information is provided in Appendix F.

**Existing Operations**

Existing operations by aircraft category are summarized in Table 3-6.

<table>
<thead>
<tr>
<th>Aircraft Category</th>
<th>Number of Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Carrier</td>
<td>768</td>
</tr>
<tr>
<td>Air Taxi</td>
<td>4,816</td>
</tr>
<tr>
<td>General Aviation</td>
<td>58,001</td>
</tr>
<tr>
<td>Military</td>
<td>880</td>
</tr>
<tr>
<td><strong>Annual Total</strong></td>
<td><strong>64,465</strong></td>
</tr>
<tr>
<td><strong>Annual Average Day (AAD) Operations</strong></td>
<td><strong>176.61</strong></td>
</tr>
</tbody>
</table>

**Sources:** ESA, 2018.

**Existing CNEL Contours**

Noise exposure resulting from existing aircraft operations at the Airport is depicted on Figure 3-11 as CNEL 65, 70, and 75 dB contours, superimposed on a map showing existing land uses. As shown, the CNEL 65 dB contour is primarily limited to Airport property. Small portions of the CNEL 65 dB contour extend beyond the Airport property line over areas of industrial, commercial, and mixed uses.

**Land Use Compatibility**

The determination of compatibility of existing and planned land uses in the vicinity of an airport is usually associated with the extent of the airport’s noise impacts. The FAA defines CNEL 65 dB as the threshold of noise compatibility for residential lands uses in California. Noise-sensitive land uses and noise-sensitive facilities exposed to aircraft noise levels of CNEL 65 dB or greater are listed in Table 3-7. In 2017, there were no people, households, or noise-sensitive land uses within the noise contours for CNEL 65 dB or greater.

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\(^{12}\) All references to decibels in this EA refer to A-weighted decibels.
Figure 3-11

2017 Existing CNEL Contours and Generalized Land Uses
San Bernardino International Airport
### TABLE 3-7
**LAND USES WITHIN THE CNEL 65 AND HIGHER CONTOURS**  
**2017 EXISTING CONDITION**

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Housing Units</th>
<th>Population</th>
<th>Noise-Sensitive Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Airport Property</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Commercial and Office</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Off-Airport Property</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mixed Use</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Vacant</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Off-Airport Property Total</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**NOTES:** Numbers may not add due to rounding.  
CNEL = Community Noise Equivalent Level

**SOURCES:** San Bernardino County, July 2018; Adapted by Environmental Science Associates, 2018.

### 3.11 Socioeconomics, Environmental Justice, and Children’s Environmental Health and Safety Risks

#### 3.11.1 Introduction

This section describes existing economic and demographic conditions and transportation characteristics in the GSA. Socioeconomic issues relevant to the evaluation of environmental impacts include population, ethnicity of population and poverty status, employment, income and housing distribution, children’s environmental health and safety, and public services.

#### 3.11.2 Regulatory Context

##### 3.11.2.1 Executive Order 12898

Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, was enacted in 1994. The purpose of the EO is to focus federal attention on the environmental and human health effects of federal actions on minority and low-income populations with the goal of achieving environmental protection for all communities. The EO directs federal agencies to identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations, to the greatest extent practicable and permitted by law. The order is also intended to promote nondiscrimination in federal programs that affect human health and the environment, as well as provide minority and low-income communities’ access to public information and public participation.

##### 3.11.2.2 Executive Order 13045

Executive Order 13045, *Protection of Children from Environmental Health Risks and Safety Risks* (April 1997), applies to health or safety risks that may disproportionately affect children. Environmental health risks or safety risks refer to risks to health or to safety that are attributable
to products or substances that the child is likely to come in contact with or ingest (such as air, food, water (potable or recreation), soil, and products children use or are exposed to.

3.11.3 Existing Conditions

3.11.3.1 Socioeconomics

FAA Order 1050.1F describes socioeconomics as “an umbrella term used to describe aspects of a project that are either social or economic in nature.” A socioeconomic analysis evaluates how elements of the human environment such as population, employment, housing, and public services might be affected by the Proposed Project and alternatives (FAA, 2015). The following sections describe population, employment, income, and housing in the GSA.

**Population**

The population of the city of San Bernardino was 209,924 at the 2010 Census. Per the Census Bureau’s annual population estimates, the population had increased to 216,995 by 2017. This represents a 3 percent increase in population. The population of the city of Highland was 53,104 at the 2010 Census and an estimated 55,342 in 2017. This represents a 4 percent increase in population.

**Employment**

Unemployment rate trends for San Bernardino County and the state of California are shown in Table 3-8. Between 2010 and 2017, there was an 8.7 percent decrease in unemployment in San Bernardino County. Overall, the unemployment trends in San Bernardino County have very closely mirrored the unemployment trends in the state as a whole.

<table>
<thead>
<tr>
<th>Year</th>
<th>San Bernardino County</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>13.5</td>
<td>12.2</td>
</tr>
<tr>
<td>2011</td>
<td>12.9</td>
<td>11.7</td>
</tr>
<tr>
<td>2012</td>
<td>11.4</td>
<td>10.4</td>
</tr>
<tr>
<td>2013</td>
<td>9.8</td>
<td>8.9</td>
</tr>
<tr>
<td>2014</td>
<td>8.0</td>
<td>7.5</td>
</tr>
<tr>
<td>2015</td>
<td>6.5</td>
<td>6.2</td>
</tr>
<tr>
<td>2016</td>
<td>5.8</td>
<td>5.5</td>
</tr>
<tr>
<td>2017</td>
<td>4.9</td>
<td>4.8</td>
</tr>
</tbody>
</table>

**Income and Housing**

Table 3-9 presents mean household incomes in the census tracts that surround the Airport. In 2016, census tract 62.04 featured the lowest mean household income ($31,789), and census tract
74.09 contained the highest mean household income ($69,820). In 2016, all census tracts around the Airport had mean household incomes above the U.S. Department of Housing and Urban Development, Health and Human Services Poverty Guidelines for a family of four, which was $24,300 in 2016.

In 2016, the 12 census tracts surrounding the Airport all featured varying numbers of housing units, with census tract 63.02 having the largest number of housing units (2,583) and census tract 74.07 the smallest number of housing units (889). Census tract 62.04 also had the highest vacancy rate for 2016 (13.38 percent). Census tract 74.03 had the lowest vacancy rate, at 5.16 percent.

<table>
<thead>
<tr>
<th>Area</th>
<th>Mean Household Income (2016)</th>
<th>Total Housing Units</th>
<th>Vacancy Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>$91,149</td>
<td>13,911,737</td>
<td>7.94%</td>
</tr>
<tr>
<td>San Bernardino County</td>
<td>$70,728</td>
<td>708,442</td>
<td>12.64%</td>
</tr>
<tr>
<td>Census Tract 62.04</td>
<td>$31,789</td>
<td>1,450</td>
<td>13.38%</td>
</tr>
<tr>
<td>Census Tract 63.02</td>
<td>$49,072</td>
<td>2,583</td>
<td>6.89%</td>
</tr>
<tr>
<td>Census Tract 64.02</td>
<td>$33,715</td>
<td>1,403</td>
<td>7.27%</td>
</tr>
<tr>
<td>Census Tract 65, S</td>
<td>$31,308</td>
<td>1,989</td>
<td>8.85%</td>
</tr>
<tr>
<td>Census Tract 72, S</td>
<td>$53,378</td>
<td>1,748</td>
<td>8.01%</td>
</tr>
<tr>
<td>Census Tract 74.03</td>
<td>$58,617</td>
<td>2,482</td>
<td>5.16%</td>
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<tr>
<td>Census Tract 74.07</td>
<td>$33,374</td>
<td>889</td>
<td>8.10%</td>
</tr>
<tr>
<td>Census Tract 74.08</td>
<td>$41,203</td>
<td>1,311</td>
<td>5.72%</td>
</tr>
<tr>
<td>Census Tract 74.09</td>
<td>$69,820</td>
<td>1,785</td>
<td>6.05%</td>
</tr>
<tr>
<td>Census Tract 74.10</td>
<td>$52,800</td>
<td>2,120</td>
<td>10.75%</td>
</tr>
<tr>
<td>Census Tract 76.01</td>
<td>$35,444</td>
<td>2,151</td>
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</tr>
<tr>
<td>Census Tract 76.03</td>
<td>$48,057</td>
<td>1,661</td>
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<tr>
<td>Census Tract 76.04</td>
<td>$62,421</td>
<td>1,387</td>
<td>6.92%</td>
</tr>
</tbody>
</table>

SOURCE: U.S. Census. 2018. Selected Economic Characteristics: 2009-2016 American Community Survey 5-Year Estimates – California; San Bernardino County, California; Census Tracts 62.04, 63.02, 64.02, 65.S, 72,S, 74.03, 74.07, 74.08, 74.09, 74.10, 76.01, 76.03, 76.04.

**Surface Transportation Network**

Surface transportation impacts were provided in this EA to determine if there is a potential to disproportionately impact environmental justice communities (see Chapter 4). This effort is consistent with the Desk Reference documents for both FAA Order 1050.1F and FAA Order 5050.4B.

Because of the presence of the Santa Ana River, which skirts the Airport property along its southern and eastern boundaries, the local surface transportation network that serves the Airport is primarily limited to areas to the north and west. Regional access to the Proposed Project site is provided by State Route 210 to the north and east.
“Level of Service” (LOS) describes roadway operating conditions. It is a qualitative measure of the effect of factors that include speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs. Levels of service are designated A through F from best to worst. LOS A through LOS E generally represent volumes at less than roadway capacity, while LOS F represents overcapacity. The City of San Bernardino identifies LOS C for roadways and LOS D for intersections as the minimum acceptable level of service (San Bernardino, 2005). The City of Highland identifies LOS D as its standard for intersection and roadway operations (Highland, 2006).

Existing intersections within the GSA are all operating at an acceptable LOS (A–D). All roadway segments operate at LOS A with the exception Highland Avenue from the I-210 eastbound off-ramp to the I-210 westbound off-ramp and Highland Avenue from the I-210 westbound off-ramp to Victoria Avenue. Both these segments currently operate at LOS F (Translutions, 2018).

### 3.11.3.2 Environmental Justice

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, the accompanying Presidential Memorandum, and DOT Order 5610.2a, *Final Order to Address Environmental Justice in Low-Income and Minority Populations*, require the FAA to engage in meaningful public involvement with minority and low-income populations. These documents encourage considering environmental justice impacts in EAs to determine whether a disproportionately high and adverse impact may occur.

The socioeconomic and minority characteristics of the population within the GSA are based on the U.S. Census Bureau’s 2010-2014 American Community Survey 5-Year Data Release. Using the Census Bureau data, minority and low-income populations for each census block group within the GSA are identified using the AEDT 2d noise model environmental justice screening tool. The AEDT calculates the average percentage of minority and low-income population within the GSA boundary. Census block groups that have minority and/or low-income populations greater than or equal to these thresholds are identified as environmental justice communities. The average percentage of minority population in the GSA is 81.67 percent and the average percentage of low-income population is 35.83 percent. The GSA includes 32 census block groups identified as environmental justice communities (Figure 3-12). Details on these communities are shown in Table 3-10.

### 3.11.3.3 Children’s Environmental Health and Safety

The GSA covers a portion of the San Bernardino City Unified School District (School District). The School District serves the city of San Bernardino and a portion of the city of Highland. Based on a review of current maps and planning documents, no schools or daycare facilities are located within the existing conditions CNEL 65 dB contour for the Airport. However, there are 12 schools located within the GSA. Information on these schools is provided in Table 3-11.
Environmental Justice Communities within the General Study Area
San Bernardino International Airport

Figure 3-12

Legend
- Airport Property
- General Study Area
- Environmental Justice Communities

SOURCE: U.S. Census Bureau, 2010; AEDT 2d; ESA, 2018

Proposed Eastgate Air Cargo Facility Draft Environmental Assessment

Path: U:\GIS\GIS\Projects\18xxxx\D180714_SanBernardinoIntnl_EA\03_MXDs_Projects\Fig3-12_EJ in GSA.mxd, sburlingame 6/26/2019
### Table 3-10
**Environmental Justice Communities**

<table>
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<td>194</td>
<td>12.1</td>
</tr>
</tbody>
</table>

**Sources:** U.S. Census Bureau. Demographic and Housing Estimates: 2009-2014 American Community Survey 5-Year Estimates – California; San Bernardino County, California, Census Block Groups.
### TABLE 3-11
**SCHOOLS IN THE GENERAL STUDY AREA**

<table>
<thead>
<tr>
<th>School</th>
<th>Level</th>
<th>School District</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bing Wong Elementary</td>
<td>Elementary</td>
<td>San Bernardino City Unified</td>
<td>1250 East Ninth Street, San Bernardino, CA 92410</td>
</tr>
<tr>
<td>Emmerton Elementary</td>
<td>Elementary</td>
<td>San Bernardino City Unified</td>
<td>1888 Arden Avenue, San Bernardino, CA 92404-6715</td>
</tr>
<tr>
<td>Colonel Joseph C. Rodriguez PREP Academy</td>
<td>Intermediate/ Middle/Junior High</td>
<td>San Bernardino City Unified</td>
<td>1985 North Guthrie Street, San Bernardino, CA 92404</td>
</tr>
<tr>
<td>Curtis Middle</td>
<td>Intermediate/ Middle/Junior High</td>
<td>San Bernardino City Unified</td>
<td>1050 North Delrosa Drive, San Bernardino, CA 92410</td>
</tr>
<tr>
<td>Fairfax Elementary</td>
<td>Elementary</td>
<td>San Bernardino City Unified</td>
<td>1362 Pacific Street, San Bernardino, CA 92404</td>
</tr>
<tr>
<td>San Bernardino City Community Day</td>
<td>High School</td>
<td>San Bernardino City Unified</td>
<td>650 North Del Rosa Drive, San Bernardino, CA 92410</td>
</tr>
<tr>
<td>Lankershim Elementary</td>
<td>Elementary</td>
<td>San Bernardino City Unified</td>
<td>7499 Lankershim Avenue, Highland, CA 92346-3459</td>
</tr>
<tr>
<td>New Vision Middle</td>
<td>Elementary</td>
<td>San Bernardino City Unified</td>
<td>2050 Pacific Street, San Bernardino, CA 92410</td>
</tr>
<tr>
<td>San Gorgonio High</td>
<td>High School</td>
<td>San Bernardino City Unified</td>
<td>2299 East Pacific Avenue, San Bernardino, CA 92404</td>
</tr>
<tr>
<td>Warm Springs Elementary</td>
<td>Elementary</td>
<td>San Bernardino City Unified</td>
<td>7497 Sterling Avenue, San Bernardino, CA 92410-4219</td>
</tr>
<tr>
<td>Norton Science and Language Academy</td>
<td>Elementary-High Combination</td>
<td>San Bernardino County Office of Education</td>
<td>503 East Central Avenue, San Bernardino, CA 92048-2313</td>
</tr>
<tr>
<td>Indian Springs High</td>
<td>High School</td>
<td>San Bernardino City Unified</td>
<td>650 North Del Rosa Drive, San Bernardino, CA 92410</td>
</tr>
</tbody>
</table>

**SOURCES:** California School Campus Database, Stanford Prevention Research Center and GreenInfo Network, 2018.

### 3.12 Visual Effects

This section addresses the visual characteristics of the Proposed Project site and the visual character of the areas surrounding SBD.

#### 3.12.1 Regulatory Context

There is no specified regulatory context for visual effects.

#### 3.12.2 Existing Conditions

##### 3.12.2.1 Light Emissions

The DSA is located in a heavily urbanized area on Airport property. Portions of the Airport are well lit at night. Other existing sources of light in the GSA include streetlights and building lighting along 3rd Street, immediately north of the DSA, as well as lighting from adjacent industrial, commercial, and residential uses.
Visual Resources and Visual Character

The DSA is located on Airport property surrounded by heavy urban development with no distinguishing visual features. The City of San Bernardino General Plan identifies the following natural features as visual resources that could benefit from sensitive treatment in future urban development: Kendall Hills, San Bernardino Mountains, the hillsides adjacent to Arrowhead Springs, Lytle Creek Wash, East Twin Creeks Wash, the Santa Ana River, Badger Canyon, Bailey Canyon, and Waterman Canyon (San Bernardino, 2005). The San Bernardino Mountains can be seen from the Airport property as can the Santa Ana River. Existing Airport development obstructs views of the river from the north. Because of the relatively low-lying nature of the existing Airport buildings, uses to the south of the Airport with views northward are not obstructed by Airport infrastructure.

3.13 Water Resources

3.13.1 Introduction

This section describes the existing environment in regard to Waters of the US (including wetlands), surface waters, groundwater, and water supply and wastewater treatment.

3.13.2 Regulatory Context

3.13.2.1 Waters of the US and Wetlands

Federal

The United States Army Corps of Engineers (USACE) has authority to regulate activities in Waters of the US under the Clean Water Act of 1972 (CWA), as amended. This section of the EA provides information on the Waters of the US and wetlands (which are a subset of Waters of the US in the DSA). Title 33 CFR 328.3(b) defines wetlands as:

“Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.”

The USACE uses three characteristics of wetlands when making wetland determinations: vegetation, soil, and hydrology. Unless an area has been altered or is a rare natural situation, wetland indicators of all three characteristics must be present during some portion of the growing season for an area to be considered a wetland.

State

The State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board (RWQCB) are the principal state agencies with responsibility for the coordination and control of water quality. The Boards regulate activities pursuant to Section 401(a)(1) of the CWA, as well as the state water quality legislation (Porter Cologne Water Quality Control Act). Section 401 of the CWA specifies that certification from the state is required for any applicant
requesting a federal license or permit to conduct any activity including but not limited to the construction or operation of facilities that may result in any discharge into navigable waters.

3.13.2.2 Surface Waters and Water Quality

Clean Water Act (Federal)

The CWA establishes the basic structure for regulating discharges of pollutants into the Waters of the US and regulating quality standards for surface waters. The basis of water quality regulations was enacted in 1948 under the Federal Water Pollution Control Act, but the Act was significantly reorganized and expanded in 1972 with the passage of the CWA, and subsequent amendments. The CWA establishes a regulatory framework to reduce pollutant discharges into waterways and manage polluted runoff. Key components of the CWA pertinent to the project include the following:

- Sections 303 and 304 provide for water quality standards, criteria, and guidelines. Under Section 303(d) of the CWA, states are required to develop lists of water bodies that would not attain water quality objectives after implementation of required levels of treatment by point-source dischargers (municipalities and industries). Section 303(d) requires that states develop a Total Maximum Daily Load (TMDL) for each of the listed pollutants. The TMDL is the amount of pollutant loading that the water body can receive and still comply with water quality objectives. After implementation of the TMDL, it is anticipated that the water pollution problems that led to placement of a given pollutant on the Section 303(d) list would be remediared. In California, preparation and management of the Section 303(d) list is administered by the RWQCBs and approved by the SWRCB and EPA.

- Section 401 of the CWA requires that states certify water quality associated with activities that result in discharges of dredged or fill material into jurisdictional water bodies. In California, this certification program is administered by the RWQCB. A Section 401 certification ensures that the proposed activity does not violate state or federal water quality standards.

- Section 402 regulates point-source and nonpoint-source discharges to surface waters through the National Pollutant Discharge Elimination System (NPDES) program. In California, the SWRCB oversees the NPDES program, which is administered by the RWQCBs. The NPDES program provides for both general permits (those that cover a number of similar or related activities) and individual permits.

- Section 404 of the CWA establishes a program that regulates the discharge of dredge and fill material into Waters of the US, including wetlands. This section states that no discharge of dredge or fill material may be permitted if: (1) a practicable alternative exists that is less damaging to the aquatic environment; or (2) the nation’s waters would be significantly degraded. Therefore, it must be demonstrated that: steps have been taken to avoid impacts to wetlands, streams and other aquatic resources; that potential impacts have been minimized; and that compensation will be provided for unavoidable impacts. The USACE is responsible for reviewing Section 404 permit applications and issuing permits.

Safe Drinking Water Act (Federal)

The Safe Drinking Water Act (SDWA), passed in 1974, is the principal federal law in the United States that ensures safe drinking water in the U.S. The SDWA authorizes the EPA to set national health-based standards for drinking water to protect against both naturally occurring and
man-made contaminants that may be found in drinking water. Amendments to the act in 1996 allowed for recognition of source water protection, operator training, funding for water system improvements, and the provision of public information regarding safe drinking water.

**NPDES Program (State)**

The NPDES permit program is administered in the state of California by the SWRCB and RWQCBs under the authority of the EPA to control water pollution by regulating point sources that discharge pollutants into Waters of the US. If discharges from industrial, municipal, and other facilities go directly to surface waters, those project applicants must obtain permits.

**Municipal Stormwater Permit**

The State’s Municipal Stormwater Permitting Program regulates stormwater discharges from Municipal Separate Storm Sewer Systems (MS4s).

**Construction General Permit**

The State of California regulates discharges of pollutants in stormwater associated with construction activity to Waters of the US (SWRCB, 2009). Permit authorization is required for construction sites that disturb one or more acres of land surface or that are part of a common plan of development or sale that disturbs more than one acre of land surface. The Construction General Permit requires the implementation of a Stormwater Pollution Prevention Plan (SWPPP) that would include Best Management Practices (BMPs) to minimize erosion and sedimentation, as well as prevent pollutants from entering waters discharging from the site.

**Industrial General Permit**

NPDES Industrial General Permit (IGP), effective July 1, 2015 (Order No. 2014-0057-DWQ), covers discharges associated with industrial activities, including transportation facilities that have vehicle maintenance, equipment cleaning, or airport operations (SWRCB, 2015a). The state-issued permit requires the implementation of water quality management measures that will achieve the performance standard of best available technology (BAT) economically achievable and best conventional pollutant control technology (BCT). The IGP also requires the development of a SWPPP and a monitoring plan. Through the SWPPP, sources of pollutants are identified and the means to manage the sources to reduce storm water pollution are identified.

**Sustainable Groundwater Management Act (State)**

In 2014, the California State Legislature approved a combination of bills that together formed the Sustainable Groundwater Management Act. The law requires the formation of local Groundwater Sustainability Agencies that must develop Groundwater Sustainability Plans (GSPs) for medium- or high-priority groundwater basins in California by 2022. The goal of the GSPs is to make groundwater basins sustainable by the year 2042. The Airport is located in the Bunker Hill sub-basin of the Upper Santa Ana Valley basin, a high-priority groundwater basin. On March 28, 2017, San Bernardino County submitted notification to the California Department of Water Resources that it would not be the Groundwater Sustainability Agency for 11 groundwater basins and sub-basins, including the Bunker Hill sub-basin (DWR, 2017). Accordingly, the sub-basin falls under the authority of the California State Water Board.
State Executive Orders B-40-17 and B-37-16 (State)

On April 7, 2017, State EO B-40-17 was issued, lifting the State of Emergency proclaimed by the governor in January of 2014 due to severe drought conditions. While the State of Emergency was lifted, EO B-40-17 retained actions taken in EO B-37-16 requiring the SWRCB to issue adjusted regulations recognizing the change in water conditions throughout the state and to develop a proposal for achieving mandatory reductions in potable water usage. EO B-37-16 also requires the SWRCB to work with the State Water Board to develop new water use targets in consultation with local agencies and water suppliers, and required preparation of monthly water usage reports. In addition, EO B-37-16 requires permanent prohibition of certain water usage practices, minimization of water waste, development of water shortage contingency plans, drought planning for rural communities, and development of agricultural water management plan requirements.

3.13.3 Existing Conditions

3.13.3.1 Wetlands

Both City Creek and the Santa Ana River run through the GSA and have been determined by USACE to be jurisdictional waters with a significant nexus to traditional navigable Waters of the US. The Santa Ana River borders the Airport property to the east and south. The City Creek bypass channel is located to the north of the Proposed Project site. There are two drainage features found onsite. Both appear to be man-made and channelized, allowing water to flow from paved surfaces into storage basins or onto the fenced tarmac grounds of the airport operations area. The natural gradient of flow is from the north and northeast in a southerly direction toward the Santa Ana River; however, the basins are self-contained and do not flow or overflow into the Santa Ana River or any other streams or drainages. The drainage features identified within the Project site are isolated because the surface water from developed areas of the Airport flows into the drainage feature and percolates into the ground. As such, there is no nexus to any traditional navigable waters. Therefore, USACE regulations are not applicable to either of these drainages. Areas meeting all three parameters would be designated as USACE wetlands. None of the three required parameters—hydrophitic vegetation, hydric soils, and/or wetland hydrology—are present within the Proposed Project site. Therefore, the Proposed Project site does not contain wetlands as defined by Section 404 of the Clean Water Act (Dodson, 2018).

3.13.3.2 Floodplains

NEPA requires an investigation of floodplains pursuant to Executive Order 11988, Floodplain Management. According to the Federal Emergency Management Agency, the Proposed Project site is designated as Flood Zone X, which FEMA defines as “Areas determined to be outside of the 0.2% annual chance floodplain.” Based on a review of the FEMA Flood Insurance Rate Map (FIRMette), it is noted that the Proposed Project site is located outside of the Special Flood Hazard Area and is located higher than the elevation of the 0.2-percent-annual-chance (or 500-year) flood (Dodson, 2018). The FIRMette is shown on Figure 3-13. The nearest flood area is located just north of the Proposed Project site boundary at the City Creek Bypass Channel, which is designated as flood hazard “Zone A.”
Figure 3-13
Floodplains
San Bernardino International Airport

Proposed Eastgate Air Cargo Facility Draft Environmental Assessment

SOURCE: FEMA, 2018; Esri; ESA, 2018

Legend
- Airport Property
- Detailed Study Area

Area of Minimal Flood Hazard (Zone X)
Detailed Study Area

Path: U:\GIS\GIS\Projects\18xxxx\D180714_SanBernardinoIntnl_EA\03_MXDs_Projects\Fig3-13_Floodplains.mxd, sburlingame 6/28/2019

Proposed Eastgate Air Cargo Facility Draft Environmental Assessment

Figure 3-13
Floodplains
San Bernardino International Airport

SOURCE: FEMA, 2018; Esri; ESA, 2018

Legend
- Airport Property
- Detailed Study Area

Area of Minimal Flood Hazard (Zone X)
Detailed Study Area

Path: U:\GIS\GIS\Projects\18xxxx\D180714_SanBernardinoIntnl_EA\03_MXDs_Projects\Fig3-13_Floodplains.mxd, sburlingame 6/28/2019

Proposed Eastgate Air Cargo Facility Draft Environmental Assessment

Figure 3-13
Floodplains
San Bernardino International Airport

SOURCE: FEMA, 2018; Esri; ESA, 2018
3.13.3.3 Surface Water

The Proposed Project site is located on a highly disturbed portion of Airport property. The Proposed Project site is mostly developed with asphalt and concrete covering the majority of the site with some areas covered by compacted dirt. The nearest surface water features to the Proposed Project site are the City Creek Bypass Channel and the Santa Ana River. For a developed area, the only three sources of potential violation of water quality standards or waste discharge requirements are from generation of municipal wastewater; from stormwater runoff; and potential discharges of pollutants, such as accidental spills.

3.13.3.4 Groundwater

The groundwater table at the Proposed Project site is located at a depth of approximately 50 feet below the surface of the project area.

3.14 Past, Present, and Reasonably Foreseeable Future Actions

3.14.1 Introduction

This section describes projects proposed by SBD at the Airport, or by others in the vicinity of SBD for the purpose of considering the cumulative impact of those projects when combined with the impacts associated with the Proposed Project or its alternatives. The cumulative impacts of these past, present, and reasonably foreseeable future projects are evaluated in Chapter 4, Environmental Consequences.

3.14.2 Regulatory Context

NEPA requires analysis of cumulative impacts. Cumulative impacts are those impacts that may result from the action “when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions” (40 CFR 1508.7). The temporal and spatial boundaries for analyzing cumulative impacts in this EA are specified below.

3.14.3 Existing Conditions

The GSA is used for considering cumulative impacts associated with the Proposed Project. The GSA encompasses the area in which the Proposed Project would have potential for direct and indirect impacts. Transportation and development projects in the GSA can contribute to cumulative impacts. Major transportation and development projects in the vicinity of SBD that could have some effect on the roadways within the GSA were identified and considered in the assessment of cumulative impacts. The temporal context for cumulative impacts is based on the City of San Bernardino Community Development Department list of major projects, which identifies approved and planned projects within the GSA from approximately 2015 through 2018, and the SBD Airports Capital Improvement Plan, which identifies planned improvements at SBD through 2024. Table 3-12 lists the past, present, and reasonably foreseeable projects within the GSA. The locations of the projects are depicted in Figure 3-14.
### Table 3-12

**Past, Present, and Reasonably Foreseeable Future Projects within the General Study Area**

<table>
<thead>
<tr>
<th>ID</th>
<th>Project Description</th>
<th>Address (Project Name)</th>
<th>Timeframe / Status</th>
<th>Potential Resource Issue Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ramp Joint Seal Replacement and Pavement Repair Project</td>
<td>SBD</td>
<td>2018-2019</td>
<td>Biological Resources</td>
</tr>
<tr>
<td>2</td>
<td>Taxiway Rehabilitation Project - Taxiway Shoulders</td>
<td>SBD</td>
<td>2019-2020</td>
<td>Biological Resources</td>
</tr>
<tr>
<td>3</td>
<td>Runway 6 Overrun Project</td>
<td>SBD</td>
<td>2022</td>
<td>Biological Resources</td>
</tr>
<tr>
<td>4</td>
<td>Runway 6-24 Crack, Joint, Spall Repair - Phase-1</td>
<td>SBD</td>
<td>2023</td>
<td>Biological Resources</td>
</tr>
<tr>
<td>5</td>
<td>Apron Rehabilitation Project</td>
<td>SBD</td>
<td>2023-2024</td>
<td>Biological Resources</td>
</tr>
<tr>
<td>6</td>
<td>Construct Heliport</td>
<td>SBD</td>
<td>2023-2024</td>
<td>Air Quality, Biological Resources, Noise, Socioeconomics</td>
</tr>
<tr>
<td>7</td>
<td>Automobile dealership and repair shop</td>
<td>1295 E. Baseline Avenue</td>
<td>Present / In Progress</td>
<td>Socioeconomics</td>
</tr>
<tr>
<td>8</td>
<td>Motel containing 66 guest rooms and two manager's units</td>
<td>SS of E. Highland Avenue and N. Valeria Drive</td>
<td>Present / In Progress</td>
<td>Noise, Socioeconomics</td>
</tr>
<tr>
<td>9</td>
<td>Commercial center comprised of an auto parts retail store, retail building, and a restaurant with a drive-thru on two parcels containing approximately 0.98 acres</td>
<td>WS of N. Arden and North of E. Highland Avenue</td>
<td>Future / Pending Permitting</td>
<td>Noise, Socioeconomics</td>
</tr>
<tr>
<td>10</td>
<td>Service station with six pump islands, three diesel truck fueling islands, and a convenience store containing approximately 3,806 sf</td>
<td>1195 S. Waterman Avenue</td>
<td>Present / In Progress</td>
<td>Socioeconomics</td>
</tr>
<tr>
<td>11</td>
<td>Service station with eight pump islands, convenience store, retail space and quick service restaurant approx. 6,900 sf</td>
<td>Northeast corner of E. Central Ave and S. Tippecanoe Ave</td>
<td>Future / Pending Permitting</td>
<td>Socioeconomics</td>
</tr>
<tr>
<td>12</td>
<td>Industrial building containing approximately 154,560 sf</td>
<td>NW Corner of Central Avenue and Valley View Avenue</td>
<td>Complete in 2018</td>
<td>Socioeconomics</td>
</tr>
<tr>
<td>13</td>
<td>Industrial building containing approximately 337,000 sf</td>
<td>West of Lena Road between Orange Show Road &amp; Norman Road</td>
<td>Present / In Progress</td>
<td>Socioeconomics</td>
</tr>
<tr>
<td>14</td>
<td>Expansion of an existing commercial building containing approximately 24,000 sf to approximately 44,190 sf, San Bernardino County offices</td>
<td>1895 N. Del Rosa Avenue</td>
<td>Complete in 2017</td>
<td>Socioeconomics</td>
</tr>
<tr>
<td>15</td>
<td>Approximately 1-acre truck repair facility</td>
<td>702 S. Gifford Avenue</td>
<td>Present / In Progress</td>
<td>Socioeconomics</td>
</tr>
<tr>
<td>16</td>
<td>A request to change the zoning of a 20.58 acre parcel from Residential Medium High to Industrial Light in order to construct an industrial building containing approximately 400,000 sf</td>
<td>6th Street and Sterling Avenue</td>
<td>Present / In Progress</td>
<td>Land Use, Socioeconomics</td>
</tr>
<tr>
<td>17</td>
<td>General Plan Use designation and Zoning District change of 21 parcels containing approximately 9.25 acres to construct an industrial building containing approximately 197,500 sf</td>
<td>East side of S. Waterman Avenue and South Central Avenue</td>
<td>Present / In Progress</td>
<td>Land Use, Socioeconomics</td>
</tr>
</tbody>
</table>
### TABLE 3-12
**PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE PROJECTS WITHIN THE GENERAL STUDY AREA**

<table>
<thead>
<tr>
<th>ID</th>
<th>Project Description</th>
<th>Address (Project Name)</th>
<th>Timeframe / Status</th>
<th>Potential Resource Issue Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>Industrial building containing approximately 172,953 sf</td>
<td>SEC Benedict Road and Sunnyside Avenue</td>
<td>Present / In Progress</td>
<td>Socioeconomics</td>
</tr>
<tr>
<td>19</td>
<td>Expansion of an existing airplane disassembly facility</td>
<td>U Street, Between 103rd Street and 106th Street</td>
<td>Present / In Progress</td>
<td>Air Quality, Noise, Socioeconomics</td>
</tr>
<tr>
<td>20</td>
<td>Industrial building containing approximately 135,287 sf</td>
<td>SW corner of E. Central Avenue and S. Lena Road</td>
<td>Future / Pending Permitting</td>
<td>Socioeconomics</td>
</tr>
<tr>
<td>21</td>
<td>Industrial building containing approximately 3,215 sf</td>
<td>West side of Foisy St and North side of E. Central Ave</td>
<td>Present / In Progress</td>
<td>Socioeconomics</td>
</tr>
<tr>
<td>22</td>
<td>Installing fiber optic communication lines, cameras, and message sign</td>
<td>Foothills Freeway (210), north of SBD</td>
<td>2017-2019 / In Progress</td>
<td>Biological Resources</td>
</tr>
<tr>
<td>23</td>
<td>Adding a lane in each direction, widening shoulders, add auxiliary lanes and acceleration/deceleration lanes</td>
<td>Foothills Freeway (210), east and north of SBD</td>
<td>Present / Pending Construction</td>
<td>Air Quality, Biological Resources, Noise, Socioeconomics</td>
</tr>
</tbody>
</table>

Figure 3-14
Past, Present, and Reasonably Foreseeable Future Projects Within the General Study Area
San Bernardino International Airport

SOURCE: City of San Bernadino, 2018; ESA, 2019
CHAPTER 4
Environmental Consequences

4.1 Introduction

This chapter provides an assessment of potential impacts to environmental resource categories identified in the Desk Reference to Federal Aviation Administration (FAA) Order 1050.1F, Environmental Impacts: Policies and Procedures. This assessment determines if potential direct or indirect impacts caused by the Proposed Project or the No Action Alternative are considered significant under National Environmental Policy Act (NEPA) or other applicable environmental special purpose laws as specified in FAA Orders 1050.1F and 5050.4B, National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions.

