DRAFT ENVIRONMENTAL ASSESSMENT

PROPOSED TERMINAL AND APRON EXPANSION
(FAT*Forward*)

Fresno Yosemite International Airport

Fresno County, California

Prepared for:

City of Fresno Airports Department
4995 E. Clinton Way
Fresno, California 93727

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
As lead Federal Agency pursuant to the *National Environmental Policy Act of 1969*

Prepared by:

Coffman Associates, Inc.
Scottsdale, Arizona

November 2021

This environmental assessment becomes a Federal document when evaluated, signed and dated by the responsible FAA Official.

Responsible FAA Official **Date**

GENERAL INFORMATION ABOUT THIS DOCUMENT

WHAT'S IN THIS DOCUMENT? This document contains a Draft Environmental Assessment (EA) for the City of Fresno's proposed Terminal and Apron Expansion at the Fresno Yosemite International Airport in Fresno County, California. The City of Fresno Airports Department, as Airport Sponsor, is seeking to increase the capabilities of the passenger terminal, Federal Inspection Station (FIS), and associated east terminal apron by expanding and reconfiguring the terminal and FIS buildings and connected airside aircraft apron area (Proposed Project).

The City of Fresno Airports Department seeks Federal Aviation Administration (FAA) approval of the use of federal Airport Improvement Program funds as well as to "unconditionally" approve revisions to the airport layout plan to depict the landside and airside improvements. This EA has been prepared pursuant to the requirements of Section 102(2)(c) of *National Environmental Policy Act of 1969* (NEPA) (42 United States Code §§4321 et seq.) and the implementing regulations for NEPA (40 Code of Federal Regulations §§1500-1508). FAA is the lead federal agency under NEPA for airport development actions.

BACKGROUND INFORMATION: The airport has a need to provide expanded security checkpoint capacity, additional holdrooms, enlarged FIS space and more efficient baggage handling to support its domestic and international passengers. Currently, international passengers are deplaned outside on an open-air ramp adjacent to the existing FIS facility. The aircraft is then towed to a concourse gate for departing passenger boarding. This procedure is inefficient, less secure than a passenger boarding bridge, and the level of passenger service is less than desired. In addition, the existing east commercial apron does not provide enough space for safe circulation and parking of aircraft and ground support equipment for a terminal expansion and must be enlarged accordingly. Thus, the purpose of the Proposed Project is to resolve the above needs by: 1) Providing an expansion of the passenger terminal with additional gates, holdrooms and a larger FIS to accommodate domestic and international travel; and 2) Providing an enlarged apron to allow for safe circulation of aircraft and ground support equipment to accommodate the expanded passenger terminal.

WHAT SHOULD YOU DO? Read the Draft EA on the Proposed Project and submit comments if you choose to do so. Copies of the Draft EA are available for review at: https://flyfresno.com or at the following addresses:

Fresno Yosemite International Airport
4995 E. Clinton Way
Fresno, CA 93727

City of Fresno Planning & Development Department
2600 Fresno Street, Room 3065
Fresno, CA 93721

You may submit your written comments by letter or e-mail to the following address **not later than 5:00 PM - Pacific Standard Time, November 30, 2021.** Please allow enough time for mailing. The Fresno Yosemite International Airport must **receive** your comments by the deadline, not simply postmarked by that date.

Fresno Yosemite International Airport
4995 E. Clinton Way, Fresno, CA 93727
Attn. Mr. Richard Madrigal, Airport Projects Supervisor
Richard.Madrigal@fresno.gov

WHAT HAPPENS AFTER THIS? Per the *National Environmental Policy Act*, written responses to comments received during the public review period of the Draft EA will be prepared, and a Final EA will be submitted to the FAA for approval and consideration. Following review of the Final EA, the FAA will either issue a Finding of No Significant Impact or decide to prepare a federal Environmental Impact Statement.

PRIVACY NOTICE: Before including your address, phone number, e-mail address, 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.

DRAFT
ENVIRONMENTAL ASSESSMENT
FOR TERMINAL AND APRON EXPANSION

For

FRESNO YOSEMITE INTERNATIONAL AIRPORT
Fresno County, California

Prepared For

City of Fresno Airports Department

U.S. Department of Transportation
Federal Aviation Administration

By

Coffman Associates
Airport Consultants

NOVEMBER 2021

FRESNO YOSEMITE
International Airport

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Fresno County, California

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FRESNO YOSEMITE
International Airport

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ACRONYMS AND ABBREVIATIONS

ACRONYMS AND ABBREVIATIONS

AC - asphalt concrete
A.C. - advisory circular
ACS - American Community Survey
ALP - airport layout plan
AMP - airport master plan
APE - Area of Potential Effect
ATO - Air Traffic Organization

BE - Biological Evaluation
BMP - best management practice
BSA - biological study area

CAA - *Clean Air Act*
CAGR - compound annual growth rate
CalEEMod - California Emissions Estimator Model
CALGreen - 2016 California Green Building Standards Code
CANG - California Air National Guard
Caltrans - California Department of Transportation
CARB - California Air Resources Board
CCR - California Code of Regulations
CDC - California Department of Conservation
C.F.R. - Code of Federal Regulations
CGS - California Geological Survey
CEQ - Council of Environmental Quality
CNEL - Community Noise Equivalent Level
CO_{2e} - carbon dioxide equivalent
C.T. - census tract
CWA - *Clean Water Act*
cy - cubic yard(s)

dB - decibel
dBA - A-weighted decibel
DNL - Day-Night Average Sound Level

EA - Environmental Assessment
E.O. - Executive Order
EPA - Environmental Protection Agency

FAA - Federal Aviation Administration
FAT - Fresno Yosemite International Airport
FEMA - Federal Emergency Management Agency
FIS - Federal Inspection Station
ft - foot (feet)
FY - fiscal year

GHG -greenhouse gas(s)
GWP - global warming potential

in. - inch(es)

kBTU - kilo-British thermal unit
kWh - kilowatt hour

lb - pound

MBTA - *Migratory Bird Treaty Act*
mpg - miles per gallon
MT/yr - metric tons per year

NEPA - *National Environmental Policy Act*
N_2O - nitrous oxide
NO_2 - nitrogen dioxide
NO_x - nitrogen oxide
NPDES - National Pollutant Discharge Elimination System
NRHP - National Register of Historic Places

O_3 - ozone

Pb - lead
PCC - Portland cement concrete
$PM_{2.5}$ - particulate matter measuring 2.5 micrometers or less in diameter
PM_{10} - particulate matter measuring 10 micrometers or less in diameter
ppm - parts per million

RCP - reinforced concrete pipe
RWQCB - Regional Water Quality Control Board

sf - square foot (feet)
SHPO - State Historic Preservation Office
SJVAPCD - San Joaquin Valley Air Pollution Control District
SO_2 - sulfur dioxide
SPCC - spill prevention, control, and countermeasure plan
SWPPP - stormwater pollution prevention plan

TSA - Transportation Security Administration

U.S.C. - United States Code
USFWS - United States Fish and Wildlife Service
$\mu g/m^3$ – micrograms per cubic meter

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Chapter One

PURPOSE AND NEED

Chapter One
PURPOSE AND NEED

1.1 INTRODUCTION

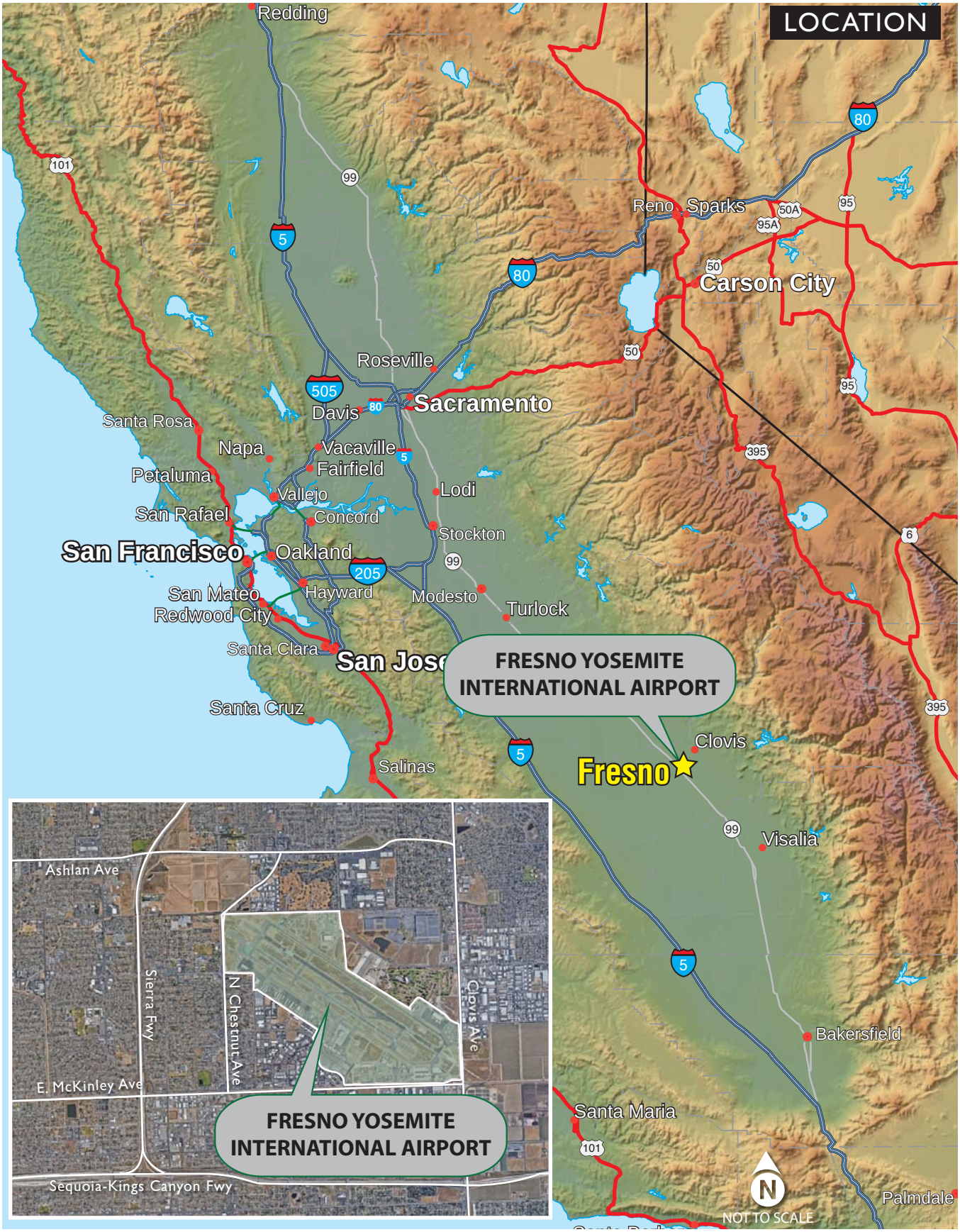
The City of Fresno is the owner and operator of Fresno Yosemite International Airport (airport or FAT). FAT is in the San Joaquin Valley of central California within Fresno County, approximately five miles northeast of downtown Fresno (**Exhibit 1A**). It is also adjacent to the City of Clovis. The City of Fresno Airports Department, as Airport Sponsor, is seeking to increase the capabilities of the passenger terminal, Federal Inspection Station (FIS), and associated east terminal apron by expanding and reconfiguring the terminal and FIS buildings and connected airside aircraft apron area (Proposed Project). The Proposed Project would accommodate current and forecast increases in passengers (enplanements), while improving safety, security, and the overall customer experience at the airport. The City of Fresno Airports Department seeks Federal Aviation Administration (FAA) approval of the use of federal Airport Improvement Program funds for the airside improvements to the terminal apron as well as to "unconditionally" approve revisions to the airport layout plan (ALP) to depict the landside and airside improvements.

This Environmental Assessment (EA) has been prepared pursuant to the requirements of Section 102(2)(c) of *National Environmental Policy Act of 1969* (NEPA) (Title 42 United States Code [U.S.C.] sections 4321 et seq.) and the implementing regulations for NEPA (i.e., the President's Council on Environmental Quality [CEQ] regulations) (Title 40 Code of Federal Regulations [C.F.R.] sections 1500-1508, as amended). This EA has also been prepared per FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures* (FAA 2015b) and FAA Order 5050.4B, *National Environmental Policy Act Implementing Instructions for Airport Actions* (FAA 2006). FAA is the lead federal agency under NEPA for airport development actions.

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 Project, requested federal actions, and an outline of the EA's format. Following publication of a Draft EA, a public review and comment period will occur. The Final EA will include an appendix that documents the public involvement process and will contain all comments received during the Draft EA comment period. Written responses to comments received during the Draft EA comment period will also be provided.

1.2 BACKGROUND INFORMATION

FAT is a primary small hub, civilian/military airport utilized by commercial air carriers, air cargo operators, charter operators, general aviation, and the military. The California Air National Guard (CANG) occupies a 58-acre area in the southeast corner of the airport. In addition, the CANG and the California Army National Guard occupy facilities on the north side of the airport. The entire airport encompasses approximately 1,728 acres of land and is accessed from the south via East (E.) Clinton Way and bordered by North (N.) Chestnut Avenue on the west, E. Dakota Avenue on the north, E. Airways Boulevard on the northeast, N. Clovis Avenue on the east, and E. McKinley on the south (**Exhibit 1B**).


LOCATION
Redding
Reno
Sparks
Carson City
Roseville
Sacramento
Davis
Santa Rosa
Napa
Vacaville
Fairfield
Petaluma
Vallejo
Lodi
San Rafael
Concord
Stockton
San Francisco
Oakland
Hayward
San Mateo
Redwood City
Modesto
Turlock
Santa Clara
San Jose
Santa Cruz
Salinas
Clovis
Fresno
Visalia
Bakersfield
Santa Maria
Palmdale
FRESNO YOSEMITE
INTERNATIONAL AIRPORT
Ashlan Ave
Sierra Fwy
N Chestnut Ave
Clovis Ave
E. McKinley Ave
Sequoia-Kings Canyon Fwy
FRESNO YOSEMITE
INTERNATIONAL AIRPORT
N
NOT TO SCALE


LEGEND
Airport Property Line
KEY
ARFF - Aircraft Rescue and Firefighting
PAPI - Precision Approach Path Indicator
ASR - Airport Surveillance Radar
N
0
1,000
SCALE IN FEET
Aerial Photo: Google Earth 8-19
East Dakota Ave
Army National Guard
Air National Guard
ASR-11 Radar Station
East Airways Blvd
Airways Golf Course
Glideslope
Clovis Ave
US Forest Service Air Attack Base
Groundwater Recharge Area
E Perimeter Road
Approach Lighting System
PAPI
Localizer
PAPI
Runway 11L - 29R (150 x 9,550')
Runway 11R - 29L (150 x 8,600')
Localizer
Airport Traffic Control Tower
Terminal
Localizer
Airport Solar Panel Array
E McKinley Ave
ARFF Building
North Chestnut Ave
Air National Guard
Airport Parking Lot
E Clinton Way

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The airport is served by two parallel runways. The primary runway, Runway 11L-29R, is 9,539 feet (ft) long and 150 ft wide. Runway 29R is displaced by 312 ft to provide adequate approach surface clearances over N. Clovis Avenue. The secondary runway, Runway 11R-29L, is 8,008 ft long and 150 ft wide. The parallel runway system is supported by full-length, 75-ft-wide parallel taxiways on both the north and south sides of the runway system. An airport traffic control tower is located on the south side of the airport and provides 24-hour aircraft traffic control services at the airport.

The airport terminal building, located south of the runways off E. Clinton Way, houses commercial passenger services. The passenger terminal has 12 main boarding gates, two ancillary gates and two, deplane only, aircraft parking stands for international arrivals. Passenger facilities include airline ticketing counters, a baggage return area, food and gift shops, the FIS, and rental car facilities. Two fixed base operators (FBOs), each providing a wide range of aviation-related services, are located at FAT. Fuel, aircraft maintenance, aircraft rental, and aircraft parking services are available from these tenants. Additionally, the airport has an aircraft rescue and firefighting (ARFF) station to provide on-site emergency response services.

The airport is currently experiencing an increase in commercial activity that shows a strong recovery from decreased pandemic-related levels. Enplanements are now 115 percent of the pre-pandemic activity that occurred in 2019.

1.3 PURPOSE AND NEED FOR THE PROPOSED PROJECT

The purpose for the Proposed Project is: 1) to accommodate the existing and forecast increase in passengers; and 2) to improve passenger safety and security.

1. The airport has a need to provide expanded security checkpoint capacity, additional holdrooms, enlarged FIS space and more efficient baggage handling to support its domestic and international passengers.

   Currently, international passengers are deplaned outside on an open-air ramp adjacent to the existing FIS facility. The aircraft is then towed to a concourse gate for departing passenger boarding. This procedure is inefficient, less secure than a passenger boarding bridge, and the level of passenger service is less than desired. For example, passengers waiting to process through the existing, undersized, FIS are exposed to the elements (i.e., rain, heat, cold, etc.) and inherent risks on a functioning apron (i.e., tug traffic and jet blast).

   Two aircraft can park at the existing FIS facility, but due to the limited capacity of the FIS primary inspection and queuing areas, the United States (U.S.) Customs and Border Protection requires passengers to be held onboard the second aircraft until passengers from the first aircraft have been cleared through the FIS facility. An expansion of the terminal to the east with two new holdrooms, passenger boarding bridges and a secure connection to a new FIS facility will enable both aircraft to deplane simultaneously and allow passengers to wait in the comfort of a secure holdroom in the FIS (with passenger amenities) until they are processed through customs. The

international aircraft can then remain at the same gate for boarding. Once the passenger boarding bridges is cleared of arriving international passengers, it will be reopened to the new concourse holdrooms for both international and domestic departures as well as domestic arrivals.

2. The existing east commercial apron does not provide enough space for safe circulation and parking of aircraft and ground support equipment for a terminal expansion and must be enlarged accordingly.

Thus, the purpose of the Proposed Project is to resolve the above needs by:

- Providing an expansion of the passenger terminal with additional gates, holdrooms and a larger FIS to accommodate domestic and international travel; and

- Providing an enlarged apron to allow for safe circulation of aircraft and ground support equipment to accommodate the expanded passenger terminal.

FAA Purpose and Need

FAA's purpose and need are to fulfill its statutory mission and ensure the safe and efficient use of navigable airspace in the U.S. pursuant to 49 U.S.C. 47101 (a)(1). FAA must ensure that the Proposed Project does not derogate the safety of aircraft and operations at the airport. Further, pursuant to 49 U.S.C. 47107(a)(16), FAA must approve any revision to the ALP to ensure that the Proposed Project will not result in airspace obstructions to the airport or obstructions to safety areas.

1.4 DESCRIPTION OF THE PROPOSED PROJECT

The Proposed Project (known locally as FAT*Forward*) would expand and reconfigure existing landside facilities (passenger terminal and FIS building) and a connected airside aircraft apron area within an area directly east of the existing passenger terminal building. Construction of these landside and airside components would be phased sequentially to ensure continuity of operations. See *Proposed Project Construction and Phasing* section.

Overall, 14.6 acres would be disturbed by the project (including the use of an existing 2.75-acre construction staging area and minor grading off the apron edge to establish proper surface gradients) (**Exhibit 1C**). The area of disturbance is shown to the fence line as a "worst case" estimate of construction activity. As shown below in **Table 1A**, the Proposed Project would result in an increase in impervious surface of 3.31 acre.

East Terminal Apron Reconfiguration

The east terminal apron reconfiguration would remove 6.67 acres of apron and construct 3.02 acre of new Portland cement concrete (PCC) apron (and 2.64 acres of asphalt concrete [AC] shoulders and millings) to align with the two new international/domestic terminal loading gates (**Table 1A**). (These gates would replace existing international gates that are not equipped with boarding bridges.)

PROJECT COMPONENT LOCATIONS

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TABLE 1A
Comparison of Impervious Areas

	Proposed Demolition	Proposed Construction	Net Change
Apron Expansion			
Terminal Apron	6.7 acres	3.0 acres	
Apron Shoulder		1.3 acres	
AC Millings		1.4 acres	
Terminal Expansion			
Terminal Pavement		2.3 acre[1]	
Building Footprint	0.3 acre	1.4 acres	
Vehicular Parking Lot		0.6 acre	
Sidewalk		0.3 acre	
TOTAL AREA	**7.0 acres**	**10.3 acres**	**3.3 acre**

NOTE: All quantities have been converted to acres using the following: 1 acre = 4,840 square yards or 43,560 square feet
[1] Includes area covered by an elevated pedestrian bridge.

Source: KHA and CSHQA 2021 (**Exhibit 1D)**

Exhibit 1D shows the areas and details of proposed pavement demolition and new pavement layout. The apron would be constructed in two phases to minimize disruption at existing gates that would remain operational during construction. The first phase would include paving a small area on the north portion of the new apron. Upon completion of Phase 1, aircraft circulation to existing gates on the east side of the terminal would be reestablished allowing the remaining portions of the apron to be constructed in the second phase without significantly impacting operations. The apron work would include a detailed safety phasing plan to address interface with adjacent operational apron areas. Plans would include safety path-ways (through active construction areas) for passengers and ground support equipment.

Additional actions include:

- Remove and replace existing security fence;
- Reroute an existing airport service road around the reconfigured apron (included in the pave-ment totals provided above);
- Install electrical improvements consisting of apron edge lights and new duct banks; and
- Construct additional storm drain improvements, including installation of inlets, manholes, trench drains, and reinforced concrete pipe (RCP). These improvements would tie into the existing storm drain system.

Passenger Terminal Expansion and Remodel

At the same time as the new apron construction begins, the remodel of a portion of the terminal building in the area where the new concourse would tie into the existing passenger screening checkpoint would begin. The existing east wall of the passenger screening checkpoint was originally designed to allow the building to expand to the east, making the building expansion relatively simple to phase and construct.

Expansion of the passenger screening checkpoint would also require minor demolition and addition of a fire wall in the concourse just north of the existing checkpoint.

The passenger terminal expansion would increase the size of the existing terminal to the east by approximately 88,616 square feet (sf) and would be comprised of both single-story and two-story space (**Exhibit 1E**). The new ground floor space would be approximately 62,786 sf; an additional 25,830 sf would be a new second floor area. The new building space would increase the passenger screening area and provide concession space, passenger hold rooms, a new FIS for international arrivals, as well as new in-line EDS (Explosive Detection System)[1] baggage screening space and baggage makeup area[2] for departures. PCC pavement (2.31 acres) would be installed in connection with the new terminal space. Approximately 0.42 acre of this pavement would be covered by an elevated pedestrian bridge but would remain open for ground support equipment and emergency vehicle access (**Exhibit 1F**).

Like the apron reconfiguration, work would follow a detailed safety phasing plan to address interface with adjacent operational apron areas, including safety pathways for passengers and baggage tugs. Alternate access routes and parking areas would be required for airline ground service equipment and for access to the autoclave incinerator unit.

The new in-line baggage screening and baggage make-up addition would be located south of, and beneath, the elevated pedestrian bridge that would connect the new concourse to the existing terminal. An overhead conveyor and canopy would transport baggage from the existing ticketing lobby to the in-line baggage screening building. The existing baggage screening area and baggage makeup area would continue in operation during this phase of the project until the new baggage screening system becomes operational.

The next phase of the Proposed Project would be the remodel of the existing baggage screening area and baggage makeup area (8,618 sf of existing interior space). This space would become Air Traffic Organization (ATO) lease space. The space also includes an access hallway between the ticket counter and north exterior yard.