The analysis includes an overview of the impacts, methodology, thresholds of significance, and potential construction and operational impacts. Potential impacts are discussed in relation to the study areas defined in Chapter 3, Affected Environment. Potential cumulative impacts resulting from the incremental effects of the Proposed Project when added to the effects of past, present, and reasonable foreseeable future actions are analyzed in Section 4.14 of this chapter. Where applicable, mitigation is discussed that would reduce or eliminate environmental impacts of the Proposed Project.

4.1.1 Study Years

This Environmental Assessment (EA) evaluates the environmental impact of constructing the Proposed Project by analyzing the project in two different years of full operation. Study year 2019 represents the first year that the Proposed Project would be open and operational. Study Year 2024 is the fifth full year after project opening. It provides a reasonable time frame to evaluate ongoing operation-related environmental impacts, such as those associated with aircraft noise and air quality.
4. Environmental Consequences

<table>
<thead>
<tr>
<th>Description</th>
<th>Study Year 2019</th>
<th>Study Year 2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed Project</td>
<td>The Proposed Project includes the construction and operation of: a 658,500-square-foot (sf) sort, distribution, and office building (the Air Cargo Sort Building); taxiways and aircraft parking apron to support 14 aircraft concurrently ranging from Boeing-737 to Boeing-767 aircraft that meet FAA Airplane Design Group IV standards; approximately 12 acres of ground-support equipment (GSE) parking and operational support areas; two separate 25,000-sf GSE maintenance buildings; approximately 2,000 employee auto parking stalls and 380 trailer parking stalls; two new driveways into the Proposed Project site, including two clear-span bridges crossing the City Creek Bypass Channel; modifications to 3rd Street to tie-in road gradients and turning lanes with bridge entrances; new security fencing, vehicle and pedestrian gates, and a guard shack; pole-mounted and/or building-mounted exterior lights for vehicle and truck parking lots; the Air Cargo Sort Building, and aircraft parking apron; appropriate airfield lights and signage for the aircraft parking apron and taxiways; land clearing, demolition of concrete, excavation, embankment, and grading; extension of utilities to the Proposed Project site including electrical, natural gas, water, sanitary sewer, communications, and other related infrastructure; installation of stormwater management systems and infrastructure; and landscaping.</td>
<td>X</td>
</tr>
<tr>
<td>No Action Alternative</td>
<td>Under the No Action Alternative, the Proposed Project would not be implemented at San Bernardino International Airport (SBD or Airport) and the San Bernardino International Airport Authority would continue to operate and maintain the airport’s existing buildings, hangars, airfield pavements, electrical systems, access roads, navigational aids, perimeter security fence and gates, airport traffic control tower, and airport drainage system.</td>
<td>X</td>
</tr>
</tbody>
</table>

4.1.2 Assumptions Regarding Potential Future Development at the Airport

The evaluation of the No Action Alternative in this EA would not include constructing the Proposed Project. Other reasonably foreseeable projects that have enough specificity to analyze are assessed in Section 4.14, Cumulative Impacts.

The evaluation of the Proposed Project is based on the following assumptions and parameters:

- The construction of all structures and improvements associated with the Proposed Project would be completed within a year of the start of construction, assumed to be 2019. The San Bernardino International Airport Authority (SBIAA) anticipates that the proposed air cargo flight operations at SBD would begin around December 1, 2019, prior to completion of the new facilities. Aircraft would be parked at available locations around the Airport until the new facilities are ready for use. Thus, a phased move-in would occur utilizing tenable portions of the proposed air cargo building and an existing eight-acre asphalt aircraft ramp located within the Proposed Project’s future aircraft ramp footprint to support air cargo activities from about December 1, 2019 through the remaining construction period. Thus, if the Proposed Project is approved by FAA, construction of the new facilities is anticipated to begin in 2019.

- Any future development on the Proposed Project site would be in accordance with the Airport Layout Plan (ALP) and would include evaluation of potential environmental impacts prepared at the appropriate future time.
4.1.3 Resource Categories Not Affected

As discussed in Chapter 3, Affected Environment, certain environmental resource categories would not be affected by the Proposed Project or the No Action Alternative and these resources were not subject to further analysis. Resource categories not affected include Coastal Resources, Farmlands, and Wild and Scenic Rivers.

4.1.4 Evaluation of Impacts

Direct, indirect, and cumulative impacts associated with the Proposed Project and the No Action Alternative were identified and disclosed for the environmental resource categories defined in FAA Order 1050.1F and FAA Order 5050.4B. Specific mitigation measures, if applicable, are also discussed.

4.2 Air Quality

Potential effects on air quality must be analyzed for compliance with NEPA and the federal Clean Air Act of 1970, (CAA) [42 U.S.C. § 7401], as amended by the Clean Air Act Amendments of 1990 (CAAA). FAA Orders 1050.1F and 5050.4B determine the need for, define the type(s) of, and establish the extent of an air quality assessment required for airport-related actions and projects. Guidelines for air quality analyses are also included in the Aviation Emissions and Air Quality Handbook Version 3. The requirements in all of these documents were followed in preparing the air quality assessment for this EA.

Chapter 1 (Air Quality) of the FAA Order 1050.1F Desk Reference states that an air quality assessment prepared under NEPA should include an analysis and conclusion of a proposed project’s impacts on air quality, as well as an evaluation of the effects on the National Ambient Air Quality Standards (NAAQS) (FAA, 2015a). The Proposed Project’s “build” and “no-build” emissions are inventoried for each reasonable alternative. FAA Order 5050.4B further provides that, for NEPA purposes, environmental analyses must determine if the air quality impacts of any reasonable alternative would exceed the NAAQS for the time periods analyzed. Additionally, the California Clean Air Act (CCAA), administered by the California Air Resources Board (CARB), requires all air districts in the state to achieve and maintain the California Ambient Air Quality Standards (CAAQS) by the earliest practicable date. These standards are generally more stringent than the federal standards and include four additional pollutants: sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particulates. The CAAQS are further discussed in Section 3.2.1.

Section 176 (c) of the CAAA requires federal agencies to ensure that their actions conform to the appropriate State Implementation Plan (SIP) for air basins that have not attained the NAAQS or are maintenance areas. Conformity is defined as demonstrating that a project or action conforms

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13 A discussion on CAAQS are included in this discussion per FAA Order 1050.1F “(8) An impact on air quality or violation of Federal, state, tribal, or local air quality standards under the Clean Air Act, 42 U.S.C. §§ 7401-7671q;” and the 1050 Desk Reference “Applicable state and local requirements should be identified as early as possible during the NEPA scoping process and described in the NEPA documentation.” CAAQS standards can be viewed online at: https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards.
4. Environmental Consequences

to the SIP’s purpose of eliminating or reducing the severity and number of violations of the NAAQS and achieving expeditious attainment of such standards. Federally funded and approved actions at airports are subject to the U.S. Environmental Protection Agency’s (EPA’s) General Conformity Regulations. A General Conformity Determination (GCD) for the Proposed Project is required if the total direct and indirect pollutant emissions resulting from a project are above de minimis emissions threshold levels (EPA 2018a) specified in the General Conformity Regulations. The Proposed Project is not specifically exempt from the provisions of the General Conformity Regulations and does not meet the definition of a “Presumed to Conform” project as described in Federal Presumed to Conform Actions Under General Conformity (72 FR 41565); therefore, a general conformity applicability analysis was conducted for the Proposed Project and is provided in Attachment 7 in Appendix B to this EA.

4.2.1 Methodology

An Air Quality Protocol for the Assessment of Impacts under the National Environmental Policy Act (NEPA) and General Conformity Determination (Protocol) was developed to identify the technical assumptions, methodologies, databases, and models that would be used to develop the air pollutant emission inventories and to conduct the air quality impact analyses under NEPA. In addition, the Protocol identifies the methodology and tools needed to complete the conformity analysis under the CAA (see Section 4.1). The purpose of the Protocol was to document in advance any data to be collected and analyzed, to document the approach to the analysis, and to obtain input from the FAA, South Coast Air Quality Management District (SCAQMD), CARB, Southern California Association of Governments, and EPA. A copy of the Protocol is included in Attachment 1 in Appendix B to this EA.

The air quality analysis for this EA includes direct and indirect emissions inventories, as well as air dispersion modeling for landside sources (area, energy, and mobile) and airside sources (aircraft operations and GSE). Mass emissions inventories were prepared for both construction and operations of the Proposed Project and No Action Alternative. The criteria pollutant emission inventories developed as part of this EA used standard industry software/models and federal, state, and locally approved methodologies. Emissions of regulated pollutants were calculated to determine if the impacts to air quality from the Proposed Project would potentially be significant under the federal Clean Air Act of 1970, as amended. For those Proposed Project pollutant emissions that exceeded mass emissions thresholds, dispersion-modeling analyses were performed to determine if the Proposed Project would contribute to an exceedance of a NAAQS.

4.2.1.1 Emissions Inventory Modeling

Construction Emissions

Air pollutant emissions occurring as a result of construction activity vary based on a project’s duration and level of activity. Construction emissions generally occur from three sources: tailpipe exhaust, fugitive dust, and evaporative sources. Construction-related exhaust emissions

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occur from on- and off-road equipment, delivery and haul trucks, and automobiles powered by fossil fuels, such as diesel, gasoline, compressed natural gas, liquefied natural gas, propane, and similar. Fugitive dust emissions can occur from land disturbance (grading), stockpiling of soil, demolition, loading and hauling of materials and debris, and from on- and off-road vehicle travel. Evaporative emissions result from activities such as asphalt paving, roadway markings, and architectural coating (i.e., painting).

For the basis of this analysis, construction was assumed to start in 2019 and is anticipated to last for approximately 12 months, over two calendar years. The construction schedule used in the analysis is shown in Table 4-1. Operation of the Proposed Project would begin prior to the completion of construction. A phased move-in utilizing tenable portions of the proposed air cargo building and an existing 8-acre asphalt aircraft ramp would support air cargo activities from December 1, 2019, through the remaining construction period. Construction emissions were based on 8-hour workdays for 5 days per week. The estimated maximum daily number of employees working on-site during each phase of construction is assumed to be approximately 200. Fugitive dust emissions rates vary as a function of many parameters (e.g., soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation).

The Proposed Project site would require demolition of approximately 17,440 tons of concrete and asphalt. In addition, this analysis includes the projected impacts associated with the export of approximately 60,000 cubic yards of soil. All exported soil will be hauled to an approved site that is in compliance with all local, state, and federal regulations. A specific export site has not been selected yet; therefore, the SCAQMD-endorsed default value of 10-miles each way was used in the construction air emissions modeling.

<table>
<thead>
<tr>
<th>Phase Name</th>
<th>Start Date</th>
<th>Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demolition</td>
<td>May 2019</td>
<td>22</td>
</tr>
<tr>
<td>Grading</td>
<td>June 2019</td>
<td>22</td>
</tr>
<tr>
<td>Building Construction</td>
<td>July 2019</td>
<td>130</td>
</tr>
<tr>
<td>Paving</td>
<td>Nov. 2019</td>
<td>66</td>
</tr>
<tr>
<td>Architectural Coating</td>
<td>Feb. 2020</td>
<td>67</td>
</tr>
</tbody>
</table>

Criteria pollutant emissions associated with the construction of the Proposed Project were calculated for on-road and off-road vehicles and equipment (e.g., excavators, graders, worker vehicles) based on construction schedule and equipment information provided by Hillwood Enterprises, L.P. (Hillwood). The construction data included types of construction activities, the equipment type for both on-road and off-road construction equipment, and the number of pieces of equipment used for each construction activity. Annual construction estimates were developed using this data. Emission inventories for carbon monoxide (CO), volatile organic compounds (VOC), oxides of nitrogen (NOx), sulfur dioxide (SO2), and particulate matters PM10, and PM2.5 were prepared.
To limit toxic air pollutants, CARB has promulgated a list of mobile and stationary Airborne Toxic Control Measures, which require the early adoption/turnover of existing on- and off-road fleets to newer, cleaner equipment. This equipment must adhere to stringent emissions standards for toxic air contaminants and criteria pollutants. The latest version of California Air Pollution Control Officers Association’s (CAPCOA’s) California Emissions Estimator Model (CalEEMod)™ version 2016.3.2 has been used for this Proposed Project to determine criteria pollutant (CO, VOC, NOx, PM10, and PM2.5) emissions from non-aircraft sources during construction and operation of the Proposed Project. CalEEMod contains on-road region-specific (California) emission factors from CARB’s EMFAC2014 and OFFROAD2011 emissions model.

**Operational Emissions**

The Proposed Project would include distribution and collection operations from an approximately 658,500-square-foot warehouse, supported by a 25,000-square-foot maintenance building, and a second 25,000-square-foot GSE service building, which would contain 50 electric GSE charging stations and a parking area for 150 electric GSE. The Proposed Project would provide an estimated 2,000 employee auto parking stalls and 380 trailer parking stalls for trucks that would distribute and collect packages to and from the Proposed Project.

Opening day aircraft operations for the Proposed Project would include 12 take-offs and landings (24 total aircraft operations). It is anticipated that aircraft operations would occur seven days per week at the following times: four daytime (7:00 a.m. – 6:59 p.m.) take-offs and six daytime landings; two evening (7:00 p.m. – 9:59 p.m.) take-offs and two evening landings; and with six nighttime (10:00 p.m. – 6:59 a.m.) take-offs and four nighttime landings.

In 2024, it is anticipated that the number of Proposed Project-related take-offs and landings would increase to 26 take-offs and landings per day (52 total operations), which would require 14 aircraft parking positions. It is anticipated that 10 daytime take-offs and 13 daytime landings, three evening take-offs and three evening landings, and 13 nighttime take-offs and 10 nighttime landings would occur daily.

Operational emissions of criteria air pollutants were estimated for the Proposed Project and No Action Alternative for two study years: 2019 and 2024. Operational emissions would be generated by two broad classes of sources referred to as airside and landside. Each of these sources require a unique set of tools and data.

To calculate emissions from airside operations, the most recent version of the FAA’s Aviation Environmental Design Tool (AEDT) version 2d (FAA, 2017b) was used to calculate emissions from aircraft operations and GSE. AEDT’s delay and sequencing model was used to model taxi times, using the default AEDT taxi speed of 27.1 miles per hour for all operations. The modeled runway use was 70 percent of operations using Runway 6 and 30 percent of operations using Runway 24, consistent with runway use employed for the noise analysis.

- **Aircraft Operations** – For operating emissions from the Proposed Project, the affected environment includes the Proposed Project site as well as surrounding areas where aircraft
arriving and departing from the Airport are below the mixing height, generally assumed to be 3,000 feet above field elevation (AFE)\textsuperscript{16}.

- **Ground-Support Equipment** – GSE are pieces of equipment that are used to support and service aircraft between flights. SBIAA has committed to using GSE that can operate on electric battery power (see Project Commitment 1: Require Use of Electric Ground-Support Equipment in Chapter 2, Purpose and Need). However, battery-operated lavatory and fuel trucks are not available at this time; therefore, diesel versions of that equipment would be used at the Proposed Project site. Emissions generated from the diesel equipment use were calculated.

For the purposes of aircraft operational air emissions modeling, it was assumed that the only differences between the Proposed Project and No Action Alternatives were the addition of aircraft and GSE operations associated with the Proposed Project. It was assumed that aircraft fleet mix and operational counts not associated with the Proposed Project would be the same in the No Action and Proposed Project conditions for each year; thus, the 2019 and 2024 study years incorporated the aircraft fleet mix and operational counts from the 2019 and 2024 No Action conditions, respectively.

Landside operational activities associated with the Proposed Project would result in emissions from the following primary sources:

- **Area Source Emissions** - Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawn mowers, blowers, trimmers, hedge trimmers, and similar fuel-burning equipment used to maintain the landscaping of the Proposed Project. The emissions associated with landscape maintenance equipment were calculated based on the size of the landscaped area within the Proposed Project site and CARB’S OFFROAD2011 emission factors embedded within CalEEMod. As the Proposed Project site is currently undeveloped, area source emissions were not included in the No Action CalEEMod runs as these emissions would be zero.

- **Energy Source Emissions** – Criteria pollutant emissions are emitted through the generation of electricity and consumption of natural gas. However, because electrical generating facilities for the Proposed Project area are located either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the Basin, criteria pollutant emissions from offsite generation of electricity is generally excluded from the evaluation of significance and only natural gas use (for building heating and hot water) is considered. Energy demand rates were estimated based on specific square footage of the development. As the Proposed Project site is currently undeveloped, energy source emissions were not included in the No Action CalEEMod runs as these emissions would be zero.

- **Mobile Source Emissions** – Mobile sources from the operation of the Proposed Project, such as passenger vehicles and delivery trucks, are a source of criteria pollutants. Forecast trip generation and vehicle miles traveled (VMT) contained in the Proposed Project’s Traffic Impact Analysis (TIA) (Translutions, 2018) were used to estimate the project’s motor vehicle

\textsuperscript{16} AFE means above the highest point on the ground at the airport – meaning the field elevation. AFE is essentially the same as Above Ground Level (AGL), per the FAA’s Air Quality Handbook. The term “atmospheric mixing height” generally describes the height above ground level (AGL) where most air pollutants are generated and where atmospheric mixing occurs. Within the atmosphere, this height (expressed in meters or feet AGL)...
emissions. Average trip distances were applied to the maximum daily trip estimates, based on the trip generation rates provided in the TIA to estimate the total VMT. The VMT estimates take into account trip and VMT reductions from nearby transit options and nearby off-site residential. In 2019, the Proposed Project would generate 3,486 total average daily vehicles trips, including 192 truck trips. In 2024, the total average daily trips generated by the Proposed Project would be 7,516, including 500 truck trips.

For passenger car trips, the default one-way trip length of 16.6 miles provided in CalEEMod was used. For heavy duty trucks, a one-way trip length was derived from distances from the Proposed Project site to the edges of the South Coast Air Basin as shown below:

- Proposed Project site to the Port of Los Angeles/Long Beach: 80.47 miles
- Proposed Project site to Banning Pass: 37.20 miles
- Proposed Project site to San Diego County line: 62.17 miles
- Proposed Project site to Cajon Pass: 26.90 miles
- Proposed Project site to downtown Los Angeles: 65.90 miles

Assuming that 50 percent of all delivery trips would travel to and from the Project and the Port of Los Angeles/Long Beach, and the remainder as distribution trips to all other locations, the average truck trip length is calculated as 64.25 miles.

Additionally, the Proposed Project has committed to the use of zero emissions or near-zero emissions trucks, if and when feasible. At a minimum, the Proposed Project would use 2010 and newer trucks (e.g., including material delivery trucks, soil import/export trucks, and other trucks required for operation of the Proposed Project).

### 4.2.1.2 Air Dispersion Modeling

Dispersion is the process by which atmospheric pollutants disseminate due to wind and vertical stability. Air dispersion modeling was used to predict ground-level ambient air concentrations of pollutants near air emissions sources. The results of air dispersion modeling analyses were used to assess pollutant concentrations at or near the Airport.

The 1050.1F Desk Reference states that the dispersion model used by AEDT is the EPA’s AERMOD model. AERMOD is a “steady-state plume model that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts including treatment of both surface and elevated sources, and both simple and complex terrain.” AEDT was used to generate the operational source parameters that are entered into the AERMOD for dispersion modeling in accordance with the guidelines in the 1050.1F Desk Reference. The most current EPA-approved American Meteorological Society (AMS)/EPA Regulatory Model (AERMOD) version 18081 was used to predict pollutant concentrations of NOx and CO for construction and operational sources for the Proposed Project.

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AERMOD estimates air pollutant concentrations of single or multiple point, area, or volume sources using historical meteorological conditions. Concentration impacts from the Proposed Project were added to background concentrations for comparison to the NAAQS. The background concentrations represent contributions from non-Project background sources near the airport. See Section 3.2.1 for additional information regarding the NAAQS.

Below are assumptions associated with air dispersion modeling for the Proposed Project:

- **Airside sources** inputted into AERMOD include:
  - Aircraft landing-takeoff activity (including airborne and ground movements) below 3,000 feet AFE, modeled within AEDT as area sources.
  - Aircraft startup and GSE activity, modeled as area sources representing airport aprons.
  - Aircraft “run-up” emissions (typically, engine activity performed for maintenance), modeled as point sources.

- **Landside sources** include:
  - Building operation emissions, modeled as area sources.
  - Vehicle travel activity, vehicle idling, and construction emissions, modeled as line volume sources. Line volume source implements vertical release parameters, which would be expected from a vehicle exhaust plume. Area sources are more appropriate for low-level or ground-level releases with no plume rise; therefore, they were used for modeling building operation emissions and not vehicle emissions.

- **Building downwash effects** were included due to the use of point sources. The buildings that were included in the model were based on the “5L” run; meaning that if the distance between the stack and building is less than 5 times the lesser of the building height or width, the buildings would be included.

- **Elevations** were applied to sources, buildings, and receptors using WebGIS data, NED 1/3 (USA ~ 10 m).

The five most recent years of meteorological (MET) data from the Fontana Meteorological Station (MET years 2011–2013, 2015–2016) were used in the modeling. The Fontana Station is the nearest, most representative station from which MET data is available. AERMET version 16216 is the most recent iteration of the software used by the SCAQMD in developing the MET data for the AEDT and air dispersion modeling. The data includes ambient temperature, wind speed, wind direction, and atmospheric stability parameters, as well as mixing height parameters, from the appropriate upper air station.

Receptor points are the geographic locations where the air dispersion model calculates air pollutant concentrations, and were located in areas where the general public has unrestricted access near the Proposed Project site. A receptor grid was developed pursuant to the Protocol as well as SCAQMD guidance to capture impacts primarily in the predominant wind direction and refined, as necessary, to capture maximum impacts. Receptors were included within the Airport property fence line to model the air emissions at a property managed and occupied by the United States
Forest Service (USFS), which is located towards the northwest region of the Airport property, adjacent to 3rd Street. The USFS uses the Airport as a base of operations for its firefighting aircraft. Although located within the Airport property boundary, these receptors were included in the air emissions modeling because the USFS facility is federal property independently operated by the USFS. Therefore, it was treated the same as an off-airport property receptor.

The Ozone Limiting Method (OLM) was implemented as a Tier 3 NO$_2$ modeling refinement, which is a modeling technique in AERMOD to estimate NOx concentrations and then estimate the conversion of primary NO emissions to NO$_2$ based on ambient levels of ozone and plume characteristics, as recommended by the EPA (EPA 2014). The default in-stack NO$_2$/NOx ratios were implemented because it was the best information available. The OLM Group “ALL” was selected to model the sources.

Lastly, background concentration data from the San Bernardino Air Monitor (AQS Site 06-071-9004) Station were obtained for each averaging period (e.g., 1-hour or annual) for comparison to the corresponding NAAQS. The San Bernardino Station was used because it was the closest monitor to the Airport and deemed most representative of background concentrations. The Fontana Station (AQS 06-071-2002) was used to supply background data for the Proposed Project if it was not available from the San Bernardino Station.

**Figure 4-1** portrays the Proposed Project domain, including aircraft and ground-level emissions sources, specifically the takeoff and departure flight patterns, the project property boundary, and the receptor grid developed using SCAQMD guidance. **Figure 4-2** provides a closer image of the property boundary compared to Figure 4-1 to show the plant boundary receptors and a more visible representation of the non-aircraft sources, like construction, taxiing, GSE, and buildings included for downwash.
Figure 4-1
Dispersion Modeling Project Domain
San Bernardino International Airport
Figure 4-2
Dispersion Modeling Project Fenceline
San Bernardino International Airport

Legend
- Area Sources
- Volume and Line-Volume Sources and Buildings

SOURCE: ESA, 2018
Proposed Eastgate Air Cargo Facility Draft Environmental Assessment
4.2.1.3 Hazardous Air Pollutants

Hazardous air pollutants (HAPs) are pollutants that do not have established NAAQS but present potential adverse human health risks from short-term (acute) or long-term (chronic) exposures, as defined by Section 112 of the CAAA. As outlined in the Protocol, the emissions of HAPs were addressed in accordance with the FAA’s Speciated Organic Gas Emissions from Airports Guidance document. Specifically, the 2015 FAA Air Quality Handbook Chapter 6.2 (Hazardous Air Pollutants) was used to determine if an emission inventory of HAPs generated from the Proposed Project should be prepared (FAA, 2015a). The flow chart notes that a HAPs emissions inventory should be prepared when: (a) the project is “major”; (b) the project is located in nonattainment or maintenance areas; and (c) a criteria air pollutant emissions inventory is also prepared. As previously stated, the Basin is categorized as a nonattainment for ozone and PM$_{2.5}$; therefore, an emissions inventory for HAPs generated by the Proposed Project was developed. Although the analysis of HAPs is not required by FAA Orders 1050.1F or 5050.4B, the HAPs emissions inventory was prepared using the same assumptions and models that were used to prepare the criteria pollutant emissions inventory discussed in preceding sections of this chapter. The following are HAPs that were quantified in the emissions inventory:

- 1,3-Butadiene
- 2-Methylnaphthalene
- Acetaldehyde
- Acetone
- Acrolein (2-propenal)
- Benzaldehyde
- Benzene
- Ethylbenzene
- Formaldehyde
- Isopropylbenzene
- n & p-Xylene
- Methyl alcohol
- Naphthalene
- n-Heptane
- o-Xylene
- Phenol (carbolic acid)
- Propionaldehyde
- Styrene
- Ethylene
- 1,2,4-trimethylbenzene (1,3,4-trimethylbenzene)
- Propylene
- 1,2,3-trimethylbenzene
- Crotonaldehyde
- Toluene

To calculate HAPs from airside emission sources, AEDT uses the methodologies described in the FAA’s “Guidance for Quantifying Speciated Organic Gas Emissions from Airport Sources” (FAA, 2009). Table 1 of this document provides EPA speciation profiles for aircraft gas turbine engines (Profile No. 5565) and aircraft piston engines (Profile No. 1099), as well as other airport sources. AEDT computes HAP emissions masses by first computing total organic gas (TOG) emissions for each source, then applying the mass fractions in the associated speciation profile to determine HAP emissions (FAA, 2017a).

The HAPs emissions inventory for landside emission sources were prepared using the same assumptions and models that were used to develop the air pollutant emission inventory for the Proposed Project as discussed in Section 4.2.2.1.
4.2.2 Significance Thresholds

The California Clean Air Act (CCAA), administered by CARB, requires all air districts in the state to achieve and maintain the California Ambient Air Quality Standards (CAAQS), California law does not require that CAAQS be met by specified dates as is the case with NAAQS. Rather, it requires incremental progress toward attainment. However, attainment of the NAAQS has precedence over attainment of the CAAQS due to federal penalties for failure to meet federal attainment deadlines. Therefore, this air quality assessment focuses on the Proposed Project’s potential air emission impacts relative to the NAAQS.

An action would cause significant air quality impacts if pollutant concentrations were to exceed one or more of the NAAQS (as established by the EPA under the Clean Air Act [CAA]), for any of the time periods analyzed, or to increase the frequency or severity of any such existing violations (see NAAQS provided in Section 3.2.2.2). In lieu of performing detailed dispersion modeling for all pollutants, mass based emission thresholds can be used to determine the potential for project-related increases in emissions to result in exceedances of the NAAQS. For this purpose, the major source potential-to-emit thresholds for stationary sources under CAA New Source Review permitting, which correspond to the de minimis thresholds discussed below, indicate the level above which further analysis is needed to demonstrate whether emissions would result in an exceedance of an applicable NAAQS. Emissions below the de minimis threshold levels do not require dispersion analysis or further detailed analyses.

4.2.2.1 General Conformity

The EPA first promulgated the General Conformity Rule in 1993 to implement the conformity provision of Title I, Section 176(c)(1) of the CAAA. Section 176(c)(1) requires that the federal government not engage in, support, or provide financial assistance for licensing, permitting, or approving any activity not conforming to an approved CAA implementation plan. The approved implementation plan could be a federal, state, or tribal implementation plan. The General Conformity Rule is designed to ensure that air emissions associated with federal actions do not contribute to air quality degradation or prevent achievement of state and federal air quality goals. General Conformity refers to the process of evaluating federal plans, programs, and projects to determine and demonstrate that they meet the requirements of the CAA and the applicable SIP. Compliance with the General Conformity Rule is based on a comparison of the changes in air emissions (Proposed Project minus the No Action Alternative) with the de minimis thresholds, in accordance with FAA Order 1050.1F.

Federally supported actions (or portions thereof) that do not fall under a CAA exemption or are not listed on FAA’s approved presumed to conform list must then undergo a de minimis comparison to identify whether a formal GCD is required. If net emissions of an action are less than the de minimis threshold levels, then the action is considered to be too small to adversely affect the air quality status of the area and is automatically considered to conform with the applicable SIP; therefore, the general conformity requirements have been complied with and the process is complete. Established de minimis thresholds can vary by pollutant, by the severity of nonattainment, and in some cases by geographic location.
Within the Basin, the *de minimis* thresholds for CO, PM$_{10}$, ozone (O$_3$), PM$_{2.5}$, and SO$_2$ apply. The Basin is designated as extreme nonattainment for O$_3$ and serious nonattainment for PM$_{2.5}$, maintenance for CO and PM$_{10}$, and unclassifiable attainment for NO$_2$ and SO$_2$ (EPA, 2018b). Therefore, the *de minimis* thresholds applicable to the Proposed Project are presented below (FAA, 2015a):

- CO: 100 tons/year
- NO$_X$: 10 tons/year
- VOC: 10 tons/year
- SO$_2$: 100 tons/year
- PM$_{10}$: 100 tons/year
- PM$_{2.5}$: 70 tons/year

### 4.2.3 2019 and 2024 Impacts

#### 4.2.3.1 No Action Alternative (2019 and 2024)

**Operational Impacts**

Under the federal guidelines, the No Action Alternative represents the existing condition to which the Proposed Project is compared. The emissions inventory for the No Action Alternative is summarized in Table 4-2 and Table 4-3 for the years 2019 and 2024, respectively. It should be noted that while vehicle trips increase from 2019 to 2024, vehicle emission rates improve (decrease) from 2019 to 2024 due to retirement of older, less efficient vehicles and introduction of newer vehicles meeting more stringent emission and fuel efficiency standards.

Under the No Action Alternative, the Proposed Project would not be built. As a result, there would be no additional Proposed Project emissions generated at the Airport. Accordingly, the No Action Alternative would not cause or contribute to an exceedance of the NAAQS.