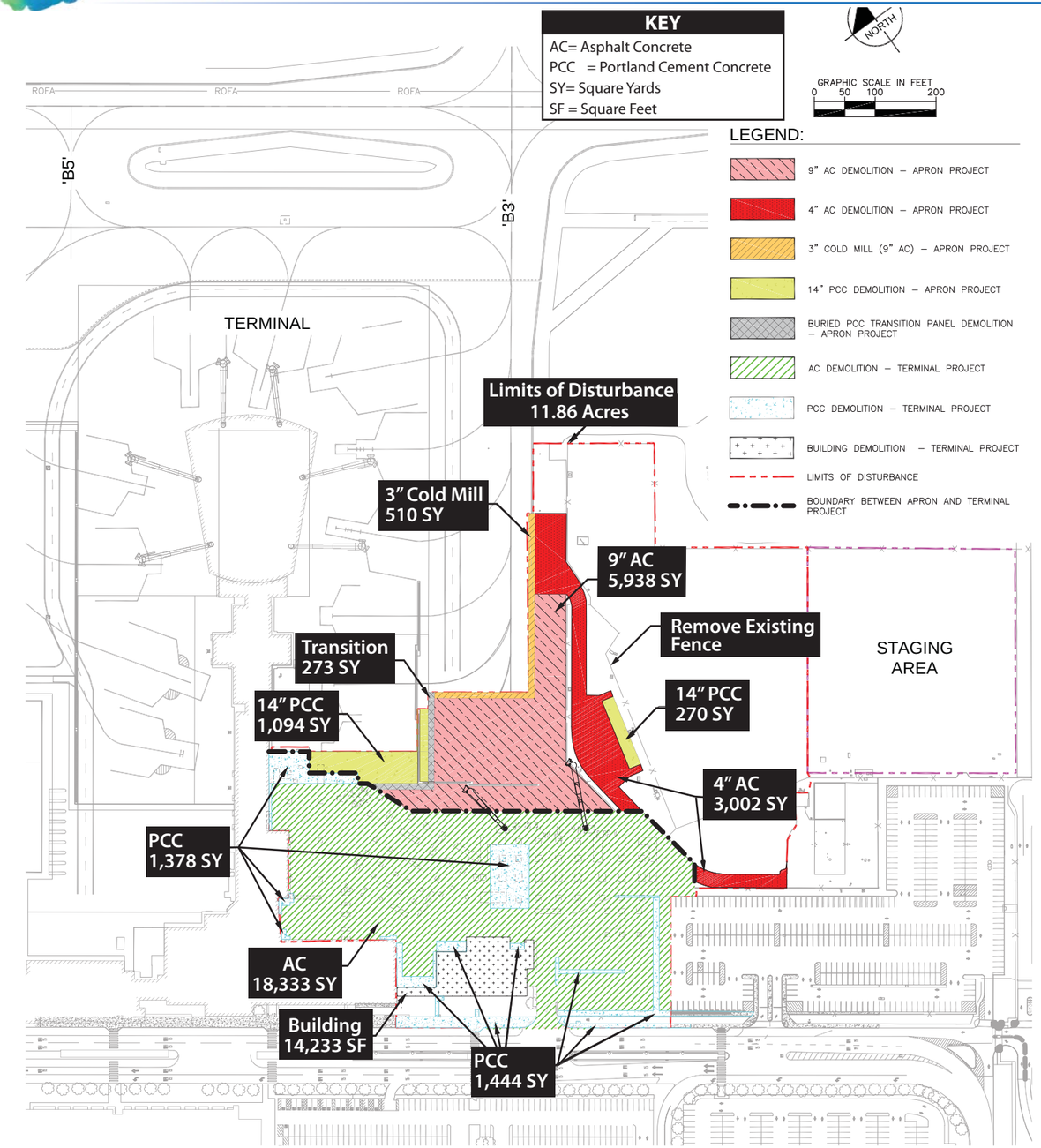
Upon completion of the new FIS, the existing 13,070-sf FIS building and temporary walkways would be demolished. The existing FIS building was constructed in 2006 as a modular prefabricated building. Once the FIS building is removed, the land would be paved for vehicle parking, and new sidewalks and landscaping would be installed.

Additional actions related to the terminal expansion and associated site work include:

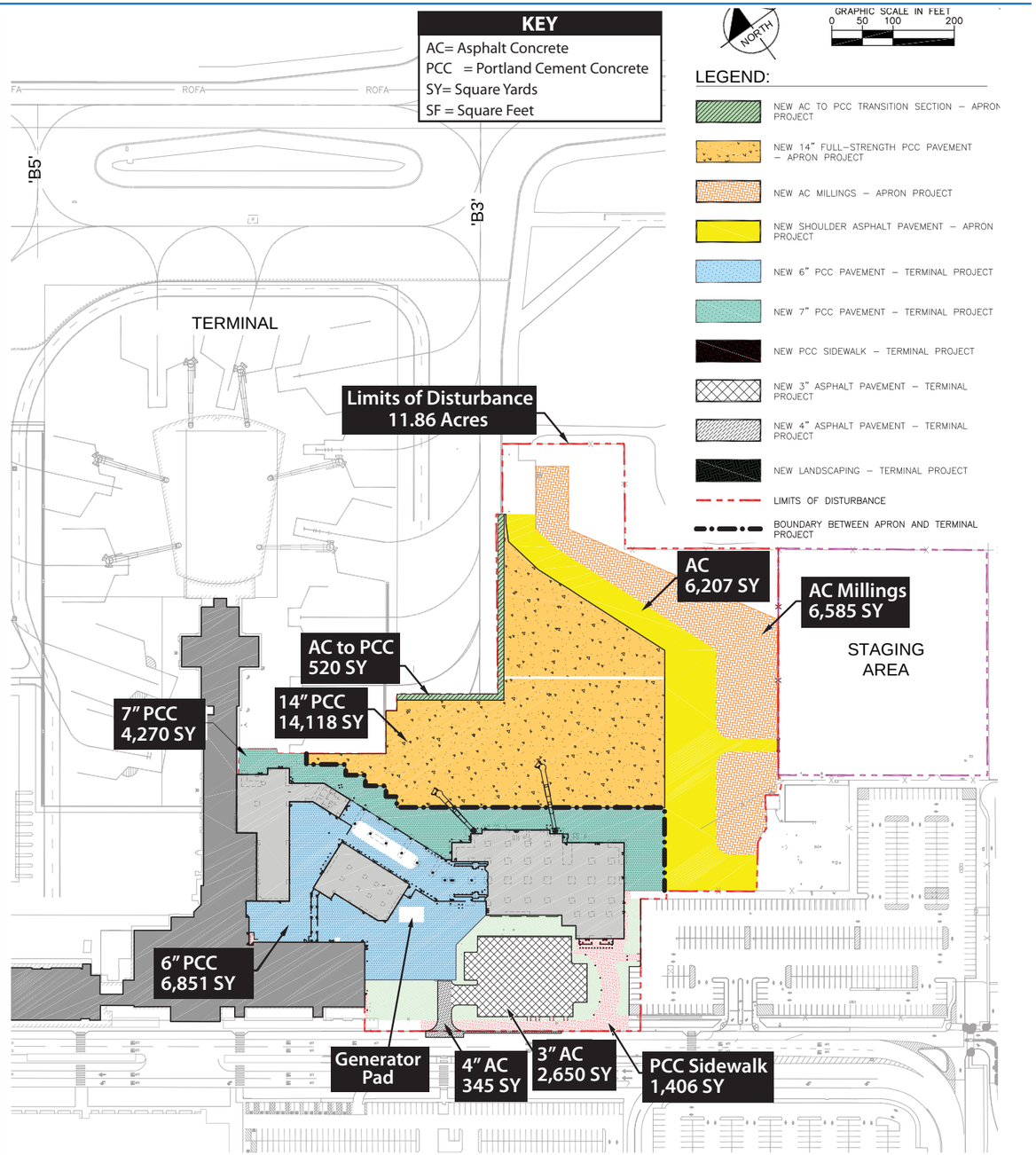
- Remove and replace existing security fence;

[1] EDS technology quickly captures an image of the checked bag to determine if the bag contains any type of threat item, including explosives. According to a Transportation Security Administration (TSA) Fiscal Year (FY) 2017 Report to Congress, "In FY 2016, TSA realized savings of 93 FTEs (full-time equivalent personnel) from in-line Explosives Detection Systems for checked baggage screening, when compared to the staffing required for the stand-alone screening equipment configuration." (U.S. Department of Homeland Security, TSA 2018).

[2] The U.S. Customs and Border Protection operate FIS where arriving international passengers and their baggage are inspected to allow entry into the U.S. Employees in the baggage "makeup area" sort baggage by flight numbers and destinations and place them into carts of other conveyor systems to transport the baggage to the aircraft.

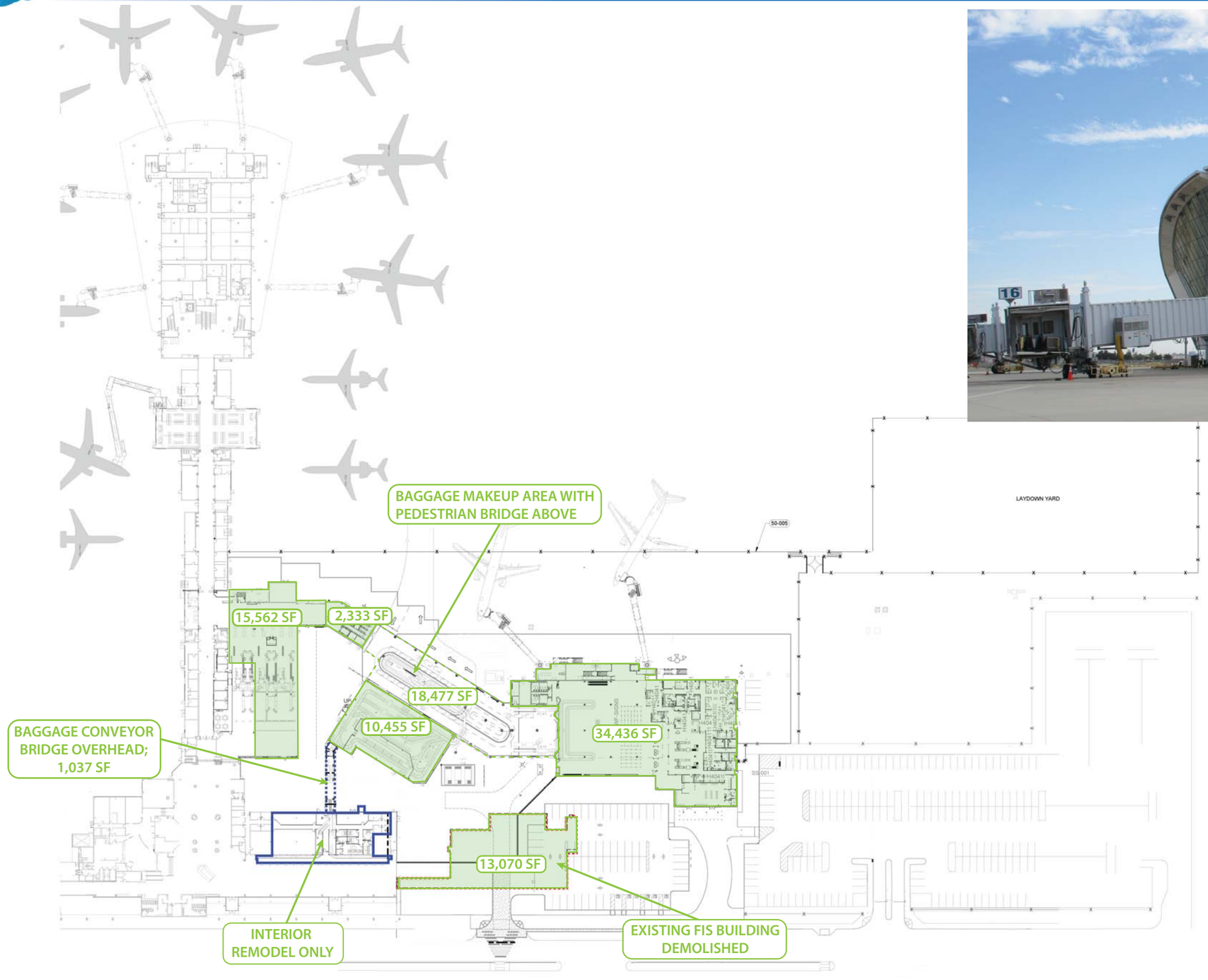


TERMINAL APRON
RECONFIGURATION - DEMOLITION



TERMINAL APRON
RECONFIGURATION - HORIZONTAL LAYOUT

Source: Kimley-Horn Associates. Apron Terminal Pavement - Revised 091321



LEGEND	
—x—x—	CONSTRUCTION FENCE
SF	SQUARE FEET

N

Source: CSHQA 2021

LEGEND

1. Passenger Screening Checkpoint
2. Baggage Make-Up
3. ATO Office
4. Hold Room
5. FIS Building
6. In-Line Baggage Screening

Source: CSHQA 2021

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- Construct storm drain improvements that would consist of inlets, manholes, trench drains, and RCP. These improvements would tie into the existing storm drain system; and

- Install new landscaping, including vegetation and an irrigation system.

Proposed Project Construction and Phasing

Construction of the east terminal apron is scheduled to begin in April 2022 and would take 7 months to complete. While the east terminal apron reconfiguration gets underway, work would begin on the re-model of the existing passenger terminal. This part of the Proposed Project is expected to take approximately 4 months to complete, followed by 13 months to construct the new terminal building and pedestrian covered bridge. The final phases of the project include remodeling the existing baggage area as ATO space and demolition of the existing FIS building and construction of landscaping, sidewalks, and a parking lot in its place. Overall, the Proposed Project would take approximately 25 months. **Table 1B** shows the tentative project construction timeline (assuming the project is approved as proposed). **Exhibit 1G** depicts the locations of the various phases referred to in **Table 1B**.

TABLE 1B
Proposed Project Tentative Construction Schedule

Phase	Project Action	Start Date	End Date	Overall Duration
1	East Terminal Apron Reconfiguration	April 2022	November 2022	7 months
2a	Passenger Terminal Remodel	April 2022	August 2022	4 months
2b	Passenger Terminal Expansion	September 2022	October 2023	13 months
3	Passenger Terminal Expansion	September 2022	July 2024	22 months
4	Baggage Remodel for ATO Space	February 2024	October 2024	8 months
5	FIS Demolition and Parking Lot	April 2024	May 2024	1 months
TOTAL PROJECT CONSTRUCTION SCHEDULE		**April 2022**	**May 2024**	**25 months**

Source: KHA and CSHQA 2021

An on-airport staging area and haul route is proposed for the project (**Exhibit 1C**). This staging area is approximately 2.75 acres in size and would be accessed via an on-airport paved service road. It has been previously used for the staging of other airport projects.

1.5 REQUESTED FEDERAL ACTIONS

The specific federal actions that are requested include:

- Approval of the use of federal funds for the Proposed Project;

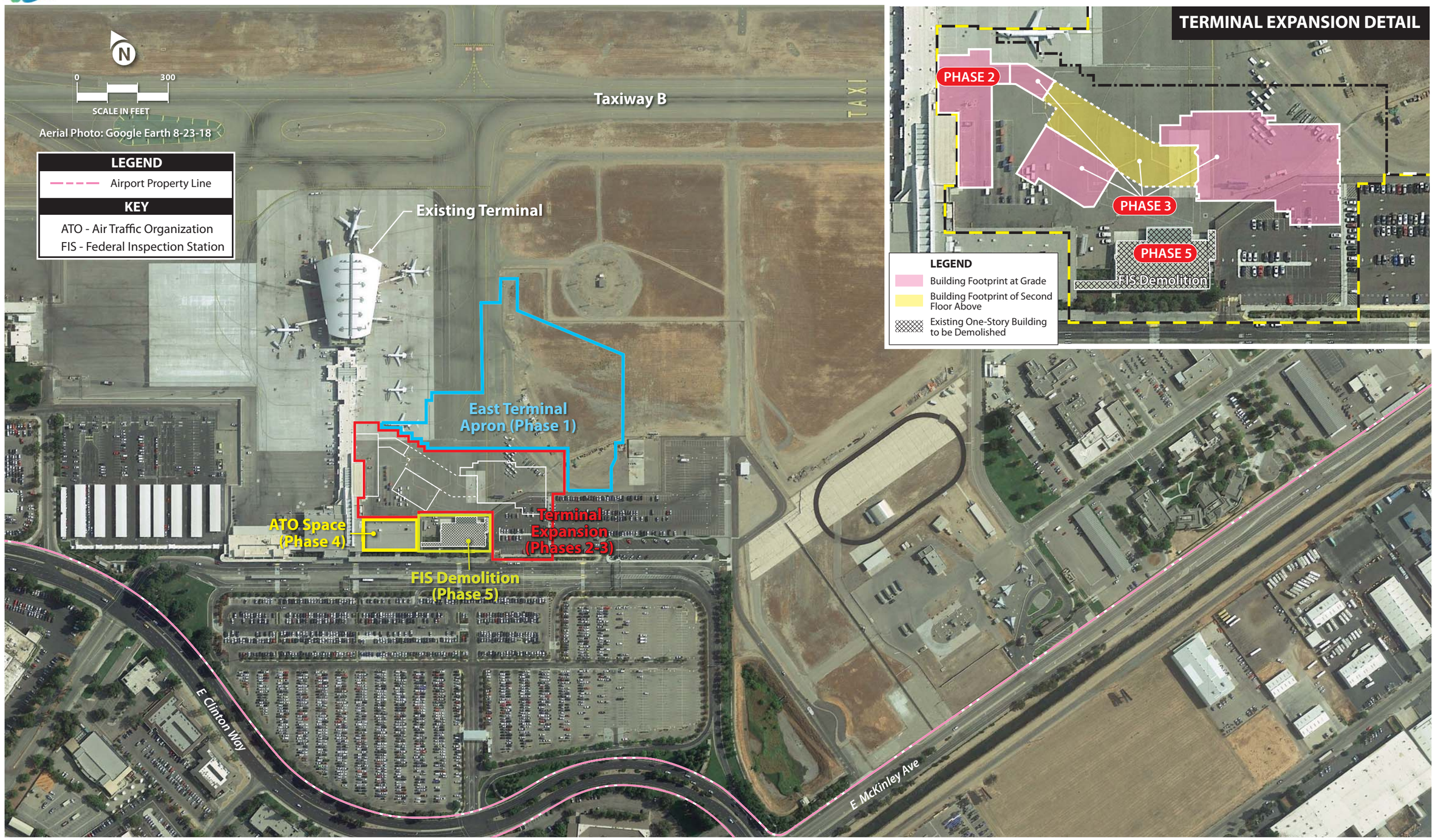
- Unconditional approval of the portion of the ALP that depicts the Proposed Project pursuant to 49 U.S.C. 40103(b), 44718, and 47107(a)(16) and 14 C.F.R. part 77 and part 157; and

- FAA determination of the Proposed Project's effects on the "safe and efficient use of navigable airspace."

1.6 EA DOCUMENT ORGANIZATION

This EA evaluates the Proposed Project by organizing the information as follows:

Chapter 1, Purpose and Need	Provides background information on the airport and the project site, the purpose and need for the Proposed Action, a brief description of the Proposed Project, and requested federal actions.
Chapter 2, Alternatives	Provides an overview of the identification and screening of alternatives considered as part of the environmental evaluation process.
Chapter 3, Affected Environment	Describes existing environmental conditions within the project study area.
Chapter 4, Environmental Consequences and Mitigation	Discusses and compares the environmental impacts associated with the Proposed Project, the No Action alternative, other alternatives considered for analysis (if any), and avoidance, minimization, or mitigation measures, where applicable.
Chapter 5, Coordination and Public Involvement	Discusses the coordination and public involvement associated with the EA process.
Chapter 6, List of Preparers	Identifies the EA reviewers/preparers and their qualifications.
Chapter 7, References	Lists websites and other source material used in document preparation.


N
0
300
SCALE IN FEET
Aerial Photo: Google Earth 8-23-18
LEGEND
Airport Property Line
KEY
ATO - Air Traffic Organization
FIS - Federal Inspection Station
Taxiway B
TAXI
Existing Terminal
East Terminal Apron (Phase 1)
Terminal Expansion (Phases 2-3)
ATO Space (Phase 4)
FIS Demolition (Phase 5)
E Clinton Way
E McKinley Ave
TERMINAL EXPANSION DETAIL
PHASE 2
PHASE 3
PHASE 5
FIS Demolition
LEGEND
Building Footprint at Grade
Building Footprint of Second Floor Above
Existing One-Story Building to be Demolished

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FRESNO YOSEMITE
International Airport

FAT Forward

Chapter Two

ALTERNATIVES

Chapter Two ALTERNATIVES

2.1 INTRODUCTION

This chapter identifies reasonable alternatives for evaluation in this Environmental Assessment (EA) based on the purpose and need for the Proposed Project identified in Chapter One. Council on Environmental Quality (CEQ) regulations (Title 40 Code of Federal Regulations [C.F.R.] section 1502.14) regarding the treatment of alternatives to the proposed action have recently been revised and require that federal agencies perform the following tasks:

a) Evaluate reasonable alternatives to the proposed action and, for alternatives that the agency eliminated from detailed study, briefly discuss the reasons for their elimination.

b) Discuss each alternative considered in detail, including the proposed action, so that reviewers may evaluate their comparative merits.

c) Include the no action alternative.

d) Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference.

e) Include appropriate mitigation measures not already included in the proposed action or alternatives.

f) Limit their consideration to a reasonable number of alternatives.

As stated in Federal Aviation Administration (FAA) Order 5050.4B, paragraph 706 (d)(7), an alternative can be eliminated from further consideration when the alternative has been judged "not reasonable." Whether a proposed alternative is reasonable depends, in large part, upon the extent to which it meets the purpose and need for the Proposed Action (FAA Order 1050.1F, paragraph 7-1.1[e]). FAA Orders 1050.1F and 5050.4B also state that "an EA may limit the range of alternatives to the proposed action and no action when there are no unresolved conflicts concerning alternative uses of available resources (FAA Order 1050.1F, paragraph 6-2.1[d]; FAA Order 5050.4B, paragraph 706[d][5]). As discussed above, 40 C.F.R. 1502.14(c) requires the evaluation of the No Action alternative regardless of whether it meets the stated purpose and need or is reasonable to implement.

2.2 OVERVIEW OF THE ALTERNATIVES SCREENING PROCESS

The alternatives evaluation of the Proposed Project involves a two-step screening process. The first step addresses whether the alternatives are "reasonable." An alternative is considered reasonable if it meets the purpose and need for the Proposed Project as identified in Section 1.3.

If an alternative is deemed reasonable, then the second step determines if an alternative is "feasible." The feasibility of an alternative is established by considering other important factors, such as logistical, technical, or cost considerations.

Step 1: Reasonable: The following criterion was considered to determine if proposed alternatives were reasonable based on the stated purpose and need of the Proposed Project:

1. *Would the alternative accommodate existing passenger processing constraints and provide for growing domestic and international travel demands?*

2. *Would the alternative provide the space required for safe aircraft circulation to accommodate existing and forecast increases in domestic and international operations?*

Step 2: Feasible: If an alternative is considered reasonable, it is then evaluated in terms of feasibility. The following criteria were considered to determine if proposed alternatives were feasible:

1. *Constructability - Would the alternative result in unacceptable impacts to use of the passenger terminal and airport operations during construction?*

2. *Costs - Would the alternative result in unacceptable costs when compared to other proposed alternatives?*

2.3 PROPOSED PROJECT ALTERNATIVE

The Proposed Project would expand and reconfigure existing landside facilities (passenger terminal and FIS building) and a connected airside aircraft apron area within an area directly east of the existing passenger terminal building. Construction of these landside and airside components would be phased sequentially to ensure continuity of operations. The apron would be constructed in two phases to minimize disruption at existing gates that would remain operational during construction. The first phase would include paving a small area on the north portion of the new apron. Upon completion of Phase 1, aircraft circulation to existing gates on the east side of the terminal would be reestablished allowing the remaining portions of the apron to be constructed in the second phase without significantly impacting operations. The east terminal apron reconfiguration would remove 6.67 acres of apron and construct 3.02 acre of new Portland cement concrete apron (and 2.64 acres of asphalt concrete shoulders and millings).

While the new apron is under construction, the terminal remodel and expansion phase would begin. This element includes the demolition and remodel of a small portion of the terminal building in the area where the new concourse would tie into the existing passenger screening checkpoint. The passenger terminal expansion would increase the size of the existing terminal to the east by approximately 88,616 square feet and would be comprised of both single-story and two-story space including expanded security checkpoint, modernized checked baggage inspection system and baggage make-up, two international/domestic gates and holdrooms with passenger boarding bridges, new Federal Inspection Station and remodeled Airline Ticket Office space.

2.4 NO ACTION ALTERNATIVE

Under the No Action alternative, no additional improvements to the passenger terminal, terminal apron, or FIS building would occur. The present configuration of these airport functions would continue without abatement of existing conditions. Currently, international passengers are deplaned outside on an open-air ramp adjacent to the existing FIS facility. The aircraft is then towed to a concourse gate for departing passenger boarding. Although up to two aircraft can park at the existing FIS facility, due to the limited capacity of the FIS primary inspection and queueing areas, the United States (U.S.) Customs and Border Protection require that passengers be held onboard the second aircraft until passengers from the first aircraft have been cleared through the FIS facility.

2.5 ALTERNATIVE LOCATIONS

No other locations are readily available to improve the international passenger operations at the airport.