<table>
<thead>
<tr>
<th>Source</th>
<th>VOC</th>
<th>NO$_X$</th>
<th>CO</th>
<th>SO$_X$</th>
<th>PM$_{10}$</th>
<th>PM$_{2.5}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aircraft</td>
<td>14.24</td>
<td>27.10</td>
<td>350.99</td>
<td>3.21</td>
<td>0.52</td>
<td>0.52</td>
</tr>
<tr>
<td>Off-Airport Vehicular Travel</td>
<td>7.74</td>
<td>58.71</td>
<td>107.48</td>
<td>0.37</td>
<td>27.56</td>
<td>7.65</td>
</tr>
<tr>
<td>Total</td>
<td>21.98</td>
<td>85.81</td>
<td>458.47</td>
<td>3.58</td>
<td>28.08</td>
<td>8.17</td>
</tr>
</tbody>
</table>

**NOTES:**
- CO = carbon monoxide
- NO$_X$ = oxides of nitrogen
- PM$_{10}$ = particulate matter less than or equal to 10 microns in diameter
- PM$_{2.5}$ = particulate matter less than or equal to 2.5 microns in diameter
- SO$_X$ = oxides of sulfur
- VOC = volatile organic compound

**SOURCE:** ESA Airports, March 2016.
### 4. Environmental Consequences

#### Table 4-3

**2024 No Action Emissions Inventory (Annual Tons)**

<table>
<thead>
<tr>
<th>Source</th>
<th>VOC</th>
<th>NOx</th>
<th>CO</th>
<th>SOx</th>
<th>PM10</th>
<th>PM2.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aircraft</td>
<td>14.54</td>
<td>28.11</td>
<td>368.36</td>
<td>3.34</td>
<td>0.54</td>
<td>0.54</td>
</tr>
<tr>
<td>Off-Airport Vehicular Travel</td>
<td>5.93</td>
<td>40.89</td>
<td>82.64</td>
<td>0.38</td>
<td>31.72</td>
<td>8.65</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>20.47</td>
<td>69.00</td>
<td>451.00</td>
<td>3.71</td>
<td>32.26</td>
<td>9.19</td>
</tr>
</tbody>
</table>

**NOTES:**
- CO = carbon monoxide
- NOx = oxides of nitrogen
- PM10 = particulate matter less than or equal to 10 microns in diameter
- PM2.5 = particulate matter less than or equal to 2.5 microns in diameter
- SOx = oxides of sulfur
- VOC = volatile organic compound

**SOURCE:** ESA Airports, March 2016.

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**Hazardous Air Pollutant Impacts**

HAPs from aircraft and off-airport vehicular travel under the No Action Alternative were calculated for 2019 and 2014 and presented in [Attachment 6 in Appendix B](#). Under the No Action Alternative, the Proposed Project would not be built. As a result, there would be no additional Proposed Project emissions generated at the Airport beyond those presented in [Attachment 6 in Appendix B](#).

**Construction Impacts**

No construction activities related to the Proposed Project would occur under the No Action Alternative. Construction projects related to runway and taxiway repairs and rehabilitation and constructing a heliport are anticipated to occur in the future. Table 3-12 in Chapter 3, *Affected Environment*, lists the past, present, and reasonably foreseeable projects within the GSA and the potential for contributing to air pollutant emissions is detailed in Section 4.14, *Cumulative Impacts*. No impacts would occur under the No Action Alternative in either 2019 or 2024.

**Proposed Project (2019 and 2024)**

**Operational Impacts**

The 2019 and 2024 operational emissions inventories for the Proposed Project are presented in [Table 4-4 and Table 4-5](#), respectively, and include the operational minimization measures detailed in “Operational Minimization Measures” below. It should be noted that the majority of the Proposed Project emissions would be generated by mobile and aircraft sources. SBIAA has committed to mitigation measures identified in this Chapter. SBIAA cannot substantively or materially affect reduction in project mobile and/or aircraft-related source emissions beyond what is already required by the operational minimization measures.
## TABLE 4-4

### 2019 PROPOSED PROJECT OPERATIONAL EMISSIONS INVENTORY

<table>
<thead>
<tr>
<th>Operational Activities</th>
<th>Estimated Annual Emissions of Criteria Pollutants (tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VOC</td>
</tr>
<tr>
<td>Area Source (Cargo Facility)</td>
<td>2.96</td>
</tr>
<tr>
<td>Area Source (Ancillary Building)</td>
<td>0.20</td>
</tr>
<tr>
<td>Energy Source (Cargo Facility)</td>
<td>0.01</td>
</tr>
<tr>
<td>Energy Source (Ancillary Building)</td>
<td>0.00</td>
</tr>
<tr>
<td>Mobile Sources (Passenger Cars)¹</td>
<td>8.42</td>
</tr>
<tr>
<td>Mobile Sources (Trucks)</td>
<td>0.58</td>
</tr>
<tr>
<td>Aircraft</td>
<td>26.46</td>
</tr>
<tr>
<td>Ground-Support Equipment</td>
<td>0.08</td>
</tr>
<tr>
<td><strong>Total Maximum Emissions</strong></td>
<td>38.71</td>
</tr>
<tr>
<td>2019 No Action Mobile Emissions</td>
<td>7.74</td>
</tr>
<tr>
<td>2019 No Action Aircraft Emissions</td>
<td>14.24</td>
</tr>
<tr>
<td>2019 No Action Emissions</td>
<td>21.98</td>
</tr>
<tr>
<td><strong>2019 Net Emissions</strong></td>
<td>16.73</td>
</tr>
<tr>
<td>De Minimis Thresholds</td>
<td>YES</td>
</tr>
</tbody>
</table>

**Exceed Thresholds?**

|                         | YES | YES | NO  | NO  | NO  | NO  |

**NOTES:**

CO = carbon monoxide
NOX = oxides of nitrogen
PM_{10} = particulate matter less than or equal to 10 microns in diameter
PM_{2.5} = particulate matter less than or equal to 2.5 microns in diameter
SOX = oxides of sulfur
VOC = volatile organic compounds
Area Source = architectural coatings, consumer products, and landscape maintenance equipment.
Energy Source = emissions associated with natural gas usage.
Cargo Facility = emissions generated by operation of the 658,500-square-foot (sf) sort, distribution, and office building that would be constructed for the Proposed Project.
Ancillary Building = emissions generated by the two separate 25,000-sf maintenance buildings that would be constructed for the Proposed Project.

¹ Operational mobile sources (passenger cars) are the sum of Proposed Project mobile emissions and No Action Mobile emissions.
² Estimated emissions are in tons per year; however, some activities do not emit more than one ton per year and when reducing significant digits and rounding, the number is zero. Calculations were conducted on spreadsheets that included the less than one ton per year emissions generated by these activities and are included in the total emissions estimate.

**SOURCE:** ESA Airports, March 2019.
### Operational Emissions Inventory

The operational emissions inventory for the Proposed Project are analyzed after subtracting the No Alternative emissions for the appropriate study year. The difference represents “project-related” emissions and are compared to the appropriate threshold values. Project-related emissions above the *de minimis* values would require a GCD. A GCD would describe: how the conformity criteria would be met; the results of the conformity analyses conducted for the study; and recommended measures to mitigate, offset, or reduce emissions to demonstrate conformity with the SIP.

As shown in Table 4-4, operational emissions in 2019 would exceed the applicable *de minimis* thresholds for VOC and NOX resulting in a potential exceedance of the ozone and NO2 NAAQS.
4. Environmental Consequences

Thus, a GCD is required for the Proposed Project’s emissions of non-attainment and maintenance pollutants. The SCAQMD has confirmed the emissions of VOCs and NO\textsubscript{x} resulting from the Proposed Project are within the 2012 AQMP General Conformity Budget. The SCAQMD confirmation, in the form of a letter dated April 30, 2019, is provided in Appendix B of 

**Operational Dispersion Analysis**

Photochemical grid modeling for ozone was not performed for the Proposed Project because of the complexity of ozone formation. Given the state of environmental science modeling in use at this time, it is infeasible to determine whether, or the extent to which, a single project’s precursor (i.e., NO\textsubscript{x} and VOCs) emissions would potentially result in the formation of secondary ground-level ozone and the geographic and temporal distribution of such secondary formed emissions. Meteorology, the presence of sunlight, seasonal impacts, and other complex chemical factors all combine to determine the ultimate concentration and location of ozone. Furthermore, available models today are designed to determine regional ozone impacts and cannot accurately quantify ozone-related impacts caused by NO\textsubscript{x} or VOCs emissions from the project level. The SIP, locally referred to as the Air Quality Management Plan (AQMP), contains future year emissions budgets under which the SCAQMD can demonstrate (through regional photochemical modeling) that timely attainment of the ozone NAAQS will be achieved.

Air dispersion modeling was used to determine CO and NO\textsubscript{2} impacts from airside and landside operational sources with the Proposed Project. Detailed AEDT and AERMOD output results are provided in Attachment 4 in Appendix B and Attachment 5 in Appendix B, respectively.
Dispersion Modeling for Nitrogen Dioxides

A separate air dispersion model run was executed for each of the 5 years of MET data for both the 2019 and 2024 Study Years. In order to demonstrate compliance with the 1-hour NAAQS, the 98th percentile value from each year, averaged over 5 years, was compared to the threshold. The highest annual average was also compared to the NAAQS threshold.

The dispersion analysis results for NO\textsubscript{2} emissions generated from the operation of the Proposed Project are presented in Table 4-6. As shown in Table 4-6, the Proposed Project does not exceed the NO\textsubscript{2} ambient air quality standards and will not delay the timely attainment of the NAAQS.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Year of Impact</th>
<th>Averaging Period</th>
<th>Maximum Modeled Concentration ((\mu g/m^3))</th>
<th>Standard ((\mu g/m^3))</th>
<th>Exceeds Standards?</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO\textsubscript{2}</td>
<td>2019</td>
<td>1-hr NAAQS</td>
<td>179.6</td>
<td>188</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Annual NAAQS</td>
<td>44.6</td>
<td>100</td>
<td>No</td>
</tr>
<tr>
<td>NO\textsubscript{2}</td>
<td>2024</td>
<td>1-hr NAAQS</td>
<td>182.7</td>
<td>188</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Annual NAAQS</td>
<td>49.2</td>
<td>100</td>
<td>No</td>
</tr>
</tbody>
</table>

NOTES:
NO\textsubscript{2} = nitrogen dioxide
Maximum modeled NO\textsubscript{2} concentration = Proposed Project contribution + background concentrations from the hourly background concentration file used in AERMOD.
The maximum annual concentration occurred in MET year 2012 for the 2019 and 2024 Study Years.

Dispersion Modeling for Carbon Monoxide

Per EPA guidance, the most recent 3 years of available monitoring data from the San Bernardino Station was used to develop CO background concentration values (EPA, 2014). These were used for comparison to the corresponding NAAQS.

A separate air dispersion model run was executed for each of the 5 years of the meteorological data for both the 2019 and 2024 Study Years. The second highest value from any year was added to the corresponding background CO concentration value and compared to the 1-hour and 8-hour NAAQS threshold in order to demonstrate compliance.

As stated previously, CO emissions exceed the de minimis thresholds in 2024, as evidenced in Table 4-5. However, as shown in Table 4-7, dispersion analysis results for CO emissions generated from the Proposed Project does not exceed the applicable CO NAAQS.
### Table 4-7
**CO Operational Concentrations for the Proposed Project**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Year of Impact</th>
<th>Averaging Period</th>
<th>Incremental Peak (μg/m³)</th>
<th>Background (μg/m³)</th>
<th>Total (μg/m³)</th>
<th>Standard (μg/m³)</th>
<th>Exceeds Standards?</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>2019</td>
<td>1-hr NAAQS</td>
<td>111.3</td>
<td>2819</td>
<td>2930</td>
<td>40,000</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8-hr NAAQS</td>
<td>24.3</td>
<td>2476</td>
<td>2500</td>
<td>10,000</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>2024</td>
<td>1-hr NAAQS</td>
<td>143.6</td>
<td>2819</td>
<td>2963</td>
<td>40,000</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8-hr NAAQS</td>
<td>37.1</td>
<td>2476</td>
<td>2513</td>
<td>10,000</td>
<td>No</td>
</tr>
</tbody>
</table>

**NOTES:**
- CO = carbon monoxide
- Compliance with the 1-hr and 8-hr NAAQS is demonstrated by obtaining the 2nd highest ranked CO concentration for each modeled year.
- The maximum concentration occurred in MET year 2015 and 2012 for the 1-hour standard for Study Year 2019 and 2024, respectively, and MET year 2016 for the 8-hour standard for both Study Years.

**SOURCE:** ESA Airports, November 2018.

### Construction Impacts

Under the Proposed Project, construction-related emissions are expected from the following construction activities: demolition, grading, building construction, paving, and architectural coating. Construction would be completed within 12 months stretching over two calendar years. The construction emissions inventory for the Proposed Project is presented in Table 4-8 and includes the construction minimization measures detailed in “Construction Minimization Measures” in Section 4.2.5. Detailed CalEEMod output results for construction modeling are provided in Attachment 3 in Appendix B. As shown on Table 4-8, emissions from construction would not exceed the annual thresholds. Therefore, construction of the Proposed Project would not cause or contribute to an exceedance of the NAAQS.

**Table 4-8**
**Construction Emissions Inventory**

<table>
<thead>
<tr>
<th>Construction Year</th>
<th>Estimated Annual Emissions of Criteria Pollutants (tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VOC</td>
</tr>
<tr>
<td>2019</td>
<td>1.05</td>
</tr>
<tr>
<td>2020</td>
<td>0.46</td>
</tr>
<tr>
<td>Maximum</td>
<td>1.05</td>
</tr>
<tr>
<td>De Minimis Thresholds</td>
<td>10</td>
</tr>
<tr>
<td>Exceed Thresholds</td>
<td>NO</td>
</tr>
</tbody>
</table>

**NOTES:**
- CO = carbon monoxide
- NOX = oxides of nitrogen
- PM10 = particulate matter less than or equal to 10 microns in diameter
- PM2.5 = particulate matter less than or equal to 2.5 microns in diameter
- SOX = oxides of sulfur
- VOC = volatile organic compounds

**SOURCE:** ESA Airports, March 2019.
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Construction Emissions Inventory
Air emissions occurring as the result of construction activity vary based on the Proposed Project duration and level of activity. Although these emissions are temporary in nature and generally confined to the construction site and the access/egress roadways, they are quantified to determine if they will exceed the General Conformity de minimis threshold levels. As shown in Table 4-4, criteria pollutant emissions generated from just construction activities would not exceed the de minimis threshold. However, operational emissions generated by the Proposed Project would exceed de minimis thresholds; therefore, a GCD is required for the Proposed Project.

Combined Construction and Operational Impacts
Operation of the Proposed Project would begin prior to the completion of construction. A phased move-in, utilizing tenable portions of the proposed air cargo building and an existing 8-acre asphalt aircraft ramp located within the Proposed Project’s future aircraft ramp footprint, would support air cargo activities from December 1, 2019, through the remaining construction period ending in 2020. Therefore, construction and operation of the Proposed Project would potentially occur at the same time. As previously discussed in “Construction Impacts” above, construction alone of the Proposed Project would not result in an exceedance of the de minimis thresholds. However, operation of the Proposed Project does exceed the NOX and VOC de minimis thresholds in 2019. Therefore, combining the construction and operation activities, total emissions generated will result in exceedances of the de minimis thresholds.

Opening day aircraft operations at the air cargo facility (anticipated to occur in 2019) would adhere to the schedule as previously described in “Operational Impacts” above. Air cargo facility operations would also remain the same with operations occurring seven days per week, employing the same number of employees and generating the same amount of vehicle trips (passenger cars and trucks).

The 2019 and 2020 combined construction and operational emissions inventories for the Proposed Project are presented in Table 4-9 and Table 4-10, respectively, and include the construction and operational minimization measures detailed in “Measures Available to Reduce Emissions” below. As shown in Table 4-9, operational emissions in 2019 would exceed the de minimis threshold for VOC and NOX. Additionally, 2020 emissions of VOC and NOX exceed the de minimis thresholds, as evidenced in Table 4-10. Thus, a GCD for the Proposed Project would be required.

Combined Construction and Operational Emissions Inventory
The operational emissions inventory for the Proposed Project is analyzed after subtracting the No Change Alternative emissions for the appropriate year. The difference represents “Proposed Project-related” emissions and are compared to the appropriate threshold values. Proposed Project-related emissions below the de minimis threshold values are presumed to conform to the applicable SIP. Proposed Project-related emissions above the de minimis threshold values would require a GCD. A GCD would describe: (1) how the conformity criteria would be met; (2) the results of the conformity analyses conducted for the study; and (3) recommended measures to mitigate, offset, or reduce emissions to demonstrate conformity with the SIP.
### TABLE 4-9
2019 COMBINED CONSTRUCTION AND PROPOSED PROJECT OPERATIONAL EMISSIONS INVENTORY

<table>
<thead>
<tr>
<th>Operational Activities</th>
<th>Estimated Annual Emissions of Criteria Pollutants (tons/year)</th>
<th>VOC</th>
<th>NOₓ</th>
<th>CO</th>
<th>SOₓ</th>
<th>PM₁₀</th>
<th>PM₂.₅</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area Source</td>
<td></td>
<td>2.96</td>
<td>0.00</td>
<td>0.05</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Area Source (Ancillary Building)</td>
<td></td>
<td>0.20</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Energy Source</td>
<td></td>
<td>0.01</td>
<td>0.07</td>
<td>0.05</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Energy Source (Ancillary Building)</td>
<td></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Mobile Sources (Passenger Cars)^1</td>
<td></td>
<td>8.42</td>
<td>59.61</td>
<td>117.55</td>
<td>0.40</td>
<td>31.28</td>
<td>8.65</td>
</tr>
<tr>
<td>Mobile Sources (Trucks)</td>
<td></td>
<td>0.58</td>
<td>17.71</td>
<td>4.36</td>
<td>0.06</td>
<td>2.11</td>
<td>0.69</td>
</tr>
<tr>
<td>Aircraft</td>
<td></td>
<td>26.46</td>
<td>107.05</td>
<td>392.45</td>
<td>9.01</td>
<td>0.91</td>
<td>0.91</td>
</tr>
<tr>
<td>Ground-Support Equipment</td>
<td></td>
<td>0.08</td>
<td>0.57</td>
<td>0.17</td>
<td>0.00</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>2019 Maximum Construction Emissions</td>
<td></td>
<td>1.05</td>
<td>8.77</td>
<td>15.42</td>
<td>0.04</td>
<td>3.10</td>
<td>0.88</td>
</tr>
<tr>
<td><strong>Total Maximum Emissions</strong></td>
<td></td>
<td>39.76</td>
<td>193.78</td>
<td>530.06</td>
<td>9.52</td>
<td>37.42</td>
<td>11.15</td>
</tr>
<tr>
<td>2019 No Action Mobile Emissions</td>
<td></td>
<td>7.74</td>
<td>58.71</td>
<td>107.48</td>
<td>0.37</td>
<td>27.56</td>
<td>7.65</td>
</tr>
<tr>
<td>2019 No Action Aircraft emissions</td>
<td></td>
<td>14.24</td>
<td>27.10</td>
<td>350.99</td>
<td>3.21</td>
<td>0.52</td>
<td>0.52</td>
</tr>
<tr>
<td>2019 No Action Emissions</td>
<td></td>
<td>21.98</td>
<td>85.81</td>
<td>458.47</td>
<td>3.58</td>
<td>28.08</td>
<td>8.17</td>
</tr>
<tr>
<td><strong>2019 Net Emissions</strong></td>
<td></td>
<td>17.77</td>
<td>107.97</td>
<td>71.59</td>
<td>5.94</td>
<td>9.35</td>
<td>2.98</td>
</tr>
<tr>
<td><strong>De Minimis Thresholds</strong></td>
<td></td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
</tr>
</tbody>
</table>

NOTES:
- CO = carbon monoxide
- NOₓ = oxides of nitrogen
- PM₁₀ = particulate matter less than or equal to 10 microns in diameter
- SOₓ = oxides of sulfur
- VOC = volatile organic compounds
- PM₂.₅ = particulate matter less than or equal to 2.5 microns in diameter

Area Source = architectural coatings, consumer products, and landscape maintenance equipment.

Energy Source = emissions associated with natural gas usage.

Cargo Facility = emissions generated by operation of the 658,500-square-foot (sf) sort, distribution, and office building that will be constructed for the Proposed Project.

Ancillary Building = emissions generated by the two separate 25,000-sf maintenance buildings that will be constructed for the Proposed Project.

1. Operational mobile sources (passenger cars) are the sum of Proposed Project mobile emissions and No Action Mobile emissions.
2. Estimated emissions are in tons per year; however, some activities do not emit more than one ton per year and when reducing significant digits and rounding, the number is zero. Calculations were conducted on spreadsheets that included the less than one ton per year emissions generated by these activities and are included in the total emissions estimate.

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### Table 4-10
#### 2020 Combined Construction and Proposed Project Operational Emissions Inventory

<table>
<thead>
<tr>
<th>Operational Activities</th>
<th>Estimated Annual Emissions of Criteria Pollutants (tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VOC</td>
</tr>
<tr>
<td>Area Source</td>
<td>2.96</td>
</tr>
<tr>
<td>Area Source (Ancillary Building)</td>
<td>0.20</td>
</tr>
<tr>
<td>Energy Source</td>
<td>0.01</td>
</tr>
<tr>
<td>Energy Source (Ancillary Building)</td>
<td>0.00</td>
</tr>
<tr>
<td>Mobile Sources (Passenger Cars)(^1)</td>
<td>8.42</td>
</tr>
<tr>
<td>Mobile Sources (Trucks)</td>
<td>0.58</td>
</tr>
<tr>
<td>Aircraft</td>
<td>26.46</td>
</tr>
<tr>
<td>Ground-Support Equipment</td>
<td>0.08</td>
</tr>
<tr>
<td>2020 Maximum Construction Emissions</td>
<td>0.46</td>
</tr>
<tr>
<td>Total Maximum Emissions</td>
<td>39.16</td>
</tr>
<tr>
<td>2020 No Action Mobile Emissions</td>
<td>7.74</td>
</tr>
<tr>
<td>2020 No Action Aircraft emissions</td>
<td>14.24</td>
</tr>
<tr>
<td>2020 No Action Emissions</td>
<td>21.98</td>
</tr>
<tr>
<td>2020 Net Emissions</td>
<td>17.18</td>
</tr>
<tr>
<td>De Minimis Thresholds</td>
<td>10</td>
</tr>
<tr>
<td>Exceed Thresholds?</td>
<td>YES</td>
</tr>
</tbody>
</table>

**NOTES:**
- CO = carbon monoxide
- NO\(_X\) = oxides of nitrogen
- PM\(_{10}\) = particulate matter less than or equal to 10 microns in diameter
- PM\(_{2.5}\) = particulate matter less than or equal to 2.5 microns in diameter
- SO\(_X\) = oxides of sulfur
- VOC = volatile organic compounds

Area Source = architectural coatings, consumer products, and landscape maintenance equipment.
Energy Source = emissions associated with natural gas usage.
Cargo Facility = emissions generated by operation of the 658,500-square-foot (sf) sort, distribution, and office building that will be constructed for the Proposed Project.
Ancillary Building = emissions generated by the two separate 25,000-sf maintenance buildings that will be constructed for the Proposed Project.

1 Operational mobile sources (passenger cars) are the sum of Proposed Project mobile emissions and No Action Mobile emissions.
2 Estimated emissions are in tons per year; however, some activities do not emit more than one ton per year and when reducing significant digits and rounding, the number is zero. Calculations were conducted on spreadsheets that included the less than one ton per year emissions generated by these activities and are included in the total emissions estimate.

**SOURCE:** ESA Airports, March 2019.

As shown in Table 4-9, NO\(_X\) and VOC emissions exceed the *de minimis* threshold values for 2019. NO\(_X\) and VOC emissions exceed the *de minimis* threshold values for 2020 as presented in Table 4-10. Thus, a GCD is required for the Proposed Project.

**Combined Construction and Operational Dispersion Analysis**

Air dispersion modeling was used to determine impacts from combined construction activities and aircraft and non-aircraft operational activities with the Proposed Project. The maximum daily emission rates, as developed from CalEEMod and discussed in Section 4.2.3.2, were apportioned into AERMOD sources. The CalEEMod and AEDT aircraft sources were inputted into...
AERMOD as described in Section 4.2.1.2 of this EA as well as the Air Quality Modeling Protocol.

Only the 2019 emissions were modeled for the combined analysis, as construction would be completed about 12 months after it started. Additionally, construction activities and corresponding emissions were excluded from the dispersion modeling because they would be reduced in year 2020. Operation emissions from aircraft and landside operation sources between years 2019 and 2024 are expected to remain constant or be reduced.

**Dispersion Modeling for Nitrogen Dioxides**

The NOX emissions from construction and operation were modeled using AERMOD air dispersion software to determine impacts and then compared to the NAAQS, as described in detail above. This analysis includes the NO2 impacts from construction-related activities.

The dispersion analysis results for NOX emissions generated from the combined construction and operation of the Proposed Project are presented in Table 4-11. As shown in Table 4-11, the Proposed Project does not result in concentrations that exceed the NO2 ambient air quality standards and would not delay the timely attainment of the NAAQS.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Year of Impact</th>
<th>Averaging Period</th>
<th>Maximum Modeled Concentration (μg/m³)</th>
<th>Standard (μg/m³)</th>
<th>Exceeds Standards?</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO2</td>
<td>2019</td>
<td>1-hr NAAQS</td>
<td>179.6</td>
<td>188</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Annual NAAQS</td>
<td>45.1</td>
<td>100</td>
<td>No</td>
</tr>
</tbody>
</table>

**Notes:**

NO2 = nitrogen dioxide
Maximum modeled NO2 concentration = Proposed Project contribution + background concentrations from the hourly background concentration file used in AERMOD.

The maximum annual concentration occurred in MET year 2012 for the Combined Scenario.


**Dispersion Modeling for Carbon Monoxide**

The CO emissions generated from construction, as calculated by CalEEMod, were included with operation emissions in this air dispersion model to determine impacts and then compared to the NAAQS.

The dispersion analysis results for CO emissions generated from the aircraft operations of the Proposed Project are presented in Table 4-12. As shown in Table 4-12, the Proposed Project does not result in concentrations that would exceed either the 1- or 8-hour CO NAAQS.
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## Table 4-12
CO Maximum Combined Construction and Operation Concentrations for the Proposed Project

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Year of Impact</th>
<th>Averaging Period</th>
<th>Incremental Peak (μg/m³)</th>
<th>Background (μg/m³)</th>
<th>Total (μg/m³)</th>
<th>Standard (μg/m³)</th>
<th>Exceeds Standards?</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>2019</td>
<td>1-hr NAAQS</td>
<td>112.3</td>
<td>2819</td>
<td>2931</td>
<td>40,000</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8-hr NAAQS</td>
<td>34.2</td>
<td>2476</td>
<td>2510</td>
<td>10,000</td>
<td>No</td>
</tr>
</tbody>
</table>

NOTES:
CO = carbon monoxide
Compliance with the 1-Hr and 8-Hr NAAQS is demonstrated by obtaining the 2nd highest ranked CO concentration for each modeled year.
The maximum concentration occurred in MET year 2015 for the 1-Hour Standard and MET year 2016 for the 8-Hour Standard for both Study Years.

## Hazardous Air Pollutant Impacts

The analysis of HAP impacts is not required by FAA Orders 1050.1F or 5050.4B. However, per the guidance provided in the FAA’S *Guidance for Quantifying Speciated Organic Gas Emissions from Airport Sources* an inventory of HAPs for the Proposed Project was prepared. HAPs of concern that were included in the analysis were based on emissions estimates and human toxicity information, and the CAA list of hazardous air pollutants (EPA, 2018c). Emission sources that are relevant to the Proposed Project include construction equipment, mobile and stationary sources, and aircraft operations. Attachment 6 in Appendix B presents the HAP emissions associated with construction of the Proposed Project and the operational HAP emissions for the Proposed Project compared to the No Action Alternative for the same timeframe.

### 4.2.4 Comparison to Significant Impact Thresholds

Federally supported actions (or portions thereof) that do not fall under CAA exemption or are not listed on FAA’s approved presumed to conform list must then undergo a *de minimis* comparison to identify whether a formal GCD is required. If net emissions of an action are less than the *de minimis* threshold levels, then the action is considered to be too small to adversely affect the air quality status of the area and is automatically considered to conform with the applicable SIP; therefore, the general conformity requirements have been complied with and the process is complete. Established *de minimis thresholds* can vary by pollutant, by the severity of nonattainment, and in some cases by geographic location.

Within the Basin, the *de minimis* thresholds for CO, PM$_{10}$, O$_3$ precursors (VOC and NO$_X$), PM$_{2.5}$, and SO$_2$ apply. The Basin is designated by the U.S. EPA, as extreme nonattainment for O$_3$ and serious nonattainment for PM$_{2.5}$, maintenance for CO, PM$_{10}$ and primary/secondary NO$_2$ standards, and unclassifiable attainment for primary NO$_2$ standards and SO$_2$. Therefore, the *de minimis* thresholds applicable to the Proposed Project are presented below (40 CFR 93, Subpart B):

- CO: 100 tons/year
- NO$_X$: 10 tons/year
- VOC: 10 tons/year
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- SO2: 100 tons/year
- PM10: 100 tons/year
- PM2.5: 70 tons/year

Because emissions of VOC, NOX, and CO would exceed the applicable *de minimis* thresholds, a GCD is required. In a GCD, the rule provides for the following avenues to demonstrate conformity:

1. Showing that the emission increases caused by an action are included in the SIP,
2. Demonstrating that the state agrees to include the emission increases in the SIP,
3. Offsetting the action’s emissions in the same or nearby area,
4. Mitigation to reduce the emission increase, or in some circumstances,
5. An air quality modeling demonstration.

In order to demonstrate conformity for ozone (precursors of VOC and NOX), the SBIAA initiated a formal request to the SCAQMD to determine if the mass emissions of VOC and NOX generated from the Proposed Project are within the General Conformity Budgets identified in the 2012 AQMP (Appendix III, Chapter 2). The SCAQMD determined that the Proposed Project emissions are within the General Conformity Budget; therefore, the action would conform to the SIP and would not jeopardize the timely attainment of the NAAQS.

The 2012 AQMP does not contain a General Conformity Budget for CO due to the maintenance status of the pollutant. Therefore, in order to demonstrate conformity for CO, air dispersion modeling was conducted to determine that CO emissions generated by the Proposed Project would not exceed the applicable CO NAAQS. If the estimated emissions are below the applicable CO NAAQS, the Proposed Project will not cause or contribute to a violation of the NAAQS.

### 4.2.5 General Conformity Applicability Analysis

As shown in Table 4-4, operational VOC and NOX emissions would exceed the respective *de minimis* thresholds in 2019. Additionally, VOC, NOX, and CO emissions would exceed applicable *de minimis* thresholds in 2024, as shown in Table 4-6. Furthermore, if construction is not complete by December 1, 2019, a combination of construction and operation activities would potentially occur at the same time. Should construction and operation activities occur at the same time, VOC and NOX emissions would exceed the *de minimis* thresholds, as shown in Table 4-9 and Table 4-10. Due to these exceedances, a GCD is required.

The process required coordination with SCAQMD, the preparer of the current applicable SIP (2012 AQMP). As previously stated, the SBIAA initiated a formal request to the SCAQMD to determine if the mass emissions generated from the operation of the Proposed Project are within the General Conformity Budgets identified in the 2012 AQMP (Appendix III, Chapter 2). On April 30, 2019, the SCAQMD confirmed the emissions of VOCs and NOX resulting from the Proposed Project are within the 2012 AQMP General Conformity Budget. The SCAQMD confirmation, in the form of a letter, is provided in Attachment 2 of Appendix B. The
confirmation states that the Proposed Project will conform to the AQMP and is not expected to result in any new or additional violations of the NAAQS or impede the projected attainment of the standards. Additionally, as stated in Section 4.2.3.2, photochemical grid modeling for O₃ was not performed for the Proposed Project to demonstrate the Proposed Project concentrations would not exceed the applicable NAAQS, despite the Basin being in non-attainment for O₃. However, because the construction and operation emissions of the Proposed Project are included in the SIP budget, the action would conform to the SIP that allows for attainment of the NAAQS, and impacts would not be significant when compared to the No Action Project condition. For further details regarding coordination with SCAQMD, see Attachment 2 in Appendix B.

General conformity for CO was demonstrated through the air quality modeling process. Air dispersion modeling conducted for the Proposed Project demonstrate that CO emissions generated from the Proposed Project would not exceed the applicable NAAQS. Therefore, the Proposed Project will not cause or contribute to a violation of the NAAQS.

Furthermore, because the operation and combined construction and operation emissions exceed the de minimis thresholds, the General Conformity Rule requires that a separate GCD be made, which includes opportunity for public comment. The Draft GCD for the Proposed Project can be found in Attachment 7 in Appendix B.

4.2.6 Measures Available to Reduce Emissions

4.2.6.1 Construction Minimization Measures

Construction-related emissions are expected to be temporary and short term. Should construction be completed prior to any operational activities, the Proposed Project would not exceed applicable General Conformity de minimis thresholds for any criteria pollutant, and would not be expected to result in an exceedance of the NAAQSs. However, operation of the Proposed Project would begin prior to the completion of construction, and the combination of these activities at the same time would exceed applicable General Conformity de minimis thresholds for VOC and NOₓ. Construction-related emissions associated with the Proposed Project would be reduced by implementing the following minimization measures recommended by the SCAQMD to reduce fugitive dust and combustion-related emissions:

- All construction equipment shall be CARB Tier 4 Certified or better.
- During site preparation and grading activity, all actively graded areas within the Proposed Project site shall be watered four times per day in 1-hour intervals or a movable sprinkler system shall be in place to ensure minimum soil moisture of 12% is maintained for actively graded areas. Moisture content can be verified with the use of a moisture probe by the grading contractor.
- The Proposed Project shall use “Super-Compliant” low VOC paints that have been reformulated to exceed the regulatory VOC limits put forth by SCAQMD’s Rule 1113. Super-Compliant low VOC paints shall be no more than 10g/L of VOC. Alternatively, the Proposed Project may use building materials that do not require the use of architectural coatings.
• Plans, specifications and contract documents shall direct that a sign must be posted on-site stating that construction workers shall not idle diesel engines in excess of 5 minutes.

• Gravel pads must be installed at all access points to prevent tracking of mud onto public roads.

• Install and maintain track out control devices in effective condition at all access points where paved and unpaved access or travel routes intersect (e.g., install wheel shakers, wheel washers, and limit site access).

• When materials are transported off-site, all material shall be covered, effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.

• All streets located within the construction site area shall be swept at least once a day using SCAQMD Rule 1186 certified street sweepers if visible soil materials are carried to adjacent streets.

• Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 24 hours.

• A high-wind response plan shall be formulated for enhanced dust control if winds are forecast to exceed 15 mph in any upcoming 24-hour period.

• Use electric or alternative fueled construction equipment where technically feasible and/or commercially available if the electric or alternatively fueled equipment can perform comparably to gasoline or diesel-fueled equipment.

• SBIAA shall request the use of zero emissions or near-zero emissions trucks, if and when feasible. At a minimum, SBIAA shall require the use of 2010 and newer trucks (e.g., material delivery trucks, soil import/export trucks, and trucks required for operation of the Eastgate Air Cargo Facility). Recent calculations indicate that export soil from the site can be reduced; therefore, the SBIAA shall reduce soil export to 60,000 cubic yards (from 300,000 CY) during construction in support of developing the subject project site.

Encourage ridesharing and transit incentives. SBIAA will support and encourage ridesharing and transit incentives for the construction crew by providing crews with the needed resources to organize rideshares, such as bulletin boards or email announcements. SBIAA will also fully or partially subsidize transit fares or passes for the construction crew members who can feasibly use transit. SBIAA will set a goal to achieve 5 percent of participation over time.

### 4.2.6.2 Operational Minimization Measures

Operational-related emissions would exceed the applicable *de minimis* threshold for NOX, VOC and CO. Operational-related emissions associated with the Proposed Project would be further reduced by SBIAA implementing the following minimization measures:

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• **Odor Emissions.** All uses shall be operated in a manner such that no offensive odor is perceptible at or beyond the property line or the Proposed Project site of that use.

• **Dust Control, Operations.** Any operation or activity that might cause the emission of any smoke, fly ash, dust, fumes, vapors, gases, or other forms of air pollution, which can cause damage to human health, vegetation, or other forms of property, or can cause excessive soiling on any other parcel, shall conform to the requirements of the South Coast Air Quality Management District.

• **Electric Cargo Handling Equipment.** All on-site outdoor cargo-handling equipment (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) and all on-site indoor forklifts will be powered by electricity.

• **Comply with South Coast Air Quality Management District Rule 401 – Visible Emissions.** A person shall not discharge into the atmosphere, from any single source of emission whatsoever, any air contaminant for a period or periods aggregating more than three minutes in any 1 hour that is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the U.S. Bureau of Mines.

• **Comply with South Coast Air Quality Management District Rule 402 – Nuisance.** A person shall not discharge from any source whatsoever such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any such persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule do not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

• **Comply with South Coast Air Quality Management District Rule 403 – Fugitive Dust.** This rule is intended to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (human-made) fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions. Rule 403 applies to any activity or human-made condition capable of generating fugitive dust. Applicable dust suppression requirements from Rule 403 are summarized below.
  - Nontoxic chemical soil stabilizers shall be applied according to manufacturers’ specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
  - Active sites shall be watered at least twice daily. Locations where grading is to occur will be thoroughly watered prior to earthmoving.
  - All trucks hauling dirt, sand, soil, or other loose materials shall be covered. The alternative is to have at least 0.6 m (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) maintained in accordance with the requirements of California Vehicle Code Section 23114.
  - Construction access roads shall be paved at least 30 m (100 feet) onto the site from the main road.
  - Traffic speeds on all unpaved roads shall be reduced to 15 mph or less.
• **Comply with South Coast Air Quality Management District Rule 1113 – Architectural Coatings.** No person shall apply or solicit the application of any architectural coating within the SCAQMD with VOC content in excess of the values specified in a table incorporated in the Rule. A list of manufacturers of low/no-VOC paints is provided at the following SCAQMD website: http://www.aqmd.gov/docs/default-source/planning/architectural-coatings/reporting-and-support-documents/rule-314-manufacturers.pdf?sfvrsn=4. All paints will be applied using either high-volume low-pressure spray equipment or by hand application.

• **Comply with South Coast Air Quality Management District Rule 1301 – General.** The intent of this rule is to make sure that pre-construction review requirements intended to ensure that new or relocated facilities do not interfere with progress in attainment of the NAAQS, do not unnecessarily restrict future economic growth within the SCAQMD. The specific air quality goal is to achieve no net increases from new or modified permitted sources of nonattainment air contaminants or their precursors. Rule 1301 also limits emission increases of ammonia and ozone-depleting compounds from new, modified or relocated facilities by requiring the use of Best Available Control Technology.

• **Require Equipment to be Turned Off When Not in Use.** Building operators will require (by contract specifications) that equipment, including heavy-duty equipment, motor vehicles, and portable equipment, be turned off when not in use for more than 5 minutes. Truck idling shall not exceed 5 minutes in time. All facilities will post signs requiring that trucks shall not be left idling for more than 5 minutes pursuant to Title 13 of the California Code of Regulations, Section 2485, which limits idle times to not more than 5 minutes. Nighttime (after 10:00 p.m.) truck idling would not be permitted.

• **Air Pollutant Emissions, General.** Any operation or activity that might cause the emission of any smoke, fly ash, dust, fumes, vapors, gases, or other forms of air pollution, which can cause damage to human health, vegetation, or other forms of property, or can cause excessive soiling on any other parcel shall conform to the requirements of SCAQMD.

• SBIAA shall require that all building structures meet or exceed 2016 Title 24, Part 6 Standards and meet Green Building Code Standards.

• SBIAA shall require recycling programs that reduce waste to landfills by a minimum of 75 percent by the year 2020 and beyond per Assembly Bill 341.

• SBIAA shall require the use of light-colored paving and roofing materials.

• SBIAA shall require the use of water-based or low VOC cleaning products.

• Based on supplemental data derived from discussions with Southern California Edison (Edison), it is not feasible to install 5 percent electric vehicle (EV) charging stations immediately. SBIAA will coordinate with Edison to install EV charging stations incrementally over the life of the project up to 5 percent of EV charging stations. The initial installation of EV charging stations shall be determined through consultation between Edison and SBIAA.

• SBIAA will consider operational improvements to reduce taxi time and auxiliary power unit usage, where feasible.
• SBIAA will require the use of GSE that can operate on electric battery power if available and feasible.

• SBIAA will require trucks to use the truck route that was analyzed in the air quality analysis for the Proposed Project. In order to enforce this requirement, truck routes will be clearly marked with trailblazer signs, so that trucks will not enter residential areas off of the major arterials leading to the Proposed Project Site.

• SBIAA will retain a landscaping contractor(s) that uses electric landscaping equipment if contractors with electric equipment are readily available and it is feasible to retain their services within the immediate project area.

• SBIAA will include a contract specification in the street sweeping contract that requires the contractor to use electric or alternatively fueled sweepers with HEPA filters. If contractors with such equipment are not available readily in the Proposed Project area, SBIAA shall document this fact and the next cleanest sweepers available shall be used, in response to this contract specification.

• SBIAA will maximize the planting of trees in landscaping and parking lots, with consideration given to the type of trees planted to ensure their height at maturity would not adversely affect navigable airspace on and around the Airport. In addition, airport landscaping and planting of trees would conform with the Airport’s Wildlife Hazard Management Plan (WHMP) in order to reduce wildlife attractants (e.g., avoiding foraging, loafing, and roosting opportunities). When recycled water becomes available in the future, landscaping shall be supported by this alternative source of water supply.

### 4.3 Biological Resources

This section describes the potential effects of the Proposed Project and the No Action Alternative on biological resources. As described in Chapter 3, *Affected Environment*, federally listed species are present on and in the vicinity of SBD, but not in the Action Area (AA) for the Proposed Project. Due to the proximity of federally listed species outside the Action Area, a Biological Assessment (BA) was prepared to address potential construction and operational effects of the Proposed Project (Jericho Systems, 2018). Preparation of the BA included database searches and a field survey of the Proposed Project Action Area (see Section 3.3, *Biological Resources*). The BA is included as Appendix C of this Draft EA. Formal Section 7 consultation with the U.S. Fish and Wildlife Service was not required because there are no federally listed species or designated critical habitat within the AA for the Proposed Project.

As described in greater detail in Section 3.3, *Biological Resources*, the AA was established to evaluate potential impacts to biological resources. The AA encompasses all areas that may be

16 Trucks arriving from north of the Proposed Project Site on the Foothill Freeway shall follow Highland Avenue eastbound to Victoria Avenue, then proceed southbound to 3rd Street, then westbound to the Proposed Project Site. Trucks arriving from the south of the Proposed Project Site shall follow 3rd Street (east or westbound) to the Proposed Project Site. Trucks departing the Proposed Project Site shall also follow these designated truck routes.

17 Biological resources include terrestrial and aquatic plant and animal species, game and non-game species, special status species, and environmentally sensitive or critical habitats.

18 50 CFR § 402.02. *Action Area* means all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.
affected directly or indirectly by the Proposed Project and comprises the direct and indirect AAs (approximately 158.3 acres).

4.3.1 2019 Impacts

4.3.1.1 No Action Alternative (2019)

Operational Impacts

Under the No Action Alternative, there would be no change in airport operations or maintenance activities associated with the Proposed Project. From an operational standpoint, the No Action Alternative would not have an adverse effect on federally- or state-listed or candidate species. The No Action Alternative would not affect wildlife, game species, or their habitat.

Construction Impacts

The No Action Alternative would not include the grading and construction activities associated with the Proposed Project. The No Action Alternative would not have an adverse effect on federally or state-listed or candidate species. The No Action Alternative would not affect wildlife, game species, or their habitat.

4.3.1.2 Proposed Project (2019)

Operational Impacts

Federally Listed Threatened and/or Endangered Species

Based on the information contained in the Biological Assessment and the information provided in the sections below, the Proposed Project does not have the potential to support federally-listed threatened, endangered, or sensitive species. In addition, the presence of existing pavement, gravel, and aircraft storage on the property does not support federally-listed threatened, endangered, or sensitive species.

Critical Habitat

The AA is approximately 0.25-mile north of the USFWS-designated critical habitat for the San Bernardino kangaroo rat (*Dipodomys merriami parvus* [SBKR]) and Santa Ana sucker (*Catostomus santaanae*). Runway 6/24 and its designated runway safety areas are in between the AA and the critical habitat. The SBKR depends on alluvial fan sage scrub and alluvial terraces of the Santa Ana River, which are not present within or adjacent to the AA. Additionally, there are no primary constituent elements of critical habitat for the SBKR within the AA surveyed to be considered similar to critical habitat, and the AA is separated from the critical habitat corridor by the airport taxiways and runway. The Proposed Project site, including the AA, is partially covered with asphalt or concrete, with the remaining areas covered by compacted engineered soils that contain non-native grass species that do not support appropriate SBKR habitat. Because the AA lacks appropriate soils for SBKR utilization and undergoes a routine maintenance regime to minimize/reduce wildlife utilization, it is anticipated that SBKR would not occur within and/or utilize the AA. At this time, utilization of the AA by SBKR has not been observed or reported.19

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The Santa Ana sucker is located in the Santa Ana River channel and depends solely on water within the River (part of the critical habitat located 0.5-mile south of the AA), which is not present within or adjacent to the AA, or on Airport property. Therefore, there would be no impact to this species related to critical habitat from the Proposed Project.

**SBD Conservation Areas**

A Conservation Management Plan (CMP) governs portions of areas south and southeast of the Airport property boundaries, approximately 0.25-mile south of the AA. The CMP was developed in compliance with Section 7 of the federal ESA to manage protected and sensitive species on the lands, which were operated under the Former Norton Air Force Base (AFB). The original CMP was prepared because the closure of Landfill Site 2 included actions that had been determined to have an impact on the Santa Ana River woollystar (*Eriastrum densifolium sanctorum*) and the San Bernardino Merriam’s kangaroo rat (*Dipodomys merriami parvus*), which are both federally endangered species. The purpose of the CMP is to establish goals and management strategies to enhance existing beneficial habitat uses, such as open space around the runway with special habitat value. The CMP was incorporated as part of a new federal ESA Section 7 consultation that was requested by the U.S. Air Force as part of the fee title transfer to the SBIAA. The Airport has a Biological Opinion (BO) from the USFWS to address woollystar, which is present on the southeast corner of the Airport within a managed conservation area in accordance with the CMP. The SBIAA now manages the CMP.

The SBKR and woollystar are not currently present in the AA. Furthermore, it is not anticipated that the AA would support either species due to the current condition of the site (composition of incompatible soils that contain non-native grass species, paved portions of the AA, and SBD maintenance regime to reduce/minimized wildlife attractants.

**Migratory Birds**

The IPaC also lists migratory birds of concern that have been documented in the vicinity of the Study Area. However, the AA is completely disturbed and void of any vegetation or natural features that could potentially provide suitable nesting or foraging habitat capable of supporting any of the migratory bird species identified in the IPaC list. The complete list of migratory bird species identified by the USFWS IPaC is included in Appendix C.

The Burrowing Owl (BUOW), which is not a federally listed species, is listed in the Migratory Bird Treaty Act (MBTA) and is included in the BA since the USFWS monitors this species. Implementation of the WHMP and the mitigation measures provided in Section 4.3.3 below would ensure that Proposed Project would not result in impacts to BUOW.

**Construction Impacts**

Based on habitat requirements for sensitive species and the availability and quality of habitats needed by the sensitive plant and wildlife species documented to occur within the vicinity of the Proposed Project, the AA does not have the potential to support federally-listed threatened, endangered, or sensitive species because it currently contains paved and rock covered areas for aircraft part storage. Therefore, construction of the Proposed Project would not affect any federally listed threatened or endangered species or designated critical habitat.
Implementation of the mitigation measures provided in Section 4.3.3 would ensure that construction of the Proposed Project would not result in impacts to BUOW.

4.3.2 2024 Impacts

4.3.2.1 No Action Alternative (2024)
Under the No Action Alternative, the SBIAA would continue to operate and maintain SBD. The operation of the Airport would not have an effect on biological resources in 2024.

4.3.2.2 Proposed Project (2024)

Operational Impacts
In 2024, the Proposed Project would generate additional annual aircraft operations at SBD compared to the 2024 No Action Alternative. The Proposed Project would also result in increased activity from people going to and from the Airport (e.g., visitors, employees, trucks). The FAA has determined that the Proposed Project would not affect any federally listed or threatened species based on information prepared by a qualified biologist in a Biological Assessment dated October 2018 (see Appendix C).

Construction Impacts
If the Proposed Project is approved by the FAA, construction of the new facilities is anticipated to begin in 2019 and be completed in approximately 1 year. No additional construction-related impacts would occur in 2024.

4.3.3 Comparison to Significant Impact Thresholds

A significant impact would occur when the USFWS determines that the action would be likely to jeopardize the continued existence of federally listed threatened or endangered species, or the destruction or adverse modification of federally designated critical habitat.

The entire land identified within the AA includes developed areas with pavement or gravel, or maintained land that is graded and mowed on a routine basis. There is no potential for any ESA species listed as endangered or threatened or their designated critical habitat to occur as none exist within the AA. Additional information on listed species, critical habitat, and the burrowing owl is provided below.

4.3.3.1 Listed Species and Critical Habitat
The Proposed Project will not affect any federally-listed endangered, threatened, or species of special concern, because there is no habitat to support these species within the AA. In addition, the Proposed Project will not affect any federally-listed critical habitat as none exists within the AA, and no primary constituent elements of critical habitat exists within the AA or its buffer.

4.3.3.2 Burrowing Owl
Although not a federally listed species, the BUOW is protected under the MBTA and is listed as a Migratory Birds of Conservation Concern (BCC) by the USFWS and also recognized by the
CDFW as a migratory bird for protection. A mitigation measure to conduct additional surveys and collapse potential burrows in accordance with CDFW and USFWS guidelines would reduce impacts to less than significant.

The Airport implements an active WHMP program that includes keeping grasses below six inches and routine discing. This deters the use of the bare areas by small mammals, which provide food sources for BUOW and other species. Implementation of the WHMP and the proposed mitigation measure, along with the fact that no BUOW individuals or sign have been observed on site results in the conclusion that the Proposed Project is not likely to adversely affect the BUOW.

FAA determined the Proposed Project would not affect any federally listed threatened or endangered species or designated critical habitat based on the information above and the information contained in the Biological Assessment.

### 4.3.4 Mitigation, Avoidance, and Minimization Measures

Although BUOW is not a federally listed species, the following mitigation measure would be implemented if the Proposed Project is approved because of the potential for the presence of BUOW in the Proposed Project area:

A pedestrian survey for BUOW would be conducted prior to the start of construction activities, generally within 30 days of the start of construction. If BUOW's were found, the CDFW and USFWS should be consulted to determine the appropriate action to remove any BUOW from the site before construction. Any BUOW that are found would not be disturbed without CDFW and USFWS consultation as it may violate the MBTA and CDFW guidelines. Mitigation may include flushing owls from their hiding places prior to grading, removal of BUOW from the Proposed Project site, and/or deferment of grading until artificial habitat can be constructed in accordance with CDFW and USFWS consultation. BUOW removal and artificial burrow construction can be facilitated through the San Diego Zoo, which conducts passive relocation under authorization from the CDFW.

### 4.4 Climate

#### 4.4.1 Methodology

FAA Order 1050.1F determines the need for and establishes the extent of the Greenhouse Gas (GHG) assessment required for airport-related actions and projects. The GHG assessment for this EA includes direct and indirect emissions inventories for landside sources (area, energy, and mobile) and airside sources (aircraft operations and GSE). GHG emissions inventories were prepared for both construction and operations of the Proposed Project and No Action Alternative. Operational emissions were estimated for two future conditions: 2019 and 2024. The analysis of GHG emissions generally follows the same methodology and modeling tools as the air quality criteria pollutant emissions analysis as discussed in Section 4.2.1. Additionally, unlike the air quality analysis, this section analyzes electricity use, which can result in GHG production if the
electricity is generated by combusting fossil fuel. Uses of electricity for building operations include lighting, computers, machinery, and operating appliances (such as refrigerators).

It is assumed that any future development on the Proposed Project site would be in accordance with the ALP and would include evaluation of potential environmental impacts prepared at the appropriate time. No other changes relating to aircraft and GSE operations are reasonably foreseeable. Specifically, it was assumed that aircraft fleet mix and operational counts not associated with the Proposed Project would be the same in the No Action and Proposed Project scenarios for each year.

In terms of analyzing GHG emissions from the Proposed Project, the analysis includes the area within the Airport’s geographical boundary which is defined as the geographic boundary of the Airport plus the airspace around the Airport, extending upward to the full extent of AEDT’s modeled flight paths, as well as the roads and public transit routes that deliver employees, passengers, and suppliers to and from the Airport. The altitudes used in the analysis include AEDT’s modeled flight paths, which are approximately 10,000 feet AFE for aircraft departures, and approximately 6,000 feet AFE for arrivals. The GHG inventory clearly distinguishes the Proposed Project’s GHG emissions from other relevant indirect sources affiliated with airport operations.

GHGs of concern from construction and operational sources are primarily carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). For ease in reviewing and interpreting the analysis results, GHGs are reported as CO₂ equivalents (CO₂e) expressed in metric tons (MT). In accordance with the IPCC, GHGs (CO₂, CH₄, N₂O) are converted to CO₂e based on their global warming potential (GWP). GWP ratios provided by the IPCC in its Fourth Assessment Report (IPCC, 2007) were utilized. The results of the analysis are presented on an annual basis, by analysis year. The technical components of the analysis are contained in Appendix B.

4.4.2 2019 and 2024 Impacts

4.4.2.1 No Action Alternative (2019 and 2024)

Operational Emissions

Under the No Action Alternative, there would be no reasonably foreseeable additional emissions generating activities at the Airport beyond development in accordance with the ALP, which would include evaluation of potential environmental impacts prepared at the appropriate time. GHG Emissions from airport operations for the No Action Alternative are presented below in Table 4-13.

Construction Emissions

No construction activities would occur under the No Action Alternative; therefore, the No Action Alternative would not change emissions from existing levels. Therefore, no impacts would occur under the No Action Alternative in either 2019 or 2024.
### 4. Environmental Consequences

#### 4.4.2.2 Proposed Project (2019 and 2024)

**Operational Emissions**

Operational assumptions and activities for the Proposed Project are provided in Section 4.2.1. The landside and airside GHG operational emissions inventory for the Proposed Project in Study Year 2019 is presented in Table 4-14, and operational GHG emissions in future analysis year 2024 are presented in Table 4-15.

#### Table 4-13

**2019 OPERATIONS GREENHOUSE GAS EMISSIONS INVENTORY**

<table>
<thead>
<tr>
<th>Operational Year</th>
<th>Emission Source</th>
<th>Estimated GHG Emissions Inventory in CO₂e (MT/year) No Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>Aircraft</td>
<td>11,449</td>
</tr>
<tr>
<td></td>
<td>Off-Airport Vehicular Travel</td>
<td>34,123</td>
</tr>
<tr>
<td></td>
<td><strong>Total No Action Emissions</strong></td>
<td><strong>45,572</strong></td>
</tr>
<tr>
<td>2024</td>
<td>Aircraft</td>
<td>11,972</td>
</tr>
<tr>
<td></td>
<td>Off-Airport Vehicular Travel</td>
<td>35,056</td>
</tr>
<tr>
<td></td>
<td><strong>Total No Action Emissions</strong></td>
<td><strong>47,028</strong></td>
</tr>
</tbody>
</table>

**Notes:**

1. CO₂e = carbon dioxide equivalent

**Source:** ESA Airports, September 2018.

#### Table 4-14

**2019 OPERATIONAL EMISSIONS INVENTORY**

<table>
<thead>
<tr>
<th>Emission Source</th>
<th>Emissions (metric tons per year)</th>
<th>Total CO₂e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Area (Ancillary Buildings)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Energy</td>
<td>721</td>
<td>721</td>
</tr>
<tr>
<td>Energy (Ancillary Buildings)</td>
<td>43</td>
<td>43</td>
</tr>
<tr>
<td>Mobile (Passenger Cars)</td>
<td>37,004</td>
<td>37,047</td>
</tr>
<tr>
<td>Mobile (Trucks)</td>
<td>5,288</td>
<td>5,288</td>
</tr>
<tr>
<td>Airstide</td>
<td>30,028</td>
<td>30,028</td>
</tr>
<tr>
<td>Waste</td>
<td>310</td>
<td>310</td>
</tr>
<tr>
<td>Waste (Ancillary Buildings)</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>Water Usage</td>
<td>81</td>
<td>81</td>
</tr>
<tr>
<td>Water Usage (Ancillary Buildings)</td>
<td>64</td>
<td>64</td>
</tr>
<tr>
<td><strong>Total Annual CO₂e (All Sources)</strong></td>
<td><strong>73,563</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Annual No Action CO₂e</strong></td>
<td>45,572</td>
<td></td>
</tr>
<tr>
<td><strong>Annual Net Emissions</strong></td>
<td>27,991</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
1. GWP ratios are provided by the Intergovernmental Panel on Climate Change (IPCC) in its Fourth Assessment Report (AR4) (IPCC, 2007)
As shown in Tables 4-14 and 4-15, the Proposed Project would result in net increases in GHG emissions of approximately 27,991 and 55,842 MT CO₂e over the No Action Alternative in 2019 and 2024, respectively. These increases would represent approximately 38 and 54 percent of MT CO₂e over the No Action Alternative, respectively. These levels of GHG emissions increases would comprise less than 1 percent of both the U.S.-based GHG emissions and global GHG emissions (IPCC, 2014).

There are no significance thresholds established for climate and GHG emissions. The FAA has not identified specific factors to consider in making a significance determination for GHG emissions, especially as it may be applied to a particular project. As noted by CEQ, “climate change is a particularly complex challenge given its global nature and inherent interrelationships among its sources, causation, mechanisms of action and impacts…. “ Given the enormity of GHG emissions worldwide, the contributions of one project, such as that of the Proposed Project, are negligible. CEQ has also noted, “it is not currently useful for the NEPA analysis to attempt to link specific climatological changes, or the environmental impacts thereof, to the particular project or emissions, as such direct linkage is difficult to isolate and to understand.”

**Construction Emissions**

Construction assumptions and activities for the Proposed Project are provided in Section 4.2.1. Under the Proposed Project, construction activities would commence in 2019 and last 12 months over two calendar years. The GHG construction emissions inventory for the Proposed Project is...
presented in Table 4-16. As shown in Table 4-16, construction of the Proposed Project would result in 4,034 MTCO2e in 2019 and 150 MTCO2e in 2020. As previously stated, given the enormity of GHG emissions worldwide (see Section 3.4.3), the contributions of one project, such as the Proposed Project, are negligible.

<table>
<thead>
<tr>
<th>Construction Year</th>
<th>Estimated GHG Emissions Inventory in CO2e (MT/year)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>4,034</td>
</tr>
<tr>
<td>2020</td>
<td>150</td>
</tr>
<tr>
<td><strong>Total Construction Emissions</strong></td>
<td><strong>4,184</strong></td>
</tr>
</tbody>
</table>

NOTES:  
CO2e = carbon dioxide equivalent  

4.4.3 Comparison to Significant Impact Thresholds

There are no significance thresholds for aviation and commercial space launch GHG emissions and the FAA has not identified specific factors to consider in making a significance determination for GHG emissions. As stated above, there are currently no accepted methods of determining significance applicable to aviation or commercial space launch projects given the small percentage of emissions they contribute. Accordingly, it is not useful to attempt to determine the significance of such impacts for the Proposed Project.

The majority of the GHG emissions associated with future operation of the Proposed Project are from aircraft operations. However, the Airport does not have authority to regulate aircraft operations or emissions from aircraft engines.

4.4.4 Measures Available to Reduce Emissions

Construction and operation-related GHG emissions associated with the Proposed Project would be reduced by implementing many of the minimization measures provided in Section 4.2, Air Quality.

4.5 Department of Transportation Act, Section 4(f) Resources

4.5.1 Methodology

Resources covered under Section 4(f) of the Department of Transportation Act of 1966, as amended (DOT Act) (re-codified and renumbered as 49 U.S.C § 303(e)), were identified in the General Study Area (GSA) and analyzed for potential direct or indirect impacts by the Proposed Project or the No Action Alternative. Section 4(f) of the DOT Act provides that the Secretary of
Transportation will not approve any program or project that requires the use of publicly owned land of a public park, recreation area; or wildlife and waterfowl refuge of national, state, or local significance; or land of an historic site of national, state, or local significance as determined by the officials having jurisdiction thereof, unless:

- There is no feasible and prudent alternative to use of such land and such program.
- The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

The term “Section 4(f) resource” in this evaluation refers to any specific site or property meeting DOT Act criteria. There can be “physical use or “constructive use of the property of a Section 4(f) property occurs when:

- There is an actual physical taking of a Section 4(f) property for a transportation project.
- There is a temporary occupancy of Section 4(f) property that is adverse.

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

As discussed in Chapter 3 Affected Environment, Section 4(f) resources in the GSA include Mill Center Park, Highland Community Park, San Bernardino Soccer Complex, and Speicher Park.

4.5.2 2019 Impacts

4.5.2.1 No Action Alternative (2019)

Under the No Action Alternative, development of the Proposed Project would not occur. Accordingly, there would be no impacts to Section 4(f) properties.

4.5.2.2 Proposed Project (2019)

Operational Impacts

The Proposed Project would not include land acquisition, land development, or any other physical activity that would directly affect a Section 4(f) property. Therefore, there would be no actual physical use of Section 4(f) properties.

Indirect effects or constructive use could result if increased noise generated by aircraft or vehicular traffic associated with the Proposed Project could potentially substantially impair protected activities, features, or attributes of protected activities, features, or attributes of the facility. Under the Proposed Project, there would be no indirect effects, including constructive use, on Section 4(f) resources in 2019.

As discussed in Section 4.10, Noise and Noise-Compatible Land Use, there would be no significant traffic noise impact from the Proposed Project. Accordingly, there is no potential for constructive use of a Section 4(f) property due to traffic noise associated with the Proposed Project in 2019.
4. Environmental Consequences

**Construction Impacts**

Construction-related impacts to Section 4(f) properties are typically associated with temporary occupancy of the property for construction-related activities. The closest Section 4(f) property to the Proposed Project site is Speicher Park (1535 Arden Avenue, San Bernardino, CA 92404), located approximately 2.5 miles north of the Airport. As this property is located at a sufficient enough distance from the Proposed Project site to not be used for construction-related activities, the Proposed Project would not result in a construction-related use of a Section 4(f) resource.

4.5.3 2024 Impacts

4.5.3.1 No Action Alternative (2024)

Under the No Action Alternative, development of the Proposed Project would not occur. Accordingly, there would be no impacts to Section 4(f) properties in 2024.

4.5.3.2 Proposed Project (2024)

**Operational Impacts**

The Proposed Project would not include land acquisition, land development, or any other physical activity that would directly affect a Section 4(f) property. Therefore, there is no actual physical use of Section 4(f) properties.

As depicted and described in Section 3.5.3, the following parks and recreation areas have been identified within the GSA: Mill Center Park, Norton Gym, San Bernardino Soccer Complex, and Speicher Park. Constructive use or indirect effects could result if increased noise generated by aircraft or vehicular traffic associated with the Proposed Project would be so severe that the features or attributes that qualify the property under Section 4(f) are substantially impaired. One Section 4(f) property, Mill Center Park (503 E. Central Avenue, San Bernardino, CA 92408), is owned and maintained by the City of San Bernardino and would be located within the 2024 Proposed Project CNEL 65 dB contour. Facilities at Mill Center Park include a community center, a baseball diamond, basketball courts, volleyball courts, racquetball courts, a swimming pool, and picnic tables. While this facility would be newly located within the CNEL 65 dB contour and exposed to a level of CNEL 66.0 dB, 14 CFR Part 150 compatible land use guidelines recognize that parks are generally compatible in areas exposed to DNL 65-70 dB (14 CFR A150.101(b)). Therefore, the Proposed Project would not result in an actual physical or constructive use of Section 4(f) resources in 2024.

As discussed in Section 4.10, Noise and Noise-Compatible Land Use, there would be no significant traffic noise impact from the Proposed Project. Accordingly, there is no potential for constructive use of a Section 4(f) property due to traffic noise associated with the Proposed Project in 2019.

**Construction Impacts**

Construction-related impacts to Section 4(f) properties are typically associated with temporary physical use of the property for construction-related activities. If the Proposed Project is approved by the FAA, construction of the new facilities is anticipated to begin in 2019 and be
completed in approximately 1 year. Consequently, there is no potential for construction-related use of a Section 4(f) resource under the Proposed Project in 2024.

4.5.4 Comparison to Significant Impact Thresholds

FAA Order 1050.1F indicates that a significant impact to Section 4(f) resources would occur if 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.”

The Proposed Project would not involve the physical or constructive use of any Section 4(f) resource.

4.6 Hazardous Materials, Pollution Prevention, and Solid Waste

4.6.1 Methodology

This section evaluates the potential impacts on hazardous materials as a result of the Proposed Project and the No Action Alternative. FAA Order 1050.1F states that the following factors should be considered:

- Actions that may violate applicable federal, state, tribal, or local laws or regulations regarding hazardous materials and/or solid waste management.
- Actions that may involve a contaminated site, including but not limited to sites listed on the EPA’s National Priorities List (NPL).
- Actions that produce an appreciably different quantity or type of hazardous waste.
- Actions that generate an appreciably different quantity or type of solid waste or use a different method of collection or disposal and/or would exceed local capacity.
- Actions that adversely affect human health and the environment.

The locations of known, or potential, environmental contamination or other hazards located at the Airport, or in close proximity to the Proposed Project site are described in Section 3.6 of Chapter 3, Affected Environment. The Phase I Environmental Site Assessment (Phase I ESA) prepared for the Proposed Project is included in Appendix D.

4.6.2 2019 Impacts

4.6.2.1 No Action Alternative (2019)

Construction and Operational Impacts

Under the No Action Alternative, the Proposed Project would not be constructed or operated. Airport workers would continue to be required to handle, store, and dispose of regulated materials

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20 The NPL is the list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories.
in accordance with applicable federal, state, and local laws and regulations. Therefore, no impacts would occur under the No Action Alternative in 2019.

4.6.2.2 Proposed Project (2019)

Operational Impacts

Regulated Materials

Operation of the Proposed Project would involve the use of standard cleaning supplies, solvents, oils and lubricants, batteries, and other materials that may be hazardous if released into the environment. There are no anticipated changes in handling, use, or disposal of hazardous materials as a result of the Proposed Project. The Airport would continue to implement its Hazardous Materials Business Plan (HMBP), which includes information on the location, type, quantity, and health risks of hazardous materials used at the Airport, and emergency response and training plans pertinent to human health and safety. The HMBP for the Airport would be updated once the Proposed Project is operational to set up measures to address emergencies associated with any changes in the use or storage of hazardous materials as a result of the Proposed Project.

Hazardous materials used during operation of the facilities identified in the Proposed Project would be subject to the existing policies regarding handling, storage, and disposal of hazardous materials at the Airport, including those established in the Spill Prevention Control and Countermeasure (SPCC) Plan. The SPCC Plan for the Airport was last updated in 2018. Any changes in quantity or types of hazardous materials used at the Airport due to the Proposed Project would be reflected in updates to the HMBP and the SPCC.

The Proposed Project would be coordinated and be in compliance with the San Bernardino County Fire Department, Hazardous Materials Division (the local Certified Unified Program Agency) and the City of San Bernardino Fire Department, and applicable Airport Rules and Regulations.

The Proposed Project would result in an increase in the frequency of transport, use, and disposal of hazardous materials associated with commercial and industrial growth within the Airport and vicinity. While care would be taken during the transport, use and disposal of hazardous material within the Airport and vicinity, it is possible that upset or accidental conditions may arise which result in the release of hazardous materials into the environment.