2.5.1 Expansion North of the Terminal

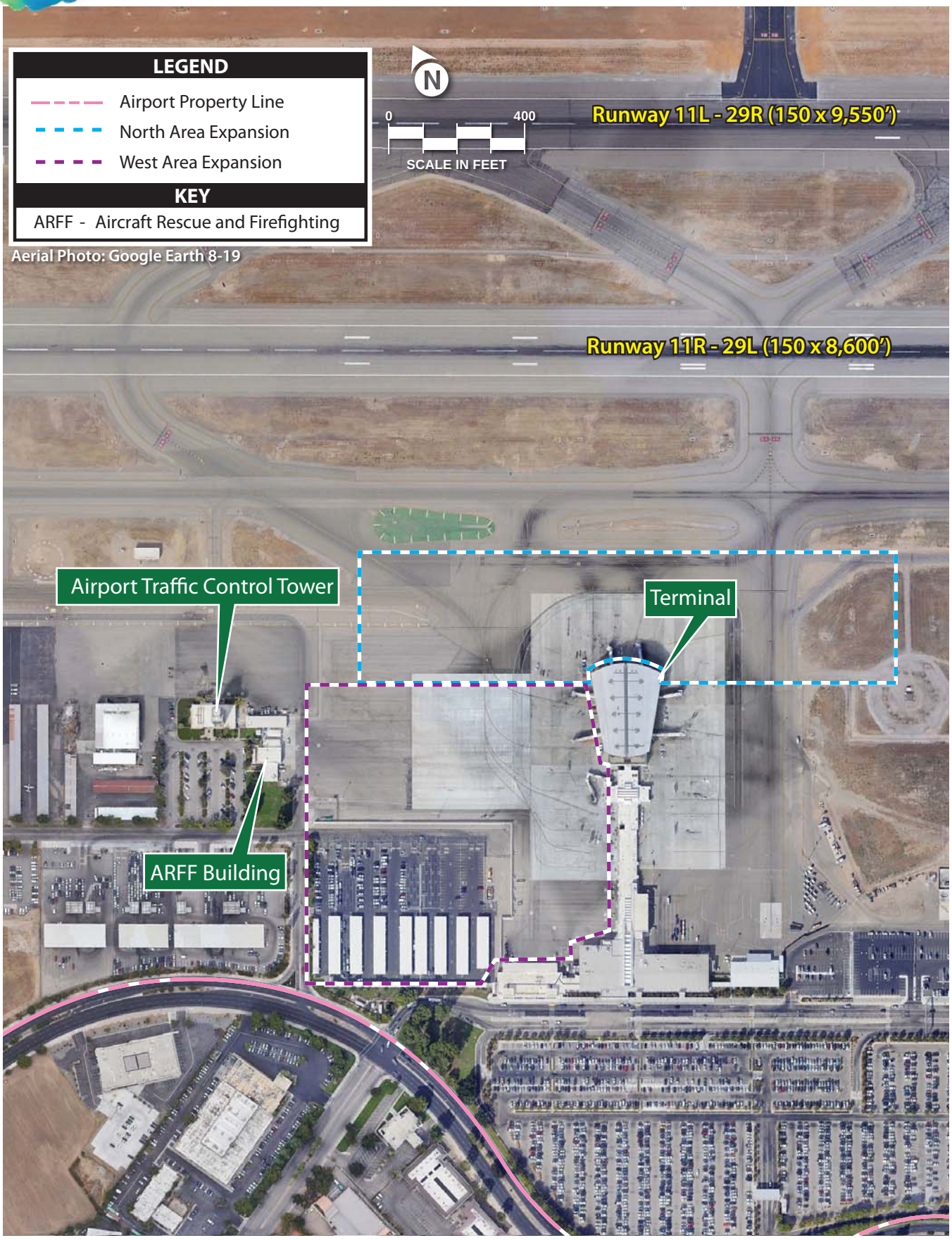
Expanding the passenger terminal/FIS functions to the north of the existing terminal would create impacts to the runway/taxiway system and its safety areas due to a lack of adequate space for additional landside development between the north concourse of the passenger terminal and the airfield (**Exhibit 2A**). Suitable apron would also not be available without encroaching on the closest taxiway and taxiway connectors. Therefore, this alternative location would not meet the stated purpose and need for the Proposed Project.

2.5.2 Expansion West of the Terminal

Another location would be to expand the terminal/FIS functions to the west of the existing terminal. This would position additional building and passenger activity closer to the airport traffic control tower (ATCT) (**Exhibit 2A**). Due to the lines of sight between the ATCT and the airfield, additional structures or aircraft closer to the tower in this area would likely impact the tower operations and would not be allowed by FAA Air Traffic Operations. Therefore, this alternative location would not meet the stated purpose and need for the Proposed Project.

2.6 SUMMARY OF ALTERNATIVES SCREENING PROCESS

Table 2A identifies the Proposed Project alternatives discussed in the preceding sections and summarizes the alternatives screening process. See also **Exhibit 2B**. Only the Proposed Project would satisfy all the criteria contained in the screening process. Therefore, it is carried forward for evaluation in Chapter Four of this EA. As noted previously, 40 C.F.R. 1502.14(c) requires the evaluation of the No Action alternative regardless of whether it meets the stated purpose and need or is reasonable to implement.



Aerial Photo: Google Earth 8-19

STEP 1 Reasonable

The following criterion was considered to determine if proposed alternatives were reasonable based on the stated purpose and need of the Proposed Project:

Would the alternative accommodate existing passenger processing constraints and provide for growing domestic and international travel demands?

NO → STOP

YES

Would the alternative provide the space required for safe aircraft circulation to accommodate existing and forecast increases in domestic and international operations?

NO → STOP

YES

STEP 2 Feasibility

If an alternative is considered reasonable, it is then evaluated in terms of feasibility. The following criteria were considered to determine if proposed alternatives were feasible:

Constructability - Would the alternative result in unacceptable impacts to use of the passenger terminal and airport operations during construction?

YES → STOP

NO

Costs - Would the alternative result in unacceptable costs when compared to other proposed alternatives?

YES → STOP

NO

RETAIN FOR CONSIDERATION

TABLE 2A
Alternative Evaluation Summary

EVALUATION CRITERIA	PROPOSED PROJECT	NO ACTION ALTERNATIVE	ALTERNATIVE LOCATION - North of Terminal	ALTERNATIVE LOCATION - West of Terminal
Step 1: Reasonable - If YES, then go to Step 2.				
1. *Would the alternative accommodate existing passenger processing constraints and provide for growing domestic and international travel demands?*	YES	NO[1] (No further screening is necessary.)	NO (No further screening is necessary.)	NO (No further screening is necessary.)
2. *Would the alternative provide the space required for safe aircraft circulation to accommodate existing and forecast increases in domestic and international operations?*	YES	n/a	n/a	n/a
Step 2: Feasible - If NO for No. 1, and NO for No. 2, then retain for analysis.				
1. *Would the alternative result in unacceptable impacts to use of the passenger terminal and airport operations during construction?*	NO	n/a	n/a	n/a
2. *Would the alternative result in unacceptable costs when compared to other alternatives?*	NO	n/a	n/a	n/a

[1] 40 C.F.R. 1502.14(c) requires the evaluation of the No Action alternative regardless of whether it meets the stated purpose and need or is reasonable to implement.
n/a = Since this alternative did not pass the first screening criteria, no further screening is necessary.

2.7 FEDERAL LAWS AND REGULATIONS CONSIDERED

Table 2B includes a list of federal laws and statutes, U.S. Department of Transportation (DOT) orders, Executive Orders, and FAA orders and/or advisory circulars considered in the evaluation of Proposed Project and throughout the preparation of this EA.

TABLE 2B
List of Applicable Federal Laws and Regulations
Fresno Yosemite International Airport

Federal Laws and Statutes
Airport and Airway Improvement Act of 1982, as amended (P.L. 97-248; 43 C.F.R. 2640)
Airport and Airway Revenue Act of 1987 (P.L. 100-223, Title IV)
Archaeological and Historic Data Preservation Act of 1974 (P.L. 93-291, 16 U.S.C. 469)
Aviation Safety and Capacity Expansion Act of 1990 (P.L. 101-508, as amended)
Aviation Safety and Noise Abatement Act of 1979 (P.L. 96-193; 49 U.S.C. App. 2101)
Clean Air Act of 1977 (as amended) (42 U.S.C. 7409 et seq.)
Endangered Species Act of 1973 (P.L. 85-624; 16 U.S.C. 661, 664 note, 1008 note)
FAA Reauthorization Act of 2018 (P.L. 115-254)
Federal Water Pollution Control Act Amendments for 1972, Section 404 (33 U.S.C. 1344; P.L. 92-500), as amended by the *Clean Water Act of 1977* (33 U.S.C. 1251; P.L. 95-217)
Migratory Bird Treaty Act (16 U.S.C. 703 *et seq.*)
National Environmental Policy Act of 1969 (NEPA) (P.L. 91-190; 42 U.S.C. 4321 et seq.)
National Historic Preservation Act of 1966, Section 106, (16 U.S.C. 470[f]; P.L. 89-665)
Noise Control Act of 1972 (P.L. 92-574; 42 U.S.C. 4901)

TABLE 2B (Continued)
List of Applicable Federal Laws and Regulations
Fresno Yosemite International Airport

Federal Laws and Statutes
Pollution Prevention Act (42 U.S.C. 13101-13109)
Title VI of the *Civil Rights Act of 1964*, as amended (42 U.S.C. 2000d-2000d-7)
U.S. Department of Transportation Act of 1966 – Section 4(f) (as amended by 49 U.S.C. 303, *Policy on lands, wildlife and waterfowl refuges, and historic sites* [P.L. 97-449])
28 C.F.R. 42.401 *et seq., Coordination of Enforcement of Non-discrimination in Federally Assisted Programs*
36 C.F.R. part 800 (39 FR 3365, January 25, 1974, and 51 FR 31115, September 2, 1986), *Protection of Historic Properties*
40 C.F.R. parts 1500-1508, *CEQ implementation of NEPA procedural provisions, establishes uniform procedures, terminology, and standards for implementing the procedural requirements of NEPA's section 102(2*), as revised by Final Rule, effective date September 14, 2020 (85 FR 43304)
49 C.F.R. part 24 (March 2, 1989), *Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally Assisted Programs*
50 C.F.R. part 17, *Endangered and Threatened Wildlife and Plants*
50 C.F.R. part 21, *Migratory Bird Permits*
50 C.F.R. part 402, *Interagency Cooperation - Endangered Species Act of 1973*, as amended
Executive Orders
Executive Order 11593, *Protection and Enhancement of the Cultural Environment* (dated May 13, 1971)
Executive Order 12088, *Federal Compliance with Pollution Control Standards* (43 FR 47707) (October 13, 1978)
Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*
Executive Order 13045, *Protection of Children from Environmental Health Risks and Safety Risks (*62 FR 19883)
Executive Order 13751, *Safeguarding the Nation from the Impacts of Invasive Species* (81 FR 88609) (dated December 8, 2016)
Executive Order 13807, *Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure Projects* (82 FR 40463) (dated August 24, 2017)
Executive Order 13112, *Invasive Species* (64 FR 6183) (dated February 8, 1999)
Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments* (65 FR 67249) (November 9, 2000)
Executive Order 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds* (66 FR 3853) (January 17, 2001)
DOT and FAA Orders
DOT Order 5301.1, *Department of Transportation Programs, Policies, and Procedures Affecting American Indians, Alaskan Natives, and Tribes* (November 16, 1999)
DOT Order 5610.2A, *Environmental Justice* (77 FR 27534)
DOT Order 5650.1, *Protection and Enhancement of the Cultural Environment* (November 20, 1972)
FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*
FAA Order 1210.20, *American Indian and Alaskan Native Tribal Consultation Policy and Procedures* (January 28, 2004)
FAA Order 5050.4B, *National Environmental Policy Act Implementing Instructions for Airport Actions*
FAA Order 5100.38D, *Airport Improvement Program* (AIP) *Handbook*
FAA Advisory Circulars
A.C. 150/5300-13A, *Airport Design*
A.C. 150/5320-6F, *Airport Pavement Design and Evaluation*
A.C. 150/5370-10H, *Standard Specifications for Construction of Airports*

A.C. - Advisory Circular
CEQ - Council on Environmental Quality
C.F.R. - Code of Federal Regulations
DOT - U.S. Department of Transportation
FAA - Federal Aviation Administration
FR - *Federal Register*
P.L. - Public Law
U.S.C. - United States Code

FRESNO YOSEMITE
International Airport

FAT Forward

Chapter Three

AFFECTED ENVIRONMENT

This chapter describes the existing environment at the Fresno Yosemite International Airport (airport or FAT), and more specifically, in the project and general study areas for each resource category. Per Federal Aviation Administration (FAA) Order 1050.1F, paragraph 6-2.1e and FAA Order 5050.4B, paragraph 706(e), this chapter will be "no longer than is necessary to understand the impacts of the alternatives; data and analyses should be presented in detail commensurate with the importance of the impact."

3.1 PROJECT AND GENERAL STUDY AREAS

The project study area is defined as the area where potential environmental impacts resulting from the Proposed Project may occur. For this Environmental Assessment (EA), the project study area is comprised of the project disturbance area associated with the Proposed Project, as depicted in Exhibit 1C of Chapter One.

A general study area is also defined for purposes of identifying potential indirect impacts and encompasses the rest of the airport property. In certain cases, the general study area may include areas outside the airport boundaries. For example, regional air quality impacts are discussed in the context of the San Joaquin Valley Air Basin.

3.2 ENVIRONMENTAL RESOURCES NOT WITHIN PROJECT STUDY AREA

Sections within this chapter are based on impact categories required to be addressed in Order 1050.1F. **Table 3A** lists impact categories that are not discussed further as they do not occur within the project or general study areas.

TABLE 3A
Environmental Resources Not Present within the Project or General Study Areas

Environmental Resource Category	Rationale for No Further Discussion
Coastal Resources	There are no coastal resources located within the project or general study areas. The airport is approximately 125 miles from the nearest coastline and is not located within the Coastal Barrier Resource Systems. The closest National Marine Sanctuary is the Monterey Bay National Marine Sanctuary off the coast of Monterey, California.
Department of Transportation Act, Section 4(f) Resources	The closest public recreational area is the Fresno Airways Golf Course northeast more than 0.5 mile from the project study area. There are no wildlife or waterfowl refuges or significant historic sites within the project area (see also Section 3.7). No lands have been conveyed to the airport per the *Land and Water Conservation Fund Act of 1965*, Section 6(f).
Farmlands	The airport is within a United States (U.S.) Census-designated urban area, and the project study area is paved or used as a staging area for construction projects. No farmlands would be affected.

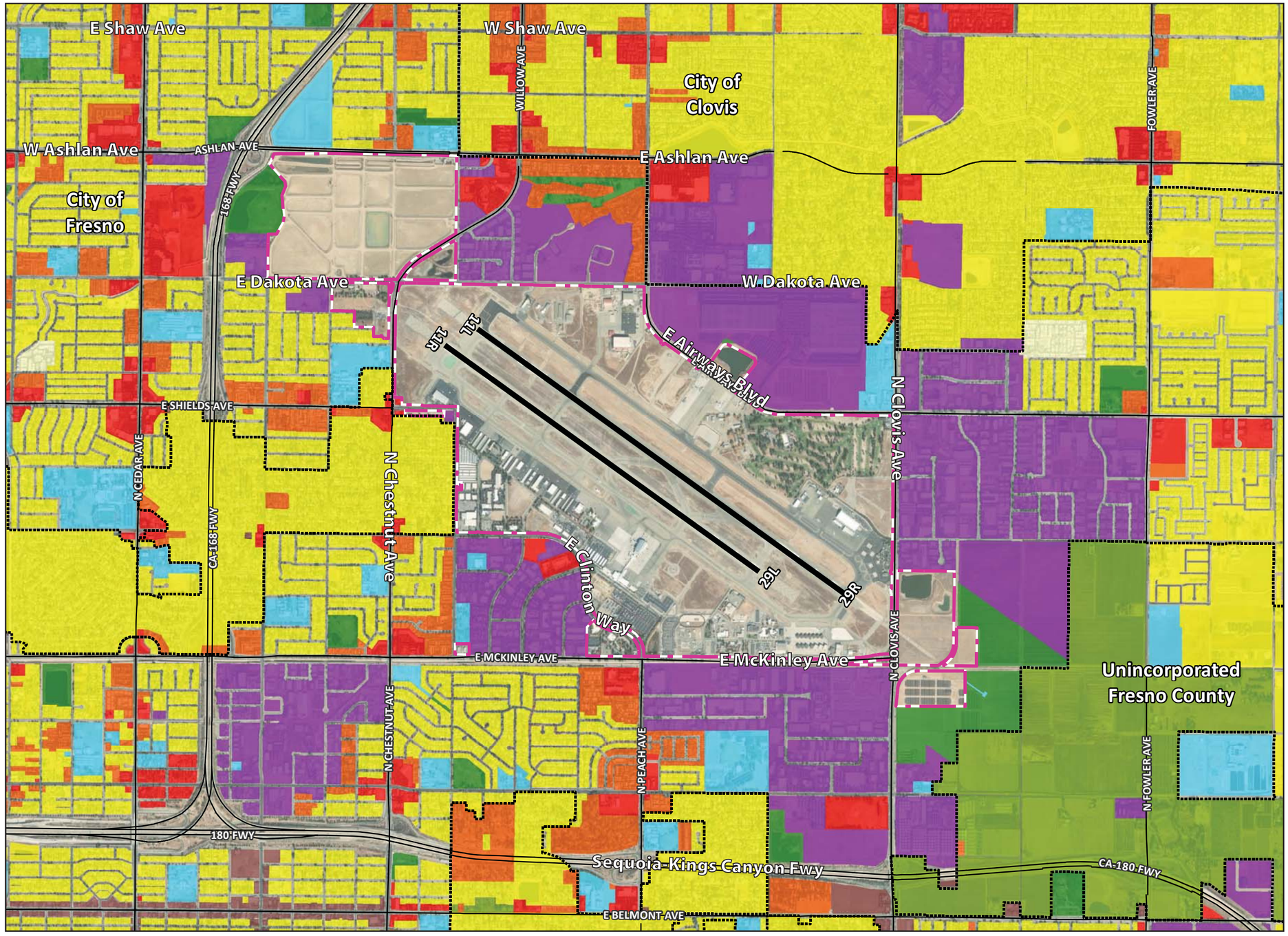
TABLE 3A (Continued)
Environmental Resources Not Present within the Project or General Study Areas

Environmental Resource Category	Rationale for No Further Discussion
Land Use, including land use plan/policy inconsistencies per Title 49 United States Code (U.S.C.) §47106(a)(1)	The project study area is located internal to the airport property, and no impacts would result to adjacent off-airport land uses, which are commercial, office, or industrial in nature. Most of the existing airport is designated as "Public/Quasi-public Facility - Airport" on the City of Fresno General Plan Land Use and Circulation map and zoned as PI (Public and Institutional) (**Exhibit 3A**).[1] The Proposed Project would not disrupt the community, any planned development, or be inconsistent with plans or goals of the City of Fresno and would be consistent with the function of the airport. The airport has provided a Land Assurance letter specifying that appropriate action has been or will be taken, to the extent reasonable, to restrict the use of land next to or near the airport to uses that are compatible with normal airport operations pursuant to Title 49 United States Code (U.S.C.) section 47107(a)(10) (**Appendix A**).
Visual Effects - Visual Resources/Visual Character	The area around the airport can be characterized as urban in nature. The closest designated scenic vistas in the city (as outlined in the City of Fresno General Plan) are along the San Joaquin River, located north and west of the airport approximately six miles away. State Highway 180 is an Officially Designated State Scenic Highway, and State Highway 168 is eligible for designation; however, these highways are not located in proximity to the airport.
Water Resources - Wetlands	No wetlands or other waters of the U.S. have been identified within the project study area. The closest wetland identified on the National Wetlands Inventory (NWI) is a small freshwater pond located more than 0.5 mile from the project study area within the Fresno Airways Golf Course. Leaky Acres, a 225-acre, 26-pond, groundwater recharge area, has been identified as a lake on the NWI but is northwest of the project study area over one mile away.
Water Resources - Floodplains	Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps panels indicate that the closest flood zone to the project study area is south of the airport (adjacent to the existing passenger terminal parking lot's southeast corner). The project study area is not within the 100-year floodplain. The airport has its own flood control system and discharge agreement with the Fresno Irrigation District.
Water Resources - Groundwater	The Fresno County Aquifer, a sole source aquifer, is a mostly unconfined-aquifer system, about 1,840 square miles in size and more than 100 feet below land surface. At this depth, there is no potential to intercept the aquifer or directly expose groundwater to contamination due to construction or operations at the airport. The Groundwater Protection Section of the U.S. Environmental Protection Agency (EPA) has reviewed the project and determined that the project is not likely to affect the water quality of the Fresno sole source aquifer (Nord, E. 2021).
Water Resources - Wild and Scenic Rivers	No Wild and Scenic River or rivers on the Nationwide Rivers Inventory (NRI) are within or near the project study area. The closest Wild and Scenic River is the Kings River, which is approximately 41 miles east of the airport. The San Joaquin River, which is identified on the NRI, is located 47 miles northeast of the airport.

[1] The northeast corner of E. Shields Avenue and N. Chestnut Avenue is designated "Office," and the eastern corner of the airport off E. Aircorp Way is designated as "Light Industrial."

Sources:
- Coastal Resources - U.S. Fish and Wildlife Service (USFWS) Coastal Barrier Resource System website 2021.
- Land Use - City of Fresno Development and Resource Management, Planning Division 2021a, 2021b.
- Visual Resources/Visual Character - California Department of Transportation [Caltrans] Scenic Highways website 2021.
- Wetlands - USFWS National Wetlands Inventory website 2021; City of Fresno Recharge Fresno - Securing our Water Future website 2021.
- Floodplains - FEMA Flood Map Service Center 2009.
- Groundwater - City of Fresno Recharge Fresno - Securing our Water Future website 2021.
- Wild and Scenic Rivers - National Wild and Scenic Rivers System website 2021; Nationwide Rivers Inventory website 2021.

The affected environment related to the remaining impact categories listed within Section 4-1 of FAA Order 1050.1F are presented in the following sections.



Legend

- Streets
- Runway Centerlines
- Municipal Boundary
- Airport Property Line

Zoning

- Agriculture
- Single Family Residential
- Multi-Family Residential
- Mobile Home Park
- Commercial
- Mixed Use
- Industrial
- Public & Institutional Facilities
- Open Space

N

0 2,000

1" = 2,000'

Sources:
City of Fresno Zoning (2021),
Fresno County Zoning (2021),
City of Clovis Zoning (2021),
ESRI Basemap Imagery (2020)

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3.3 AIR QUALITY

Under the *Clean Air Act*, U.S. EPA established National Ambient Air Quality Standards (NAAQS) based on health risks for the following pollutants:

- Carbon monoxide (CO)
- Nitrogen dioxide (NO_2)
- Sulfur dioxide (SO_2)
- Lead (Pb)
- Ozone (O_3)
- Respirable particulate matter (PM_{10}) (i.e., "inhalable coarse" PM with an aerodynamic diameter of 10 microns or less)
- Fine particulate matter ($PM_{2.5}$) (i.e., with an aerodynamic diameter of 2.5 microns or less)

An area with ambient air concentrations exceeding the NAAQS for a criteria pollutant is said to be a nonattainment area, while an area where ambient concentrations are below the NAAQS is considered an attainment area. The U.S. EPA requires that areas designated as nonattainment demonstrate how they will attain the NAAQS by an established deadline. An airport action may be subject to the General Conformity requirements of the *Clean Air Act* if it will occur in a nonattainment or maintenance area. The General Conformity Rule of the *Clean Air Act* establishes the procedures and criteria for determining whether certain federal actions conform to state or federal air quality implementation plans.

The general study area for air quality is the San Joaquin Valley Air Basin under the management of the San Joaquin Valley Air Pollution Control District (SJVAPCD). Fresno County and the San Joaquin Valley Air Basin are currently in nonattainment for federal eight-hour O_3 (extreme) and $PM_{2.5}$ (moderate) standards. The county and air basin are in maintenance for federal PM_{10} standards (U.S. EPA 2021.)

Topography and Meteorology

The San Joaquin Valley's topography, high temperatures, subsidence inversions, and light winds are conducive to the formation of elevated ozone levels. Winds also transport pollutants from other air basins into the valley. In addition, the mountain ranges surrounding the San Joaquin Valley contribute to trapping pollutants, including particulate matter. Prolonged periods of high pressure and stable conditions with low wind speeds result in stagnant conditions that trap pollutants near the surface, causing $PM_{2.5}$ concentrations to increase during these poor dispersion periods (SJVAPCD 2018).

The nearest air monitoring station to the airport is operated by the California Air Resources Board (CARB) and is located approximately three miles west of the airport (Fresno-Garland station). **Table 3B** identifies the daily maximum one-hour averages for the following pollutants: CO, NO_2, NO_x, O_3, SO_2 for the first half of 2021, while **Table 3C** shows the daily average high and low for respirable and fine particulate matter.

TABLE 3B
Daily Maximum One-Hour Average (parts per million, ppm) (2021)
Fresno-Garland Air Monitoring Station Data

Pollutant	Jan 2021 (Max/Min)	Feb 2021 (Max/Min)	March 2021 (Max/Min)	April 2021 (Max/Min)	May 2021 (Max/Min)	June 2021 (Max/Min)
Carbon Monoxide (CO)	1.675/0.308	1.828/0.238	1.128/0.214	0.771/0.138	0.660/0.176	0.980/0.152
Nitrogen Dioxide (NO_2)	0.038/0.010	0.037/0.007	0.041/0.005	0.033/0.005	0.025/0.003	0.039/0.003
Oxides of Nitrogen (NO_x)	0.092/0.014	0.074/0.008	0.069/0.006	0.037/0.005	0.028/0.003	0.039/0.003
Ozone (O_3)	0.044/0.017	0.048/0.027	0.057/0.032	0.070/0.033	0.074/0.040	0.108/0.035
Sulfur Dioxide (SO_2)	0.001/0.000	0.001/0.000	0.001/0.000	0.008/0.000	0.004/0.000	0.005/0.001

Source: CARB 2021.

TABLE 3C
Daily Average Highs and Lows (micrograms per cubic meter air, µg/m^3) (2021)
Fresno-Garland Air Monitoring Station Data

Pollutant	Jan 2021 (Max/Min)	Feb 2021 (Max/Min)	March 2021 (Max/Min)	April 2021 (Max/Min)	May 2021 (Max/Min)	June 2021 (Max/Min)
Respirable Particulate Matter (PM_{10})	Not Reported	53.9/8.8	47.5/5.5	44.3/11.3	51.4/20.1	67.8/18.9
Fine Particulate Matter ($PM_{2.5}$)	Not Reported	38.2/2.9	16.5/2.5	11.5/1.5	16.6/5.0	19.7/2.5

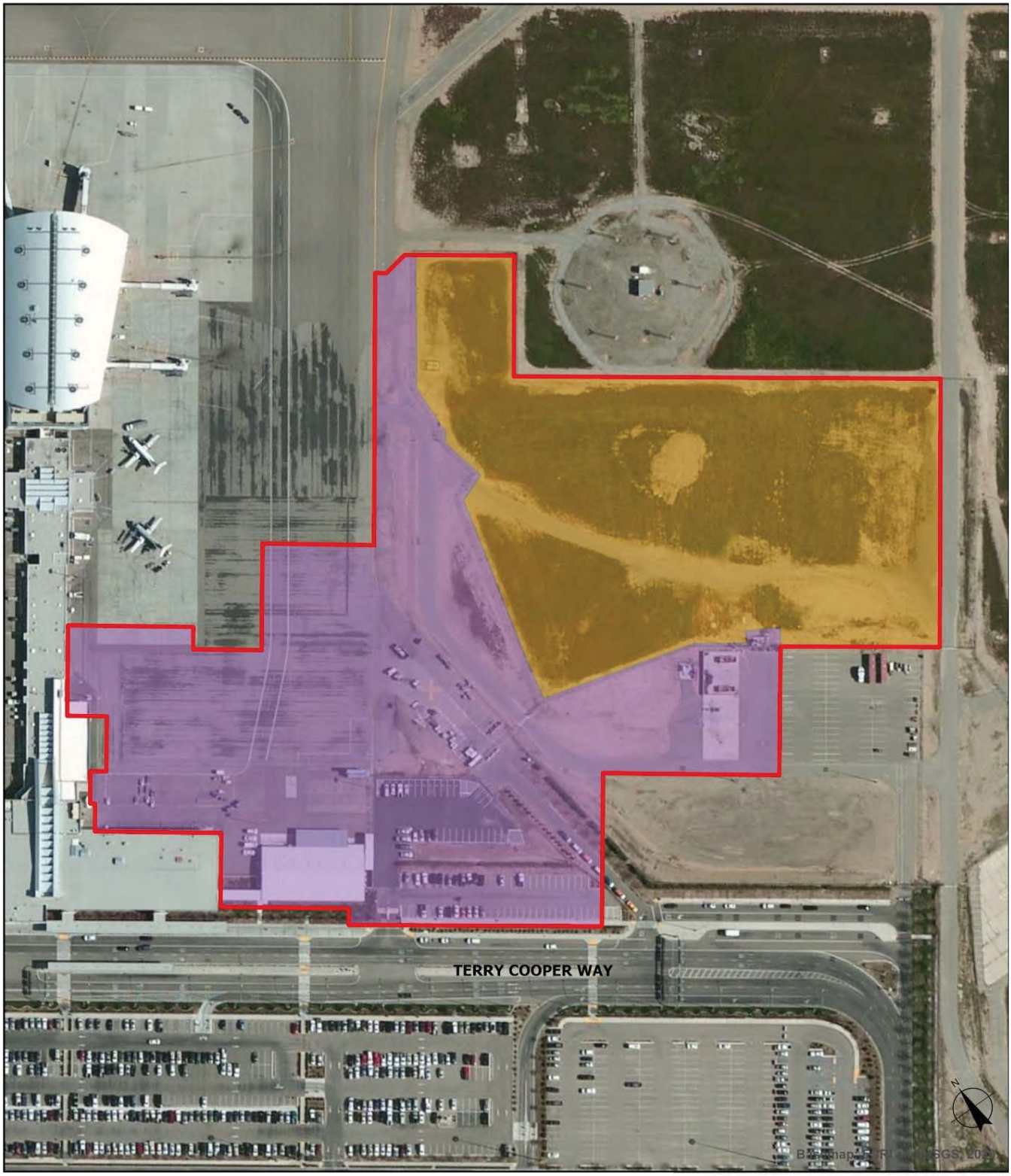
Source: CARB 2021.

3.4 BIOLOGICAL RESOURCES

The general and project study area for biological resources is a defined biological study area (BSA) (**Exhibit 3B**) that could be disturbed by the Proposed Project based on a Biological Evaluation (BE) that was completed as part of this EA effort (**Appendix B**). According to the USFWS Information for Planning and Consultation (IPaC) trust resource list, there are 11 federally listed endangered or threatened species (and one candidate species) which could occur on or near the BSA (**Table 3D**). However, no federally listed species were observed during the BE's field survey nor are they expected to occur. The unpaved portion of the BSA does not contain suitable conditions for federally listed species (SWCA Environmental Consultants [SWCA] 2020a).

The IPaC did not identify any critical habitat on airport property. The closest critical habitat is over six miles from the airport (USFWS 2021b).

The potential for the BSA to support birds protected under the federal *Migratory Bird Treaty Act* (MBTA) has also been evaluated. There are two potential avian concerns for ruderal areas at the airport: the burrowing owl (*Athene cunicularia*) and other ground-nesting birds. The burrowing owl has been present at the airport in the past. However, based on the recent field survey, no burrowing owls or nesting sites were observed. The burrowing owl has not been observed on airport property since 2009. There is marginal nesting habitat within the grassy areas of the airport for ground-nesting and other birds.



LEGEND

- Proposed Project Area
- Developed Habitat
- Ruderal Habitat

Feet
0 100 200 400

Meters
0 25 50 100

Scale: 1:2,624

Source: SWCA Environmental Consultants, Biological Evaluation, 7/1/2020

Exhibit 3B
HABITAT WITHIN THE BIOLOGICAL STUDY AREA

TABLE 3D
Federally Protected Species Occurrence Potential within the Biological Study Area

Common Name (*Scientific Name*)	Federal Status	Habitat	Potential to Occur within the Biological Study Area (BSA)
Mammals			
Fresno kangaroo rat (*Dipodomys nitratoides exilis*)	Endangered	Known historic range encompassed an area of grassland and alkali desert scrub communities on the San Joaquin Valley floor in Merced, Kings, Fresno, and Madera Counties. Recently have been found only in alkali sink communities from 200 to 300 feet in elevation. Currently, no known populations within historical geographic range in Merced, Madera, and Fresno Counties. Last record in Fresno County was in 1992 at the Alkali Sink Ecological Reserve.	**None.** The BSA does not support suitable grassland or alkali desert scrub communities and is located outside of remaining known range of the subspecies.
San Joaquin kit fox (*Vulpes macrotis mutica*)	Endangered	Historic range included most of the San Joaquin Valley from San Joaquin County southward to southern Kern County (USFWS 1998). Currently, kit foxes occur in the remaining native valley and foothill grasslands and saltbush scrub communities of the valley floor and surrounding foothills from southern Kern County north to Merced County.	**None.** The BSA does not support suitable habitat and is likely located outside the current range of the subspecies.
Birds			
yellow-billed cuckoo (*Coccyzus americanus)*	Threatened	Occurs in forests to open riparian woodlands with thick understory.	**None.** The BSA does not support suitable nesting habitat.
Reptiles			
blunt-nosed leopard lizard (*Gambelia silus)*	Endangered	Inhabit open, sparsely vegetated areas of low relief on the San Joaquin Valley floor and in the surrounding foothills. On the Valley floor, most commonly found in the Nonnative Grassland, saltbrush scrub, and valley sink scrub.	**None.** The BSA does not support the sparsely vegetated low-lying areas that species requires.
giant garter snake (*Thamnophis gigas*)	Threatened	Uses canals, creeks, ponds, and other areas that support permanent water with vegetative cover. Uses grasses, weeds, cattails, tules, and other vegetation for basking, foraging, and cover.	**None.** The BSA does not support suitable aquatic habitat.
Amphibians			
California red-legged frog (*Rana drayonii)*	Threatened	Occurs in aquatic habitats with little or no flow and surface water depths to at least 2.3 feet. Presence of fairly sturdy underwater supports, such as cattails.	**None.** The BSA does not support suitable aquatic habitat.
California tiger salamander (*Ambystoma californiense*)	Threatened	Occurs in vernal pools within grassland or oak woodlands; requires seasonal water, ground squirrel burrows, or other underground refuges.	**None.** The BSA does not support suitable aquatic breeding habitat or upland habitat.
Fishes			
Delta smelt (*Hypomesus transpacificus)*	Threatened	Euryhaline species (tolerant of a wide salinity range) occurring in estuarine waters up to 14 ppt salinity. Found only from the Suisun Bay upstream through the Delta in Contra Costa, Sacramento, San Joaquin, Solano and Yolo counties.	**None.** The BSA does not support any suitable aquatic habitat.

TABLE 3D (Continued)
Federally Protected Species Occurrence Potential within the Biological Study Area

Common Name (*Scientific Name*)	Federal Status	Habitat	Potential to Occur within the Biological Study Area (BSA)
Insects			
monarch butterfly (*Danaus plexsippus*)	Candidate	During breeding season, monarchs lay their eggs of their obligate milkweed host plant.	**None.** The BSA does not support any suitable habitat.
Crustaceans			
Conservancy fairy shrimp (*Branchinecta conservtio)*	Endangered	Occurs in vernal pools, not known to occur in permanent bodies of water, and are dependent upon seasonal fluctuations in their habitat, such as absence or presence of water during specific times of the year. Inhabit highly turbid water in vernal pools.	**None.** Suitable habitat for this species does not exist within the BSA.
vernal pool fairy shrimp (*Branchinecta lynchi)*	Threatened	Occurs in vernal pool habitats, including depressions in sandstone, to small swale, earth slump, or basalt-flow depressions with a grassy or, occasionally, muddy bottom in grassland.	**None.** Suitable habitat for this species does not exist within the BSA.
Flowering Plants			
Greene's tuctoria (*Tuctoria greenei)*	Endangered	Annual herb that occurs in vernal pools. 30-1,070 meters above msl	**None.** Suitable habitat for this species does not exist within the BSA.

Sources: SWCA 2020a; USFWS 2021a, 2021b

3.5 CLIMATE

The general study area for Climate is the San Joaquin Valley Air Basin. Scientific measurements show that Earth's climate is warming, with concurrent impacts, such as warmer air temperatures, increased sea level rise, increased storm activity, and an increased intensity in precipitation events. Increasing concentrations of greenhouse gases (GHGs)[1] in the atmosphere affect global climate (International Panel on Climate Change [IPCC] 2014; U.S. Global Change Research Program 2009); this climate change, while a global phenomenon, can also have local impacts.

Research has also shown that there is a direct correlation between fuel combustion and GHG emissions. GHGs from anthropogenic (man-made) sources include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF_6). CO_2 is the most important anthropogenic GHG because it is a long-lived gas that remains in the atmosphere for up to 100 years.

The *National Environmental Policy Act* (NEPA) requires federal agencies to consider the environmental impacts of proposed major federal actions significantly affecting the quality of the human environment. Executive Order (E.O.) 13990, *Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis* was issued on January 20, 2021, by President Biden.

[1] Mass GHG emissions are calculated by converting pollutant-specific emissions to carbon dioxide equivalent (CO_2e) 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 IPCC in its Fourth and Fifth Assessment Reports (IPCC 2007; 2014). By applying the GWP ratios, project CO_2e 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.

3.6 HAZARDOUS MATERIALS, SOLID WASTE, AND POLLUTION PREVENTION

The general study area for hazardous materials, solid waste, and pollution prevention is the airport property.

3.6.1 Hazardous Materials

In the late 1980s, the City of Fresno discovered volatile organic compound (VOC) contamination in water wells under the airfield. The airport is located on a Formerly Used Defense Site (FUDS), Hammer Field, once used by the U.S. Army Air Force's Fourth Air Force. This site is not listed on the National Priorities List, but the airport is an active clean-up site on the State of California Department of Toxic Substances Control (DTSC) EnviroStor program. However, no site remediation is required within the project study area (U.S. Army Corps of Engineers website 2021; California DTSC website 2021).

The existing passenger terminal and Federal Inspection Station (FIS) buildings are not known to contain asbestos or lead paint. The passenger terminal was remodeled in three phases from 1993-2010. According to a recent report on the terminal building (i.e., *Architectural Evaluation for the Fresno Air Terminal Building at the Fresno-Yosemite International Airport, Fresno, Fresno County, California*), a complete code analysis was prepared for each area of the building to identify code required upgrades in all areas impacted by the new construction (SWCA 2019a). The FIS building is a modular building installed in 2006.

Potential hazards due to upset or accident conditions involving the release of hazardous materials into the environment are addressed by the airport's hazardous materials management and emergency response plans. Per 14 C.F.R. 139.325, the airport's hazardous materials business response plan contains an emergency response/contingency plan module that addresses emergency procedures for all parts of the facility. The City of Fresno Fire Department operates one fire station located at the airport; another city fire facility, Station #10, is located adjacent to the airport on the northeast side.

3.6.2 Solid Waste

Operational solid waste disposal at the airport is handled by the city's Solid Waste Management Division. Non-hazardous waste material is collected in designated areas of the airport and taken to the Cedar Avenue Recycling and Transfer Facility. The airport currently separates its solid waste into two waste streams: trash and recyclables. Non-recyclable solid waste is ultimately transported to the American Avenue landfill in Kerman, California. This landfill has sufficient capacity to handle solid waste for the region through the year 2031 (CalRecycle website 2021).

3.6.3 Pollution Prevention

As a commercial service airport, the airport requires spill prevention, control, and countermeasure plans, as appropriate, as well as its hazardous materials business response plan. See also Section 3.12 regarding pollution prevention under the *Clean Water Act*.

3.7 HISTORICAL, ARCHITECTURAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

The project and general study area for historical, architectural, archaeological, and cultural resources is a defined Area of Potential Effect (see Exhibit 4A in Chapter Four). The airport dates to World War II as an U.S. Army Air Force Night Fighter School training base (known as Hammer Field). After the conclusion of the war in 1945, the Army deactivated the airfield and transferred 319 acres of land to the city, while retaining a military accommodations area for the Army Air Force's unit of the National Guard. Much of the airport has been previously surveyed for cultural resources (URS Corporation 2007), and no significant historical properties were discovered. An updated cultural resources records search conducted in July 2019 and a cultural resources report prepared in July 2020 also indicate that no eligible historic properties or historical resources have been identified within airport property (SWCA 2019b; 2020b).

Fresno architect Allen Y. Lew designed the Fresno Air Terminal building in 1959; it was constructed in 1962-1963. The building's potential for significance[2] under the National Register of Historic Places (NRHP), specifically under Criteria A and C, was evaluated as part of this EA (SWCA 2020b). (The Fresno Air Terminal building has no demonstrated associations with individuals significant in the field of aviation [Criterion B] nor is it likely to yield information important in history or prehistory [Criterion D]). The evaluation under Criterion A determined that the Fresno Air Terminal building lacked significance as an innovator in the post-war airport transition period. As for Criterion C, it was concluded that the building has been so extensively altered on both the exterior and the interior that it does not retain sufficient integrity to the time of its period of significance (1959-1963) to be able to convey that significance. Therefore, the Fresno Air Terminal building is not recommended as eligible for listing on the NRHP.

The closest land of a federally recognized tribe belongs to the Table Mountain Rancheria Tribe and is located more than 15 miles away. As part of its Section 106 responsibilities under the *National Historic Preservation Act* (NHPA), several federally and non-federally recognized tribes were contacted by FAA regarding the Proposed Project (see Section 4.7.2) (**Appendix C**). No comments or information from these tribes was received by FAA in response to its letters or emails.

3.8 NATURAL RESOURCES AND ENERGY SUPPLY

The general study area for natural resources and energy supply is Fresno County. According to the California Department of Conservation (CDC) California Geological Survey (CGS) website (2021), the airport is within the Fresno Production-Consumption *Surface Mining and Reclamation Act of 1975* (SMARA) study area. However, a 1999 report addressing the study area (*Update of Mineral Classification: Aggregate Materials in the Fresno Production-Consumption Region, California*) stated that all the aggregate resources within the Fresno region are found within the floodplains of the San Joaquin and King rivers

[2] The quality of **significance** in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and are evaluated using the following eligibility criteria:
- **Criterion A:** Associated with events that have made a significant contribution to the broad patterns of our history; or
- **Criterion B:** Associated with the lives of significant persons in our past; or
- **Criterion C:** Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- **Criterion D:** Have yielded or may be likely to yield, information important in history or prehistory.

and specific instream areas (CDC Division of Mines and Geology 1999). The San Joaquin River is located over six miles northwest from the project study area, and the King River is located over 12 miles to the east. No mining operations or other mineral/gas extraction activities occur on airport property.

Potable water for the airport is provided by the City of Fresno. The state's *Urban Water Management Planning Act* requires every public and private urban water supplier that directly or indirectly provides water for municipal purposes to prepare and adopt an urban water management plan and to update that plan every five years. According to the *2015 City of Fresno Urban Water Management Plan* (UWMP), water management goals and strategies have been set through 2030. The UWMP includes a set of restrictions on water usage that help promote water conservation and overall water usage reduction. These regulations include year-round outdoor watering schedules, turf type restrictions, and turf irrigation methods (City of Fresno 2016: Table 8-2). Additional details can be found in Section 6-520(a) of the city's Municipal Code. (The 2020 update to the UWMP has not yet been adopted but is a public draft as of June 2021.)

The airport, as an end user of water from the city, is required to comply with the UWMP and Section 6-520(a) of the city's Municipal Code. Landscaped areas of the airport implement the city's approved outdoor watering schedules and other landscaping restrictions.

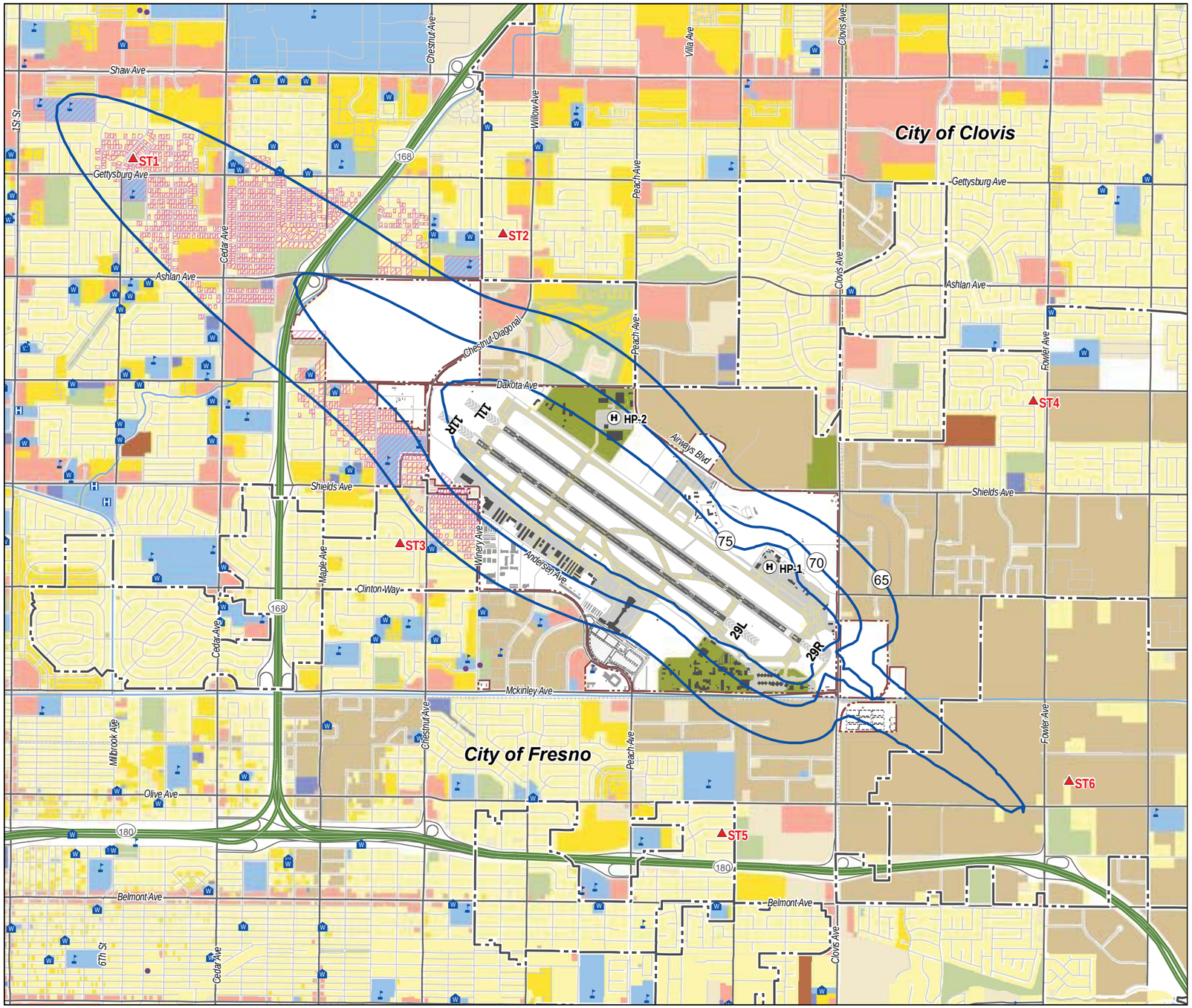
The airport obtains natural gas and approximately 40 percent of its electricity from the Pacific Gas and Electric Company (PG&E). The other 60 percent of its electricity is purchased through an agreement with the operator of an on-airport solar field. The airport is continuing to explore other opportunities for increased solar energy.

3.9 NOISE AND NOISE-COMPATIBLE LAND USE

The general study area for noise and compatible land use is the airport and the surrounding areas within the Community Noise Equivalent Level (CNEL) 65 decibel (dB) or higher noise contours. The airport completed a Noise Exposure Map Update in 2017. **Exhibit 3C** shows the Existing Conditions (2017) Noise Exposure Map, which includes the underlying land uses. Acreage within the CNEL 65 dB or higher noise contours, including the portions over the airport, is 4.44 acres (HMMH Consultants 2017.) As shown on **Exhibit 3C**, neighborhoods to the west and northwest of the airport within the existing CNEL 65 dB have been provided with sound insulation, which is an ongoing program.

3.10 SOCIOECONOMICS, ENVIRONMENTAL JUSTICE, AND CHILDREN'S ENVIRONMENTAL HEALTH AND SAFETY RISKS

The general study area for socioeconomics is the City of Fresno and its sphere of influence. The general study area for environmental justice and children's environmental health and safety risks is the census tract containing the airport (C.T. 06019003104).



LEGEND

- Existing (2017) NEM Contour (65-75 dB CNEL)
- ST# Noise Monitor Location
- Airport Boundary
- Runway
- Taxiway / Apron
- Helicopter Pad
- Airport Buildings
- Municipal Boundary
- Highways
- Major Roads
- Local Roads
- Railroad
- Residential Use
- Multi-Family Residential
- Mobile Homes
- Public Use 1 (School, Place of Worship, Hospitals)
- Public Use 2 (Government, Transportation, Parking)
- Military Use
- Recreational / Open Space
- Commercial Use
- Industrial Use
- Vacant / Undefined
- Water
- Sound Insulated Property
- School
- Library
- Place of Worship
- Hospital
- Historic Site

Service Layer Credits: Fresno County GIS; City of Fresno, CA; City of Clovis, CA; California Department of Water Resources (DWR); Environmental Systems Research Institute (ESRI);

0 1" 2" 3"

0 2,000 4,000 6,000 Feet

Source: HMMH Consultants 2017

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3.10.1 Socioeconomics

The city (and its sphere of influence as defined by the Fresno County Council of Governments [COG]) had a population of 574,590 in 2015 and is projected to have a population of 670,820 by 2025 (**Table 3E**). This is a compound annual growth rate (CAGR) of 1.56 percent over the next 10 years.