In the City of San Bernardino, there are approved hazardous waste management companies that offer services to other companies for the treatment, disposal or storage of hazardous material. These companies either have received a permit or have been granted interim status by the State of California pending review of the facilities for compliance with federal and state regulations. According to the California Department of Toxic Substances Control, there are no commercial hazardous waste permitted Recycling, Treatment, Storage and Disposal Facilities (TSDF) that accept offsite waste and perform treatment and/or disposal in the City of San Bernardino. There are hazardous waste transporters in the City of San Bernardino. The Airport would use one of the approved vendors for service as needed. Compliance with the aforementioned regulations and plans would ensure that there would be no impact to the environment.
Fuel
Airport workers would continue to be required to handle and store fuels in accordance with applicable federal, state, and local regulations. Aircraft are fueled using airport fueling trucks because SBD does not have a fuel hydrant system. A fuel hydrant system can pump fuel to aircraft from an above ground storage tank on the apron or from underground piping. Due to the increased aircraft operations from the Proposed Project, there would be an increase in aircraft fueling. Ground crews would apply aircraft fueling best practices. Additionally, SBIAA has a Stormwater Pollution Prevention Plan (SWPPP) and a SPCC plan. These plans help to reduce the likelihood of a spill. Therefore, there would be no impact to the environment.

Solid Waste
The County of San Bernardino Solid Waste Management Division (SWMD) is responsible for the operation and management of the solid waste disposal system in the county. The disposal system consists of five regional landfills and nine transfer stations. Additionally, the SWMD administers the County’s Solid Waste Franchise Program with 21 Franchise Areas and also the refuse collection permit program, which authorizes and regulates trash collection by private haulers in the Unincorporated Areas.

Solid waste generated at the Airport is disposed of at the San Timoteo landfill, located approximately six miles south of SBD, operated by SWMD. The closest landfill is located one-half mile from SBD; however, this is operated by the City of Redlands and is not used by SBD. The San Timoteo landfill is a municipal solid waste landfill facility permitted to accept general residential, commercial, and industrial waste for disposal. The maximum daily throughput at the San Timoteo Landfill is 2,000 tons per day; the current daily average throughput volume is 1,010 tons or 721.4 cubic yards. The landfill is estimated to have a remaining capacity of 11,924,000 cubic yards as of December 31, 2017 (CalRecycle, 2018a). The maximum daily throughput at the Mid-Valley Landfill is 7,500 tons per day; the current daily average throughput volume is 3,548 tons or 2,534.3 cubic yards. The landfill is estimated to have a remaining capacity of 60,950,000 cubic yards as of April 15, 2017 (CalRecycle, 2018b). Removal of all solid waste during construction would not overtax the capabilities of the available landfills and would comply with applicable state and local guidelines.

Using solid waste generation rates from CalRecycle (CalRecycle 2018c), operation of the Proposed Project is calculated to generate 8.93 pounds of waste per employee per day. On opening day, the air cargo facility is anticipated to employ an estimated 1,726 persons. Therefore, in 2019 the Proposed Project is anticipated to generate 7.71 tons of waste per day ($[8.93 \times 1,726] \div 2000 = 7.71$). The City requires diversion of at least 50 percent of the waste generated by a development to be recycled. Therefore, with a 50 percent diversion of the waste, the project would generate up to 3.85 tons of waste per day that would be sent to nearby landfills, while at least 3.85 tons would be required to be recycled. The 3.85 tons generated per day would correspond to approximately 0.041 percent of the combined maximum daily permitted intake capacities of both landfills. According to CalRecycle, these landfills typically receive below the maximum permitted daily disposal volume. Consequently, solid waste generated by the Proposed Project would not cause nearby landfills to exceed maximum daily permitted disposal volumes.
**Construction Impacts**

**Regulated Materials**

The construction of the Proposed Project would include handling small amounts of regulated materials (e.g., fuel, paints and thinners, cleaning solvents) and would generate small amounts of hazardous waste. As with the No Action Alternative, the Proposed Project’s contractors would be required to handle, store, and dispose of regulated hazardous materials in accordance with applicable federal, state, and local laws and regulations. The Proposed Project’s site grading and construction activities would involve the use and temporary onsite storage of fuel, oils and lubricants, paints and thinners, and cleaning solvents. Portable aboveground storage tanks containing fuel for vehicles and/or equipment may be temporarily stored onsite. Construction contractors would be required to implement pollution prevention, spill prevention, and response plans. Compliance with existing federal, state, and local regulations and the mitigation measures identified in Section 4.6.5 of this EA, would ensure that there would be no impact.

**Other Recognized Environmental Conditions**

As discussed in Chapter 3, *Affected Environment*, the Phase I ESA prepared for the Proposed Project concludes that the Proposed Project site appears generally suitable for commercial/industrial use with respect to the residual soil contaminants known and anticipated to be present. The Phase I ESA also states that the past use of the Proposed Project site as part of military bases for about 50 years under the United States Army and the United States Air Force (USAF) may have caused previously unidentified contamination. Consequently, future development of the Proposed Project site, including grading activities, have the potential to encounter subsurface hazardous materials and/or wastes, buried trash and debris, unexploded ordinance, and contaminated media, including soil, soil gas, and/or groundwater. Compliance with existing regulations and the mitigation measures identified below would ensure that there would be no impact.

**Solid Waste**

Based on the proposed 658,500-square-foot air cargo sort building and the EPA’s construction waste generation factor of 4.34 pounds per square foot (EPA, 2003), approximately 1,429 tons of waste would be generated during the building construction phase. Project construction would occur over a period of approximately 365 days (1 year), which corresponds to approximately 4 tons per day of construction waste generated by construction activities. The construction of the proposed facilities would generate 0.042 percent of the available 9,500 tons combined daily intake capacity at the nearby landfills during construction. Therefore, there would be no adverse impact related to solid waste disposal.

**4.6.3 2024 Impacts**

**4.6.3.1 No Action Alternative (2024)**

**Operational Impacts**

Under the No Action Alternative, the number of annual aircraft operations at the Airport in 2024 would be similar to 2019 levels and have similar aircraft fuel consumption. Therefore, the amount of aviation fuel stored and used at the Airport is not anticipated to substantially increase
by 2024. The number and types of tenants at the Airport are anticipated to conduct the same activities (e.g., aircraft maintenance, aircraft storage), use the same materials (e.g., oil, lubricants, solvents), and generate the same quantities and types of solid waste as they do in 2019. The pollution prevention measures currently in place at the Airport to eliminate or reduce the release of contaminants into the environment would remain unchanged. The County of San Bernardino Office of Emergency Services would continue to engage in periodic site inspections of both airport and tenant facilities that store or handle hazardous materials at the Airport. There would be no operational impacts relative to hazardous materials, pollution prevention, and solid waste under the No Action Alternative in 2024.

**Construction Impacts**

No project construction associated with the Proposed Project would occur under the No Action Alternative. Therefore, no impacts would occur under the No Action Alternative in 2024.

**4.6.3.2 Proposed Project (2024)**

**Operational Impacts**

**Regulated Materials**

Under the Proposed Project, aviation activity would increase by 2024. Similar to the Proposed Project in 2019, this would increase the amount of regulated and hazardous materials (i.e., fuels, oils and lubricants, paints and thinners, cleaning solvents, and degreasers) stored and used at the Airport. There are no anticipated changes in handling, use, or disposal of hazardous materials as a result of the Proposed Project, and aircraft would continue to be fueled using airport fueling trucks. Due to the increased aircraft operations from the Proposed Project, there would be an increase in aircraft fueling. Ground crews would apply aircraft fueling best practices. SBIAA has a SWPPP and a SPCC plan. These plans help to reduce the likelihood of a spill. The Proposed Project would comply with federal, state, and local regulations related to the transport, storage, usage, and disposal of hazardous materials and other regulated materials, including fuels, as previously described. Compliance with all applicable regulations would ensure that there would be no impact to the environment.

**Fuel**

As noted above, the Proposed Project would increase aviation activity, which would also increase the volume of fuel used at the project site. However, the use of fuel would continue to be regulated, as previously described. By complying with existing regulations, there would be no impact to the environment.

**Solid Waste**

It is likely that the increased level of activity that would occur under 2024 conditions would result in an increase in the volume of solid waste generated. However, as previously described, the local landfills would have adequate capacity to handle the increased volume through the five regional landfills and nine transfer stations.
Construction Impacts

Construction of the facilities contemplated in the Proposed Project would be completed before 2024. Consequently, construction-related impacts associated with the Proposed Project would not occur in 2024.

4.6.4 Comparison to Significant Impact Thresholds

The 1050.1F Desk Reference provides guidance on the framework for regulating hazardous materials, pollution prevention, and solid waste. The need for additional information or analysis is required only if applicable federal, state, local, laws and regulations on hazardous or solid waste management are not expected to be met. As discussed in the analysis above, compliance with existing federal, state, and local regulations pertaining to hazardous materials and human health and safety and implementation of the mitigation measures identified below would ensure that there would be no impacts as a result of the Proposed Project.

4.6.5 Mitigation, Avoidance, and Minimization Measures

The following mitigation measures shall be implemented prior to commencement of demolition and construction activities to avoid or minimize human exposure to hazardous materials.

The construction contractor(s) shall prepare and implement site-specific Health and Safety Plans (HASPs) prior to commencement of demolition and construction activities in accordance with 29 CFR 1910.120 to protect construction workers and the public during all excavation and grading activities. The HASPs shall include, but are not limited to, the following elements:

- Designation of a trained, experienced site safety and health supervisor who has the responsibility and authority to develop and implement the site HASP;
- A summary of all potential risks to construction workers and maximum exposure limits for all known and reasonably foreseeable site chemicals and hazardous materials, including unexploded ordnance;
- Specified personal protective equipment and decontamination procedures;
- Emergency procedures, including route to the nearest hospital; and
- Procedures to be followed in the event that evidence of potential soil contamination (such as soil staining, noxious odors, debris, or buried storage containers) or other potentially hazardous materials, such as unexploded ordinances, are encountered. These procedures shall be in accordance with hazardous waste and hazardous materials operations regulations and specifically include, but are not limited to, immediately stopping work in the vicinity of the unknown hazardous materials, notifying the local County of San Bernardino Office of Emergency Services, as appropriate, and retaining a qualified environmental firm to perform sampling and remediation.

In support of the HASP described above, the contractor shall develop and implement a Soil Management Plan (SMP) prior to commencement of construction activities that includes a materials disposal plan specifying how the construction contractor(s) will remove, handle, transport, and dispose of all excavated materials in a safe, appropriate, and lawful manner. The
SMP must identify protocols for soil and landfilled materials testing and disposal, identify the approved disposal site, and include written documentation that the disposal site can accept the waste. Contract specifications shall mandate full compliance with all applicable local, state, and federal regulations related to the identification, transportation, and disposal of hazardous materials.

### 4.7 Historic, Architectural, Archaeological, and Cultural Resources

This section analyzes potential direct and indirect impacts to cultural, archaeological, and Native American resources that could result from construction or operation of the Proposed Project. This section includes the findings of a cultural resources investigation for the Proposed Project, which is documented in a cultural resources report prepared for the Proposed Project by Hillwood’s consultant CRM TECH (CRM TECH 2018).

This section also documents FAA’s consultation with the California State Historic Preservation Officer (SHPO) pursuant to Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations at 36 CFR Part 800. This section also documents the FAA’s consultation with federally recognized Native American Indian tribes regarding Native American cultural resources that could be affected by the Proposed Project. Documentation of the FAA’s consultation with the California SHPO and the FAA’s consultation with federally recognized Native American Indian tribes is included in Appendix E.

#### 4.7.1 Methodology and Results

Section 106 of the NHPA requires definition of an Area of Potential Effect (APE). The FAA has defined both a Direct and Indirect APE for the Proposed Project. The Direct APE includes all areas of potential physical disturbance for the construction of improvements associated with the Proposed Project, and is depicted in Figure 3-2. The Indirect APE consists of the areas off-Airport within the Proposed Project’s 2024 CNEL 65 dB exposure contour. The California SHPO concurred with the FAA’s delineation of the Proposed Project’s Direct and Indirect APE by letter dated October 30, 2018 (see Appendix E).

The method for determining potential impacts on historic and/or archaeological resources included the identification of potential direct or indirect Proposed Project impacts to any properties in the APE listed or eligible for listing on the National Register of Historic Places (NRHP). According to Section 106 of the NHPA, a proposed action has an effect on a historic property when the action may alter characteristics of the property that may qualify it for inclusion in the NRHP. An effect would be considered adverse when it diminishes the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association. Adverse effects include the physical destruction of all or part of the property, changes to aspects of the property’s setting, or alteration of character-defining features [36 CFR §800.9(b)].

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21 As described in Table 1 of 14 CFR Part 150, aircraft noise levels below CNEL 65 dB are considered compatible with all land uses.

On August 22, 2018, the FAA provided detailed information about the Proposed Project to the tribal contacts provided by the NAHC using the U.S. Mail. The FAA received five responses. The Twenty-nine Palms Band of Mission Indians advised they were not aware of any archaeological or cultural sites in the Proposed Project area related to their tribe. They also recommended steps to take in the event of an unanticipated discovery of archaeological remains or resources. The Gabrieline Kizh Nation deferred to the Serrano Tribe. The Agua Caliente Band of Cahuilla Indians deferred to the San Manuel Band of Mission Indians. The San Manuel Band of Mission Indians provided an email with information with steps to take in the event of an unanticipated discovery of archaeological remains or resources. The Serrano Nation of Mission Indians called the FAA and asked for a walk-through of the Proposed Project site. The walkthrough was held on May 10, 2019. In the event any cultural resources uncovered, the Serrano Nation asked to be notified. They would claim any cultural resources uncovered and would share their claim with the San Manuel and Morongo Bands of Mission Indians. See the site visit report in Appendix E.

Hillwood’s consultant CRM TECH conducted a historical/archaeological resources records search at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton. CRM TECH also used other environmental documentation, earlier site surveys, and an Environmental Impact Report prepared under the California Environmental Quality Act for the Proposed Project, as well as other online resources to identify cultural resources that could be affected by the Proposed Project. CRM TECH’s archival investigations revealed that there were several other prior investigations within the Direct and Indirect effects APE. The investigation also identified that the SCCIC records show more than 50 other previous studies on various tracts within a 1-mile radius of the Direct APE.

The investigation found that the Direct APE and the adjacent ground around it has been greatly disturbed by past activities associated with the construction of the former Norton Air Force Base. The cultural resources report identifies portions of the aircraft parking apron that date to the 1950s as being located within the Direct APE. However, the report identifies that these features have been altered due to frequent maintenance and upgrading, thus neither demonstrates any distinctive historical characteristics.

One site, previously located along the northern border of the Direct APE, known as Cram and Van Leuven Ditch (Site CA-SBR-6848H) was formally recorded. However, the cultural
resources report states that the field investigation was unable to relocate this feature. The report states the only water-conveyance feature found along the course of the Cram and Van Leuven Ditch was a concrete-lined channel for the rerouted City Creek that lies on the south side of Third Street on the northern edge of the Direct APE. The cultural resources investigation also identified 111 built-environment features located within the Indirect APE. One feature, the Marigold Farms (Site 36-007139), a 750-acre agricultural enterprise, has been largely demolished and redeveloped. Forty-four of the buildings within the Indirect APE were documented on the former Norton Air Force Base. The cultural resources report states these buildings have been formally recorded into the California Historical Resources Inventory along with an abandoned Southern Pacific Railroad Bridge. The cultural resources report states the railroad bridge was demolished following recordation. One other structure, the “Morrow Hangar,” was identified in the cultural resources investigation. However, the report states the listing of this property remains “pending” for an unknown reason.

4.7.2 Section 106 Consultation and Finding of No Historic Properties Affected

As discussed above, the FAA sought formal consultation with 16 Native American Tribes with cultural ties to the San Bernardino Valley region in compliance with Section 106. Native American consultation did not result in the identification of Native American cultural resources that would be affected by the Proposed Project.

On December 3, 2018, the FAA submitted the agency’s determinations of eligibility and findings of effect to the California SHPO for review. The submittal included a copy of the Cultural Resources Inventory Report for the Proposed Project. Based on the information in the Cultural Resources Inventory Report prepared by CRM Tech, the FAA determined that there are no historic properties listed or eligible for listing on the National Register of Historic Places within the APE, and the Proposed Project would not affect any properties listed or eligible for listing on the National Register of Historic Places under 36 CFR §800.4(d)(1). In a letter dated January 10, 2019, the California SHPO concurred with FAA’s determination of eligibility and findings of effect. Documentation of the FAA’s consultation with the California SHPO and the FAA’s consultation with federally recognized Native American Indian tribes is included in Appendix E of this EA.

4.7.3 2019 Impacts

4.7.3.1 No Action Alternative (2019)

Operational Impacts

Under the No Action Alternative, the continued operation and maintenance of SBD would not directly or indirectly affect any historic, architectural, archaeological, or cultural resources.

Construction Impacts

In 2019, no construction activity would occur under the No Action Alternative and there would be no direct or indirect effects to historic, architectural, archaeological, and cultural resources.
4.7.3.2 Proposed Project (2019)

Operational Impacts
As discussed above, the FAA consultation found that the Proposed Project would not affect any properties listed or eligible for listing on the National Register of Historic Places under 36 CFR §800.4(d)(1). Consequently, operation of the Proposed Project in 2019 would not affect historic properties.

Construction Impacts
The Proposed Project would include construction of the facilities described in Chapter 1, Purpose and Need. Ground disturbance during construction of the Proposed Project would occur within areas to be cleared and graded for the construction of buildings, pavement, and roadway improvements included as part of the Proposed Project. As discussed above, the FAA found that the Proposed Project would not affect any properties listed or eligible for listing on the National Register of Historic Places under 36 CFR §800.4(d)(1). The California SHPO concurred with FAA’s finding. Consequently, construction of the Proposed Project would not affect historic properties.

4.7.4 2024 Impacts

4.7.4.1 No Action Alternative (2024)

Operational Impacts
The continued operation and maintenance of SBD under the No Action Alternative would not directly or indirectly affect any historic properties.

Construction Impacts
No project construction would occur under the No Action Alternative. It is assumed that any future development on the project site would be in accordance with the ALP and would include evaluation of potential environmental impacts prepared at the appropriate time. Therefore, no impacts would occur under the No Action Alternative.

4.7.4.2 Proposed Project (2024)

Operational Impacts
As discussed above, the FAA found that the Proposed Project would not affect any properties listed or eligible for listing on the National Register of Historic Places under 36 CFR Part 800.4(d)(1). Consequently, operation of the Proposed Project would not affect historic properties.

Construction Impacts
Construction of the Proposed Project would be completed and no project-related construction would occur in 2024. There would be no direct effects to historic properties.
4.7.5 Unanticipated Discovery

In the event of an unanticipated discovery of previously unidentified archaeological resources during construction of the Proposed Project, the FAA and the SBIAA will require the construction activities in the vicinity of the discovery to stop and take all reasonable measures to avoid or minimize harm to the property until the FAA and the SBIAA conclude consultation with California SHPO. The following unanticipated discovery plan shall be implemented:

- If human remains or funerary objects are encountered during the undertaking, all work shall cease within 100 feet of the find and the San Bernardino County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5.

- If any Native American cultural resources are discovered, all work shall cease within a 60-foot buffer so that a qualified archaeologist can be retained to assess the find, and the San Manuel Band of Mission Indians shall be contacted.

- If significant Native American cultural resources are discovered and avoidance cannot be ensured, a treatment plan shall be developed by a qualified archaeologist, followed by further consultation with the San Manuel Band of Mission Indians.

4.8 Land Use

4.8.1 Methodology

The analysis of aircraft noise integrates the effects of noise on noise-sensitive land uses and their compatibility with predicted noise exposure levels. Therefore, land use compatibility as it relates to aircraft noise, is discussed in Section 4.10, Noise and Noise-Compatible Land Use.

The evaluation of land use impacts in this section considered the following:

- Direct or indirect impacts (other than aircraft noise) that would affect land use in the vicinity of SBD.

- Consistency with approved local and state plans.

- Possible conflicts between the Proposed Project and the objectives of federal, regional, state, and local land use plans, policies, and controls.

- That appropriate action, including the adoption of zoning laws, has been or will be taken, to the extent reasonable to restrict the use of land adjacent to or in the immediate vicinity of the Airport to activities and purposes compatible with its safe operation.

In addition to the SBD Airport Layout Plan (ALP) Narrative Report, zoning maps and General Plans of San Bernardino County and the Cities of San Bernardino, Highland, and Redlands were also reviewed to identify existing and future land uses within the GSA. Future planned land uses in the jurisdictions located in the GSA are shown in Figures 3-5, 3-6, and 3-7.
4.8.2 2019 and 2024 Impacts

4.8.2.1 No Action Alternative

Operational Impacts
Under the No Action Alternative, the continued operation and maintenance of SBD in 2019 would not directly or indirectly affect any land uses.

Construction Impacts
In 2019, no construction activity would occur under the No Action Alternative and there would be no direct or indirect effects to land uses. Therefore, no impacts to land use would occur under the No Action Alternative in either 2019 or 2024.

4.8.2.2 Proposed Project

Operational Impacts
In 2019 and 2024, the Proposed Project would generate additional annual aircraft operations at SBD; however, there would be no changes to land use with the exception of the potential for acquiring non-compatible land uses (see Section 4.10).

Consistency with Local, State, and Federal Plans
Operation of the Proposed Project would involve cargo flights to and from the Airport to deliver and collect packages from the associated distribution center. This use is consistent with the San Bernardino land use and zoning designation of the Proposed Project site as a “Public Facility” (PF). The Proposed Project would also be consistent with the SBD ALP, which states, “the development of landside facilities will be demand-based. In this manner, the facilities will only be constructed if required by verifiable demand.”

Surrounding land uses include a mix of commercial, office, mixed use, industrial, single-family and multi-family residential uses. No conflicts between the Proposed Project and applicable land use plans, policies, or regulations of an agency with jurisdiction over the project have been identified.

Potential Hazards
The City of Redlands operates a landfill approximately 0.5 miles south of the Airport, across the Santa Ana River. FAA considers landfills within 5 miles of an airport to be a land use that is incompatible with airport operations because landfills can attract wildlife (birds). The SBIAA has implemented a WHMP for the Airport, which allows the use of various methods of deterring migratory birds from foraging and nesting within the Airport property. There have been 42 wildlife strikes at the Airport since 1990, and only five wildlife strikes within the past 5 years. The most recent strike was reported on November 9, 2018, and involved a strike between a Ferruginous hawk and an unknown aircraft (FAA, 2019). Of the five wildlife strikes, four were raptors and one was a land mammal, none of which is indicative of landfill activity.
Zoning

As discussed in Chapter 3, Affected Environment, the Airport property is identified as Public Facilities (PF) in the City of San Bernardino’s Development Code. The purpose of the PF zone is to provide for the continuation of existing and development of new schools, government administrative, police, fire, libraries, social service, and other public facilities. Immediately surrounding the Airport property are six land use district areas grouped together in three non-contiguous sites covered by the Alliance California Specific Plan. These districts include the Westgate, Northgate, Centergate, Southgate, Third Street, and Defense Finance and Accounting Services (DFAS) Districts. Immediately across 3rd Street from the Airport property are areas located within the (CG-1) Commercial General, (RM) Residential Medium, and (IL) Industrial Light zoning districts.

There are a number of residential properties in the Commercial and Industrial Zones near SBD; these are existing non-conforming land uses. Existing non-conforming residential properties are actively being converted to land uses consistent with existing zoning codes. These commercial and industrial zones were established more than 30 years ago, through the 1989 City of San Bernardino General Plan.22

Construction Impacts

The Proposed Project would occur almost entirely within the SBD boundaries and would be compatible with the types of development typical within and around airport uses. The Proposed Project would not result in any changes to local land use.

4.8.3 Comparison to Significant Impact Thresholds

The FAA has not established a significance threshold for land use. An inconsistency with state and/or local plans by itself does not automatically result in significant impacts. The determination that significant impacts exist in the land use impact category is normally dependent on the significance of other environmental or socioeconomic impacts. Potential impacts on noise compatible land use are discussed in Section 4.10, Noise and Noise-Compatible Land Use. Potential impacts related to potential for disruptions to communities or relocation of residences or businesses is discussed in Section 4.11, Socioeconomics, Environmental Justice, and Children’s Environmental Health and Safety Risks. This section of the EA focuses on consistency with land use plans, zoning ordinances, and other planning documents. The Proposed Project is consistent with local, state, and federal plans and objectives. The Proposed Project is consistent with local plans and objectives to improve the Airport and enhance the economy. Additionally, no conflicts between the Proposed Project and the objectives of federal, regional, state, and local plans and policies have been identified.
4.9 Natural Resources and Energy Supply

This section evaluates the potential consumption of natural resources and use of energy supplies. It also includes a discussion on the sustainable aspects of the Proposed Project and its alternatives.

4.9.1 Methodology

Energy, fuel, and natural gas demands associated with the Proposed Project and No Action Alternative were determined by evaluating the extent to which an action’s construction, operation, or maintenance would change demands for electricity, fuel, and water, and also assessing whether the change would cause demand to exceed available or future natural resource or energy supplies. The objective of the assessment is to determine whether the Proposed Action would have the potential to exceed the local energy supply as compared to the No Action Alternative. The FAA has not established a significance threshold for natural resources and energy supply. However, per FAA Order 1050.1F paragraph10.3.2, the analysis should consider situations in which the proposed action or alternative(s) would have the potential to cause demand to exceed available or future supplies of these resources. The analysis includes a discussion of the future demands for energy and natural resources, including changes in demand for utility services, fuel consumption for operation and construction activities.

4.9.2 2019 and 2024 Impacts

4.9.2.1 No Action Alternative (2019 and 2024)

Operational Impacts

Under the No Action Alternative, the use of energy, water, and other natural resources needed to support the operation of buildings at the Airport would remain relatively static in 2019 and 2024. Aircraft fuel consumption would increase proportional to projected levels of airport activity for both 2019 and 2024. However, the existing facilities do not inordinately draw upon supplies of natural resources and energy and demand is not anticipated to exceed future supply of natural resources or energy supplies. No impact to natural resources and energy supplies are anticipated under the No Action Alternative in either 2019 or 2024.

Construction Impacts

No project construction associated with the Proposed Project would occur under the No Action Alternative. Therefore, no impacts would occur under the No Action Alternative in either 2019 or 2024.

4.9.2.2 Proposed Project (2019 and 2024)

Operational Impacts

The Proposed Project would incrementally increase the demand for utilities at the Airport associated with operation of the air cargo facility in both 2019 and 2024. The Proposed Project would cause an increase in the demand for water, wastewater, recycled water, electric, and natural gas utility systems within the Project area. These various systems are anticipated to
accommodate this increased demand with existing facilities without causing a significant adverse impact because they will implement mitigation measures and comply with existing regulations. The Proposed Project’s potential water, wastewater, recycled water, electric, and natural gas impacts can be controlled and will be reduced. The potential demand would not exceed existing or future energy supplies.

**Water Supply**

The proposed project is anticipated to require 38,000 GPD of potable water at opening day in 2019 and 108,000 GPD of potable water five years from opening day in 2024. Water transmission to the Project will be provided by San Bernardino Municipal Water Department (SBMWD). The 2015 San Bernardino Urban Water Management Plan (UWMP) (Water Systems Consulting, Inc., 2016) identifies the sources of water and water supply within their service area, which includes SBMWD. Based on information in the UWMP, the project’s estimated demand for potable water represents 0.29% of the projected 2025 water demand for SBMWD, or an increase of 0.298% from the 2020 anticipated demand. Based on the projected water demand for the proposed project, there would be sufficient water supplies available to serve the project from existing entitlements. The project would not result in the need for the construction of new water or wastewater treatment facilities or expansion of existing facilities. Impacts under this issue are considered less than significant. Therefore, no mitigation is required.

**Electricity**

The proposed project is anticipated to require electric power in the amount of 30 Megawatts (MW) at opening day in 2019 and 55 MW five years from opening day in 2024. Based on the 2018 California Public Utilities Commission Report (CPUC, 2019), Southern California Edison has electricity that would be sufficient to meet the needs of the facilities that would be constructed under the Proposed Project based on the analysis of existing capacity noted in the Commission Report and proposed project needs. Furthermore, the roof of the distribution center structure would be solar-ready, allowing some of the energy required to operate the air cargo facility to be derived from a renewable resource.

**Natural Gas**

The proposed project is anticipated to require natural gas in the amount of 58,000 cubic feet per hour (CFH) at opening day in 2019 and 130,000 CFH five years from opening day in 2024. Based on the 2018 California Gas Report (California Gas and Electric Utilities 2018), Southern California Gas has natural gas that would be sufficient to meet the needs of the facilities that would be constructed under the Proposed Project based on the analysis of existing capacity and proposed project needs.

Fuel would be delivered either in periodic delivery trucks that come to the Airport specifically to fuel aircraft, or in fuel trucks that deliver fuel to an approved fuel storage tank or facility. Fuel from the tank would be delivered to the aircraft in smaller, onsite fuel delivery trucks specifically configured to provide fuel for aircraft and no new aircraft fuel infrastructure such as a fuel hydrant system is included in the Proposed Project. Under the Proposed Project, total annual aircraft departure operations associated with the Proposed Project are expected to be approximately 4,380 in 2019 and increase to approximately 9,490 by 2024. The projected level
of aircraft operations associated with the Proposed Project would consume approximately 38,600 gallons of fuel per day in 2019 and increase to 91,900 gallons of fuel in 2024. This increase in fuel use is well within the overall capacity of available resources. No significant impacts to natural resources or energy supply would occur.

Construction Impacts

In 2019, the Proposed Project is anticipated to produce an increased demand for diesel fuel for construction vehicles. Demolition of existing pavement and the need to remove other items from the Proposed Project site would produce an estimated 60,000 cubic yards (cy) of material to be exported from the Proposed Project site. The buildings and parking areas to be constructed for the Proposed Project would require import of new building materials such as steel, water, asphalt, and concrete. If practicable, existing asphalt pavement would be reused under the Proposed Project. However, increased demand on natural resources and energy supply associated with project construction would not exceed local supply of either of those resources and there would be no construction-related impacts to natural resources and energy supply.

As project construction is anticipated to be complete within approximately 12 months of initiation, there would be no construction-associated impacts under the Proposed Project in 2024.

4.9.3 Comparison to Significant Impact Thresholds

The FAA has not identified significance thresholds for determining impacts to natural resources and energy supply. However, an action would be considered to have significant impact if its construction, operation, or maintenance would cause demands that would exceed available or future natural resources or energy supplies. Consistent with NEPA regulations, the FAA encourages the development of facilities that exemplify the highest standards of design including principles of sustainability, conservation of resources such as energy, and harmonization with the community environment.

Electricity is supplied to the Airport and its tenants by Southern California Edison (Edison). Edison generates, transmits, and distributes electric power to 15 million people over a 50,000-square-mile service area. Southern California Gas provides natural gas to the city of San Bernardino, including the Airport. Based on the 2018 California Gas Report (California Gas and Electric Utilities 2018), supplies of electricity and natural gas are sufficient to accommodate the current demands of the Airport.

Water at the Airport is supplied by the SBMWD. The 2015 San Bernardino Valley Regional Urban Water Management Plan (UWMP) identifies the sources of water and water supply within their service area, which includes SBMWD. According to the 2015 UWMP, the SBMWD obtains 100 percent of its water from the Bunker Hill Groundwater Basin, a sub-basin of the San Bernardino Basin Area (SBBA). The Proposed Project is anticipated to require 40,000 gallons per day (GPD) of potable water at opening day in 2019 and 60,000 GPD of potable water in 2024. The Proposed Project’s projected demand for potable water represents less than 1 percent of the projected 2025 water demand for SBMWD.
The SBMWD, serving as the Watermaster for the Bunker Hill Basin, oversees the replenishment with State Project Water where groundwater extractions exceed adjudicated levels. With this program in place, the demand for water at the Airport, including the Proposed Project, would not cause significant adverse effects to groundwater resources in the Bunker Hill Basin. This is because the Proposed Project would be constructed on a site that is presently overlain by concrete pavement and there would be no loss in area for replenishing the regional aquifer. Therefore, no significant impacts to groundwater would occur.

Based on the projected water demand for the Proposed Project, and the confirmed availability of water from SBMWD (Water Systems Consulting, Inc., 2016) to supply the project, the Proposed Project would have sufficient water supplies available to serve the project from existing entitlements and would not require or result in the construction of new water facilities or expansion of existing facilities.

Aircraft operations and GSE consume fuel energy including jet fuel (Jet A), low-lead aviation gasoline (AvGas), unleaded gasoline, and diesel fuel to operate the aircraft and power GSE. Sufficient supplies of both fuels are readily available to meet demand under the Proposed Project in both 2019 and 2024.

4.10 Noise and Noise-Compatible Land Use

The reasonably foreseeable environmental consequences of the Proposed Project and the No Action Alternative, and methodologies used to determine future aircraft, vehicular, and construction noise exposure are discussed in this section.

4.10.1 Methodology

4.10.1.1 Aircraft Noise Impacts

The methodology for analyzing noise from most transportation or community noise sources, such as aircraft and vehicular traffic, includes the application of a computer model to estimate noise levels and compare them to those for baseline conditions and future alternatives. As required by FAA Orders 1050.1F and 5050.4B, the FAA-approved AEDT, Version 2d, was used to assess aircraft noise impacts. The modeled aircraft CNEL contours for the forecast operations of the Proposed Project and No Action Alternative are used to allow the comparison of predicted noise contributions from aircraft operations.