TABLE 3E
City of Fresno Sphere of Influence Projected Annual Growth Rate (2015-2025)

2015	2020	2025	CAGR
574,590	624,040	670,820	1.56%

CAGR – compound annual growth rate
Source: Fresno County COG 2017.

The airport is an economic engine for the region. In 2018, an economic impact study conducted on the airport found that the airport provides the region with $844 million in annual economic activity and 9,800 direct, induced, and indirect jobs (Martin Associates 2018).

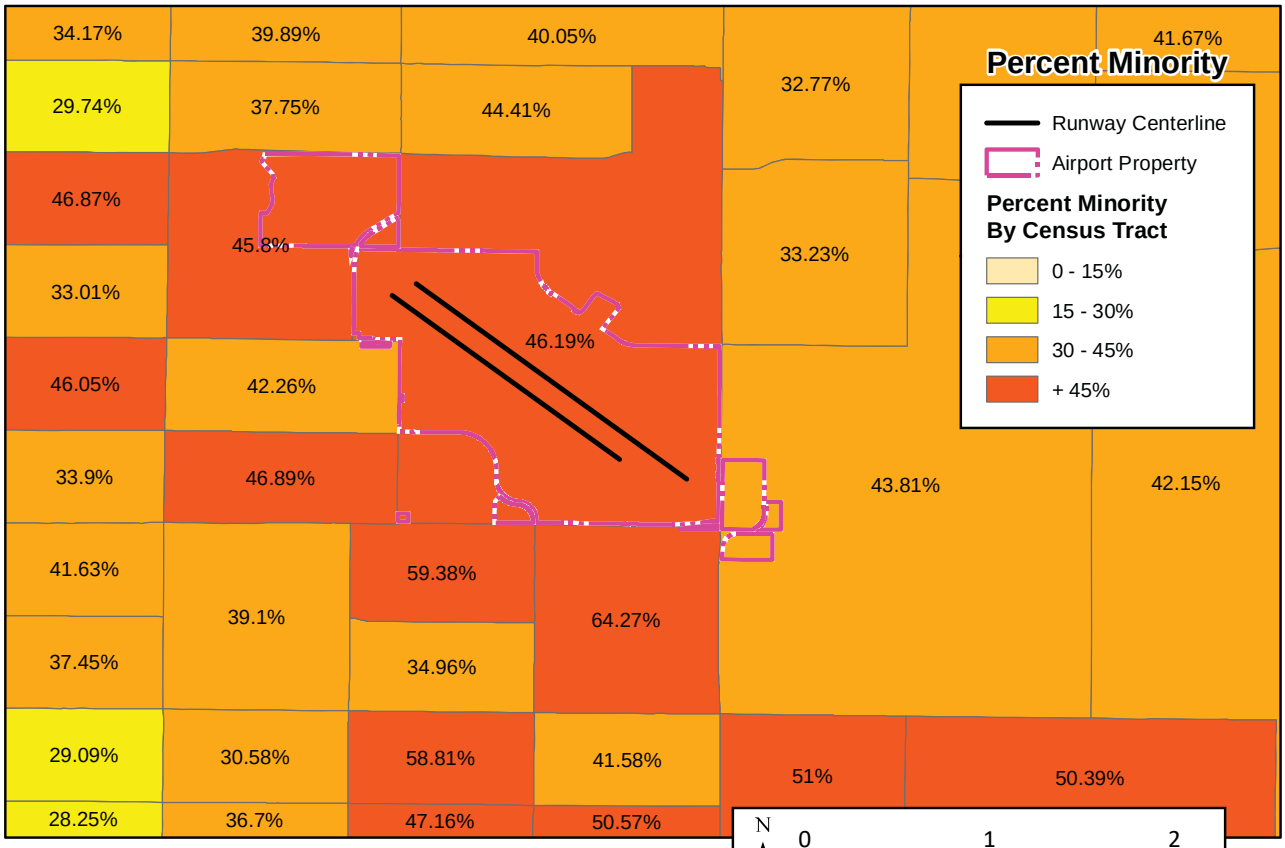
Housing, public services, and social conditions indicators are not relevant for this EA as the Proposed Project would be located entirely on airport property and would not change housing, public services, and social conditions in the surrounding communities.

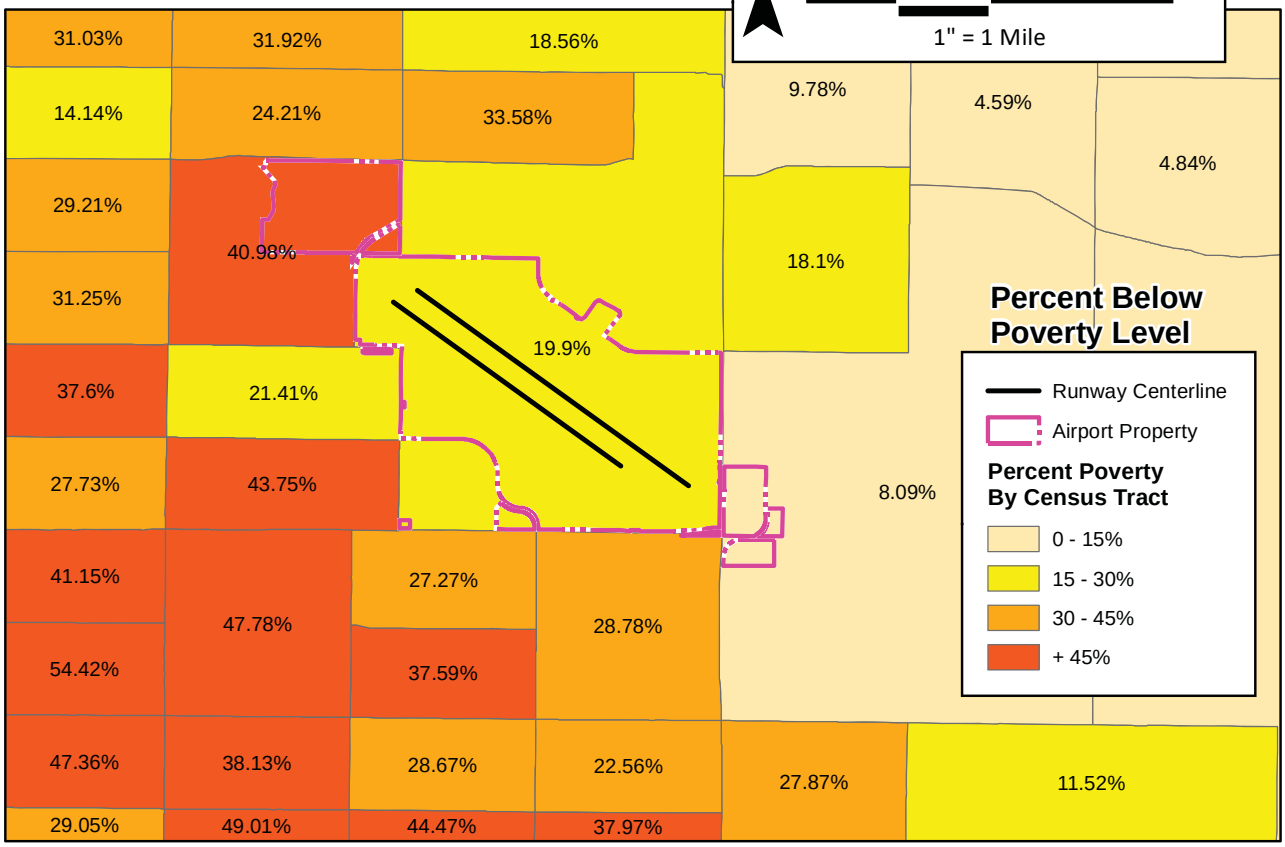
3.10.2 Environmental Justice

The project study area itself does not contain residences or environmental justice populations. The closest residential neighborhood to the project study area is approximately 1/3 mile away, south of E. McKinley Avenue. This neighborhood is separated from the project study area by a light industrial/office complex, as well as the airport's vehicular parking lot.

Exhibit 3D shows the percent of minority population by census tract in and around the airport based on 2019 American Community Survey (ACS) estimates conducted by the U.S. Census Bureau. The census tract containing the airport (C.T. 06019003104) is 46 percent minority (U.S. Department of Commerce, Census Bureau website 2021b.)

Table 3F provides context for the census tract information by providing similar population characteristics for the City of Fresno (city), the County of Fresno (county), and the State of California (state) overall. Approximately 73 percent of the population in the city is at least partially from a minority race, including Hispanic or Latino populations. The county is 71 percent minority populations, while the state is 63 percent.





Source: U.S. Department of Commerce 2019. U.S. Census Tracts and 2019 ACS 5-Year Estimates.

TABLE 3F
Population Characteristics (2019 Estimates)
City of Fresno, Fresno County, and State of California

Characteristic	City of Fresno	Fresno County	State of California
Total Population	522,010	384,521	39,283,497
Race (alone or in combination with one or more other races)			
Hispanic or Latino (of any race)	49.6%	53.1%	39.0%
Not Hispanic or Latino			
White alone	26.9%	29.4%	37.2%
Black or African American alone	7.0%	4.5%	5.5%
American Indian and Alaska Native alone	0.5%	0.5%	0.4%
Asian alone	13.4%	10.1%	14.3%
Native Hawaiian/Pacific Islander alone	0.1%	0.1%	0.4%
Other	0.2%	0.2%	0.3%

Source: U.S. Department of Commerce, Census Bureau website 2021b.

Exhibit 3D also shows the percentage of the population below poverty level by census tract in areas at and near the airport. Twenty percent of the population within the census tract containing the airport are considered low-income (i.e., living below the poverty level). **Table 3G** summarizes economic characteristics of the city, the county, and the state overall. The city has a lower median household and per capita income than either the county or the state, and its unemployment rate is higher. The city's percentage of families living below the poverty level is also higher.

TABLE 3G
Economic Characteristics (2019 Estimates)
City of Fresno, Fresno County, and State of California

Characteristic	City of Fresno	Fresno County	State of California
Median Household Income	$50,432	$53,969	$75,235
Families Below the Poverty Level	20.6%	18.3%	9.6%
Unemployment (civilians)	9.4%	8.7%	6.1%
Per Capita Income	$23,564	$24,422	$36,955

Source: U.S. Department of Commerce, Census Bureau website 2021a.

3.10.3 Children's Environmental Health and Safety Risks

The project study area itself does not contain residences or other land uses supporting children. Based on the 2018 ACS, 449 children ages 0-17 live within the census tract containing the airport. The closest residential neighborhood is separated from the project study area by a light industrial/office complex, as well as the airport's vehicular parking lot.

The closest public park or recreation areas likely to cater to children are Reedy Park and Carozza Park, located 0.65 mile and 0.92 mile to the southwest and south of the project study area, respectively. Three schools are within one mile of the project study area: Sierra Charter School is approximately 0.62 mile southwest; Fresno Adventist Academy is approximately 0.75 mile southeast; and Turner Elementary School is approximately 0.92 mile south. No schools, parks, or children's recreational facilities are located within 0.5 mile.

3.11 VISUAL EFFECTS - Light Emissions

The general study area for visual effects is the airport and a 0.25-mile radius from the airport. The project study area contains the following sources of light emissions: apron edge lighting, building security lighting, and potential internal lighting visible through windows of the existing FIS and passenger terminal buildings. These light sources are blocked from the airport traffic control tower by the existing terminal building. There are no significant sources of glint or glare affecting tower operations.

Similarly, sensitive land uses to light emissions are not present in or adjacent to the project study area. The closest residential neighborhood is separated from the project study area by a light industrial/office complex, as well as the airport's vehicular parking lot.

3.12 WATER RESOURCES - Surface Waters

The general study area for surface waters is the Mill Ditch subwatershed. There are no lakes and rivers, natural streams, or ponds within the project study area nor are there impaired water bodies or streams within the Mill Ditch subwatershed (U.S. EPA EJSCREEN website 2021).

The airport complies with the state's National Pollution Discharge Elimination System (NPDES) General Industrial Permit (Order 2014-0057-DWQ) under the *Clean Water Act* for discharges of stormwater associated with industrial activities. In accordance with the NPDES permit, the city and the airport have prepared a stormwater pollution prevention plan (SWPPP) that outlines best management practices (BMP), which are implemented to prevent the discharge of pollutants in stormwater.

3.13 PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE ACTIONS

FAA Order 5050.4B states that the Affected Environment chapter of an EA should include background information of other relevant past, present, and reasonably foreseeable, future actions (defined here as those that have a close causal relationship with the Proposed Project). For this EA, past projects are defined as those which occurred at the airport between 2016 and 2020. Ongoing projects are those that are occurring in 2021. Reasonably foreseeable, future actions are defined as those which are likely to become a reality, such as projects that have been included within the airport's five-year airport capital improvement program between 2022 and 2026.

3.13.1 Past Actions

Past projects for the airport include:

- West ramp reconstruction completed in 2016
- Employee parking lot expansion completed in 2016
- Parking lot expansion completed in 2019
- Taxiway C reconstruction completed in 2019

3.13.2 Present (Ongoing) Actions

- Construction of a new parking structure in the existing vehicular parking lot
- Remove and relocate high-speed Taxiway B3 within the infield

3.13.3 Reasonably Foreseeable Future Actions

Between 2022 and 2026, the airport is planning the following additional project:

- Reconstruction of Runway 11L-29R (2024-2027)

FRESNO YOSEMITE
International Airport

FAT Forward

Chapter Four

ENVIRONMENTAL CONSEQUENCES AND MITIGATION

Chapter Four ENVIRONMENTAL CONSEQUENCES AND MITIGATION

4.1 INTRODUCTION

The potential for environmental effects resulting from the Proposed Project and No Action alternative are presented in this chapter in accordance with Federal Aviation Administration (FAA) Order 1050.1F, *Environmental Impacts: Policies and Procedures* (FAA 2015b) and FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions* (FAA 2006). If warranted, avoidance, minimization, or mitigation measures are listed which would reduce or eliminate potential environmental impacts. Special purpose laws which protect various environmental resources are also identified, as applicable.

4.2 RESOURCES NOT IMPACTED BY PROJECT ALTERNATIVES

The Proposed Project and No Action alternative would not have adverse impacts in the categories that are listed below. Either these resources do not occur within or in proximity to the project study area, or no change to the existing condition would result from the Proposed Project, or both. Table 3A (Chapter Three) provides the rationale for those environmental resource categories that have been eliminated from further consideration and evaluation in this Environmental Assessment (EA).

- Coastal Resources
- Section 4(f) Resources
- Farmlands
- Land Use, including land use plan/policy inconsistencies per Title 49 United States Code (U.S.C.) section 47106(a)(1)
- Visual Resources/Visual Character
- Wetlands
- Floodplains
- Groundwater
- Wild and Scenic Rivers

4.3 AIR QUALITY

4.3.1 Analysis Methodology

FAA Order 1050.1F Significance Threshold: ***A significant impact to air quality would occur when pollutant concentrations exceed one or more of the National Ambient Air Quality Standards (NAAQS) as established by the United States (U.S.) Environmental Protection Agency (EPA) under the Clean Air Act (CAA), for any of the time periods analyzed, or increase the frequency or severity of any such existing violations.***

Under the federal CAA, as amended by the *Clean Air Act Amendments of 1990*, the U.S. EPA has established NAAQS for six criteria pollutants, as described in Section 3.3. Section 176(c) of the CAA requires projects overseen by federal agencies to demonstrate that they conform to State Implementation Plans (SIP) in U.S. EPA-designated air quality nonattainment areas. Pursuant to this responsibility, U.S. EPA codified the General Conformity regulations of the CAA. Per these regulations, federal actions in nonattainment areas must demonstrate that annual project-related air emissions do not cause or contribute to continued air quality violations in the area by remaining within the applicable *de minimis* thresholds.[1] Both the federal CAA and FAA provide guidance for conducting air quality analyses for airport projects under NEPA (FAA 2015a).

To quantify air pollutant emissions from construction activity, a construction emissions inventory was prepared using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2. The CalEEMod software model, published by the California Air Pollution Control Officers Association (CAPCOA) (2017) in collaboration with various California air districts, estimates on-road vehicle emissions, such as those from dump trucks or light-duty work trucks, and off-road vehicle emissions, such as heavy construction equipment. CalEEMod includes emissions factors that are adjusted to local climatic conditions in the area overseen by the San Joaquin Valley Air Pollution Control District (SJVAPCD).

Each construction phase of the project was modeled individually, based on its description, timeframe, and duration. However, several construction phases would experience an overlap of construction activity. Thus, the resultant emissions are divided into the individual phases and cumulatively summed for a perspective of how each phase would comply with the NAAQS *de minimis* standards, as well as the local thresholds of significance established by the SJVAPCD.

Two elements of the Proposed Project do not correspond with default land uses available in the CalEEMod software as they involve specific airport-related uses. Therefore, a CalEEMod land use generally similar to that specific phase of the project was selected based on anticipated operational activity, as discussed further below.

- Construction phases 1 and 5 were analyzed using defaults for Asphalt Surfaces incorporated into the CalEEMod software.

- Construction phases 2 and 3 relate to land uses specific to airport function and use, i.e., expansion of the main airport terminal. Therefore, default CalEEMod land use assumptions for "General Office Building" were substituted as a proxy based on the types of activity presumed to occur. Primary activities anticipated inside the terminal are passenger foot traffic and passenger holding for flights. No significant retail/commercial or industrial land uses are anticipated within the terminal. Additionally, the new terminal space does not meet the description of "General Heavy

[1] Under the General Conformity Rule, all reasonably foreseeable *direct* and *indirect* emissions occurring due to federally supported actions should be quantified and compared against *de minimis* thresholds in what is known as an applicability test. The applicability test is only conducted on pollutants for which the area is classified as either maintenance or nonattainment. Annual project-related emissions beneath the *de minimis* thresholds are considered to conform to state SIPs; annual emissions exceeding the thresholds require additional analysis to determine if the emissions are in violation of the applicable SIP.

Industry"[2] or "General Light Industry"[3] outlined in the CalEEMod *User's Guide* (CAPCOA 2017). Similar to office space, the terminal would be heated and cooled, and typical operational emissions would result with climate control equipment.

- A CalEEMod air quality analysis was not performed on Phase 4. This construction phase would be limited to interior work, and the workers traveling to the airport would be typical of other ongoing minor airport renovations.

In addition to calculating construction emissions, CalEEMod was used to estimate operational emissions that could result from the terminal expansion and apron's ongoing electrical demand and vehicular emissions. The resulting reports are on file with the airport.

No aircraft operational emissions inventory was prepared for the Proposed Project. The Proposed Project would not permanently change airport operations or aircraft traffic patterns and would not result in increases in air emissions when compared to the No Action alternative.

4.3.2 Proposed Project

Temporary Construction Impacts. Implementation of the Proposed Project would generate air pollutant emissions related to construction activities for approximately two years. Since construction-related air pollutant emissions vary based on the duration and level of activity, the corresponding level of emissions would vary each year based on improvements undertaken. Refer to Section 1.4, Exhibit 1G, and Table 1B for a description of the project activity for each phase.

Table 4A summarizes the estimated construction emissions in tons per year (per the NAAQS) for the Proposed Project. Implementation of the Proposed Project would not generate construction emissions above any *de minimis* levels applied for the CAA applicability test. Also, no exceedances of local air quality thresholds would occur.

[2] General Heavy Industry – Heavy industrial facilities usually have a high number of employees per industrial plan and are generally limited to the manufacturing of large items.

[3] General Light Industry – Light industrial facilities are free-standing facilities devoted to a single use. The facilities have an emphasis on activities other than manufacturing and typically have minimal office space. Typical light industrial activities include printing, material testing, and assembly of data processing equipment.

TABLE 4A
Proposed Project Construction Emissions vs. Federal *De Minimis* and SJVAPCD Thresholds (Tons per Year)

	O_3[1]	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Federal De Minimis Thresholds	*10*[2]	*10*[2]	*100*[3]	*100*[4]	*100*[3]	*70*[5]
SJVAPCD Local Thresholds	***10***	***10***	***100***	***27***	***15***	***15***
Year 2022						
Phase 1	0.20	2.09	1.48	<0.01	0.51	0.29
Phase 2	0.04	0.67	0.34	<0.01	0.05	0.02
Phase 3	0.75	2.21	2.38	<0.01	0.23	0.04
2022 Total	*0.99*	*4.97*	*4.2*	*<0.01*	*0.79*	*0.35*
Exceed Applicable Thresholds?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**
Year 2023						
Phase 2	0.19	0.80	0.87	<0.01	0.05	0.04
Phase 3	0.24	2.21	2.37	<0.01	0.07	0.04
2023 Total	*0.43*	*3.01*	*3.24*	*<0.01*	*0.12*	*0.08*
Exceed Applicable Thresholds?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**
Year 2024						
Phase 3	0.75	0.85	1.00	<0.01	0.07	0.04
Phase 5	<0.01	0.08	0.11	<0.01	0.01	<0.01
2024 Total	*0.75*	*0.93*	*1.11*	*<0.01*	*0.08*	*0.04*
Exceed Applicable Thresholds?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

[1] NO_x and volatile organic compounds (VOC) (also identified as reactive organic gas [ROG]), which are O_3 precursors, are used in modeling for O_3.
[2] Federal *de minimis* threshold for extreme nonattainment for O_3.
[3] Federal *de minimis* threshold for maintenance areas for PM_{10}.
[4] Federal *de minimis* threshold for SO_2 if also in nonattainment for $PM_{2.5}$.
[5] Federal *de minimis* threshold for serious nonattainment for $PM_{2.5}$.
SJVAPCD = San Joaquin Valley Air Pollution Control District
NOTES: A CalEEMod air quality analysis was not performed on Phase 4. This phase of the Proposed Project is limited to interior work, and the workers traveling to the airport would be typical of other ongoing minor airport renovations. Numbers may not add due to rounding.
Sources: SJVAPCD 2015; U.S. EPA website 2020; CalEEMod version 2016.3.2 (Coffman Associates, Inc. analysis)

Operational Impacts. **Table 4B** identifies operational emissions that could result from ongoing electrical demand and vehicular emissions related to the terminal expansion and apron reconfiguration. Once fully operational, the terminal expansion is expected to produce emissions due to the energy demands for lighting, climate control, and other airport operational needs. Some emissions are also expected due to vehicular traffic generated by additional employees or deliveries. All operational emissions would be below the federal *de minimis* and local thresholds.

No changes to the airfield or terminal (gate) capacity are proposed under the Proposed Project. Therefore, no changes to aircraft operational emissions associated with the implementation of the Proposed Project would occur. However, indirect beneficial impacts to air quality may result since aircraft would no longer be required to sit on the ramp for extended periods of time waiting for international passengers to deplane.

TABLE 4B
Proposed Project Operational Emissions vs. Federal *De Minimis* and SJVAPCD Thresholds (Tons per Year)

	O_3[1]	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Federal *De Minimis* Thresholds	***10***[2]	***10***[2]	***100***[3]	***100***[4]	***100***[3]	***70***[5]
SJVAPCD Thresholds	***10***	***10***	***100***	***27***	***15***	***15***
Completion of Phase 1 (Year 2023)	0.02	0.00	<0.01	0.00	0.00	0.00
Completion of Phases 2, 3, and 5 (Year 2024)	0.74	2.48	2.43	0.01	0.83	0.23
Full Buildout Total	***0.76***	***2.48***	***2.43***	***0.01***	***0.83***	***0.23***
Exceed Applicable Thresholds?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

[1] NO_x and VOCs (also identified as ROGs), which are O_3 precursors, are used in modeling for O_3.
[2] Federal *de minimis* threshold for extreme nonattainment for O_3.
[3] Federal *de minimis* threshold for maintenance areas for PM_{10}.
[4] Federal *de minimis* threshold for SO_2 if also in nonattainment for $PM_{2.5}$.
[5] Federal *de minimis* threshold for serious nonattainment for $PM_{2.5}$.
SJVAPCD = San Joaquin Valley Air Pollution Control District
NOTE: A CalEEMod air quality analysis was not performed on Phase 4. This phase of the Proposed Project is limited to interior work, and the workers traveling to the airport would be typical of other ongoing minor airport renovations.
Sources: SJVAPCD 2015; U.S. EPA website 2020; CalEEMod version 2016.3.2 (Coffman Associates, Inc. analysis)

Conclusion. The Proposed Project would not result in air pollutant concentrations that would exceed one or more NAAQS and, therefore, would not result in a significant impact on air quality.