The 1050.1F Desk Reference indicates that for projects in California, CNEL may be used in place of the day-night average sound level (DNL) metric. To comply with FAA’s guidance provided in Order 1050.1F and the recommendations of the 1992 Federal Interagency Committee on Noise (FICON), noise-sensitive areas exposed to noise levels between CNEL 60 and 65 dB would be evaluated for increases of CNEL 3.0 dB or greater if an increase of CNEL 1.5 dB occurs at any noise-sensitive area that is within the CNEL 65 dB contour or is brought into the CNEL 65 dB contour.
4.10.1.2 **Vehicular Traffic Noise Impacts**

With regard to vehicular traffic noise, FAA’s Order 1050.1F states that an analysis of surface transportation impacts, including construction noise, should be conducted using accepted methodologies from the appropriate modal administration, such as the Federal Highway Administration (FHWA) for highway noise.

FHWA’s Highway Traffic Noise Analysis and Abatement Guidance states that the FHWA and other federal agencies encourage state and local governments to practice land use planning and control near highways. The California Department of Transportation (Caltrans) has published the Traffic Noise Analysis Protocol (TNAP), describing the impact assessment methodologies, impact thresholds, and mitigation measures appropriate for analyzing traffic noise impacts. Because the Proposed Project is located in California, Caltrans’ TNAP was used to analyze traffic noise for the Proposed Project. Caltrans’ TNAP states that FHWA’s Traffic Noise Model (TNM) is the current approved methodology for the traffic noise prediction and the use of the worst-hour noise levels to be used for the impact assessment.

4.10.2 **2019 and 2024 Impacts**

4.10.2.1 **No Action Alternative (2019 and 2024)**

**Operational Impacts**

**Aircraft Noise**

As shown in Table 4-17, 65,631 aircraft operations are predicted to occur at the Airport in 2019 under the No Action Alternative. This equates to 179.81 annual average day aircraft operations in 2019. In 2024, annual aircraft operations are projected to total 68,637, which is equivalent to 188.04 annual average day operations.

CNEL contours associated with the 2019 and 2024 No Action Alternative were developed using AEDT 2d and are depicted in Figures 4-3 and 4-4. As shown on these figures, the majority of areas within CNEL 65 dB contour are within the Airport property boundary except small areas near the Runway 06 landing threshold. There are no noise-sensitive land uses within CNEL 65 dB contours of 2019 and 2024 No Action Alternatives (see Table 4-18).
Figure 4-3

2019 No Action Alternative CNEL Contours and Generalized Existing Land Uses
San Bernardino International Airport
Figure 4-4

2024 No Action Alternative CNEL Contours and Generalized Existing Land Uses
San Bernardino International Airport

SOURCE: San Bernardino County, 2018; AEDT 2d; Adapted by ESA, 2018

Proposed Eastgate Air Cargo Facility Draft Environmental Assessment
### TABLE 4-17
**PROJECTED OPERATIONS IN 2019 AND 2024 – NO ACTION ALTERNATIVE**

<table>
<thead>
<tr>
<th>Aircraft Category</th>
<th>2019</th>
<th>2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Carrier</td>
<td>782</td>
<td>818</td>
</tr>
<tr>
<td>Air Taxi</td>
<td>4,903</td>
<td>5,127</td>
</tr>
<tr>
<td>General Aviation</td>
<td>59,050</td>
<td>61,755</td>
</tr>
<tr>
<td>Military</td>
<td>896</td>
<td>937</td>
</tr>
<tr>
<td>Annual Total</td>
<td>65,631</td>
<td>68,637</td>
</tr>
<tr>
<td>Annual Average Day Operations</td>
<td>179.81</td>
<td>188.04</td>
</tr>
</tbody>
</table>

SOURCE: ESA Forecast, 2018

### TABLE 4-18
**NOISE SENSITIVE USES AND POPULATION WITHIN THE CNEL 65 AND HIGHER CONTOURS 2019 AND 2024 NO ACTION ALTERNATIVE**

<table>
<thead>
<tr>
<th></th>
<th>Households</th>
<th>Population</th>
<th>Places of Worship</th>
<th>Schools</th>
<th>Hospitals and Residential Healthcare</th>
<th>Historic Resources</th>
<th>Day Care and Assisted Living</th>
<th>Parks</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019 No Action</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2024 No Action</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

NOTES:
CNEL = Community Noise Equivalent Level

SOURCES: San Bernardino County, July 2018; U.S. Census Block Data, 2010; Adapted by Environmental Science Associates, 2019.

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**Roadway Noise**

The peak hour traffic volumes for 2019 No Action, 2019 Proposed Project, 2024 No Action, and 2024 Proposed Project scenarios by roadway segments are provided in Table 4-19. Detailed information, such as vehicle mix, speed limits, distance between roadway centerline and closest property line are included in Appendix F.

FHWA’s TNM Version 2.5 was used to predict vehicular traffic noise levels. Table 4-20 presents the predicted noise levels based on the traffic volumes presented in Table 4-19.

Land uses along roadway segments in Table 4-20 include residential and commercial land uses. Note that residential land uses exist along all roadway segments. As described previously, the Caltrans thresholds are 66 dBA (within 1 dBA of the NAC) or a substantial increase of 12 dBA. The worst-hour noise levels in Table 4-20 indicate that all of the roadway segments analyzed would exceed 66 dBA under both the 2019 and 2024 No Action Alternative scenarios.

---

### TABLE 4-19
**PEAK HOUR TRAFFIC VOLUMES**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Highland Ave.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>btw 210 off-ramp and Victoria Ave.</td>
<td>2,349</td>
<td>3,338</td>
<td>2,371</td>
<td>3,358</td>
<td>2,403</td>
<td>3,400</td>
<td>2,454</td>
<td>3,443</td>
</tr>
<tr>
<td>btw Highland Ave. and Pacific St.</td>
<td>1,089</td>
<td>1,052</td>
<td>1,115</td>
<td>1,075</td>
<td>1,101</td>
<td>1,095</td>
<td>1,159</td>
<td>1,144</td>
</tr>
<tr>
<td>btw Pacific St. and 14th St.</td>
<td>1,163</td>
<td>1,246</td>
<td>1,191</td>
<td>1,271</td>
<td>1,185</td>
<td>1,273</td>
<td>1,252</td>
<td>1,327</td>
</tr>
<tr>
<td>btw 14th St. and Baseline St.</td>
<td>1,112</td>
<td>1,241</td>
<td>1,144</td>
<td>1,268</td>
<td>1,149</td>
<td>1,281</td>
<td>1,221</td>
<td>1,341</td>
</tr>
<tr>
<td>btw Baseline St. and 9th St.</td>
<td>825</td>
<td>1,019</td>
<td>857</td>
<td>1046</td>
<td>848</td>
<td>1,063</td>
<td>920</td>
<td>1,122</td>
</tr>
<tr>
<td>btw 9th St. and 6th St.</td>
<td>644</td>
<td>839</td>
<td>681</td>
<td>870</td>
<td>686</td>
<td>900</td>
<td>769</td>
<td>968</td>
</tr>
<tr>
<td>btw 6th St. and 5th St.</td>
<td>619</td>
<td>825</td>
<td>657</td>
<td>857</td>
<td>733</td>
<td>980</td>
<td>816</td>
<td>1048</td>
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<tr>
<td>Victoria Ave.</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>btw Victoria Ave. and Truck Access</td>
<td>1,207</td>
<td>1,688</td>
<td>1,270</td>
<td>1,769</td>
<td>1,351</td>
<td>1,846</td>
<td>1,456</td>
<td>2,017</td>
</tr>
<tr>
<td>btw Truck Access and Sterling Ave.</td>
<td>1,235</td>
<td>1,738</td>
<td>1,292</td>
<td>1,784</td>
<td>1,362</td>
<td>1,964</td>
<td>1,486</td>
<td>2,064</td>
</tr>
<tr>
<td>btw Sterling Ave. and Del Rosa Dr.</td>
<td>1,607</td>
<td>2,004</td>
<td>1,636</td>
<td>2,028</td>
<td>1,816</td>
<td>2,444</td>
<td>1,881</td>
<td>2,496</td>
</tr>
<tr>
<td>3rd St.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>btw Victoria Ave. and Central Ave.</td>
<td>1,043</td>
<td>1,261</td>
<td>1,058</td>
<td>1,273</td>
<td>1,091</td>
<td>1,312</td>
<td>1,122</td>
<td>1,337</td>
</tr>
</tbody>
</table>

**NOTES:**
- btw = between

### TABLE 4-20
**WORST-HOUR NOISE LEVELS (LEQ)**

<table>
<thead>
<tr>
<th>Roadway Segment</th>
<th>2019 No Action</th>
<th>2019 Proposed Project</th>
<th>2024 No Action</th>
<th>2024 Proposed Project</th>
<th>2019 Increase from No Action to Proposed Project</th>
<th>2024 Increase from No Action to Proposed Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highland Ave.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>btw 210 off-ramp and Victoria Ave.</td>
<td>71.1</td>
<td>71.1</td>
<td>71.1</td>
<td>71.3</td>
<td>0.0</td>
<td>0.2</td>
</tr>
<tr>
<td>btw Highland Ave. and Pacific St.</td>
<td>67.9</td>
<td>68.1</td>
<td>68.1</td>
<td>68.5</td>
<td>0.2</td>
<td>0.4</td>
</tr>
<tr>
<td>btw Pacific St. and 14th St.</td>
<td>68.1</td>
<td>68.3</td>
<td>68.2</td>
<td>68.6</td>
<td>0.2</td>
<td>0.4</td>
</tr>
<tr>
<td>btw 14th St. and Baseline St.</td>
<td>68.0</td>
<td>68.2</td>
<td>68.1</td>
<td>68.6</td>
<td>0.2</td>
<td>0.5</td>
</tr>
<tr>
<td>btw Baseline St. and 9th St.</td>
<td>67.2</td>
<td>67.5</td>
<td>67.4</td>
<td>67.9</td>
<td>0.3</td>
<td>0.5</td>
</tr>
<tr>
<td>btw 9th St. and 6th St.</td>
<td>66.4</td>
<td>66.7</td>
<td>66.7</td>
<td>67.3</td>
<td>0.3</td>
<td>0.6</td>
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<tr>
<td>btw 6th St. and 5th St.</td>
<td>66.8</td>
<td>66.8</td>
<td>67.1</td>
<td>67.7</td>
<td>0.0</td>
<td>0.6</td>
</tr>
<tr>
<td>Victoria Ave.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>btw Victoria Ave. and Truck Access</td>
<td>70.9</td>
<td>71.2</td>
<td>71.3</td>
<td>71.8</td>
<td>0.3</td>
<td>0.5</td>
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<td>btw Truck Access and Sterling Ave.</td>
<td>71.0</td>
<td>71.1</td>
<td>71.6</td>
<td>71.8</td>
<td>0.1</td>
<td>0.2</td>
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<tr>
<td>btw Sterling Ave. and Del Rosa Dr.</td>
<td>71.9</td>
<td>72.0</td>
<td>72.8</td>
<td>72.9</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>3rd St.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>btw Victoria Ave. and Central Ave.</td>
<td>68.4</td>
<td>68.4</td>
<td>68.6</td>
<td>68.7</td>
<td>0.0</td>
<td>0.1</td>
</tr>
</tbody>
</table>

**NOTES:**
- All noise levels are in dBA.
- btw = between
4. Environmental Consequences

Construction Impacts
No project construction would occur under the No Action Alternative. It is assumed that any future development on the Proposed Project site would be in accordance with the ALP and would include evaluation of potential environmental impacts prepared at the appropriate time. Therefore, no impacts would occur under the No Action Alternative in either 2019 or 2024.

4.10.2.2 Proposed Project (2019 and 2024)

Operational Impacts
Aircraft Noise
As shown in Table 4-21, approximately 74,500 aircraft operations are projected to occur at the Airport in 2019 under the Proposed Project. This equates to approximately 204 annual average day operations in 2019, which includes 10 additional nighttime operations daily as a result of the Proposed Project. In 2024, approximately 87,500 aircraft operations are projected at the Airport under the Proposed Project, which is equivalent to approximately 240 annual average day operations, including 23 additional nighttime operations daily as a result of the Proposed Project.

<table>
<thead>
<tr>
<th>Aircraft Category</th>
<th>2019</th>
<th>2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Carrier</td>
<td>9,542</td>
<td>19,798</td>
</tr>
<tr>
<td>Air Taxi</td>
<td>4,903</td>
<td>5,127</td>
</tr>
<tr>
<td>General Aviation</td>
<td>59,050</td>
<td>61,755</td>
</tr>
<tr>
<td>Military</td>
<td>896</td>
<td>937</td>
</tr>
<tr>
<td>Annual Total</td>
<td>74,391</td>
<td>87,617</td>
</tr>
<tr>
<td>Annual Average Day Operations</td>
<td>203.8</td>
<td>240.0</td>
</tr>
</tbody>
</table>

SOURCES: ESA Forecast, 2018

Figures 4-5 and 4-6 present aircraft noise contours associated with the Proposed Project in 2019 and 2024, respectively. As shown on Figure 4-5, no residential or other noise-sensitive land uses would be exposed to aircraft noise of CNEL 65 dB or greater in 2019 under the Proposed Project. The 2024 Proposed Project CNEL 65 contour, presented in Figures 4-6, encompasses 16 residential dwelling units, which are located to the northeast and to the west of the Airport. In accordance with FAA Order 1050.1F, a significant aircraft noise impact results when the Proposed Project would increase aircraft noise exposure by CNEL 1.5 dB or more for a noise-sensitive land use that is exposed to noise at or above CNEL 65 (see Figure 4-7). All 16 dwelling units experience a CNEL 1.5 dB or greater increase in noise, when compared to the No Action Alternative. In addition to the residential dwelling units, there are three non-residential noise-sensitive sites (the Norton Science and Language Academy, Mill Center Park, and the Antioch Christian Center) within the 2024 Proposed Project CNEL 65 dB contour to the west of the Airport.
Figure 4-5

2019 Proposed Project CNEL Contours and Generalized Existing Land Uses
San Bernardino International Airport

SOURCE: San Bernardino County, 2018; AEDT 2d; Adapted by ESA, 2018

Proposed Eastgate Air Cargo Facility Draft Environmental Assessment

Legend

- Airport Property
- CNEL Contour
- Generalized Land Uses
  - Agricultural
  - Airports
  - Associated Improvements
  - Commercial and Office
  - Industrial
  - Single Family Residential
  - Multi-Family Residential
  - Residential (Manufactured)
  - Residential (Miscellaneous)
  - Mixed-Use
  - Open Space, Cemeteries and Recreation
  - Public Facilities and Institutions
  - Planned Unit Development (PUD)
  - Transportation and Parking
  - Unclassified
  - Utilities
  - Vacant

0 4,000 Feet

Path: U:\GIS\GIS\Projects\18xxxx\D180714_SanBernardinoIntnl_EA\03_MXDs_Projects\Fig4-5_2019 Proposed Project CNEL_terrain_v2.mxd, sburlingame 6/27/2019
Proposed Eastgate Air Cargo Facility Draft Environmental Assessment

Figure 4-6
2024 Proposed Project CNEL Contours and Generalized Existing Land Uses
San Bernardino International Airport
Figure 4-7

2024 Proposed Project CNEL Contours with Areas of Significant Increase
San Bernardino International Airport
4. Environmental Consequences

The Federal Interagency Committee on Noise (FICON) recommended that further analysis should be conducted of noise-sensitive areas between DNL\(^{24}\) 60-65 dB having an increase of 3 dB or more if screening analysis shows that noise-sensitive areas at or above DNL 65 dB will have an increase of DNL 1.5 dB or more (FICON, 1992). As a result of this recommendation, Figure 4-8 presents the noise-sensitive land uses within CNEL 60 contour for the 2024 Proposed Project scenario. Figures 4-9 and 4-10 present close-in views of the areas to the west and east of the Airport, respectively.

When CNEL 1.5 dB or greater increases are present within CNEL 65 contour over noise-sensitive land uses, FAA Order 1050.1F and the 1992 FICON report require the identification of noise-sensitive land uses within the CNEL 60 contour that are exposed to aircraft noise at or above CNEL 60, but below CNEL 65 and are projected to experience a noise increase of CNEL 3 dB or greater. While the 3 dB increase in CNEL is reported for disclosure purposes, it is not considered a significant impact under NEPA.

As shown on Figure 4-6, there were no noise-sensitive land uses within the 2019 Proposed Project scenario CNEL 65 noise contour. Therefore, there were no increases of CNEL 1.5 dB or greater over noise-sensitive uses. Table 4-22 provides the households, population, and noise-sensitive sites exposed to a 1.5 or 3 dB increase in CNEL for the 2024 Proposed Project Scenario. Table 4-23 includes the 2024 CNEL values for the three non-residential noise-sensitive sites.

While Mill Center Park would be newly located within the 2024 Proposed Project CNEL 65 dB contour and exposed to a level of CNEL 66.0 dB, 14 CFR Part 150 compatible land use guidelines recognize that parks in areas exposed to DNL 65-70 dB are compatible with these aircraft noise levels without restrictions (14 CFR A150.101(b)).

<table>
<thead>
<tr>
<th>CNEL Contour</th>
<th>CNEL Increase (dB)</th>
<th>Households</th>
<th>Population</th>
<th>Places of Worship</th>
<th>Schools</th>
<th>Hospitals and Residential Healthcare</th>
<th>Historic Resources</th>
<th>Day Care and Assisted Living</th>
<th>Parks</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNEL 65 to 70</td>
<td>CNEL 1.5</td>
<td>16</td>
<td>59</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CNEL 60 to 65</td>
<td>CNEL 3.0</td>
<td>1,032</td>
<td>3,350</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1,048</td>
<td>3,409</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

CNEL = Community Noise Equivalent Level

SOURCES: San Bernardino County, July 2018; U.S. Census Block Data, 2010; Adapted by Environmental Science Associates, 2019.

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\(^{24}\) California adopted CNEL prior to FAA adopting DNL. CNEL, like DNL, adds a ten times weighting (10 dB) to each aircraft operation between 10:00 p.m. and 7:00 a.m.; however, CNEL also adds a three times weighting (4.77 dB) for each aircraft operation during evening hours (7:00 p.m. to 10:00 p.m.).
2024 Proposed Project CNEL Contours and Noise Sensitive Land Uses
San Bernardino International Airport

Figure 4-8
Figure 4-9
2024 Proposed Project CNEL Contours and Noise Sensitive Land Uses Exposed to 1.5 and 3.0 dB or Greater Increases in Noise - Close-Up West
San Bernardino International Airport

SOURCE: San Bernardino County, 2018; AEDT 2d; Adapted by ESA, 2018
Figure 4-10

2024 Proposed Project CNEL Contours and Noise Sensitive Land Uses Exposed to 1.5 and 3.0 dB or Greater Increases in Noise - Close-Up East

San Bernardino International Airport

SOURCE: San Bernardino County, 2018; AEDT 2d; Adapted by ESA, 2018

Legend
- Airport Property
- CNEL 65 and Greater Contours
- CNEL 60 Contour
- Noise Sensitive Land Uses Exposed to 1.5 dB or Greater Increase in Noise
- Noise Sensitive Land Uses Exposed to 3.0 dB or Greater Increase in Noise
### 4. Environmental Consequences

#### TABLE 4-23

**CNEL at Non-Residential Noise-Sensitive Sites (dBA)**

<table>
<thead>
<tr>
<th>Non-Residential Noise-Sensitive Sites</th>
<th>Name</th>
<th>2017 Existing</th>
<th>2019 No Action</th>
<th>2019 Proposed Project</th>
<th>2024 No Action</th>
<th>2024 Proposed Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSS1</td>
<td>Norton Science and Language Academy</td>
<td>56.3</td>
<td>56.4</td>
<td>62.1</td>
<td>56.6</td>
<td>65.2</td>
</tr>
<tr>
<td>NSS2</td>
<td>Antioch Christian Center</td>
<td>56.7</td>
<td>56.8</td>
<td>62.3</td>
<td>57.0</td>
<td>65.3</td>
</tr>
<tr>
<td>NSS3</td>
<td>Mill Center Park</td>
<td>57.5</td>
<td>57.6</td>
<td>63.0</td>
<td>57.7</td>
<td>66.0</td>
</tr>
</tbody>
</table>

**SOURCES:** San Bernardino County, July 2018; AEDT, 2018; ESA, 2018 and 2019.

#### Construction Impacts

Construction activities would occur during daylight hours; the only exception would require a variance by the City of San Bernardino, in accordance with *Municipal Code 8.54.060, Exemptions*, for concrete pouring, which could occur as early as 3:00 a.m., in order to avoid pouring concrete during the hottest part of the day. The construction activities between the hours of 3:00 a.m. and 6:00 a.m. are the focus of this assessment because the Caltrans TNAP impact threshold is 86 dBA at 50 feet from 9:00 p.m. to 6:00 a.m.

According to FHWA’s RCNM document, a concrete pump truck would produce a maximum noise level (Lmax) of 81 dBA at 50 feet. The Proposed Project would have at least 15 concrete pump trucks at a time when pouring begins. The noise level based on 15 concrete pump trucks would be as loud as 93 dBA at 50 feet, which would exceed Caltrans’ 86 dBA threshold, which does not take into account land use. However, the closest noise-sensitive receptor is nearly 250 feet from the Proposed Project site and would be as loud as 79 dBA; which is below Caltrans’ 86-dBA threshold.

#### 4.10.3 Comparison to Significant Impact Thresholds

##### 4.10.3.1 Aircraft Noise

A discussion of when aircraft noise is considered a significant impact is contained in FAA Order 1050.1F. The Order states that a significant noise impact would occur if analysis shows that the action would increase noise by DNL (CNEL in California) 1.5 dB or more for a noise-sensitive area that is exposed to noise at or above the CNEL 65 dB noise exposure level, or that will be exposed at or above the CNEL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the No Action Alternative for the same timeframe.

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25 Excerpt from *City of San Bernardino Municipal Code 8.54.060 Exemptions*: The following activities and noise sources shall be exempt from the provisions of this chapter:

Subpart (I): Construction, repair, or excavation work performed pursuant to a valid written agreement with the City, or any of its political subdivisions, which provides for noise mitigation measures.

The 1050.1F Desk Reference requires that the following information be disclosed for future conditions:

- The number of residences or people residing within each noise contour where aircraft noise exposure is at or above CNEL 65 dB and net increase or decrease in the number of people or residences exposed to that level of noise.

- The location and number of noise-sensitive uses in addition to residences (e.g., schools, churches, hospitals, parks, recreation areas) exposed to CNEL 65 dB or greater.

- The identification of noise-sensitive areas within the CNEL 60 dB contour that are exposed to aircraft noise at or above CNEL 60 dB but below CNEL 65 dB and are projected to experience a noise increase of CNEL 3 dB or more, only when CNEL 1.5 dB increases are documented within the CNEL 65 dB contour.

As shown in Figure 4-6 and Table 4-18, there are no households, population, or noise-sensitive uses within the 2019 Proposed Project CNEL 65 and greater contours. Therefore, there would be no significant noise impacts under the Proposed Project in 2019. Under the 2024 Proposed Project, 16 residential dwelling units and three non-residential noise-sensitive properties (the Norton Science and Language Academy, Mill Center Park, and the Antioch Christian Center) would be newly located within the CNEL 65 contour (see Figures 4-7 and 4-8). The residential dwelling units are located to the northeast and to the west of the Airport. The three non-residential noise-sensitive uses within the 2024 Proposed Project CNEL 65 dB contour are located west of the Airport. Figure 4-6 presents noise-sensitive land uses within the CNEL 60 contour for the 2024 Proposed Project scenario. Figures 4-7 and 4-8 provide close-in views of the noise-sensitive uses west and east of the Airport, respectively.

While Mill Center Park would be newly located within the 2024 Proposed Project CNEL 65 dB contour and exposed to a level of CNEL 66.0 dB, 14 CFR Part 150 compatible land use guidelines recognize that parks in areas exposed to DNL 65-70 dB are compatible with these aircraft noise levels without restrictions (14 CFR A150.101(b)).

### 4.10.3.2 Traffic Noise

For vehicular traffic noise, Caltrans’ TNAP indicates that a noise level is considered to approach the Noise Abatement Criteria (NAC) for a given activity category if it is within 1 dBA of the NAC. For example, the NAC criteria for residential land uses is 66 dBA, which is within 1 dBA of the NAC criteria of 67 dBA Leq(h). A substantial noise increase is considered to occur when the Proposed Project’s predicted worst-hour design-year noise level exceeds the existing worst-hour noise level by 12 dBA or more. For the purpose of this EA, a substantial noise increase is considered to occur when the Proposed Project’s predicted worst-hour future year noise level exceeds the worst-hour noise level of the same future year by 12 dBA or more. Table 4-24 presents the Caltrans Noise Abatement Criteria.
### TABLE 4-24  
**ACTIVITY CATEGORIES AND NOISE ABATEMENT CRITERIA**

<table>
<thead>
<tr>
<th>Activity Category</th>
<th>Activity Leq[h]</th>
<th>Evaluation Location</th>
<th>Description of Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>57</td>
<td>Exterior</td>
<td>Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.</td>
</tr>
<tr>
<td>B&lt;sup&gt;b&lt;/sup&gt;</td>
<td>67</td>
<td>Exterior</td>
<td>Residential</td>
</tr>
<tr>
<td>C&lt;sup&gt;b&lt;/sup&gt;</td>
<td>67</td>
<td>Exterior</td>
<td>Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.</td>
</tr>
<tr>
<td>D</td>
<td>52</td>
<td>Interior</td>
<td>Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.</td>
</tr>
<tr>
<td>E</td>
<td>72</td>
<td>Exterior</td>
<td>Hotels, motels, offices, restaurants/bars, and other developed lands, properties, or activities not included in A-D or F.</td>
</tr>
<tr>
<td>F</td>
<td></td>
<td></td>
<td>Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.</td>
</tr>
<tr>
<td>G</td>
<td></td>
<td></td>
<td>Undeveloped lands that are not permitted.</td>
</tr>
</tbody>
</table>

**NOTES:**

a  The Leq[h] activity criteria values are for impact determination only and are not design standards for noise abatement measures. All values are in dBA.

b  Includes undeveloped lands permitted for this activity category.

**SOURCE:** Caltrans, 2011.

As described above, and shown in Table 4-20, all of the roadway segments analyzed would exceed 66 dBA under both the 2019 and 2024 No Action Alternative scenarios and under both the 2019 and 2024 Proposed Project. However, the noise level increases for all of these roadway segments are lower than the Caltrans threshold of 12 dBA or greater for a substantial noise increase. Therefore, since the roadway segments would not experience a substantial increase in noise under the Proposed Project in 2019 and 2024, there would be no significant noise impact from the Proposed Project as compared with the No Action Alternative, and no mitigation would be required.

### 4.10.3.3  Construction Noise

The construction noise assessment is also based on Caltrans, TNAP, as FAA Order 1050.1F suggests following FHWA’s guidance, *Roadway Construction Noise Model (RCNM)* document. The RCNM describes methodologies of how to assess construction noise. The impact threshold is defined in the Caltrans TNAP. It is described as:

- Do not exceed 86 dBA at 50 feet from the job site activities from 9 p.m. to 6 a.m.
- Equip an internal combustion engine with the manufacturer recommended muffler. Do not operate an internal combustion engine on the job site without the appropriate muffler.
As discussed in Section 4.10.2.2, in 2019, when compared to the No Action Alternative, there is potential for noise impacts associated with construction under the Proposed Project.

4.10.4 Mitigation, Avoidance, and Minimization Measures

The Proposed Project would exceed the impact thresholds established for construction noise and aircraft noise. Mitigation measures to address noise impacts from the Proposed Project are provided below.

4.10.4.1 Construction Noise

The impact of construction noise is based on the Caltrans guidance, which is not to exceed 86 dBA at 50 feet regardless of the land uses. The mitigation measures described below would help reduce the construction noise levels at distant noise-sensitive receivers, which are located approximately 250 feet from the Proposed Project site (see Figure 4-6).

- Most construction activities would occur during the daytime; any variances would require City approval in accordance with City of San Bernardino Municipal Code 8.54.060, Exemptions. The only anticipated variance would be for concrete pouring activities in order to avoid the daytime heat; concrete pouring activities should be limited between 3 a.m. and 6 a.m., when possible.

- Equipment and trucks used for the construction shall use the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds, wherever feasible).

- Stationary construction noise sources shall be located as far from adjacent receptors as possible and they shall be muffled and enclosed within temporary sheds and incorporate insulation barriers or other measures to the extent this does not interfere with construction purposes.

- Separate the concrete pump trucks as much as possible across the Proposed Project site, to reduce cumulative noise from one location.

- Signs shall be posted at all construction site entrances to the property upon commencement of project construction for the purposes of informing all contractors/subcontractors, their employees, agents, material haulers, and all other persons at the applicable construction sites of the basic requirements for managing noise nuisance.

- Signs shall be posted at the construction sites that include permitted construction days and hours, a day and evening contact number for the job site, and a contact number in the event of problems.

- An on-site complaint and enforcement manager shall respond to and track complaints and questions related to noise.

- If applicable, use of a temporary solid noise barrier that blocks a line-of-sight between a receiver and a noise source (e.g., sound barrier walls or fencing), which would reduce noise level of at least 10 dBA.
4.10.4.2 Aircraft Noise

Table 4-22 indicates that there would be 16 residential properties and three non-residential noise-sensitive sites (the Norton Science and Language Academy, Mill Center Park, and the Antioch Christian Center) within CNEL 65 dB contour for the Proposed Project in 2024. The residential properties are located in the Industrial Light zoning district and are non-conforming land uses. Constructive use of Section 4(f) properties would occur when the project’s impacts are so severe that the activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired. While Mill Center Park would be newly located within the 2024 Proposed Project CNEL 65 dB contour and exposed to a level of CNEL 66.0 dB, 14 CFR Part 150 compatible land use guidelines recognize that parks in areas exposed to DNL 65-70 dB are compatible with these aircraft noise levels without restrictions (14 CFR A150.101(b)). Therefore, Mill Center Park would not be impaired and does not require mitigation.

Over time, the neighborhoods in the vicinity of SBD have changed from residential to industrial and commercial properties. As described and shown in Chapter 3, the 1989 City of San Bernardino General Plan has zoned most of the area around the airport, including former neighborhoods, as Industrial Light. SBIAA intends to acquire the 16 residential and two non-residential properties that are in noise-sensitive locations and redevelop the land with compatible land uses consistent with the existing City of San Bernardino General Plan that shows these residential properties are existing non-conforming uses within Commercial and Industrial zoned areas. Existing non-conforming residential properties are actively being converted to land uses consistent with existing zoning codes. The properties are being redeveloped as warehousing that is consistent with the most recent General Plan, the 2005 City of San Bernardino General Plan zoning map. For homeowners that opt for property acquisition, relocation assistance would be provided in accordance with 49 CFR Part 24 - Uniform Relocation Assistance and Real Property Acquisition Act (URA) (see Section 4.11.3). The noise mitigation measure is provided in more detail below.

**Noise Mitigation Measure:** Acquire the 16 residential properties and two non-residential noise-sensitive sites (the Norton Science and Language Academy and the Antioch Christian Center) within the CNEL 65 contour for the 2024 Proposed Project, and convert the land to compatible uses.

Participation in the Noise Mitigation Measure would be optional on the part of the property owner. The Noise Mitigation Program would be complete by 2024. Implementation of the Noise Mitigation Measure described above would ensure that aircraft noise impacts would not be significant.
4.11 Socioeconomic Impacts, Environmental Justice, and Children’s Environmental Health and Safety Risks

4.11.1 Socioeconomics

4.11.1.1 Methodology

Under this environmental resource category, the primary focus for this project is on impacts to surface traffic conditions in the GSA. The Proposed Project is expected to generate more than 3,000 jobs. Traffic associated with this increase in jobs, as well as an increase in truck traffic, may have the potential to result in socioeconomic impacts to traffic in the GSA. The analysis considers existing and future conditions to determine whether implementation of the alternatives would result in impacts.

FAA Order 1050.1F does not establish a significance threshold for Socioeconomics. Rather, the analysis must consider whether the Proposed Project, when compared to the No Action Alternative, would have the potential to disrupt local traffic patterns and substantially reduce the levels of service of roads serving the Airport and surrounding communities. Other factors to consider include whether the Proposed Project would:

- 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; or
- Produce a substantial change in the community tax base.

The significance of an impact is determined by evaluating its magnitude and duration.

4.11.1.2 2019 and 2024 Impacts

No Action Alternative (2019 and 2024)

Operational Impacts

A traffic study was prepared to evaluate potential traffic impacts associated with the Proposed Project and the No Action Alternative under both 2019 and 2024 conditions (Translutions, 2018). The traffic study indicates that under the No Action Alternative under both 2019 and 2024 conditions, all study area intersections are forecast to operate at satisfactory levels of service (LOS). All study area roadway segments are projected to operate at satisfactory LOS with the exception of Highland Avenue from I-210 Eastbound Off-Ramp to I-210 Westbound Off-Ramp and Highland Avenue from I-210 Westbound Off-Ramp to Victoria Avenue. Both these roadway segments would operate at a LOS of “F” under the No Action Alternative.
4. Environmental Consequences

Under the No Action Alternative, no disruption or division of an established community would occur and there would be no relocation of residents or businesses and no effects on housing. In addition, no effect to economic growth, nor substantial change to the community tax base would occur under the No Action Alternative.

Construction Impacts
Under the No Action Alternative, construction of proposed facilities would not occur and there would be no potential for impact to surface traffic features. No new jobs associated with the Proposed Project would be created because under the No Action Alternative the Proposed Project would not be implemented.