4.3.3 No Action Alternative

No construction or operational emissions would occur under the No Action alternative. However, the potential benefits of the Proposed Project discussed above under Operational Impacts would not occur.

4.3.4 Avoidance, Minimization, or Mitigation Measures

No avoidance, minimization, or mitigation measures are necessary.

4.4 BIOLOGICAL RESOURCES

4.4.1 Analysis Methodology

FAA Order 1050.1F Significance Threshold: A significant impact to federally listed threatened or endangered species would occur when the United States Fish and Wildlife Service (USFWS) determines the Proposed Action would be likely to jeopardize the continued existence of a federally listed threatened or endangered species or would result in the destruction or adverse modification of federally designated critical habitat. FAA has not established a significance threshold for non-listed species.

Biotic resources are the various types of flora (plants) and fauna (animals) and the habitat supporting those species located in a particular area. The following regulations are pertinent to this analysis:

- The federal *Endangered Species Act of 1973* provides protection for species that are facing potential extinction. Impacts to listed species resulting from the implementation of a project require the responsible agency or individual to formally consult with the USFWS to determine the

extent of impact to a particular species. If the USFWS determines that impacts to a species would likely occur, alternatives and measures to avoid or reduce impacts must be identified. USFWS also regulates activities conducted in federal critical habitat, which are geographic units designated as areas that support primary habitat constituent elements for listed species.

- The *Migratory Bird Treaty Act* (MBTA) prohibits private parties and federal agencies from intentionally taking a migratory bird, their eggs, or nests.

- State regulations include the California *Endangered Species Act*, which ensures legal protection for plants listed as rare or endangered and species of wildlife formally listed as endangered or threatened. This state law also lists Species of Special Concern based on limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational values.

To evaluate potential impacts to biological resources, a Biological Evaluation (BE) was completed for the Proposed Project (SWCA Environmental Consultants [SWCA] 2020a) (**Appendix B**). The BE was based on a field survey of the biological study area (BSA) (Exhibit 3B).

4.4.2 Proposed Project

Temporary Construction and Operational Impacts. No federally listed species or federally designated critical habitat are present in the BSA or would be adversely impacted due to the Proposed Project.

Based on field surveys completed in May 2019 and May 2020, the BSA provides marginally suitable habitat for nesting bird species that are protected under the MBTA. Common passerines (such as killdeer or horned lark) may use the ruderal vegetation for nesting and/or foraging; raptors may use the area for foraging. Ground-nesting habitat would be impacted by project activities, including grading and vegetation removal. If the project activities are conducted between March and September, birds may be nesting within or adjacent to the affected area and the individuals could be directly or indirectly impacted. Adverse impacts could include loss of active nests during vegetation removal.

Conclusion. The Proposed Project would not result in a significant impact to federally listed species or designated critical habitat. Although FAA has not established a significance threshold for non-listed species, avoidance and minimization measures would be implemented to ensure potential direct or indirect impacts to ground-nesting birds do not occur.

4.4.3 No Action Alternative

No project area disturbance would occur under the No Action alternative and, thus, no impacts to biological resources would occur.

4.4.4 Avoidance, Minimization, or Mitigation Measures

No mitigation measures are necessary; however, the following avoidance and minimization measures would be implemented.

Avoidance and Minimization Measures

The following measure would be implemented to avoid or minimize potential impacts to migratory birds resulting from the Proposed Project:

- To the maximum extent possible, initial grading of the ruderal vegetation in the project area would be conducted between October and February, which is outside the typical migratory bird breeding season for the area. Since October to February is typically the wet season, temporary best management practices (BMP) would be employed to control water pollution, soil erosion, and siltation. If the project schedule does not provide for late season initial grading in the ruderal vegetation, a nesting bird survey shall be conducted by a qualified biologist no more than one week prior to the grading to determine presence/absence of nesting birds within the vegetated area.

  If active nests are observed, work activities shall be avoided within 100 feet of the active nest(s) until young birds have fledged and left the nest. The nests shall be monitored weekly by a biologist having experience with nesting birds to determine when the nest(s) become(s) inactive. The buffer may be reduced but not eliminated during active nesting if deemed appropriate by the biologist. Readily visible exclusion zones shall be established in areas where nests must be avoided. Nests, eggs, or the young of birds covered by the MBTA shall not be moved or disturbed until the young have fledged.

4.5 CLIMATE

4.5.1 Analysis Methodology

FAA Order 1050.1F Significance Threshold: FAA has not identified any significance thresholds for greenhouse gas (GHG) emissions, and there are currently no accepted methods of determining significance applicable to aviation projects given the small percentage of emissions they contribute. However, although there are no federal standards for aviation-related emissions, it is well-established that GHG emissions can affect climate.

The following section discloses the potential incremental change in GHG emissions that would result from the Proposed Project compared to the No Action alternative for the same timeframe. It then discusses the context for interpreting and understanding the potential changes in accordance with FAA's *1050.1F Desk Reference*, which states, "Where the proposed action or alternative(s) would result in an increase in GHG emissions, the emissions should be assessed either qualitatively or quantitively …".

An estimate of GHG emissions attributable to construction and operational emissions due to the Proposed Project and No Action alternatives is provided. The Proposed Project would not result in increases in GHG emissions related to the ongoing aviation activity at the airport since it would not permanently change airport operations or aircraft traffic patterns.

The methodology to disclose GHG emissions within this EA includes quantification of emissions with computer software. As described previously in Section 4.3.1, emissions from proposed construction and operational activity were modeled using the CalEEMod, Version 2016.3.2. The inputs used to calculate the air pollutant emissions in Section 4.3.1 were also used to calculate GHG emissions. The resulting reports are on file with the airport.

4.5.2 Proposed Project

Temporary Construction Impacts. Implementation of the Proposed Project would generate GHGs related to construction activities for approximately two years. The information presented in **Table 4C** below identifies the total project GHGs (in metric tons per year [MT/yr]) calculated by CalEEMod for each GHG per calendar year of construction. These amounts are then multiplied by the global warming potential (GWP) for each GHG to determine the final carbon dioxide equivalent[4] (CO_2e) total for that calendar year.

As shown in the table, the first year of construction would result in 755.39 MT of CO_2e. The second year total of construction GHGs would be 598.01 MT of CO_2e and the third year would be 204.96 MT CO_2e.

TABLE 4C
Proposed Project Construction Greenhouse Gas Emissions (MT/yr)

Phase	CO_2	CH_4	N_2O	Total CO_2e[1]
GWP	**1**	**36**	**298**	
Year 2022				
Phase 1	336.26	0.08	0.00	338.17
Phase 2	156.17	0.02	0.00	156.64
Phase 3	259.68	0.04	0.00	260.58
2022 Total CO_2e[1]	*752.11*	*0.14*	*0*	*755.39*
Year 2023				
Phase 2	133.08	0.04	0.00	134.06
Phase 3	464.93	0.08	0.00	466.89
2023 Total CO_2e[1]	*598.01*	*0.12*	*0*	*600.95*
Year 2024				
Phase 3	187.06	0.03	0.00	187.90
Phase 5	17.90	<0.01	0.00	17.98
2024 Total CO_2e[1]	*204.96*	*0.03*	*0*	*205.88*

[1] CO_2e totals account for the GWP of each GHG. Final CO_2e numbers may differ slightly from those shown in the reports generated by CalEEMod, due to rounding of numbers.
MT/yr = metric tons per year
GWP = global warming potential
CO_2e = carbon dioxide equivalent
NOTE: A CalEEMod air quality analysis was not performed on Phase 4. This phase of the Proposed Project is limited to interior work, and the workers traveling to the airport would be typical of other ongoing minor airport renovations.
Source: CalEEMod version 2016.3.2 analysis (Model reports are on file with the airport.)

Operational Impacts. **Table 4D** provides the total annual GHG emissions from the project once fully operational. Each portion of the Proposed Project was individually modeled through CalEEMod as it would become operational. At full buildout, all the individual elements of the project are summed for a total annual GHG emissions output for the project.

The Proposed Project's operational GHG emissions are estimated to be 1,726.31 MT/yr once the project is completely occupied and functional. However, it should be noted that "General Office Building" land

[4] CO_2e factors in the individual GWPs for carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). This allows the computation of overall global warming impacts by accounting for how much energy the emissions of one ton of a particular gas would absorb over a given period compared to the emissions of one ton of CO_2.

use was substituted for the commercial airport terminal expansion in the CalEEMod program (see Section 4.3.1). While considered an acceptable proxy for the energy needs of the new building space (and thus associated GHG emissions), a general office building is not a good proxy for the number of new employees and associated vehicle trips. Many of the functions that would occur in the new and remodeled building space already occur at the airport.[5]

TABLE 4D
Proposed Project Operational Greenhouse Gas Emissions (MT/yr)

Onset of Operation	CO_2	CH_4	N_2O	Total CO_2e[1]
Completion of Phase 1 (Year 2023)	<0.01	0.00	0.00	<0.01
Completion of Phases 2, 3, and 5 (Year 2024)	1,673.12	1.90	0.02	1,726.31
GWP	**1**	**36**	**298**	
Full Buildout Totals CO_2e	1,673.12	1.90	0.02	1,726.31

[1] Final CO_2e numbers may differ slightly from those shown in the reports generated by CalEEMod, due to rounding of numbers.
MT/yr = metric tons per year
GWP = global warming potential
CO_2e = carbon dioxide equivalent
NOTE: A CalEEMod air quality analysis was not performed on Phase 4. This phase of the Proposed Project is limited to interior work, and the workers traveling to the airport would be typical of other ongoing minor airport renovations.
Source: CalEEMod version 2016.3.2 analysis (Model reports are on file with the airport.)

Potential beneficial impacts related to a decrease in the airport's GHG production would occur since aircraft would no longer be required to sit on the ramp for extended periods of time waiting for international passengers to deplane. In addition, the indirect effect of offering an improved regional airport in Fresno would potentially decrease vehicular trips and miles traveled (and related GHG emissions) associated with air travel in the state overall. In other words, if the airport becomes more desirable, the air traveling public in Fresno and the surrounding areas would travel less to other airports located farther away (e.g., San Jose, Oakland, and Sacramento, California).

Conclusion. The Proposed Project would contribute to increases in GHGs temporarily during construction but may result in a decrease in GHGs in the long term due to the potential indirect benefits of the project discussed above under Operational Impacts.

4.5.3 No Action Alternative

No direct GHG emissions would occur under the No Action alternative. However, the potential benefits of the Proposed Project discussed above under Operational Impacts would not occur.

4.5.4 Avoidance, Minimization, or Mitigation Measures

No avoidance, minimization, or mitigation measures are necessary.

[5] For example, the airport management estimates that the Proposed Project would require an additional 17 airport employees, including some that do not travel to the airport daily. Assuming two trips per employee and 10 other miscellaneous trips per day, this would translate to less than 50 trips per day. However, the CalEEMod program assumed 1,010 trips/day for trips associated with the operation of an office building. Therefore, the operational GHGs reported in **Table 4D** are higher than what are expected to occur from the Proposed Project.

4.6 HAZARDOUS MATERIALS, SOLID WASTE, AND POLLUTION PREVENTION

4.6.1 Hazardous Materials

4.6.1.1 Analysis Methodology

***FAA Order 1050.1F Factors to Consider:** FAA has not established a significance threshold for this impact category. However, factors to consider are the Proposed Action's potential to:*

- *Violate applicable federal, state, tribal, or local laws or regulations regarding hazardous materials management;*
- *Involve a contaminated site, including, but not limited to, a site listed on the National Priorities List (NPL);*
- *Produce an appreciably different quantity or type of hazardous waste; or*
- *Adversely affect human health and the environment.*

Four primary federal laws govern the handling and disposal of hazardous materials, chemicals, substances, and wastes. The two statutes of most importance to airport projects are the *Resource Conservation Recovery Act* (RCRA) (as amended by the *Federal Facilities Compliance Act of 1992*) and the *Comprehensive Environmental Response, Compensation, Liability Act* (CERCLA), as amended (also known as Superfund). RCRA governs the generation, treatment, storage, and disposal of hazardous wastes. CERCLA provides for cleanup of any release of a hazardous substance (excluding petroleum) into the environment. Other laws include the *Hazardous Materials Transportation Act*, which regulates the handling and transport of hazardous materials and wastes, and the *Toxic Substances Control Act*, which regulates and controls the use of polychlorinated biphenyls (PCBs), as well as other chemicals or toxic substances in commercial use.

For preparation of this EA, federal and state online databases related to the presence and/or cleanup of hazardous materials, as well as available information on known airport hazardous or formerly hazardous conditions, have been accessed relative to the project study area. The potential for the Proposed Project to create or result in increased risk of exposing surrounding populations or the environment to hazardous materials was evaluated based on the existing hazardous materials use and waste management programs in place at the airport as well as the airport's spill prevention and response protocols.

An inventory of the closest schools to the project study area was also conducted. There are no schools within ¼ mile of the airport (Section 3.10.3).

4.6.1.2 Proposed Project

Temporary Construction Impacts. The Proposed Project would result in demolition and construction activities that would involve the use, storage, and handling of hazardous materials as well as the generation of hazardous waste. However, as a commercial service airport, the airport enforces spill prevention, control, and countermeasure (SPCC) plans, as appropriate, as well as a hazardous materials business response plan (see discussion in the following paragraph). Compliance with these, and other rigorous state and local regulatory requirements, would ensure that impacts related to hazardous materials and waste products during project construction activities are avoided or minimized.

Operational Impacts. No new types of hazardous materials or adverse effects on the human environment would occur because of the Proposed Project. The airport, as a Class I commercial service airport, is required to have an Airport Operating Certificate per 14 C.F.R. part 139, in addition to meeting numerous federal regulations. These regulations include standards for the handling and storing of hazardous materials and safety inspection and reporting procedures. The airport's hazardous materials business response plan contains an emergency response/contingency plan module (per 14 C.F.R. 139.325) that addresses emergency procedures for all parts of the facility.

Conclusion. Implementation of the Proposed Project would not result in a significant impact on the environment associated with the use, transport, or disposal of hazardous materials due to the existing regulatory environment for the treatment of hazardous materials and hazardous waste.

4.6.1.3 No Action Alternative

No new types of hazardous materials or adverse effects on the human environment would occur because of the No Action alternative. No changes to the existing airport environment and operating procedures would occur.

4.6.1.4 Avoidance, Minimization, or Mitigation Measures

No mitigation measures are necessary; however, the following avoidance and minimization measures would be implemented.

Avoidance and Minimization Measures

- During construction, if previously unknown contaminants are discovered or a spill occurs, work shall be halted, and the National Response Center notified, where applicable. Per the airport's hazardous materials business response plan, the airport shall immediately report any release or threatened release of hazardous materials to the Fresno County Health Department.

- Appropriate spill prevention and cleanup kits shall be readily available on-site and accidental spills shall be promptly cleaned up. The contractor shall follow standard hazardous materials containment procedures and other BMPs should an inadvertent spill occur.

4.6.2 Solid Waste

4.6.2.1 Analysis Methodology

***FAA Order 1050.1F Factor to Consider:** FAA has not established a significance threshold for this impact category. However, a factor to consider is the Proposed Action's potential to:*

- ***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.***

Estimates of construction solid waste were obtained by the project engineers based on preliminary design and estimates of construction activity. For operational solid waste estimates, average solid waste generation factors based on land use are available from CalRecycle. CalRecycle compiles solid waste generation rates for commercial and industrial activities over an amount of time (i.e., day, year) to estimate new developments' impact on the local waste stream. These estimates include information from city and county planning departments, as well as environmental departments across the state (CalRecyle website 2020).

4.6.2.2 Proposed Project

Temporary Construction Impacts. The demolition phase of the Proposed Project would include removing approximately 4,868 cy of asphalt, 904 cy of Portland concrete cement (PCC), 19,779 cy of soil or rock, and 788 cy of building demolition (Federal Inspection Station [FIS] building) (**Table 4E**). The asphalt portions of this construction's solid waste would be hauled to a recycling facility and reused as road base or otherwise incorporated into new asphalt products. Other construction material would also be subject to applicable federal, state, and local solid waste statutes and regulations for waste diversion.[6] Subsequent to the diversion of all recyclable materials, the remaining waste would be disposed at a municipal or construction waste facility.

TABLE 4E
Proposed Project Construction Solid Waste (cubic yards, cy)

Project Component	Asphalt	PCC	Other Soil or Rock	Building Demolition
Terminal Apron	1,754	157	6,155	--
Terminal Building Pavement	3,114	747	4,451	--
Terminal Building Expansion	--	--	9,173	788
TOTAL	**4,868**	**904**	**19,779**	**788**

PCC = Portland cement concrete

Sources: KHA 2019a; KHA 2019b; CSHQA 2019

Operational Impacts. The Proposed Project would result in a net increase of 75,546 square feet (sf) of building space (88,616 sf of new terminal expansion less 13,070 sf of demolished FIS space = 75,546 sf). Based on a rate of 5 pounds (lb)/1,000 sf/day for commercial buildings, the Proposed Project could generate an additional 377.73 pounds/day (75.546 sf X 5 lbs/day). However, the Proposed Project is not a capacity-increasing project, and thus the additional building space does not necessarily correlate to additional solid waste generation, especially on a per-square-foot of building space basis. Therefore, it is likely that the Proposed Project would generate less additional solid waste than the CalRecycle generation factor for a commercial space indicates.

Operational solid waste disposal at the airport is handled by the city's Solid Waste Management Division. Non-hazardous waste material is collected in designated areas of the airport and taken to the Cedar Avenue Recycling and Transfer Facility. The airport currently separates its solid waste into two waste streams: trash and recyclables. Non-recyclable solid waste is ultimately transported to the American Avenue landfill in Kerman, California. This landfill has sufficient capacity to handle the Proposed Project's solid waste through the year 2031 (CalRecycle website 2021).

[6] The 2016 California Green Building Standards Code (CALGreen) establishes a threshold of recycling and/or salvage for reuse of construction waste management, which is a reuse of a minimum of 65 percent of the nonhazardous construction and demolition waste, or meet local construction and demolition waste management ordinance, whichever is more stringent (California Buildings Standards Commission 2016).

Conclusion. No significant impacts to solid waste disposal or the Cedar Avenue Recycling and Transfer Facility or American Avenue landfill capacities to handle solid waste reuse or disposal would occur due to implementation of the Proposed Project.

4.6.2.3 No Action Alternative

No new types of solid waste or additional solid waste disposal would occur because of the No Action alternative.

4.6.2.4 Avoidance, Minimization, or Mitigation Measures

No avoidance, minimization, or mitigation measures are necessary.

4.6.3 Pollution Prevention

4.6.3.1 Analysis Methodology

FAA Order 1050.1F Factor to Consider: FAA has not established a significance threshold for this impact category. However, a factor to consider is the Proposed Action's potential to:

- ***Adversely affect human health and the environment.***

Refer to Section 4.6.1.1 for a description of the analysis methodology used to evaluate pollution prevention at the airport. See also Section 3.12 regarding pollution prevention under the *Clean Water Act*.

4.6.3.2 Proposed Project

Temporary Construction Impacts. During construction of the Proposed Project, contractors would be held responsible for reporting any discharges of hazardous materials or other substances; BMPs would be used to minimize the potential adverse effect to the public and environment. Applicable federal, state, and local regulatory requirements, as discussed in Section 4.6.1, would ensure that impacts related to the use of hazardous materials and/or accidental spills during construction would not adversely affect human health and the environment.

Operational Impacts. Applicable federal, state, and local regulatory requirements, as discussed in Section 4.6.1, would ensure that the use of hazardous materials and/or accidental spills during operation of the Proposed Project would not adversely affect human health and the environment.

Conclusion. The airport has effective procedures and plans in place that are applied to all development at the airport. Implementation of the Proposed Project would not result in a significant impact to the airport's ability to implement plans and procedures to prevent pollution.

4.6.3.3 No Action Alternative

No impacts related to pollution prevention at the airport would occur due to the No Action alternative. No changes to the existing airport environment and operating procedures would occur.

4.6.2.4 Avoidance, Minimization, or Mitigation Measures

No avoidance, minimization, or mitigation measures are necessary.

4.7 HISTORICAL, ARCHITECTURAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

4.7.1 Analysis Methodology

FAA Order 1050.1F Factor to Consider: FAA has not established a significance threshold for this impact category. However, a factor to consider is if the Proposed Action would result in a finding of "adverse effect" through the Section 106 process.

Determination of a Proposed Project's environmental impact to historic and cultural resources is made under guidance contained in the *National Historic Preservation Act of 1966* (NHPA), as amended, and the *Archaeological and Historic Preservation Act of 1974*. Section 106 of the NHPA requires federal agencies to consider the effects of their undertaking (or action) on properties listed on or eligible for listing in the National Register of Historic Places (NRHP). A 15.6-acre Area of Potential Effect (APE) was established for the Proposed Project (**Exhibit 4A**).

Much of the airport has been previously surveyed for cultural resources (URS Corporation 2007), and no significant historical properties were discovered. An updated cultural resources records search conducted in July 2019 also indicated that no eligible historic properties or historical resources have been identified within airport property. Due to the "coming of age" of the existing passenger terminal, which was originally constructed in 1962 and modified several times from 1993-2010, the building was analyzed for its eligibility for listing on the NRHP as part of this EA (SWCA 2020b).

4.7.2 Proposed Project

Temporary Construction and Operational Impacts. Implementation of the Proposed Project would result in the demolition of the FIS building (constructed in 2006) and a minor portion of the passenger terminal. As none of the buildings to be demolished are on or eligible for the NRHP, demolition of the buildings identified would not result in a significant impact on historic properties. The FIS building is not 50 years of age, and the passenger terminal has not retained its integrity to the time of its period of significance due to the extensive alterations to its exterior and interior.

FAA has determined no historic properties would be affected by the Proposed Project. Therefore, the Proposed Project would not have a significant impact on historical, architectural, archaeological, or cultural resources. By letter dated August 31, 2021 (**Appendix C**), the FAA has initiated a NHPA, Section 106 consultation with the California State Historic Preservation Office (SHPO). By letter dated October 14, 2021 (**Appendix C**), the California SHPO concurred with the FAA determination that no historic properties would be affected by the Proposed Project, completing the NHPA, Section 106 consultation process.

As part of its Section 106 responsibilities under the NHPA, FAA also contacted the Dumna Wo Wah Tribal Government, Kings River Choinumni Farm Tribe, Santa Rosa Rancheria Tachi Yokut Tribe, Table Mountain Rancheria, and Waksache Indian Tribe/Eshorn Valley Band regarding the Proposed Project. No comments or information from these tribes was received by FAA in response to its letters or emails.

LEGEND

Area of Potential Effect (15.6 acres)

Feet
0 100 200 400

Meters
0 25 50 100

Scale: 1:2,600

Source: SWCA Environmental Consultants, Cultural Resources Report, 7/9/2020

Exhibit 4A
AREA OF POTENTIAL EFFECT

Conclusion. No impacts to known historical, architectural, archaeological, or cultural resources would occur due to the Proposed Project. Impacts to unknown cultural resources or the unanticipated discovery of human remains are, however, always a possibility. This EA includes avoidance and minimization measures in case of an unanticipated discovery of resources.

4.7.3 No Action Alternative

Since no ground disturbance or change in airport use would result from the No Action alternative, no impacts to historical properties or other cultural resources would occur.

4.7.4 Avoidance, Minimization, or Mitigation Measures

No mitigation measures are necessary.

Avoidance and Minimization Measures

- If cultural resources are exposed during project implementation, work shall stop in the immediate vicinity, and an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards shall be retained to evaluate the find and recommend relevant mitigation measures.

- If human remains are discovered during construction, no further disturbance to the site shall occur, and the County Coroner must be notified (14 California Code of Regulations [CCR] section 15064.5; California Public Resources Code section 5097.98) to identify the appropriate disposition of such remains.

4.8 NATURAL RESOURCES AND ENERGY SUPPLY

4.8.1 Analysis Methodology

***FAA Order 1050.1F Factor to Consider:** FAA has not established a significance threshold for this impact category. However, a factor to consider is if the Proposed Action would have the potential to exceed available or future supplies of natural or energy supply resources.*

The 2016 California Green Building Standards Code (CALGreen) requires numerous energy and resource efficiency measures. Therefore, the following analysis provides estimates of the proposed natural and energy resource use by the project and provides references to the state resource and energy efficiency mandates.

In addition, any FAA-owned or leased facilities would be subject to FAA Order 1053.1C, *Energy and Water Management Program for FAA Buildings and Facilities* (FAA 2017), which establishes energy conservation standards for airport buildings and facilities. These standards, as set forth in FAA Order 1053.1C, are designed to manage the acquisition, consumption, and conservation of energy and water resources in a manner that minimizes both the expense and the impact of FAA operations on human health and the environment. FAA energy and water reduction requirements are based on mandates established by federal legislation, Executive Orders, and U.S. Department of Transportation policy.

4.8.2 Proposed Project

Temporary Construction Impacts. **Table 4F** identifies estimated quantities of raw materials needed for the various project components provided by the project engineers based on preliminary design. To construct the Proposed Project, approximately 6,020 cubic yards (cy) of base material (aggregate) would be brought in for the project pavements. Approximately 5,515 tons of new asphalt and 25,473 cy of Portland cement concrete would be used for laying down over the base for the apron and terminal building pavements.

These materials are available using existing suppliers in the region. (Estimates of raw and secondary materials, such as lumber and metal for the terminal building, are not available at this time, but they would also be provided using regional or local suppliers under market conditions.) The Proposed Project would not adversely affect the availability of valuable or locally important mineral resources identified in a local planning study.

TABLE 4F
Proposed Project Estimates of Raw Materials

Project Component	Aggregate Base	Asphalt	Portland Cement Concrete
Terminal Apron	3,895 cy	5,515 tons	15,810 cy
Terminal Building Pavement	2,125 cy	-	9,663 cy
TOTAL	**6,020 cy**	**5,515 tons**	**25,473 cy**

PCC = Portland cement concrete
cy = cubic yard(s)
NOTE: Estimates of raw and secondary materials, such as lumber and metal for the terminal building, are not available at this time, but they would also be provided using regional or local suppliers under market conditions.

Sources: KHA 2019a; KHA 2019b; CSHQA 2019

Non-potable water use during construction would be necessary for dust suppression and the washing of construction vehicles but would not exceed local water supplies.

During construction, energy use would result from the operation of on- and off-road equipment and vehicles. On-road sources of energy consumption include the fuel consumption from: construction workers driving to and from the airport; delivery vehicles transporting materials to and from the airport; earth removal activities both on and off the airport; and construction debris removal (i.e., solid waste hauled off the airport). Off-road sources of energy consumption include the fuel consumption for equipment during each phase of construction.

The airport would complete the construction of each phase in the most efficient way possible to reduce unnecessary energy consumption. The California Air Resources Board's energy efficiency measures (*In-Use Off-Road Diesel-Fueled Fleets Regulations* [2016]) applies to all self-propelled off-road vehicles that are 25 horsepower or more, as well as most two-engine vehicles. Energy consumption during construction would not exceed market supplies.

Operational Impacts. Minimal changes in the amount of water demand occurring at the airport would occur due to the Proposed Project. The Proposed Project would remove 12 sinks and 18 toilets that were installed per state Building Code requirements in 2006 as part of the planned building demolition. The replacement of these fixtures with more water efficient versions per CALGreen requirements would help to offset the Proposed Project's water demand and wastewater generation.

The airport, as an end user of water from the city, is required to comply with the City of Fresno's 2015 *Urban Water Management* Plan (UWMP) and Section 6-520(a) of the city's Municipal Code. The UWMP includes a set of restrictions on water usage that help promote water conservation and overall water usage reduction. These regulations include year-round outdoor watering schedules, turf type restrictions, and turf irrigation methods (City of Fresno 2016: Table 8-2). Additional details can be found in Section 6-520(a) of the city's Municipal Code. Other restrictions may exist during periods of water shortage. Landscaped areas of the Proposed Project would implement the city's approved outdoor watering schedules and other landscaping restrictions.

Based on the CalEEMod outputs obtained in the air quality analysis, the Proposed Project would require an estimated 834,763 kilowatt hours (kWh) per year of electricity and 1,194,480 kilo-British thermal units of natural gas (kBTU) per year once the project is completed and operational **(Table 4G)**. This estimate is based on the area (in square feet) of the terminal building expansion, and the energy required to light, heat, cool, and provide energy sources for other building functions. The airport currently gets 60 percent of its electricity from its on-airport solar farm.

The estimated energy demands shown in **Table 4G** do not account for specific energy efficiency measures. However, all new buildings would be constructed to meet CALGreen (CCR, Title 24, part 11), which includes mandatory measures for nonresidential development in a variety of categories, one of which relates to materials conservation and resource efficiency. CCR, Title 24, part 6 building regulations would apply to all new development or redevelopment, including: compliance with American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) 90.1 national standards; efficiency requirements for elevators and digital controls; and energy efficiency measures pertaining to building envelopes, mechanical systems, lighting (indoor, outdoor, and signage), electrical power distribution, and solar readiness.

Operation of FAA-leased Air Traffic Organization (ATO) offices would also be required to conform to the standards of FAA Order 1053.1C.

Conclusion. The Proposed Project would not cause demand to exceed available or future supplies of natural or energy resources. No significant impacts related to this resource category would occur.

TABLE 4G
Proposed Project Annual Operational Energy Use (without energy efficiency measures)

Project Component	Electricity Use (kWh/yr)	Natural Gas (kBTU/yr)	Vehicle Miles Traveled	Gallons of Fuel (based on 25 mpg)
Terminal Apron Expansion	0	0	0	0
Terminal Building Expansion[1]	976,688	1,397,564	2,144,599[2]	85,784[2]
Parking Lot Expansion	13,874	0	0	0
TOTAL	**990,562**	**1,397,564**	**2,144,599[2]**	**85,784[2]**

[1] Does not include the decrease for the removal of the existing FIS station.
[2] CalEEMod does not have a default setting for an airport terminal, so the building square foot increase was modeled as a general office building. Using trip generation rates for a general office building, the building expansion would experience approximately 1,010 trips per day. However, it is likely that the building expansion would generate less than 20 new employees, based on estimates from airport management. Therefore, the vehicular fuel consumption is overestimated by CalEEMod.
kWh/yr = kilowatt hour per year
kBTU/yr = kilo-British thermal unit per year
mpg = miles per gallon

Source: CalEEMod version 2016.3.2 (Coffman Associates, Inc. analysis)

4.8.3 No Action Alternative

No direct natural or energy resources consumption increases would occur under the No Action alternative.

4.8.4 Avoidance, Minimization, or Mitigation Measures

No avoidance, minimization, or mitigation measures are required. The project is required by state law to implement natural and energy resource efficiency measures.

4.9 NOISE AND NOISE-COMPATIBLE LAND USE

4.9.1 Analysis Methodology

FAA Order 1050.1F Significance Threshold: The action would increase noise by Day-Night Average Sound Level (DNL)[7] 1.5 decibel (dB) or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe.

Based on FAA guidance on analyzing noise impacts per FAA Order 1050.1F, the Area Equivalent Method (AEM) has been applied in this EA. The AEM is typically used to evaluate proposed actions that do not involve changes in ground tracks or flight profiles. If the AEM calculations indicate that the action would result in less than a 17 percent (approximately DNL 1 dB) increase in the DNL 65 dB contour area, there would be no significant impact over noise-sensitive areas, and no further noise analysis would be required.

4.9.2 Proposed Project

Temporary Construction Impacts. The construction phases of the Proposed Project would involve earthwork/grading, the pouring of asphalt, and the construction of buildings and infrastructure. **Table 4H** provides average noise levels at 50 feet from the construction site for the type of construction equipment used based on information available from the Federal Highway Administration (FHWA). Construction delivery vehicular noise would also occur. (NOTE: The noise levels given in **Table 4H** are in A-weighted decibels (dBA), which are an expression of the relative loudness of sounds in air as perceived by the human ear. In comparison, FAA noise thresholds are expressed in DNL dB (or CNEL dB), which is an annual average sound level. These noise metrics are not equivalent. Thus, **Table 4H** is provided for informational purposes only and is not intended for use in determining an impact based on FAA significance thresholds.)

Construction noise is a temporary impact and would not be above 65 dB for an extended period. As sound travels away from its source, the sound is absorbed to a certain extent by both the atmosphere and by intervening vegetation. For example, at 700 feet, the project's equipment noise would be reduced by 4 to

[7] The DNL accounts for the increased sensitivity to noise at night (10:00 PM to 7:00 AM) and is the metric preferred by FAA, the U.S. EPA, and the U.S. Department of Housing and Urban Development as an appropriate measure of cumulative noise exposure. In California, however, these agencies accept the use of Community Noise Equivalent Level (CNEL), which, in addition to night-time sensitivities, also accounts for increased sensitivities during the evening hours (7:00 PM to 10:00 PM).

5 dB; at 1,500 feet, the reduction would be closer to 10 dB. The nearest noise-sensitive land uses (residences located south of E. McKinley Avenue, south of the project study area) are approximately 0.34 mile (+1,800 feet) from the project site. No exceedances of FAA noise thresholds would occur.

TABLE 4H
Construction Equipment and Associated Noise Levels

Equipment	Typical Noise Level (dBA) 50 ft from Source
Air Compressor	81
Backhoe	80
Concrete Mixer	85
Concrete Vibrator	76
Crane Mobile	83
Generator	81
Grader	85
Loader	85
Paver	89
Roller	74
Saw	76
Scraper	89
Shovel	82
Truck	88

Source: FHWA 2006.

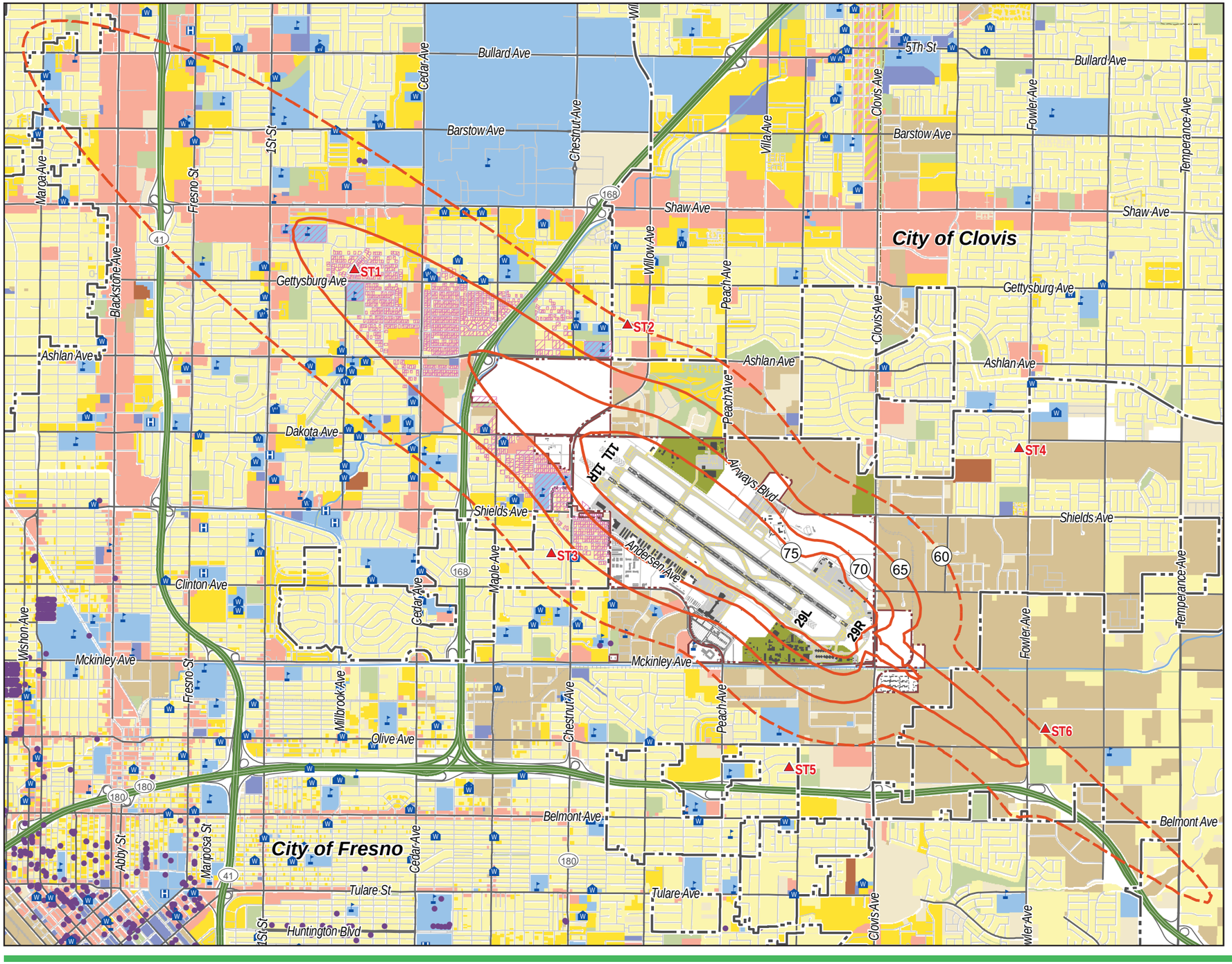
Operational Impacts. **Exhibit 4B** shows the Forecast Conditions (2022) Noise Exposure Map from the 2017 Noise Exposure Update. Acreage within the CNEL 65 dB or higher noise contours, including the portions over the airport, is 4.64 acres (HMMH Consultants 2017). It should be noted that noise at the airport is driven in part by the military activity associated with the California Air National Guard and has not significantly changed due to the pandemic. The airport continues to implement its sound insulation program based on the 2022 Noise Exposure Map. Once constructed, the Proposed Project would not result in additional aircraft operations at the airport. No change in this forecast condition would occur because of the Proposed Project (i.e., the AEM calculation between the No Action and Proposed Project is 0 percent).

Based on estimates from airport management, the Proposed Project would generate a need for an additional 17 airport personnel. (Assuming an additional number of federal employees associated with Transportation Security Administration [TSA] or Customs Border Patrol staff would be speculative as federal staffing is related primarily to funding decisions.) At two trips per day per additional airport employee, as well as other miscellaneous trips (estimated at 10 trips per day), the Proposed Project would generate less than+ 50 trips per day. Related indirect vehicular noise from this amount of new traffic would be negligible.

Conclusion. No significant noise impacts based on FAA significance thresholds would occur because of the Proposed Project.

4.9.3 No Action Alternative

No change in the noise environment of the airport would occur under the No Action alternative.



LEGEND

- Forecast (2022) NEM Contour (65-75 dB CNEL)
- Forecast (2022) NEM Contour (60 dB CNEL)
- ST# Noise Monitor Location
- Airport Boundary
- Runway
- Taxiway / Apron
- Airport Buildings
- Municipal Boundary
- Highways
- Major Roads
- Local Roads
- Railroad
- Residential Use
- Multi-Family Residential
- Mobile Homes
- Public Use 1 (School, Place of Worship, Hospitals)
- Public Use 2 (Government, Transportation, Parking)
- Military Use
- Recreational / Open Space
- Commercial Use
- Industrial Use
- Vacant / Undefined
- Water
- Sound Insulated Property
- School
- Library
- Place of Worship
- Hospital
- Historic Site

Service Layer Credits: Fresno County GIS; City of Fresno, CA; City of Clovis, CA; California Department of Water Resources (DWR); Environmental Systems Research Institute (ESRI);

0 1" 2" 3"
0 2,000 4,000 8,000 Feet

HMMH Consultants 2017

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4.9.4 Avoidance, Minimization, or Mitigation Measures

No avoidance, minimization, or mitigation measures are necessary.

4.10 SOCIOECONOMICS, ENVIRONMENTAL JUSTICE, AND CHILDREN'S ENVIRONMENTAL HEALTH AND SAFETY RISKS

4.10.1 Socioeconomics

4.10.1.1 Analysis Methodology

FAA Order 1050.1F Factors to Consider: ***FAA has not established a significance threshold for this impact category. However, factors to consider are if the Proposed Action would have the potential to:***

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

Because the Proposed Project would occur within the airport boundaries, only the first bulleted factor to consider is discussed in this EA. The Proposed Project would not disrupt or divide the physical arrangement of an established community, require the relocation of housing or community businesses, disrupt local traffic patterns or reduce level of service on roads serving the airport, or produce a substantial change in the community tax base.

4.10.1.2 Proposed Project

The airport is the largest driver in economic activity in the central San Joaquin Valley ($844 million annual economic activity and 9,800 direct, induced, and indirect jobs [2018 data]) (refer to Section 3.10.1). The Proposed Project would help the airport meet current and future demand as the region grows, resulting in further economic activity and job growth. At this time, the amount of economic growth that can be attributed specifically to the Proposed Project is unknown. However, airport management estimates that an additional 17 direct airport jobs would occur from the project. Additional federal employees associated with TSA or Customs Border Patrol staff may also be hired, but a quantitative estimate would be speculative as federal staffing is related primarily to funding decisions.

No adverse impacts to economic growth in the region are expected because of the Proposed Project. According to the City of Fresno, Report to the City Council for the FAT*Forward* project, dated March 19, 2020, there will be no impact to the city's General Fund or to the ratepayers of the City of Fresno (Meikle, Kevin, Director of Aviation, City of Fresno Airports Department 2020). Additional indirect economic benefits to the region would likely accompany the enhanced air travel accommodated by the project. If the airport becomes more desirable, the economic activity associated with the airport is expected to continue to grow.

Conclusion. The Proposed Project would contribute to increases in economic activity, both direct and indirect, associated with the airport. However, the amount of economic growth specifically resulting from just the Proposed Project is speculative and cannot be reasonably quantified.

4.10.1.3 No Action Alternative

No direct economic impacts would occur because of the No Action alternative. However, the No Action alternative would not have the indirect effect of offering an improved regional airport in Fresno and the associated economic activity that would accompany enhanced air travel.

4.10.1.4 Avoidance, Minimization, or Mitigation Measures

No avoidance, minimization, or mitigation measures are necessary.

4.10.2 Environmental Justice

4.10.2.1 Analysis Methodology

FAA Order 1050.1F Factors to Consider: FAA has not established a significance threshold for this impact category. However, factors to consider are if the Proposed Action would lead to disproportionately high and adverse impacts to an environmental justice population (i.e., low income or minority) due to:

- ***Significant impacts in other environmental impact categories; or***
- ***Impacts on the physical or natural environment that affect an environmental justice population in a way that FAA determines are unique to the environmental justice population and significant to that population.***

Disproportionately high and adverse effects would occur if an adverse effect is predominantly borne by a minority or low-income population or would be suffered by a minority or low-income population and would be appreciably more severe or greater in magnitude than the adverse effect that would be suffered by the non-minority population and/or low-income population.

See Section 3.10.2. The U.S Census Bureau's 2019 American Community Survey (ACS) was used to determine the number and percentage of environmental justice populations living within the census tract containing the project study area and the airport.

4.10.2.2 Proposed Project

The project study area and airport do not contain residences or environmental justice populations. The closest residential neighborhood to the project study area is approximately 1/3 mile away, south of E. McKinley Avenue. This neighborhood is separated from the project study area by a light industrial/office complex, as well as the airport's vehicular parking lot. No disproportionate impacts (including dust, noise, or traffic) would occur to environmental justice populations.

4.10.2.3 No Action Alternative

No impacts to environmental justice populations would occur because of the No Action alternative.

4.10.2.4 Avoidance, Minimization, or Mitigation Measures

No avoidance, minimization, or mitigation measures are necessary.

4.10.3 Children's Environmental Health and Safety Risks

4.10.3.1 Analysis Methodology

***FAA Order 1050.1F Factor to Consider:** FAA has not established a significance threshold for this impact category. However, a factor to consider is if the Proposed Action would lead to a disproportionate health or safety risk to children.*

See Section 3.10.3. The U.S. EPA's EJSCREEN online tool was used to determine the number and percentage of children ages 0-17 living within the census tract containing the project study area and the airport. A survey of schools and parks within 0.5 mile of the project study area was conducted to determine other areas that might contain a concentration of children.

4.10.3.2 Proposed Project

The project study area and airport do not contain residences or other land uses that cater to children. The closest residential neighborhood to the project study area is approximately 1/3 mile away, south of E. McKinley Avenue. This neighborhood is separated from the project study area by a light industrial/office complex, as well as the airport's vehicular parking lot. There are no schools, public parks, or public recreation areas within 0.5 mile of the airport. No disproportionate impacts (including environmental health and safety risks) would occur to populations of children.

4.10.3.3 No Action Alternative

No impacts to children would occur because of the No Action alternative.

4.10.3.4 Avoidance, Minimization, or Mitigation Measures

No avoidance, minimization, or mitigation measures are necessary.

4.11 VISUAL EFFECTS - Light Emissions

As discussed in Section 3.2, the project study area does not contain unique visual resources or visual character. Therefore, the discussion below is focused on light emissions.

4.11.1 Analysis Methodology

***FAA Order 1050.1F Factors to Consider:** FAA has not established a significance threshold for this impact category. However, factors to consider are if the Proposed Action would have the potential to:*

- *Create annoyance or interfere with normal activities from light emissions.*
- *Affect the visual character of the area due to light emissions, including the importance, uniqueness, and aesthetic value of the affected visual resources.*

Light emission impacts were determined by the extent to which any lighting (or glare) associated with the Proposed Project would create an annoyance for people in the vicinity and/or would interfere with their normal activities or affect the visual character of the area. Glare can be defined as a type of light emission that occurs when light is reflected off a surface (i.e., window glass, solar panels, or reflective building surfaces).

4.11.2 Proposed Project

Additional lighting (such as apron edge lighting and building security lighting) would result from the proposed terminal building and apron expansion. However, the Proposed Project would be contained on airport property, which is buffered from light or glare-sensitive land uses, such as residential areas, by surrounding light industrial and office development. In addition, if there is any concern from airport traffic control tower (ATCT) personnel regarding glint or glare from proposed building materials, a glint and glare study would be conducted to ensure that adverse impacts to pilots and the ATCT operators do not occur. Thus, no light or glare impacts would occur from the Proposed Project.

4.11.3 No Action Alternative

No lighting impacts would occur because of the No Action alternative.

4.11.4 Avoidance, Minimization, or Mitigation Measures

No avoidance, minimization, or mitigation measures are necessary.

4.12 WATER RESOURCES - Surface Waters

As discussed in Section 3.2, the project study area does not contain wetlands or waters of the U.S., groundwater, floodplains, or rivers, including designated wild and scenic rivers. Therefore, the following discussion is focused on potential impacts to surface waters.

4.12.1 Analysis Methodology

FAA Order 1050.1F Significance Threshold: An action will have significant impacts to surface waters if it would:

- ***Exceed 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.***

Section 402 of the *Clean Water Act* (CWA) created the National Pollutant Discharge Elimination System (NPDES) program to authorize point source discharges of pollutants to waters of the U.S. consistent with the CWA. In terms of water pollution, a point source is a single discharge source, such as a pipe coming from a wastewater treatment plant. However, the federal *Water Quality Control Act of 1987* amended the CWA to include regulation of certain discharges of pollutants in stormwater runoff under the NPDES program. Federal regulations (40 C.F.R. 122.26) require certain industrial facility owners and/or operators to obtain stormwater discharge permits. The specific types of facilities that need coverage are de-

pendent upon the facility's Standard Industrial Classification Code. In California, NPDES permitting authority has been delegated to the State Water Resources Control Board, which, in turn, relies on regional water quality control boards (RWQCBs) to implement the program.

Individual construction projects that have a potential for one acre or more of ground disturbance are required to obtain NPDES coverage under the state's Construction General Permit Order 2009-0009-DWQ (Construction General Permit). Permit conditions typically related to use of the NPDES Construction General Permit include BMPs to reduce erosion and sedimentation through implementation of a construction-specific stormwater pollution prevention plan (SWPPP). The construction SWPPP is a project-specific document which deals primarily with reducing pollutant sources associated with erosion and sediment transfer and chemicals used at construction sites. The monitoring requirements are less stringent than the facility specific SWPPP and no sampling is required.

4.12.2 Proposed Project

Temporary Construction Impacts. No significant impact to surface waters would occur during construction activities of the Proposed Project. Per the CWA and state regulations, an NPDES General Construction Permit would be required from the Central Valley RWQCB since the Proposed Project would involve the disturbance of more than one acre. In addition, FAA has an advisory circular (150/5370-10H, *Standard Specifications for Construction of Airports*, Item C-102, Temporary Air and Water Pollution, Soil Erosion and Siltation Control) that specifies BMPs to be implemented during the construction phase of projects to minimize air and water pollution (FAA 2018). Specific BMPs may include, but are not limited to berms, silt fencing, fiber mats or rolls, mulches, slope drains, and other erosion control methods. All exposed slopes would be hydroseeded or provided with other landscape cover.

Operational Impacts. Drainage improvements associated with the Proposed Project would be incorporated into the existing airport stormwater infrastructure. FAA has established design standards for all drainage facilities located on an airport. These standards, as set forth in Advisory Circular 150/5320-5D, *Airport Drainage Design* (FAA 2013), must be followed for the design and construction of airport surface and subsurface drainage systems. The quantity of runoff would increase due to a net increase in the amount of impervious surface at the airport (3.31 acres [see Table 1A]). However, the Proposed Project would not significantly alter on-site drainage patterns. In addition, the airport would be required to prepare and implement an updated SWPPP to include the additional building and pavement surfaces upon completion of the Proposed Project.