Proposed Project (2019 and 2024)

Operational Impacts
Under the Proposed Project, a currently underutilized portion of the Airport property would be redeveloped with a 658,500-square-foot facility, 12 acres of GSE parking and operational areas, two 25,000-square-foot maintenance buildings, and aircraft apron to support concurrent parking for 14 Boeing 767 aircraft. It is anticipated that at the start of operation, the facility would employ approximately 1,700 people divided into three shifts of 8 hours each over a 24-hour day. By 2024, the number of employees would increase to more than 3,000 employees, also divided into three shifts over a 24-hour period. The Proposed Project site is limited to Airport property and, with the exception of nearby roadway improvements, would not require construction in the surrounding community, disrupt or divide the community, nor require the relocation of residents or businesses.

An economic benefit to the community will be an increase in employment. It is anticipated that the Proposed Project will employ an estimated 1,700 persons (1,450 warehouse employees, 180 ramp employees, 70 support employees) during the first year of operation. The projected number of employees per shift are assumed based on projections for Quarter 4 of each year. Projections are based on reasonable business assumptions. However, future employment levels may be influenced by and vary, due to economic and market conditions, business decisions, and other factors unknown at this time. Local residents will be able to apply for both temporary construction jobs and permanent jobs.

Traffic Impact Analysis
The traffic study was prepared to satisfy the requirements for a TIA established by the San Bernardino County Congestion Management Program (CMP), the City of San Bernardino Traffic Impact Study Guidelines, and NEPA. The San Bernardino County CMP is implemented by the San Bernardino County Transportation Authority (SBCTA).

The traffic study evaluated the effects of the Proposed Project on 17 intersections and 18 roadway segments within the General Study Area (GSA). The study also proposed circulation improvements for intersections and roadway segments that operate or are forecast to operate at unsatisfactory Level(s) of Service (LOS). The impact findings of the traffic study’s LOS evaluations for study intersections and roadway segments are presented below for the following two future year traffic scenarios:
4. Environmental Consequences

- Year 2019 with Proposed Project
- Year 2024 with Proposed Project

**Year 2019 Cumulative with Proposed Project Intersection LOS**

The traffic study concluded that the Proposed Project would not cause any intersections to change from an acceptable to a deficient LOS (see Figure 4-11). However, the Proposed Project would add trips to two intersections that are anticipated to operate at a deficient LOS, regardless of whether the Proposed Project is implemented.

The traffic study determined that under Proposed Project conditions at the start of operations, the intersections within the GSA would operate at satisfactory (LOS), as defined by the local jurisdictions (see Section 3.11.3.1, Socioeconomics), with the exception of Arden Avenue and Highland Avenue at the a.m. peak hour, described in the bulleted paragraph below. The Proposed Project would address the LOS issue with Project Commitment 2, which requires construction of a second eastbound left-turn lane and a second westbound left-turn lane at Victoria Avenue and 3rd Street to address the impact at the intersection that is adversely affected by the Proposed Project.
• Arden Avenue and Highland Avenue (a.m. peak hour). Under both the Proposed Project and the No Action Alternative, this intersection would operate at a LOS of “D.” The Proposed Project does not create a deficiency at this intersection. Based on the City of San Bernardino thresholds of significance, the Proposed Project would not create a significant impact at this location.

Year 2019 Cumulative with Proposed Project Roadway Segments LOS
The traffic study determined that under both the 2019 Proposed Project and No Action Alternative conditions, all roadway segments within the GSA are projected to operate at satisfactory LOS with the exception of the following:

• Highland Avenue from I-210 Eastbound Off-Ramp to I-210 Westbound Off-Ramp. This segment operates at LOS “F” in 2019 under both the No Action Alternative and Proposed Project conditions. The Proposed Project would contribute to an exceedance of the City of San Bernardino’s thresholds of significance. However, when compared to the No Action Alternative, the Proposed Project would not lead to a disruption of local traffic patterns, nor substantially reduce level of service at this location.

• Highland Avenue from I-210 Westbound Off-Ramp to Victoria Avenue. This segment operates at LOS “F” in 2019 under both the No Action Alternative and Proposed Project conditions. The Proposed Project would contribute to an exceedance of the City of San Bernardino’s thresholds of significance. However, when compared to the No Action Alternative, the Proposed Project would not lead to a disruption of local traffic patterns, nor substantially reduce level of service at this location.

Year 2024 With Proposed Project Intersection LOS
The traffic study determined that under 2024 Proposed Project conditions, intersections within the GSA would operate at satisfactory LOS with the exception of the following:

• Arden Avenue and Highland Avenue (a.m. peak hour). The Proposed Project does not create the deficiency at this intersection, since it also operates at unsatisfactory LOS under the No Action Alternative. Under both the No Action Alternative and Proposed Project, this intersection operates at a LOS of “D.” Based on the City of San Bernardino thresholds of significance, the Proposed Project would not create a significant impact at this location.

• Victoria Avenue and 6th Street (p.m. peak hour). This deficiency is created by the Proposed Project. Under the No Action Alternative, this intersection operates at a LOS of “C.” Under the Proposed Project, this intersection operates at a LOS of “E.” The Proposed Project would contribute to an exceedance of the City of San Bernardino’s thresholds of significance at this intersection. However, when compared to the No Action Alternative, the Proposed Project would not lead to a disruption of local traffic patterns, nor substantially reduce level of service at this intersection.

• Victoria Avenue and 5th Street during the (a.m. and p.m. peak hours). Under both the No Action Alternative and the Proposed Project, this intersection would operate at a LOS of “C” during both a.m. and p.m. peak hours. The Proposed Project would contribute to an exceedance of the City of San Bernardino’s thresholds of significance at this intersection. However, when compared to the No Action Alternative, the Proposed Project would not lead to a disruption of local traffic patterns, nor substantially reduce level of service at this intersection.
• Victoria Avenue and 3rd Street during the (a.m. peak hour). Under the No Action Alternative, this intersection would operate at a LOS of “C” during the p.m. peak hour. In comparison, under the Proposed Project, this intersection would operate at a LOS of “D.” The Proposed Project would contribute to an exceedance of the City of San Bernardino’s thresholds of significance at this intersection. This deficiency is created by the Proposed Project, as this is the primary access point to the Proposed Project. However, Project Commitment 2 would ensure the LOS at this intersection is an acceptable level under the City of San Bernardino’s thresholds of significance.

**Year 2024 With Proposed Project Roadway Segments LOS**

The traffic study determined that under 2024 Proposed Project conditions, roadway segments within the GSA are projected to operate at satisfactory LOS with the exception of the following:

• Highland Avenue from I-210 Eastbound Off-Ramp to I-210 Westbound Off-Ramp. This segment operates at LOS “F” in 2024 under both the No Action Alternative and Proposed Project conditions. The Proposed Project would contribute to an exceedance of the City of San Bernardino’s thresholds of significance. However, when compared to the No Action Alternative, the Proposed Project would not lead to a disruption of local traffic patterns, nor substantially reduce level of service at this location.

• Highland Avenue from I-210 Westbound Off-Ramp to Victoria Avenue. This segment operates at LOS “F” in 2024 under both the No Action Alternative and Proposed Project conditions. The Proposed Project would contribute to an exceedance of the City of San Bernardino’s thresholds of significance. However, when compared to the No Action Alternative, the Proposed Project would not lead to a disruption of local traffic patterns, nor substantially reduce level of service at this location.

**Recommended Circulation Improvements in the TIA**

The CMP requires that circulation improvements be recommended at any intersection that operates at an unsatisfactory LOS. For intersections that meet a jurisdiction’s minimum LOS standard under existing conditions, circulation improvements must maintain conformance with that standard. For intersections that fail to meet a jurisdiction’s minimum LOS standard under existing conditions, circulation improvements must maintain the existing LOS. These include conversion of stop control, signalization, changes to signal phasing, and/or addition of lanes as appropriate.

The traffic study includes recommended circulation improvements to address identified impacts to intersections and roadway segments that would occur under 2019 and 2024 Proposed Project conditions. The traffic study determined that construction of the improvements would restore satisfactory operations to the affected intersections and roadway segments. The recommended 2019 and 2024 circulation improvements included in the traffic study are presented below.

**Year 2019 Intersection Circulation Improvements**

• Arden Avenue and Highland Avenue – Re-stripe the northbound approach to include two northbound left-turn lanes and a through-right turn lane. This project improvement would increase LOS during the a.m. peak hour from “E” under the No Action Alternative to an acceptable LOS of “D” under the Proposed Project for the same time frame.
Year 2019 Roadway Section Improvements

- Highland Avenue from I-210 Eastbound Off-Ramp to I-210 Westbound Off-Ramp – Convert from 4-Lane Major Arterial to 6-Lane Major Arterial. This would improve LOS from “F” to “D” under the Proposed Project. Although a LOS of “D” would exceed the City of San Bernardino’s thresholds of significance, this improvement would eliminate the Proposed Project’s contribution to the exceedance.

- Highland Avenue from I-210 Westbound Off-Ramp to Victoria Avenue – Convert from 4-Lane Major Arterial to 6-Lane Major Arterial. This would improve LOS from “F” to “C” under the Proposed Project. LOS “C” is an acceptable LOS under the City of San Bernardino’s thresholds of significance.

Year 2024 Intersection Circulation Improvements

- Victoria Avenue and 6th Street – Install a traffic signal. This improvement is not included in the 2016 SBCTA Development Mitigation Nexus Study; therefore, the Proposed Project’s fair share has been calculated. The Proposed Project’s fair share is 12.5 percent. This improvement would increase LOS at this intersection to “B” during both the a.m. and p.m. peak hours under Proposed Project conditions.

- Victoria Avenue and 5th Street - Convert the eastbound/westbound phasing from permitted to protected phasing. This improvement would increase LOS at this intersection to “C” during both the a.m. and p.m. peak hours under Proposed Project conditions.

- Victoria Avenue and 3rd Street – Add a second eastbound left-turn lane and a second westbound left-turn lane. These improvements will be constructed by SBIAA as specified in Project Commitment 2 in Chapter 1, Purpose and Need. This improvement would increase LOS at this intersection to “D” during both the a.m. peak hours and “C” during the p.m. peak hour under Proposed Project conditions.

Summary
As discussed above, the traffic study evaluated the effects of the Proposed Project on 17 intersections and 18 roadway segments within the GSA. The traffic study includes recommended circulation improvements to address identified impacts to intersections and roadway segments that would occur under 2019 and 2024 Proposed Project conditions. The traffic study determined that construction of the improvements would restore satisfactory operations to the affected intersections and roadway segments within the GSA.

As discussed above, the traffic study determined that under 2024 Proposed Project conditions, the Proposed Project would contribute to exceedance of the City of San Bernardino’s thresholds of significance at the Victoria Avenue and 3rd Street intersection during the (a.m. peak hour). This deficiency is created by the Proposed Project, as this is the primary access point to the Proposed Project. Consistent with the recommended circulation improvements included in the traffic study identified above, and as identified in Chapter 1, Purpose and Need, SBIAA has included the following Project Commitment to address the significant impact that would occur at the Victoria Avenue and 3rd Street intersection.
• **Project Commitment 2:** Construct a Second Eastbound Left Turn Lane and a Second Westbound Left Turn Lane at Victoria Avenue and 3rd Street. SBIAA shall be responsible for constructing a second eastbound left-turn lane and a second westbound left-turn lane at Victoria Avenue and 3rd Street.

The mitigation measures presented below would ensure satisfactory operation of the remaining intersections and roadway segments within the GSA that would be affected by the Proposed Project. Implementation of the mitigation measures below would ensure that impacts would not be significant.

**Construction Impacts**

Construction of the Proposed Project would take place over a one-year period and the majority of construction activity would be staged within the boundaries of the Proposed Project site. Construction traffic has the potential to change surface vehicle traffic patterns during the construction period. The preliminary construction plans allow for a qualitative analysis to be performed to calculate the estimated maximum of construction employee vehicle trips and estimated maximum construction truck trips per day and proposed routes.

An estimated maximum of 200 daily construction workers would be on-site for a period of approximately one-year. Local residents will be able to apply for these temporary construction jobs, as well as the permanent jobs. Conservatively assuming that each worker travels to and from the Proposed Project site in their own vehicle (i.e., no carpooling), construction workers would generate a maximum of 200 vehicle trips per day. It is estimated that an average of approximately 10 truck trips per day would be required for Proposed Project construction, with a maximum of 250 trucks per day required during the busiest construction periods. Examples of construction activities that would require the use of trucks are the import and export of soil/fill material, concrete pours, heavy equipment delivery/removal, and water deliveries to manage dust. In total, the maximum number of construction-related daily vehicle trips (i.e., passenger vehicles and trucks) generated by the Proposed Project would be approximately 450.

Standard traffic engineering techniques would be utilized to maintain traffic during construction. However, temporary construction impacts could include increased commercial traffic on neighborhood roads, increased traffic congestion, increased travel distances, and increased travel times for drivers. Normal neighborhood vehicular traffic patterns could also be disrupted if drivers chose to cut-through neighborhoods to avoid congestion induced by construction activities.

The measures presented below used for a.m. peak periods for construction impacts would ensure satisfactory operation of the intersections and roadway segments within the area that would be affected during construction of the Proposed Project. Implementation of the measures would ensure that construction impacts would not be significant. No substantial or long-term traffic impacts would occur from the construction activities associated with the Proposed Project.

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27 Project Commitment 1: Require Use of Electric Ground Support Equipment. With the exception of the fuel trucks and lavatory service trucks, which are assumed to operate on diesel fuel, the SBIAA will require the use of ground support equipment that can operate on electric battery power. See Section 1.4.5 for Project Commitments.
4.11.2 Mitigation, Avoidance, and Minimization Measures

4.11.2.1 Construction

A construction traffic management plan (CTMP) would be prepared by the contractor and approved by the SBIAA to alleviate construction-period impacts. The CTMP would provide for 8-hour work days, 5 days per week, as well as specify haul routes, and similar controls.

During construction, traffic to and from the site would increase and could potentially result in a reduction in the LOS of the local roadways. The majority of soil hauling would occur to achieve the proper grade. To mitigate this potential impact, traffic on local roadways would be maintained during construction activities with flaggers, arrow boards, and traffic control devices in order to reduce any potential congestion on the roads.

4.11.2.2 Operations

There are no significant impacts under NEPA that would result from the Proposed Project. The mitigation considered within this section relates to state, county, and locally required traffic fee mitigation. Through consultation with the local jurisdictions and traffic agencies, mitigation fee measures will reduce impacts when the Proposed Project is implemented.

The SBIAA shall ensure implementation of all 2019 and 2024 circulation improvements identified for the Proposed Project. As a condition of Proposed Project approval, the SBIAA shall ensure payment of all identified Proposed Project fair share contributions to circulation improvements.

4.11.3 Environmental Justice

4.11.3.1 Methodology

Executive Order 12898 (February 11, 1994) requires that each federal agency identify and address as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. A location is a potential environmental justice area of concern when the minority or low-income population of the analysis area is “meaningfully greater” than that of the surrounding areas.

4.11.3.2 2019 and 2024 Impacts

No Action Alternative (2019 and 2024)

Operational Impacts

Under the No Action Alternative, the site would continue to be used for storage and aircraft parking. No disproportionately high and adverse human health or environmental effects on minority populations and low-income populations would occur.
**Construction Impacts**

The No Action Alternative would not result in construction activity. No environmental justice impacts would occur. No disproportionately high and adverse human health or environmental effects on minority populations and low-income populations would occur.

**Proposed Project (2019 and 2024)**

**Operational Impacts**

As described in Chapter 3, *Affected Environment*, the average percentage of minority population in the GSA is 82 percent (20 percent more than San Bernardino County as a whole) and the percentage of low-income population is 36 percent (17 percent higher on average than the rest of the County). San Bernardino County has a minority population of 62.8 percent. Census tracts in the study area have a minority population ranging from 62.5 to 94.4 percent. Furthermore, 19.2 percent of San Bernardino County’s population lives below the poverty level. By comparison, census tracts in the GSA have a range of 7.3 to 91.3 percent of their populations living below the poverty level (see Table 3-10). Therefore, the GSA can be characterized as having “meaningfully greater” minority and low-income populations.

**Noise**

As described in Section 4.10, *Noise and Noise Compatible Land Use*, the Proposed Project would result in aircraft-related noise impacts to noise-sensitive land uses. Under 2024 Proposed Project conditions, 16 residential units and non-residential noise-sensitive sites (the Norton Science and Language Academy and the Antioch Christian Center) would be located within the CNEL 65 dB contour to the west of the Airport. The location of the 16 residential units and three non-residential noise-sensitive sites is within census block groups that contain a meaningfully greater presence of minority and low-income populations. As described in Section 4.10, implementation of the Noise Mitigation Measure would require acquisition of noise-impacted residential properties that are considered sensitive uses within the CNEL 65 dB contour under 2024 Proposed Project conditions.

For property owners that opt for property acquisition, relocation assistance would be provided in accordance with 49 CFR Part 24, the URA. The URA ensures: (1) to provide uniform, fair and equitable treatment of persons whose real property is acquired or who are displaced in connection with federally funded projects; (2) to ensure relocation assistance is provided to displaced persons to lessen the emotional and financial impact of displacement; (3) to ensure that no individual or family is displaced unless decent, safe and sanitary housing is available within the displaced person's financial means; (4) to help improve the housing conditions of displaced persons living in substandard housing; and (5) to encourage and expedite acquisition by agreement and without coercion. Consequently, noise impacts associated with the Proposed Project would not result in disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.

**Air Quality**

As described in Section 4.2, *Air Quality*, the assessment of the Proposed Project’s impacts on air quality, as well as the evaluation of the effects on the NAAQS, determined that operational VOC and NOx emissions would exceed the respective *de minimis* thresholds in 2019. Additionally,
VOC, NOX, and CO emissions would exceed applicable de minimis thresholds in 2024. Furthermore, if construction is not complete by December 1, 2019, a combination of construction and operation activities would potentially occur at the same time. Should construction and operation activities occur at the same time, VOC and NOX emissions would exceed the de minimis thresholds. Due to these exceedances, a GCD was required.

The SBIAA initiated a formal request to the SCAQMD to determine if the mass emissions generated from the Proposed Project are within the General Conformity Budgets identified in the 2012 AQMP (Appendix III, Chapter 2). The SCAQMD determined that the Proposed Project emissions are within the General Conformity Budget; therefore, the action would conform to the SIP that allows for attainment of the NAAQS and impacts would not be significant when compared to the No Action Alternative. On April 30, 2019, the SCAQMD confirmed the emissions of VOCs and NOX resulting from the Proposed Project are within the 2012 AQMP General Conformity Budget. The SCAQMD confirmation, in the form of a letter provided in Attachment 2 of Appendix B, stated that the Proposed Project will conform to the AQMP (i.e., project emissions are within AQMP budgets) and is not expected to result in any new or additional violations of the NAAQS or impede the projected attainment of the standards. Additionally, air dispersion modeling was conducted for VOC, NOX, and CO to demonstrate that the emissions generated by the Proposed Project would not exceed the applicable NAAQS. Consequently, the Proposed Project would not result in air quality impacts that would produce disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.

Traffic
As described in the assessment of socioeconomic impacts above, a traffic study was prepared to evaluate potential traffic impacts associated with the Proposed Project. The traffic study evaluated the effects of the Proposed Project on 17 intersections and 18 roadway segments within the GSA. The traffic study includes recommended circulation improvements to address identified impacts to intersections and roadway segments that would occur under 2019 and 2024 Proposed Project conditions. The traffic study determined that construction of the improvements would restore satisfactory operations to the affected intersections and roadway segments within the GSA.

The traffic study determined that under 2024 Proposed Project conditions, the Proposed Project would create a significant impact at the Victoria Avenue and 3rd Street intersection during the a.m. peak hour. This deficiency would be created by the Proposed Project, as this is the primary access point to the proposed air cargo facility. Consistent with the recommended circulation improvements included in the traffic study, and as identified in Chapter 1, Purpose and Need, SBIAA has included Project Commitment 2 into the Proposed Project, which would construct a second eastbound left-turn lane and a second westbound left-turn lane at Victoria Avenue and 3rd Street to address the significant impact.

The mitigation measures included in the assessment of socioeconomic impacts above require implementation of all 2019 and 2024 circulation improvements identified for the Proposed Project in the traffic study. As described above, Project Commitment 2 would address the
significant impact at the Victoria Avenue and 3rd Street intersection during the a.m. peak hour. Implementation of the mitigation measures included in the assessment of socioeconomic impacts above would ensure satisfactory operation of the remaining intersections and roadway segments within the GSA that would be affected by the Proposed Project. Consequently, the Proposed Project would not result in traffic impacts that represent disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.

Construction Impacts
Potential noise and air quality impacts associated with construction of the Proposed Project are described in Section 4.2, Air Quality, and Section 4.10, Noise and Noise Compatible Land Use. Potential noise and air quality impacts associated with construction of the Proposed Project would be limited to the immediate vicinity of construction activities within the GSA (GSA), and are not expected to impact off-site areas. In addition, implementation of construction air quality and construction noise mitigation measures included in Section 4.2, Air Quality, and Section 4.10, Noise and Noise Compatible Land Use would ensure that impacts would not be significant. Therefore, construction impacts would not result in disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.

4.11.4 Children’s Environmental Health and Safety Risks

4.11.4.1 Methodology
Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks, requires federal agencies to identify and assess environmental and safety risks that may disproportionately affect children and ensure that its actions address any disproportionate risks. Environmental health and safety risks are defined as risks to health or safety that are attributable to products or substances that a child is likely to come in contact with or ingest. The location of schools and daycare centers in the vicinity of the Airport were identified in this analysis.

4.11.4.2 2019 and 2024 Impacts

No Action Alternative (2019 and 2024)
Operational Impacts
Under the No Action Alternative, no activity associated with the Proposed Project would be undertaken that would constitute an environmental or safety risk that would disproportionately affect children. Therefore, there would be no impacts to children’s health and safety.

Construction Impacts
Under the No Action Alternative, construction of the Proposed Project would not occur; therefore, no impacts associated with children’s health and safety risks would occur.

Proposed Project (2019 and 2024)
Operational Impacts
As described in Section 4.2, Air Quality, under 2019 conditions operational emissions of NOx and VOC would exceed de minimis thresholds as established in the NAAQS. Similarly, under 2024
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conditions, operational emissions of NO\textsubscript{x}, VOC, and CO would exceed *de minimis* thresholds. Therefore, a GCD was required.

The SBIAA initiated a formal request to the SCAQMD to determine if the mass emissions generated from the Proposed Project are within the General Conformity Budgets identified in the 2012 AQMP (Appendix III, Chapter 2). The SCAQMD determined that the Proposed Project emissions are within the General Conformity Budget; therefore, the action would conform to the SIP that allows for attainment of the NAAQS and impacts would not be significant when compared to the No Action Alternative. On April 30, 2019, the SCAQMD confirmed the emissions of VOCs and NO\textsubscript{x} resulting from the Proposed Project are within the 2012 AQMP General Conformity Budget. The SCAQMD confirmation, in the form of a letter, is provided in Attachment 2 of Appendix B.

Additionally, air dispersion modeling was used to predict ground-level ambient air concentrations of pollutants near sources of air emissions sources. The results of the air dispersion modeling found that the operation of the Proposed Project does not exceed any of the applicable NAAQS. As a result, operation of the Proposed Project would not result in adverse impacts to children’s health or safety.

As described in Section 4.10, *Noise and Noise Compatible Land Use*, under the 2024 Proposed Project, one school, the Norton Science and Language Academy (503 E. Central Avenue, San Bernardino, CA 92408), would be newly located within the CNEL 65 dB contour and experience an increase in noise exposure of more than CNEL 1.5 dB. As described in Section 4.10, implementation of the Noise Mitigation Measure, the SBIAA will acquire the school and redevelop the land with a noise compatible land use consistent with the existing City of San Bernardino General Plan. Consequently, the Proposed Project would not result in adverse impacts to children’s health or safety.

**Construction Impacts**

While there are noise impacts associated with project construction under the Proposed Project, the location of schools in the GSA are located more than two miles from the Proposed Project site that no construction-related noise impacts associated with children’s health and safety risks would occur. However, as discussed in Section 4.2, *Air Quality*, construction emissions resulting from the Proposed Project would not exceed *de minimis* thresholds for any criteria pollutant. As a result, construction activities would not result in adverse impacts to children’s health or safety.

**4.11.5 Comparison to Significant Impact Thresholds**

Significant impacts would occur if there were disproportionately high and adverse impacts on low-income and minority populations, disproportionate health and safety risks to children, substantial economic growth in an undeveloped areas, disruption of the physical arrangement of an established community, extensive relocation of residents without sufficient relocation housing available, relocation of businesses that would create severe economic hardship, or a substantial loss in community tax base. The analysis presented above does not indicate that any of these thresholds would be exceeded, and the Proposed Project would not result in a significant impact.
4.12 Visual Effects

4.12.1 Methodology

NEPA requires an analysis of visual impacts. The analysis was accomplished by reviewing the existing conditions at the Proposed Project site and reviewing the preliminary construction plans and specifications for the Proposed Project. Surrounding land uses were also reviewed for light emission sensitivity. The results of the evaluations were compared to appropriate regulatory guidelines and criteria and the significance thresholds.

4.12.2 2019 and 2024 Impacts

4.12.2.1 No Action Alternative (2019 and 2024)

Operational Impacts

The Airport, which has been in place since 1942, and its existing landside facilities currently do not impact the visual character or resources in the project area. Landside facilities include the ground-based facilities that support the aircraft and pilot/passenger handling functions. It is assumed that any future development on the project site would include evaluation of potential visual impacts prepared at the appropriate time.

Construction Impacts

The No Action Alternative would not generate construction-related light emissions. Therefore, there would be no visual impacts.

4.12.2.2 Proposed Project (2019 and 2024)

Operational Impacts

Two factors are considered when analyzing visual impacts: Light Emissions and Visual Resources and Visual Character.

Light Emissions

The Proposed Project is located within an existing airport that is well lit at some locations at night. Other existing sources of light in the project area include streetlights, headlights and lighting from 3rd Street, and lighting from adjacent industrial, commercial and residential uses. The Proposed Project would require lighting (both exterior and interior) that would be present 24 hours a day, 7 days a week once the Proposed Project is in operation. This would introduce a new source of light emissions but the lighting would be comparable to and consistent with lighting from surrounding uses.

Lighting for the Proposed Project would follow the appropriate guidelines as per City of San Bernardino Property Development Standards 19.20.030 which requires all exterior lighting to be energy-efficient and shielded or recessed so that direct glare and reflections are contained within the boundaries of the parcel and are directed downward and away from adjoining properties and public rights-of-way. The code requires all lighting fixtures be appropriate in scale, intensity, and height to the use it is serving.
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Visual Resources and Visual Character

The Proposed Project would not cause a visual change that would be out of character with the surrounding project area. Building heights would be consistent with current Airport structures.

According to the City of San Bernardino General Plan, 3rd Street, which runs adjacent to the Airport, is not considered a scenic corridor or scenic highway. There are no historic buildings, trees, or rock outcroppings located within the Proposed Project site or in the Airport. No adverse impact to a scenic resource would occur.

In addition, the Proposed Project site is located in an urban area with no distinguishing visual features. The Airport fence blocks views beyond the property boundary to passersby. Building heights would be typical of other structures located on the Proposed Project site. The Proposed Project would result in an increase in intensity of development in the Airport but would not adversely alter the overall visual setting of the project area. Therefore, no adverse impacts to the visual character of the area would occur.

Construction Impacts

The construction activities associated with the Proposed Project would produce temporary visual and aesthetic impacts from ground-disturbing activities and the presence of vehicles and equipment. Most construction activities would occur during daylight hours, except for concrete pouring, which could occur as early as 3:00 a.m. Lighting used for concrete pouring would be directed on the work area and would not spill over into areas outside the Airport or create a source of glare on roadways adjacent to the Airport.

4.12.3 Comparison to Significant Impact Thresholds

In accordance with FAA Order 1050.1F, “thresholds to determine the significance of lighting and impacts have not been established by the FAA due to the subjective nature of these impacts.” For this EA, a light emission impact would occur when an action’s light emissions create annoyance to or interfere with normal activities. Also for this EA, a visual impact would occur if an action would significantly contrast with the existing environment. As described in the analysis above, the Proposed Project would not have substantial lighting or visual impacts. Therefore, the Proposed Project would not result in a significant impact.

4.13 Water Resources

4.13.1 Methodology

Federal and state statutes regulating water resources were reviewed for the analysis of potential impacts. The applicable statutes prevent/minimize the loss of wetlands, protect floodplains, establish water quality standards, control discharges and pollution sources, and protect drinking water systems, and groundwater.

The potential impacts on water resources were assessed based on the location, preliminary design plans, and intended function of the Proposed Project. Increases in potable water consumption and
domestic wastewater treatment production were also considered in regard to potential direct impacts or changes in operational activities.

4.13.2 2019 and 2024 Impacts

4.13.2.1 No Action Alternative (2019 and 2024)

Operational Impacts

The existing drainage system at SBD consists of a series of catch basins, storm drains, channels, swales, and an infiltration/detention basin designed to prevent pollutants from entering stormwater (Huitt-Zollars, 2018).

Under the No Action Alternative, there would be no impacts on water quality or water resources within the area. The existing tractor trailer parking, storage, and taxiway uses are not proposed to change. It is assumed that any future development on the project site would include evaluation of potential environmental impacts prepared at the appropriate time.

Construction Impacts

Under the No Action Alternative, construction of the proposed facilities would not occur. Therefore, there would be no impacts to water resources.

4.13.2.2 Proposed Project (2019 and 2024)

Operational Impacts

Wetlands and other Waters of the US

As described in Section 3.13, Water Resources, the Proposed Project is not located within the limits of any wetland. There are two drainage features found on the site. Both appear to be man-made and channelized, allowing water to flow from paved surfaces into storage basins or onto the fenced tarmac grounds of the airport operations area. The drainage features identified within the Proposed Project site are isolated because the surface water from developed areas of the Airport flows into the drainage feature and percolates into the ground. As such, there is no nexus to any traditional navigable waters, and therefore, these waterbodies are not Waters of the US and USACE regulations are not applicable.

Two jurisdictional waters—City Creek and the Santa Ana River—run near the Proposed Project site. Implementation of the Proposed Project would not result in filling, culverting, or other development within these waters. Therefore, no operational impacts to jurisdictional waters would occur subject to 404 of the Clean Water Act.

Floodplains

The Proposed Project site is designated as Flood Zone X, which FEMA defines as “Areas determined to be outside of the 0.2% annual chance floodplain.” Based on a review of the FEMA Flood Insurance Rate Map (FIRM), the Proposed Project site is located outside of the Special Flood Hazard Area (SFHA) and higher than the elevation of the 0.2-percent-annual-chance (or 500-year) flood. The nearest flood area is located north of the Proposed Project site boundary at the City Creek Bypass Channel, which is designated as flood hazard “Zone A.” There would be
no development within this flood zone and there would be no adverse impacts on its natural and beneficial floodplain values.

The Proposed Project does not propose any housing; therefore, the development of the air cargo facility would not place housing or structures within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary, FIRM, or other flood hazard delineation map. The Proposed Project would not redirect or impede flows because the flows within the adjacent City Creek Bypass Channel are managed within the limits of the channel. Therefore, there would be no floodplain encroachment and no operational impacts to floodplains.

**Surface Water**

In a broad sense, airport development and operation may include water quality issues such as increased surface runoff, downstream erosion, and potential discharges of pollutants, such as accidental spills. Potential pollution could come from oil, gasoline, or other petroleum-based products spilled on the surface and carried through stormwater off of the Airport site.

As described in Section 3.13, Water Resources, the majority of the approximately 101.5-acre Proposed Project site is covered with asphalt or concrete with some areas covered by compacted engineered soils that supports non-native grass species. Surface water and stormwater runoff is captured and conveyed in the Airport’s existing infiltration/detention system and drainage system. The Proposed Project site generally slopes 1.0% downward from the northeast corner of the property to the southwesterly edge of the property. There is an existing infiltration basin and earthen channel that runs across the Proposed Project site from east to south that collect and convey off-site flows. The existing on-site runoff from the eastern side of the Proposed Project site (along with the off-site flows) discharge to an existing catch basin with a 42” storm drain outlet on the south side. The existing onsite runoff from the central and western areas of the site are collected by an earthen swale along the south property line of the Proposed Project site (Huitt-Zollars, 2018).

Based on the data provided in the Preliminary Drainage Report for SBIAA Eastgate Building 1 (Huitt-Zollars, 2018), the Proposed Project includes managing all onsite drainage through three new infiltration/detention systems located south of the proposed air cargo facility structure within the Taxiway/Tarmac area of the Proposed Project site. The Proposed Project site runoff flow would be detained in these existing underground infiltration/detention systems that include oil/water separators and would meet the existing 100-year storm event runoff flow requirements before release to the existing drainage facilities. The Proposed Project also proposes several new storm-drain systems to direct drainage to the infiltration systems. The Proposed Project would retain onsite runoff in the infiltration/detention basins with adequate capacity to handle onsite runoff generated within the Proposed Project site. Therefore, the potential for substantial erosion or siltation onsite or offsite is not significant. Operational activities would adhere to a Water Quality Management Plan (WQMP) implemented to ensure that Proposed Project-related surface runoff meets discharge requirements over the long term, including spill prevention and response measures. With the design measures included in the Preliminary Drainage Report and adherence to a WQMP, no significant water quality impacts would occur from operation of the Proposed Project.
Ground Water

The Proposed Project would not require new wells; therefore, no withdrawal or drawdown of groundwater at the Proposed Project site would occur. Though the Proposed Project would not directly extract groundwater as part of project operations, the Proposed Project would require water transmission from the SBMWD, which obtains its water supply from groundwater and recycled water. The Proposed Project’s projected demand for potable water is described in Section 4.9.2.2. Based on the projected water demand for the Proposed Project and the confirmed availability of water from SBMWD to supply the project, the Proposed Project would have sufficient water supplies available from existing entitlements and would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities.

The Proposed Project site’s surface consists mostly of asphalt or concrete with some compacted dirt. The development of the Proposed Project would result in greater site coverage, which would prevent most of the surface runoff from percolating onsite; however, onsite landscaping would provide areas for water to percolate.

The Proposed Project would collect onsite runoff from the developed site through new storm-drain systems that include oil/water separators that would direct runoff to infiltration/detention basin systems. The infiltration/detention basins would prevent pollutants from reaching the groundwater table and would contain runoff within the Proposed Project site. Operation of the Proposed Project would abide by all applicable regulations related to spill prevention and control to prevent spills from affecting groundwater. No impacts to public water supply or exceedances of groundwater quality standards would occur. Therefore, the Proposed Project impacts on groundwater are not considered significant.

Construction Impacts

Wetlands

There would be no construction-related impacts to wetlands because no wetlands are present within the Proposed Project site. No direct or indirect impacts on wetlands would occur from construction of new facilities.

Floodplains

There would be no construction-related impacts to floodplains because the Proposed Project site is located outside of the Special Flood Hazard Area and the 100-year and 500-year flood zones. No direct or indirect impacts on floodplains would occur from construction of new facilities.

Surface Water

Construction activities would adhere to an SWPPP to control potential sources of water pollution that could violate standards or discharge requirements during construction. The SWPPP would specify the Best Management Practices that would be required to be implemented during construction activities to ensure that all potential pollutants of concern are controlled, minimized, and/or otherwise appropriately treated prior to being discharged from the Proposed Project site as stormwater runoff. The SWPPP would also include a Spill Prevention and Cleanup Plan that identifies the methods of containing, cleanup, transport, and proper disposal of hazardous
chemicals or materials released during construction. With adherence to an SWPPP, no significant water quality impacts to surface waters would occur during construction of the Proposed Project.

**Ground Water**

Construction of the Proposed Project would involve subsurface excavation and grading. The groundwater table is located at a depth of approximately 50 feet below the surface of the project area. No potential exists to directly intercept the groundwater table during Proposed Project development because construction excavation depths are anticipated to be 25 feet and would not reach the depth of the groundwater table. Construction would abide by all applicable regulations related to spill prevention and control to prevent spills from affecting groundwater. Therefore, no significant impacts to groundwater would occur.

### 4.13.3 Comparison to Significant Impact Thresholds

The 1050.1F Desk Reference specifies thresholds of significance for the following water resources: wetlands, floodplains, surface water, and groundwater. These thresholds are described below.

An action would be considered to have a significant wetland impact if it would result in any of the following: (1) Adversely affect a wetland’s function to protect the quality or quantity of municipal water supplies, including surface waters and sole source and other aquifers; (2) substantially alter the hydrology needed to sustain the affected wetland system’s values and functions or those of a wetland to which it is connected; (3) substantially reduce the affected wetland’s ability to retain floodwaters or storm runoff, thereby threatening public health, safety or welfare; (4) adversely affect the maintenance of natural systems supporting wildlife and fish habitat or economically important timber, food, or fiber resources of the affected or surrounding wetlands; (5) promote development of secondary activities or services that would cause the circumstances listed above to occur; or (6) be inconsistent with applicable state wetland strategies. As there are no wetlands present in the project area, no impacts to wetlands would occur.

Floodplain impacts would be significant if the action would cause notable adverse impacts on natural and beneficial floodplain values. The Proposed Project site is located outside the flood zone and no impacts to floodplains would occur.

Surface water impacts would be significant if the action would cause exceedances of water quality standards established by federal, state, local, and tribal regulatory agencies; or contaminate public drinking water supply such that public health may be adversely affected. In addition to the threshold above, FAA Order 1050.1F provides additional factors to consider when evaluating the context and intensity of potential environmental impacts for surface waters. With the design measures included in the Preliminary Drainage Report, and adherence to a WQMP, no significant water quality impacts would occur from operation of the Proposed Project.

Groundwater impacts would be significant if the action would cause exceedances of groundwater quality standards established by federal, state, local, and tribal regulatory agencies; or contaminate an aquifer used for public water supply such that public health may be adversely
affected. In addition to the threshold above, FAA Order 1050.1F provides additional factors to consider when evaluating the context and intensity of potential environmental impacts for groundwater. Given no impacts to public water supply or exceedances of groundwater quality standards are anticipated, the Proposed Project impacts on groundwater are not considered significant.

4.14 Cumulative Impacts

4.14.1 Methodology

Cumulative effects and their significance may result from individually minor but collectively significant actions that take place over a period of time (40 CFR 1508.7). In determining whether a Proposed Project would have a significant impact, an EA must include considerations of whether the action is related to other actions with individually insignificant but cumulatively significant impacts [40 CFR 1508.27(b)(7)]. This analysis shall include identification and consideration of the cumulative effects of past, ongoing, proposed and reasonably foreseeable future actions. Past projects include those completed within the past 5 years. Present actions are those projects that are ongoing and will continue during implementation of the Proposed Project. Reasonably foreseeable projects are those that have been developed with enough specificity to provide meaningful information to a decision maker and the interested public.

Table 3-12 in Chapter 3, Affected Environment, lists the past, present, and reasonably foreseeable projects within the GSA considered in the cumulative impacts analysis. The following sections discuss the potential for cumulative impacts to the relevant environmental resource categories evaluated in this EA.

4.14.2 Air Quality

Construction and operation of the cumulative projects would result in temporary impacts to air quality in the cumulative impact study area. Overall, the cumulative projects have a moderate to low potential to result in permanent, significant cumulative air quality impacts.

During demolition and construction activities airport development projects, transportation projects, and other area development projects would generate temporary impacts to regional and local air quality. Generally, the current and proposed capital improvement projects at SBD are related to airfield pavement rehabilitation, maintenance and joint repairs. Activities like these occur on a fairly regular basis at the Airport, and result in relatively minor amounts of vehicle exhaust and evaporative emissions. The foreseeable off-airport cumulative projects could generate moderate amounts of construction-related air emissions individually, but the cumulative effect, if any, is speculative since the timing of these projects is unforeseeable. Because the Proposed Project would have only temporary construction-related air emissions, they would not contribute to potential significant air quality impacts that may result from the cumulative projects. These temporary, periodic impacts can be minimized through the use of environmental controls (i.e., BMPs) that would minimize emissions.
Off-airport light industrial and commercial development and transportation projects are expected to increase vehicle traffic in the cumulative impact study area, which would increase air emissions. However, these development projects are generally in accordance with the zoning of the Airport and surrounding land uses, and are expected to result in population and economic growth, and corresponding emissions of non-attainment pollutants, consistent with projections contained in the AQMP and RTP/SCS. Operational emissions associated with the Proposed Project would primarily result from increased airport and aircraft operations and mobile source emissions from truck traffic and employee vehicles, which is dispersed over a large area. Because 15 of the 23 projects listed in Table 3-12 are located over 1,000 feet from the Proposed Project site, and would also result primarily in dispersed impacts from mobile sources, the potential for cumulative localized effects (i.e., localized exceedances of NAAQs) are minimal. The highest concentration of emissions dissipates rapidly within the first 300 feet from the originating source (CARB, 2005). Therefore, due to the consistent nature of the foreseeable projects and large distances separating these cumulative projects from the Proposed Project site, the cumulative emissions are not expected to contribute to any potential significant air quality impacts. Any project located within the Basin would be required to comply with SCAQMD rules and regulations to reduce potential emissions.

The Foothills Freeway transportation project (see Table 3-12) would increase roadway capacity, reducing congestion and improving operational efficiency on the nearby on Interstate 210 (I-210) from Sterling Avenue to San Bernardino Avenue; thereby reducing criteria pollutants (Caltrans, 2016). Emissions from on-road mobile sources accessing the Proposed Project and the cumulative projects would benefit from these improvements. Therefore, the anticipated increase in traffic caused by the Proposed Project would be accompanied by continued transportation system improvements that would also serve to minimize congestion and concentrations of vehicle emissions.

Furthermore, with respect to NOX and VOC emissions, because the emissions are directly accounted for in the SIP emissions budget, the Propose Project would conform to the SIP that allows for attainment of the ozone NAAQS. The estimated annual CO emissions for 2024 operations was found to exceed the de minimis thresholds. However, the 2012 AQMP does not provide conformity budgets for CO emissions. Therefore, air dispersion modeling was conducted to determine if the Proposed Project impacts would result in an exceedance of the 1- and 8-hour CO NAAQS. The air dispersion modeling found that the operation of the Proposed Project would result in ground level concentrations that do not exceed the relevant NAAQS. Additionally, emissions of SOX, PM, and Pb are below de minimis levels. Emissions associated with construction and operation of the Proposed Project would not cumulatively cause an exceedance of the NAAQS or contribute to an increase in frequency or severity of an existing NAAQS violation.

Based on the types of cumulative projects identified, it was concluded that the implementation of the Proposed Project and the cumulative development projects would not result in significant cumulative air quality impacts.
4.14.3 Biological Resources

The Proposed Project would not impact natural habitats, wildlife, and protected species of plants and animals. The cumulative projects are all located in highly disturbed, urban environment where the potential for impacts to habitat, wildlife, and special status species are minimal. Therefore, the direct and indirect impacts resulting from the Proposed Project, when considered in addition to other cumulative projects, are not expected to lead to substantial cumulative impacts to natural habitats, wildlife, and protected species of plants and animals.

4.14.4 Climate

As described in Section 4.4, Climate, construction and operation of the Proposed Project would result in emissions of GHGs. As noted by CEQ, “climate change is a particularly complex challenge given its global nature and inherent interrelationships among its sources, causation, mechanisms of action and impacts…” Given the enormity of GHG emissions worldwide, the contributions of one project, or several geographically related projects are negligible. CEQ has also noted that “it is not currently useful for the NEPA analysis to attempt to link specific climatological changes, or the environmental impacts thereof, to the particular project or emissions, as such direct linkage is difficult to isolate and to understand.” Thus, the impact of GHG emissions at the cumulative level would not be significant.

4.14.5 Department of Transportation Act, Section 4(f) Resources

As described in Section 4.5, Department of Transportation Act, Section 4(f) Resources, the Proposed Project would not include land acquisition, land development, or any other physical activity that would directly affect a Section 4(f) property. Therefore, the Proposed Project would not result in a direct impact to Section 4(f) properties.

Indirect effects or constructive use of a Section 4(f) property would result if increased noise generated by aircraft or vehicular traffic associated with the Proposed Project could potentially interfere with the full use of the facility. As discussed in Section 4.5, one Section 4(f) property, Mill Center Park, would be located within the 2024 Proposed Project CNEL 65 dB contour. While this facility would be newly located within the CNEL 65 dB contour and exposed to a level of CNEL 66.0 dB, 14 CFR Part 150 compatible land use guidelines recognize that parks are generally compatible in areas exposed to DNL 65-70 dB (14 CFR A150.101(b)). Because the Proposed Project would not cause significant direct or indirect impacts on 4(f) resources, when considered in conjunction with other development projects, implementation of the Proposed Action would not result in significant cumulative environmental impacts.

4.14.6 Hazardous Materials, Pollution Prevention, and Solid Waste

Construction and operation of the Proposed Project and cumulative projects would adhere to all applicable federal, state and local environmental laws and regulations. It is assumed that past projects complied with the relevant laws and regulations and no release of hazardous materials,
pollution or solid waste occurred. Reasonably foreseeable projects would be required to adhere to all applicable federal, state, and local environmental laws.

As discussed in Section 4.6, Hazardous Materials, Pollution Prevention, and Solid Waste, compliance with existing federal, state, and local regulations pertaining to hazardous materials and human health and safety and implementation of the mitigation measures identified in Section 4.6.5 would ensure that there would be no impacts as a result of the Proposed Project. Therefore, no cumulative impacts would occur regarding hazardous materials, pollution prevention, and solid waste.

### 4.14.7 Historic, Architectural, Archaeological, and Cultural Resources

The cultural resources investigation conducted for the Proposed Project identified that 111 built-environment features are located within the Indirect APE, which consists of the areas off-Airport within the Proposed Project’s 2024 CNEL 65 dB exposure contour. The number of archeological sites that have been lost as a result of the development of past projects in the GSA is unknown. It is possible that other development actions in the GSA could have direct or indirect impacts upon resources listed in, or eligible for listing in, the NRHP. Federally and state-funded projects with such potential impacts upon historic properties would require coordination with the SHPO, documentation of any adverse impacts, and mitigation measures if warranted. As discussed in Section 4.7, Historic, Architectural, Archaeological, and Cultural Resources, as a result of the FAA’s consultation with the California SHPO, the FAA determined that the Proposed Project would have no effect on historic properties. Therefore, the Proposed Project, when considered in addition to potential impacts of the cumulative projects, would not result in significant cumulative impacts on historic resources.

### 4.14.8 Land Use

The Proposed Project is consistent with applicable planned land use and zoning in the project area. It is assumed that the development projects described in Table 3-12 in Section 3.14, Past, Present, and Reasonably Foreseeable Actions, are also consistent with the relevant planned land use and zoning or would seek rezoning or a variance as part of the project approval process. Regardless, the Proposed Project when considered with the cumulative projects is not anticipated to result in accumulative impacts to land use.

### 4.14.9 Natural Resources and Energy Supply

The Proposed Project would use commonly available natural resources during construction (e.g., steel, wood, concrete, asphalt). There is potential to reuse asphalt already on site to help offset the need to import some of this material to the Proposed Project site. Regardless, none of the building materials that would be employed by the Proposed Project or any of the cumulative projects is considered to be unusual or in short supply.

The Proposed Project would not generate excessive demands on local energy supplies. There is potential for installation of a solar panel array on the roof of the air cargo facility, helping offset
use of electricity. Regardless, no substantial issues related to natural resource and energy supplies were identified for the Proposed Project and the cumulative projects. Therefore, the demands for natural resources and use of the local energy supply, when considered with past, present, and reasonably foreseeable development projects, are not expected to have substantial cumulative natural resource and energy supply-related impacts.

4.14.10 Noise and Noise-Compatible Land Use

While the list of projects included in Table 3-12 include improvements at SBD, including construction of a heliport in 2023-2024, the projects would not change the aircraft operational environment in a manner that would result in new significant noise impacts due to aircraft operations.

Construction noise impacts from the cumulative projects would primarily occur from activities such as land clearing, grading, hauling, paving, and general construction operations. The cumulative projects would be required to follow the applicable municipal codes for construction and no cumulative noise impacts associated with construction activity would be anticipated.

With regard to roadway noise, the cumulative projects would contribute additional traffic to the roadways within the GSA. However, to noticeably increase noise (i.e., an increase of 3 dB), vehicle traffic volume would need to double. Considering the nature of the cumulative projects, a doubling of traffic volumes would not be expected and cumulative impacts associated with roadway noise would not be anticipated.

As described in Section 4.10, Noise and Noise-Compatible Land Use, there would be no significant aircraft noise impacts under the Proposed Project in 2019. A total of 16 residential dwelling units and three non-residential noise-sensitive properties would be newly located within the CNEL 65 contour under the 2024 Proposed Project. While Mill Center Park would be newly located within the 2024 Proposed Project CNEL 65 dB contour and exposed to a level of CNEL 66.0 dB, 14 CFR Part 150 compatible land use guidelines recognize that parks in areas exposed to DNL 65-70 dB are compatible with these aircraft noise levels without restrictions (14 CFR A150.101(b)). Therefore, Mill Center Park would not be impaired and does not require mitigation. As described in the Noise Mitigation Measure in Chapter 4.10, SBIAA would offer to acquire the 16 residential dwelling units and two non-residential noise-sensitive properties located within the CNEL 65 dB contour. This would ensure that aircraft noise impacts under the 2024 Proposed Project would not be significant.

As described in Section 4.10, all of the roadway segments analyzed for the Proposed Project would exceed 66 dBA under the 2019 and 2024 No Action Alternative scenarios and under the 2019 and 2024 Proposed Project. However, these noise level increases are lower than the Caltrans threshold of 12 dBA or greater for a substantial noise increase. Therefore, since the roadway segments would not experience a substantial increase under the Proposed Project, there would be no significant noise impact from the Proposed Project and no mitigation would be required.
As described in Section 4.10, the impact of Proposed Project construction noise is based on the Caltrans guidance, which is not to exceed 86 dBA at 50 feet regardless of the land uses. The mitigation measures included in Section 4.10 would help reduce the construction noise levels at distant noise-sensitive receivers and would ensure that construction noise impacts would not be significant.

The Proposed Project, with mitigation measures implemented, would not result in significant noise impacts. When considered in addition to noise impacts of the cumulative projects, a minor increase in the overall ambient noise environment would occur, but it is not expected to result in significant cumulative noise impacts.

### 4.14.11 Socioeconomics, Environmental Justice, and Children’s Environmental Health and Safety Risks

As discussed in Section 4.11, *Socioeconomic Impacts, Environmental Justice, and Children’s Environmental Health and Safety Risks*, the Proposed Project would not result in any significant socioeconomic impacts, environmental justice impacts, or potential environmental health risks and safety risks that could disproportionately affect children.

Other reasonably foreseeable cumulative projects identified in Table 3-12 have low potential to generate extensive residential and business relocations, alter or degrade local transportation patterns, or disrupt established or planned communities. This is due to the nature of the development projects and development policies and controls of the City and County of San Bernardino and the City of Highland. These projects would not generate additional aircraft noise or emissions, nor is it likely that they would generate substantial amounts of roadway traffic equivalent to what would be produced by the Proposed Project. Accordingly, no cumulative environmental justice impacts in the GSA are anticipated.

The Proposed Project’s lack of significant socioeconomic impacts, environmental justice impacts, or potential environmental health risks and safety risks that could disproportionately affect children when considered in addition to those associated with other development projects, is not expected to lead to substantial cumulative environmental justice or children’s health impacts.

### 4.14.12 Visual Effects

As discussed in Section 4.12, *Visual Effects*, the Proposed Project is located within an existing airport that is well lit and in a location with external lighting from streetlights and adjacent industrial, commercial, and residential uses. The Proposed Project would require lighting, both exterior and interior that would be present 24 hours a day, 7 days a week. This would introduce a new source of light emissions; however, this lighting would be comparable to and consistent with lighting from surrounding uses. Aesthetically, the facility would not vary substantially from the surrounding architecture. Other reasonably foreseeable cumulative projects identified in Table 3-12 are consistent with other commercial, residential, and industrial development within the GSA, and when combined with the Proposed Project, would not result in a substantial increase in light emissions and change in visual character.
4.14.13 Water Resources

Construction and operation of the Proposed Project would have the potential for water quality issues such as increased surface runoff, downstream erosion, and potential discharges of pollutants, such as accidental spills. However, through a combination of design measures to control stormwater runoff included in the drainage design, and adherence to the WQMP and SWPPP prepared for the Proposed Project, no significant water quality impacts would occur.

Required water quality and stormwater Best Management Practices were followed for past projects, and reasonably foreseeable projects would implement the same practices to minimize potential for water quality impacts; therefore, no cumulative impacts would occur.
CHAPTER 5
Agency Coordination and Public Involvement

5.1 Introduction

Under 40 CFR §1501.4, federal agencies are required to involve environmental agencies, applicants, and the public, to the extent practicable, in the preparation of Environmental Assessments (EAs). A public involvement program was implemented to ensure information regarding the Proposed Project, alternatives, and potential environmental impacts was made available to the public, and that comments from the public were considered during the preparation of the EA. The primary components of the agency coordination and public involvement for this EA include:

- Agency coordination/consultation,
- Native American consultation, and
- Notification of the availability of the Draft EA and Draft General Conformity Determination (GCD) for agency and public review.

The following sections summarize the agency coordination and public involvement program for this EA.

5.2 Native American Consultation

The FAA contacted the State of California Native American Heritage Commission about the Proposed Project and consulted with potentially interested Native American stakeholders. On August 22, 2018, the FAA provided detailed information about the Proposed Project to the tribal contacts provided by the State of California Native American Heritage Commission. The FAA received five responses. The Twenty-nine Palms Band of Mission Indians advised they were not aware of any archaeological or cultural sites in the Proposed Project area related to their tribe. They also recommended steps to take in the event of an unanticipated discovery of archaeological remains or resources. The Gabrielino Kizh Nation deferred to the Serrano Tribe. The Agua Caliente Band of Cahuilla Indians deferred to the San Manuel Band of Mission Indians. The San Manuel Band of Mission Indians provided an email with information with steps to take in the event of an unanticipated discovery of archaeological remains or resources. The Serrano Nation of Mission Indians called the FAA and asked for a walk-through of the Proposed Project site, which was conducted on May 10, 2019.

The FAA consulted with the State Historic Preservation Office (SHPO) regarding potential Historic, Architectural, Archaeological, and Cultural Resources in a letter dated October 12,
2018. A copy of the FAA consultation, and the California SHPO’s response, is provided in Appendix E.

5.3 Agency Consultation

The FAA consulted with the South Coast Air Quality Management District (SCAQMD) in developing the Air Quality Protocol for the Assessment of Impacts under the National Environmental Policy (NEPA) and General Conformity Determination (Protocol). On November 9, 2018, the FAA submitted a Draft Protocol to the SCAQMD and Environmental Protection Agency (EPA). On December 6, 2018 and December 12, 2018, the FAA received comments from SCAQMD relating to the Draft Protocol. On December 26, 2018, the FAA provided the SCAQMD with responses to their comments and an updated Draft Protocol. On January 10, 2019, the FAA received additional comments from the SCAQMD relating to the Draft Protocol. The FAA provided the SCAQMD with a response to their January 10, 2019 comments and an updated Draft Protocol on February 8, 2019. On February 20, 2019, the SCAQMD provided the FAA with concurrence on the Draft Protocol. A copy of the Protocol is included in Appendix B, Attachment 1 of this EA.

Additionally, the San Bernardino International Airport Authority (SBIAA) consulted with the SCAQMD in order to gain confirmation that relevant emissions associated with the Proposed Project are within the State Implementation Plan (SIP) conformity budgets established in the approved 2012 Air Quality Management Plan (AQMP) in a letter dated April 4, 2019. In an April 30, 2019 letter to the SBIAA, the SCAQMD determined that the Proposed Project will conform to the AQMP (i.e., project emissions are within AQMP budgets) and is not expected to result in any new or additional violations of the NAAQS or impede the projected attainment of the standards. The SCAQMD confirmation is provided in Appendix B, Attachment 2.

5.4 Public Involvement

5.4.1 Notice of Availability of the Draft EA and Draft GCD

A Notice of Availability for this Draft EA and the Draft GCD was published on July 3, 2019. The Notice of Availability was printed in the San Bernardino Sun, Press Enterprise, Highland Community News, City News Group, Mountain News, Black Voice, and El Chicano newspapers. Copies of the notices and proofs of publication will be provided in Appendix G in the Final EA. The Notice of Availability was also posted on the San Bernardino International Airport Authority’s website (http://www.sbiaa.org/public-information/).

5.4.2 Agency and Public Review of the Draft EA and Draft GCD

Copies of the Draft EA and Draft GCD are available for public review during regular business hours at the locations listed below. The Draft EA and Draft GCD are also available electronically (in PDF format) for download from the SBIAA’s website at: http://www.sbiaa.org.
• Highland Sam J. Racadio Branch Public Library and Environmental Learning Center, 7863 Central Ave, Highland, CA 92346
• Norman F. Feldheym Public Library, 555 W 6th St., San Bernardino, CA 92410
• SBIAA’s Administration Office, 1601 E. Third St., San Bernardino, CA 92408
• Federal Aviation Administration, Western-Pacific Region, Office of Airports, 777 South Aviation Boulevard, Suite 150, El Segundo, California 90245

The Draft EA and Draft GCD will be available for review by the public, government agencies, and interested parties for a period of 36 days prior to the date of the Public Hearing and for 10 days after the Public Hearing (a total of 46 days). A list of agencies and officials that received a copy of the Draft EA and Draft GCD is contained in Appendix G.

5.4.3 Public Information Workshop / Public Hearing

A combined Public Information Workshop and Public Hearing will be held on Thursday, August 8, 2019 to present the results of the Draft EA and to receive comments on the document from the public and government agencies. The Public Information Workshop portion of the meeting will be conducted from 5:30 p.m. to 7:00 p.m. and the Public Hearing will be held from 7:00 p.m. to 8:30 p.m. at the following location:

Norton Regional Event Center
1601 E. Third Street
San Bernardino, CA 92408

The format of the Public Information Workshop will be informal and participants will be able to view maps, display boards, and project information. Participants will be able to speak with representatives of SBIAA and their consultants that prepared the Draft EA. No formal presentation will be made during the Public Information Workshop. The public may submit written and/or spoken comments during the Public Information Workshop. Written comments may also be submitted prior to, or after, the Public Information Workshop via U.S. Mail to the address above. During the Public Information Workshop, spoken comments can be provided directly to a court reporter in a semi-private setting.

Members of the public or agency representatives wishing to comment in a public forum will be able to do so during the Public Hearing portion of the meeting. A court reporter will transcribe comments provided at the Public Hearing. Spanish and Vietnamese translators will be made available at both the Public Information Workshop and the Public Hearing.

5.3.3 Commenting on the Draft EA and the Draft GCD

The 46-day comment period on the Draft EA and Draft GCD will begin on July 3, 2019 and will close on August 19, 2019. Anyone wishing to comment on the information and conclusions in this Draft EA or the Draft GCD may do so at any time during the review and comment period. All comments must be received by August 19, 2019. The SBIAA and the FAA will review and consider all comments received during the public comment period.
All comments should be submitted in writing to the following address via U.S. Mail:

San Bernardino International Airport Authority  
ATTN: Mark Gibbs – Director of Aviation  
1601 East Third Street, Suite 100  
San Bernardino, CA 92408

Comments should be as specific as possible and address the adequacy of the Proposed Project, the merits of alternatives, the analysis of potential environmental impacts, and the mitigation being considered. Comments should be organized so that they are meaningful and make the FAA and SBIAA clearly aware of the commenter’s views, interests, and concerns.

Before including your name, address and telephone number, email or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

Comments are due no later than 5:00 p.m. Pacific Time on August 19, 2019. Please allow sufficient time for mailing as the San Bernardino International Airport Authority must receive your comments by the public comment deadline. The SBIAA and FAA will consider and respond to substantive comments from the public and federal, state, and local agencies received during the comment period.

### 5.4.4 Final EA and Final GCD

SBIAA will prepare and submit a Final EA and Final GCD to the FAA. The FAA will independently review the Final EA and Final GCD to determine its adequacy under the National Environmental Policy Act (NEPA), Council on Environmental Quality's regulations implementing NEPA (40 CFR Part 1500), and FAA Orders 1050.1F and 5050.4B. If the Final EA and Final GCD are determined to be adequate, the FAA will decide whether to either issue a Finding of No Significant Impact/Record of Decision (FONSI/ROD) or prepare an Environmental Impact Statement (EIS).
CHAPTER 6
List of Preparers and Reviewers

6.1 Principal Federal Aviation Administration Reviewers

David B. Kessler, M.A., AICP, Regional Environmental Protection Specialist
Office of Airports, Western-Pacific Region, El Segundo, California

Qualifications – B.A. Physical Geography (Geology Minor); M.A. Physical Geography. Mr. Kessler has 36 years of experience. Principal FAA Planner/EPS responsible for detailed FAA evaluation of Environmental Assessments and Environmental Impact Statements as well as coordination of comments from various federal and state agencies in the FAA’s Western-Pacific Region. Performed and reviewed the required consultations with Native American Tribes, the California State Historic Preservation Officer, and coordinated the consultation with the South Coast Air Quality Management District for the General Conformity Determination. Mr. Kessler directed preparation of the Environmental Assessment.

Frank Smigelski, Environmental Protection Specialist, Office of Airports, Planning and Environmental Division, National Headquarters, Washington, D.C.

Qualifications – B.S. Biology; M.S. Engineering. Mr. Smigelski has 31 years of experience. He is responsible for Headquarters review of this EA. He is responsible for review of information concerning FAA nationwide policies, procedures, and compliance as it relates to environmental issues.

6.2 San Bernardino International Airport Authority

Michael Burrows, Executive Director, San Bernardino International Airport Authority

M.B.A., Business, B.A. English, Communications, 23 years of experience. Serves as Executive Director of the Airport and related business units covering the airport and surrounding economic development and infrastructure programs.

Mark Gibbs, Director of Aviation, San Bernardino International Airport Authority

B.S, Aviation Administration, 25 years of experience. Serves as Director of Aviation for the Airport and related business units covering the airport and surrounding economic development and infrastructure programs.
6.3 Environmental Science Associates

Steven Alverson, Senior Vice President
Qualifications - More than 38 years of airport and environmental planning experience with significant expertise in aircraft noise analyses, airport/community land use compatibility planning, and the preparation of National Environmental Policy Act (NEPA) documents.
Responsibilities - Project management, technical approach, and quality assurance/quality control.

Autumn Ward, Senior Managing Associate
Qualifications – 15 years of airport environmental planning experience with expertise in preparing NEPA documents, aircraft noise analyses, land use compatibility, and sustainability.
Responsibilities – Project management, technical oversight, NEPA compliance, and quality assurance/quality control.

Lisa Adolphson, Water Program Manager
Qualifications - More than 29 years of experience preparing NEPA documents for wastewater, water supply, groundwater management, and transportation projects. Technical expertise includes water resources and built environment resources.
Responsibilities - Natural resources analysis.

Linda Amato, Senior Planner
Qualifications - More than 30 years of experience managing and preparing NEPA documents for all modes of transportation projects. Technical expertise includes built environment resources and Section 4(f) and 6(f) documentation.
Responsibilities - Visual resources analysis.

 Brad Allen, GISP, Senior GIS Analyst
Qualifications - More than 20 years of professional experience in geography, aerial photography, and cartography. Brad provides senior level GIS analysis for a variety of companywide projects including airport planning, land use, biological resource, groundwater and watershed, geologic resource, and visual.
Responsibilities – Conducted the dwelling unit, population, and noise sensitive site counts for the aircraft noise exposure analysis.

Sean Burlingame, Senior Noise Analyst
Qualifications - More than 10 years of experience in aircraft noise modeling, airport land use compatibility, and Geographic Information System (GIS) and AutoCAD applications for the aviation environment.
Responsibilities - Noise analysis support and preparation of noise contour and land use graphics.

**Joza Burnam**, Managing Associate
Qualifications - Over 11 years of experience specializing in air quality and greenhouse gas impact assessments for transportation, transit, and land development projects. Joza also has experience with ensuring project compliance with environmental requirements under NEPA, and ensuring air quality conformity with federal regulations.

Responsibilities - Landside air emissions, general conformity determination, GHG analyses, and climate.

**Jessica Conquest**, Environmental Planner
Qualifications - Six years of experience preparing NEPA documents for transportation, utility, water resources, and development projects. Technical expertise includes built environment resources and Section 4(f) and 6(f) documentation.

Responsibilities - Land use and environmental justice analyses.

**Doug DiCarlo**, Aviation Planner
Qualifications - More than 23 years of experience in aviation consulting and aviation planning.

Responsibilities - Development of the aviation activity forecast.

**Chris Jones, AICP**, Senior Managing Associate
Qualifications - More than two decades of project management experience, including more than fourteen years of experience in the environmental field as a project manager, technical lead, and author of NEPA and CEQA environmental documentation for various aviation, transportation, land use, and energy projects.

Responsibilities - NEPA documentation, land use, environmental justice.

**Karmen Martin**, Senior Planner
Qualifications - More than 20 years of experience preparing NEPA documents for water supply, wastewater, and transportation projects. Technical expertise includes water resources and built environment resources.

Responsibilities - Water resources analyses.

**Chris Sequeira**, Senior Noise and Air Quality Analyst
Qualifications - Eight years of experience in aviation environmental policy, including six years as an FAA Headquarters employee.

Responsibilities - Analysis of aviation-related air quality impacts.
**Susan Shaw**, Environmental Program Manager

Qualifications: Susan has over 20 years of ecological experience in NEPA documentation; local, state and federal environmental permitting regulations; mitigation planning and implementation; Essential Fisheries Habitat (EFH) assessments; listed species surveys, permitting and relocations; Habitat Management Plans; Wildlife Hazard Management Plans; and wetland / watershed enhancements and creations.

Responsibilities: Technical review of the Biological Assessment.

**Steven D. Smith**, Technical Associate

Qualifications - More than 19 years of environmental planning and airports experience, with expertise in historical resources, land use, and planning. He has managed and provided technical support for numerous NEPA compliance documents, including Environmental Assessments and Environmental Impact Statements.

Responsibilities - Project management, technical analyses, technical oversight, and quality assurance/quality control.

**Heidi Rous, CPP**, Director of Air Quality, Climate and Acoustics Services

Qualifications - 28 years of experience providing noise and air emissions analyses including Air Quality Impact Assessments, GHG assessments, noise and vibration analyses, and Health Risk Assessments required under various State and federal environmental regulations including NEPA.

Responsibilities – Senior reviewer of the air emissions, GHG, and climate analyses.

**Susumu Shirayama**, Senior Noise Analyst

Qualifications - More than 16 years of airport and environmental planning experience, with expertise in noise control, aircraft noise modeling, and airport/community land use compatibility planning.

Responsibilities - Aircraft noise modeling using AEDT.

**Pam Xander**, Senior Planner

Qualifications - More than 30 years of experience managing and preparing NEPA documentation specializing in large-scale airport and maritime development projects.

Responsibilities - Technical oversight, NEPA compliance, and quality assurance/quality control, and natural resources and hazardous materials analyses.
CHAPTER 7

References


7. References


7. References