The Proposed Project would not change the quality of the stormwater (i.e., the type of potential pollutants) generated at the airport since the project does not introduce new types of development. The airport presently complies with the state's NPDES Industrial General Permit (Order 2014-0057-DWQ) for discharges of stormwater associated with industrial activities. In accordance with the NPDES permit, the city and the airport have prepared a stormwater management plan that outlines BMPs, which would be implemented to prevent the discharge of pollutants in stormwater. Therefore, the Proposed Project would not have an indirect impact on water quality.

Conclusion. The Proposed Project would not cause an exceedance of applicable water quality standards, nor would it contaminate a public drinking water supply. No significant impacts related to surface waters would occur.

4.12.3 No Action Alternative

No impacts to surface waters would occur from the No Action alternative.

4.12.4 Avoidance, Minimization, or Mitigation Measures

No mitigation measures are necessary; however, the following avoidance and minimization measures would be implemented by the airport for the project.

Avoidance and Minimization Measures

- Prepare and implement an updated SWPPP to include the additional building and pavement surfaces.
- Prepare and implement a grading/erosion plan and implement BMPs, such as those included in FAA Advisory Circular 150/5371-10H, Item C-102.
- Comply with City of Fresno ordinances for all grading, drainage, and construction of improvements.

4.13 CUMULATIVE IMPACTS

Section 3.13 lists the projects considered under the cumulative analysis of this EA. For this analysis, cumulative projects were selected based on projects within the airport boundaries that could have a close causal relationship to the Proposed Project. Several projects on airport property have been undertaken within the past five years, are ongoing, or are planned to be undertaken in the next five years. No cumulative impacts would occur under the No Action alternative since that alternative would not result in any physical changes at the airport.

Air Quality and Climate. The cumulative impact area for Air Quality and Climate is the San Joaquin Valley Air Basin. The Proposed Project would contribute air quality emissions and GHGs that would incrementally affect air quality and climate within the air basin in combination with other cumulative projects described in Section 3.13. However, at a regional level, the SJVAPCD requires that all projects include adequate measures to minimize fugitive dust, ozone precursors, and GHGs through its permitting and state-required environmental processes. All cumulative projects considered in this EA would be required by SJVAPCD to comply with the conditions of its rules and regulations. Therefore, unmitigated, significant cumulative impacts to air quality or the emission of GHGs would not occur because of implementation of the Proposed Project in combination with other cumulative projects.

Biological Resources (migratory birds). The cumulative impact area for Biological Resources is airport property. The analysis of the Proposed Project identifies potential impacts to nesting birds protected under the MBTA; Section 4.4 of this EA provides avoidance and minimization measures to avoid significant incremental impacts of the Proposed Project in combination with other cumulative projects. Preconstruction nesting bird surveys or other protective measures would be conducted prior to development, as necessary, to avoid the nesting season and migratory bird nests. Therefore, cumulative impacts to protected birds would not be significant.

Hazardous Materials, Solid Waste, and Pollution Prevention. The cumulative impact area for Hazardous Materials, Solid Waste, and Pollution Prevention is the airport property. Hazardous and solid wastes would be generated by the Proposed Project, as well as by other cumulative projects during the construction phase. Both the federal and state governments have established policies and programs that require the proper disposal and handling of hazardous materials and waste products. Due to mandatory compliance with existing programs and regulations, significant impacts related to hazardous materials, solid waste, and pollution prevention would not occur. In addition, any future cumulative development, including tenants at the airport, would be required to comply with all applicable regulatory requirements regarding the handling, storage, or disposal of hazardous materials both by law and by the terms of their lease with the airport.

Future cumulative development projects could generate varying amounts of solid waste based on the type of actual development. As discussed in Section 3.6.2, the American Avenue landfill is not projected to reach capacity until the year 2031. Thus, the landfill would not exceed its capacity due to solid waste generated by future cumulative development considered in this EA. Therefore, no significant cumulative impacts to solid waste disposal would occur.

Historical, Architectural, Archaeological, and Cultural Resources. None of the on-airport cumulative projects listed in Section 3.13 overlap with the Proposed Project's APE. Thus, no incrementally adverse effects on known historic, architectural, archaeological, or cultural resources would occur due to the Proposed Project in combination with other cumulative projects. Impacts to undiscovered cultural resources or the unanticipated discovery of human remains are, however, a possibility for any project, including future, foreseeable projects identified in Section 3.13. Standard protocols are required by state and federal law for any unanticipated discovery of cultural resources to ensure that adverse effects to protected resources, including a significant cumulative impact to such resources, do not occur.

Natural Resources and Energy Supply. The cumulative impact area for Natural Resources and Energy Supply is the airport and the surrounding region (defined here as Fresno County). Fossil fuels and mineral resources, such as aggregate, would be used during construction and would be obtained by local retail providers. No cumulative impacts would result from this demand, which is controlled by the market and is based on market factors. In addition, no incremental cumulative impacts to energy resources would result from the Proposed Project in combination with past, present, or reasonably foreseeable future development given the regulatory environment for new buildings within the state (i.e., CCR, Title 24, parts 6 and 11).

Potable water for the airport is provided by the City of Fresno, who has established water management goals and strategies through 2030. These regulations include year-round outdoor watering schedules, turf type restrictions, and turf irrigation methods (City of Fresno 2016: Table 8-2). Additional details can be found in Section 6-520(a) of the city's Municipal Code. No incremental cumulative impacts to the regional water supply would occur from the Proposed Project in combination with other cumulative projects due to the current regulatory environment regarding water supply and demand.

Noise and Noise-Compatible Land Use. The cumulative impact area for Noise and Noise-Compatible Land Use is the airport and the surrounding areas within the CNEL 65 dB or higher noise contours. As discussed in Section 4.9, no incremental aircraft noise impacts would result from the Proposed Project

in combination with other cumulative projects since changes in aircraft operations would not be associated with the Proposed Project. In addition, operational noise associated with the Proposed Project in combination with other cumulative projects or future buildings would not create noise that would exceed the FAA-established thresholds. Thus, no incremental noise impacts would result from the Proposed Project in conjunction with other cumulative projects.

Socioeconomics. The cumulative impact area for economic benefits is the central San Joaquin Valley. Any of the cumulative airport projects would help to continue the airport's role as the largest driver in economic activity in the central San Joaquin Valley. The Proposed Project, in conjunction with these other airport projects, would help enable the airport to meet current and future demand in a safe and efficient manner, resulting in further economic activity and job growth.

Environmental Justice and Children's Environmental Health and Safety Risks. The study area for Environmental Justice and Children's Environmental Health and Safety Risks is the area within the census tract containing the airport. Since there are no environmental justice or children's populations in proximity to the airport that would experience disproportionately high and adverse impacts due to the Proposed Project, no incremental impacts from the Proposed Project in combination with other cumulative projects would occur.

Visual Effects - Light Emissions. The cumulative impact area for Visual Effects - Light Emissions is the airport and a 0.25-mile radius. Past, present, and future long-term development on the airport's south side could include several new sources of lighting, including exterior building lights, parking garage security lights, and roadway lights. Potential sources of glare could include the use of glass, reflective building materials, or the installation of solar panels on buildings or parking areas. However, there are no sensitive receptors to light emissions within 0.25 mile of the airport. Thus, incremental impacts related to lighting, glint, or glare from future airport development, in combination with the Proposed Project, would be less than significant. No significant cumulative visual effects would occur.

Water Resources - Surface Waters. The cumulative impact area for Water Resources - Surface Waters is the Mill Ditch subwatershed. The Proposed Project, as well as other cumulative projects, would manage its stormwater runoff and any other potential pollutants with potential to discharge into waters of the U.S. in accordance with required NPDES permits and other local or regional regulations. Therefore, no significant cumulative impact to surface water resources would occur.

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International Airport

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Chapter Five

COORDINATION AND PUBLIC INVOLVEMENT

Chapter Five
COORDINATION AND PUBLIC INVOLVEMENT

The Draft Environmental Assessment (EA) is available for review by the public and interested parties for a period of 30 days beginning November 1, 2021. A Notice of Availability of a Draft Environmental Assessment (EA) will be published in the *Fresno Bee* on November 1, 2021. The Draft EA is available for review at: https://flyfresno.com and at the following physical locations:

City of Fresno Planning and Development Department	2600 Fresno Street, Room 3065 Fresno, CA 93721
City of Fresno Airports Department	4995 E. Clinton Way Fresno, CA 93727
https://flyfresno.com	

Anyone wishing to comment on the Draft EA can submit written comments by letter or email to the following physical or email addresses:

Mr. Richard Madrigal, Airport Projects Supervisor
Fresno Yosemite International Airport
4995 E. Clinton Way
Fresno, CA 93727
Richard.Madrigal@fresno.gov

The cutoff date for comment submission is not later than **5:00 PM – Pacific Standard Time, November 30, 2021**. Please allow enough time for mailing. The airport must **receive** the comments by the deadline, rather than the letter simply be postmarked by that date. Emailed comments must also be received by the deadline.

Before including your name, address, 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.

All agency and/or public comment letters received during the official comment period will be included in the Final EA (**Appendix D**). Written responses will also be provided for all comments received during the public comment period. Based on the content of the EA and the comments received, the FAA will issue a *National Environmental Policy Act* (NEPA) finding. The Final EA and FAA's finding will be available to the public and all who commented on the EA.

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Chapter Six

LIST OF PREPARERS

Chapter Six
LIST OF PREPARERS

Persons responsible for preparation of this Environmental Assessment (EA) document and significant supporting background analysis and materials are listed below.

NAME	EXPERTISE	PROFESSIONAL EXPERIENCE
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AIRPORT REVIEWER		
Richard Madrigal	Airport Projects Supervisor, Fresno Yosemite International Airport	B.S., Civil Engineering. 7 years of experience at Fresno Yosemite International Airport with 5 years of experience as Airport Projects Supervisor.
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Judi Krauss, AICP	Land Use Planning; Environmental Analysis/Documentation; Socioeconomics	M.A., Economics; B.A., Environmental Studies. Transportation and land use planning, socioeconomic studies, and environmental analysis/documentation. Manages complex, multi-disciplined, environmental studies under the *National Environmental Policy Act* (NEPA).
Kory Lewis	Land Use Planning; Environmental Analysis/Documentation; Air Quality and Greenhouse Gas Emission Analysis	Master of Urban Planning; B.A., Geography. Experienced in land use management, air quality and noise assessment, preparation of environmental documentation for airport projects, and air quality, noise, and visual impact computer modeling.
SWCA Environmental Consultants		
Travis Belt	Senior Biologist/Project Manager	B.S., Forestry and Natural Resources. 15 years of experience in biological resources management, special-status species surveys, *Endangered Species Act* compliance, and environmental documentation.
Paula Juelke Carr	Senior Architectural Historian	M.A., History, Anthropology, Art History, Folklore, and Mythology; B.A., Cultural Anthropology. 25 years of experience in documenting and evaluating California history and architectural history, including more than 11 years as an architectural historian for the California Department of Transportation, District 5.
Heather Gibson	Principal Investigator	Ph.D., Anthropology; M.A., Anthropology. 15 years of research experience, including archival research, surveys, excavations, and construction monitoring at sites throughout California.
Leroy Laurie	Project Manager/ Cultural Resources Program Lead	B.S., Social Sciences. 15 years of experience as a cultural resource specialist throughout California and Nevada. Technical experience in archaeological fieldwork, laboratory analysis, archaeological testing plans, and graphics/mapping. Served as the primary point of contact for Native American coordination for Section 106 compliant projects.

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Chapter Seven

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Chapter Seven REFERENCES

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Appendix A

AIRPORT LAND ASSURANCE LETTER

FRESNO YOSEMITE International Airport
City of Fresno Airports Department
4995 E Clinton Way, Fresno, California 93727-1525
(559) 621-4500 • **flyfresno.com**

August 12, 2020

Ms. Camille Garibaldi
Environmental Protection Specialist
Federal Aviation Administration
San Francisco Airports District Office
1000 Marina Boulevard, Suite 220
Brisbane, CA 94005-1853

Dear Ms. Garibaldi:

The City of Fresno, California, makes the following statement of compatible land use assurances as required by 49 U.S.C. Section 47107(a)(10).

The City of Fresno provides assurances that appropriate action, including the adoption of an airport land use compatibility plan/zoning laws, has been or will be taken to the extent reasonable to restrict the use of land next to or near Fresno Yosemite International Airport to uses that are compatible with normal airport operations. In addition, the City of Fresno will encourage and support other jurisdictions in the area in their efforts to do the same.

If you have any questions regarding this matter, please contact me.

Sincerely,

Kevin Meikle
Director of Aviation
City of Fresno Airports Department

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Appendix B

BIOLOGICAL EVALUATION

Biological Evaluation for the Fresno Yosemite International Airport Terminal Expansion/Remodel and East Terminal Apron Reconfiguration, Fresno, Fresno County, California

JULY 2020

PREPARED FOR

Coffman Associates

PREPARED BY

SWCA Environmental Consultants

BIOLOGICAL EVALUATION FOR THE FRESNO YOSEMITE INTERNATIONAL AIRPORT TERMINAL EXPANSION/REMODEL AND EAST TERMINAL APRON RECONFIGURATION, FRESNO, FRESNO COUNTY, CALIFORNIA

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SWCA Project No. 53602

July 2020

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1 INTRODUCTION

SWCA Environmental Consultants (SWCA) prepared this Biological Evaluation (BE) at the request of the Federal Aviation Administration (FAA) and the Fresno Yosemite International Airport (airport, FAT). The purpose of this BE is to review the proposed Terminal Expansion/Remodel and East Terminal Apron Reconfiguration project (proposed action) to determine whether it may affect federally protected species. In accordance with FAA Orders 1050.1E and 5050.4B, the FAA is currently preparing an Environmental Assessment (EA) for the proposed action. The FAA is the lead agency for the EA and is preparing the document in accordance with the requirements of the National Environmental Policy Act (NEPA).

On behalf of the FAA, SWCA obtained a Resource List for the proposed action area from the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) system (Appendix A). This BE evaluates the potential effects of the proposed action on the listed species in sufficient detail to propose an effects determination for each species. The evaluations are based on the results of an in-depth literature review and a survey of the proposed action area.

1.1 Project Location

The proposed action is located at the Fresno Yosemite International Airport in Fresno, Fresno County, California (Figure 1). The commercial service aviation facility is located at 5175 East Clinton Way, north of State Route (SR-) 180 and east of SR-168. The action area includes portions of the existing terminal apron, asphalt movement areas, and undeveloped land located immediately north and east of the terminal building (see Figures 1 and 2). The action area also includes a proposed staging area in undeveloped but disturbed land located immediately adjacent to the apron ramp and movement area.

1.1.1 *Critical Habitat*

Based on information obtained from the IPaC Resource List obtained for the project (see Appendix A), the airport property and action area are not located within any critical habitat units. The nearest critical habitat unit is for succulent owl's-clover (*Castilleja campestris* ssp. *succulenta*), approximately 7 miles northeast of the action area.

1.2 Consultation to Date

No consultation between the FAA and USFWS regarding the proposed action has occurred to date.

2 PROJECT DESCRIPTION

This project description provides details of the proposed action, and exhibits showing the proposed action elements are included in Appendix B. The purpose of the proposed action is to expand and reconfigure landside facilities and a connected airside aircraft apron area at FAT to meet current and forecast capacity needs while improving safety, security, and the overall customer experience at the airport. The proposed action will resolve existing limitations of the commercial passenger terminal area by:

- Providing an expansion of the passenger terminal and Federal Inspection Station (FIS) functions to accommodate domestic and international travel; and
- Providing a suitable aircraft apron to support two new international/domestic "swing" terminal loading gates. These gates will replace two existing ground-boarded, arrival-only gates with two new international/domestic arrival and departure gates equipped with passenger boarding bridges.

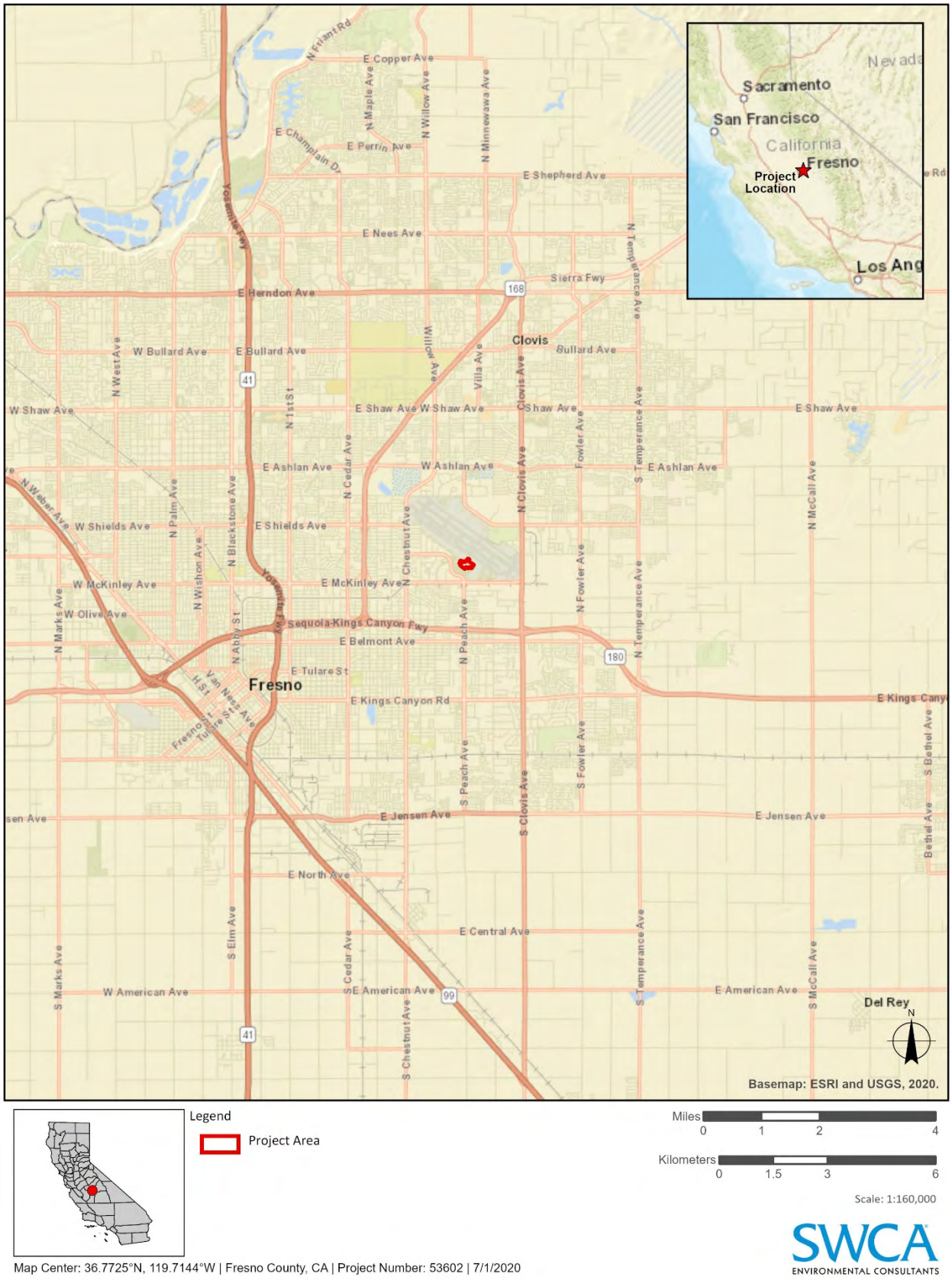

Figure 1. Project vicinity map.

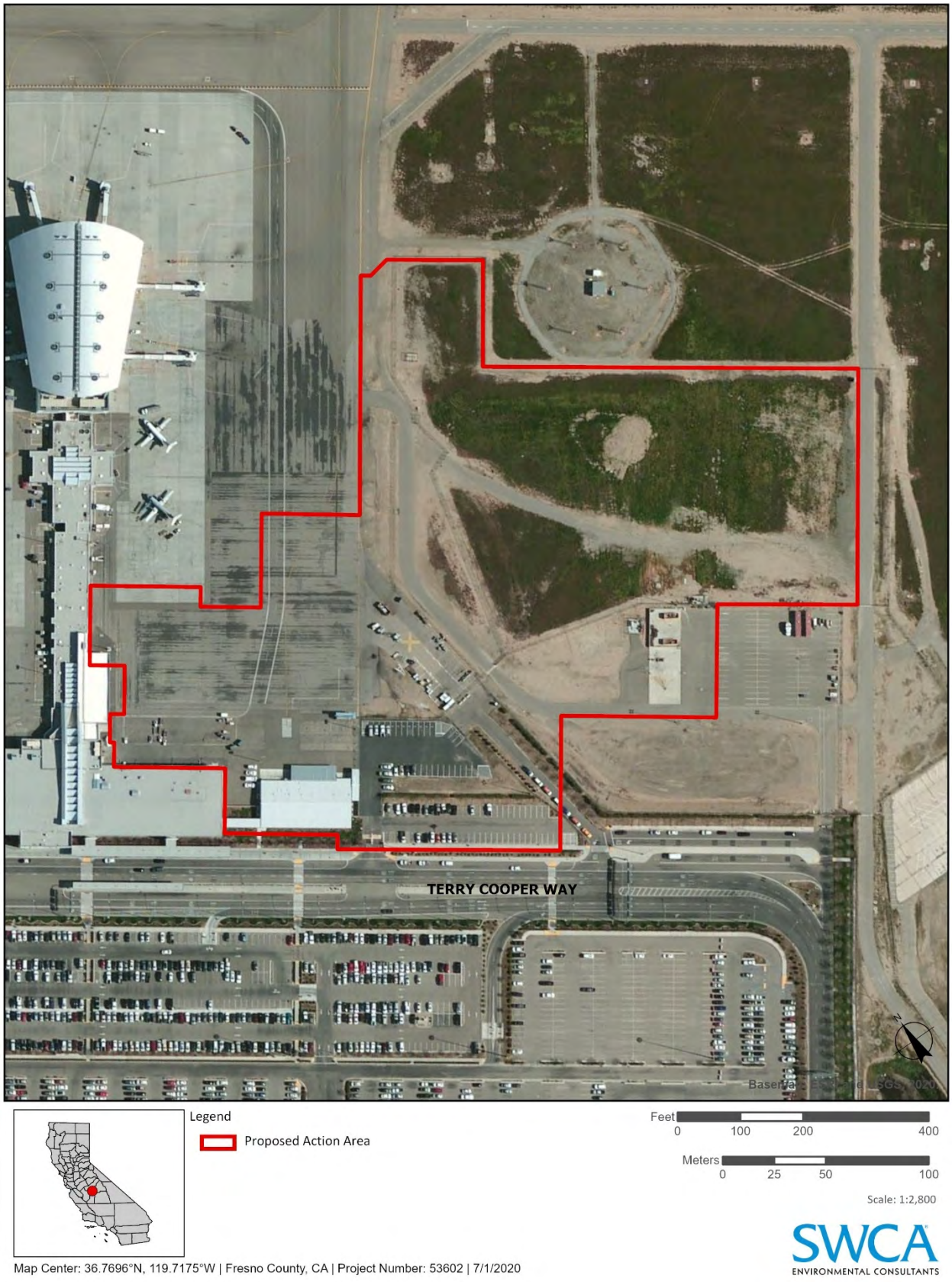

Figure 2. Project location map.

The airport has a need to provide additional FIS space and baggage handling to support its customs inspections. The airport has recently undergone an update of its Airport Master Plan (AMP), including developing commercial aviation forecasts through the year 2036. Based on these forecasts, total enplanements at the airport are projected to grow from 772,850 to 1,243,478 between 2016 and 2036, an average annual growth rate of 2.4%. One of the highest priorities identified for landside improvements in the AMP is to integrate the FIS facility within the concourse/gate holdrooms. Currently, international passengers are deplaned outside on an open-air ramp adjacent to the existing FIS facility. The aircraft is then towed to a concourse gate for departing passenger boarding. Up to two aircraft can park at the existing FIS facility, but due to the limited capacity of the FIS Primary Inspection Queuing Area, U.S. Customs and Border Protection requires passengers to be held onboard the second aircraft until passengers from the first aircraft have been cleared through the FIS facility. Two secure concourse holdrooms with secure connection to a new FIS facility will provide the ability to deplane both aircraft and allow passengers to wait in the comfort of a secure holdroom (with passenger amenities) until they are processed through the FIS. The international aircraft can then remain at the same gate for boarding. Once the holdroom is cleared of arriving international passengers, it will be reopened to the concourse and can function as a holdroom for departing domestic passengers.

In addition, the Boeing 737-800, which is the most demanding aircraft currently present at the airport from a critical aircraft design standpoint, is used for the airport's current international flights. The existing pavement in the project area was not designed to accommodate this size of aircraft loading and aircraft movements/operations to and from the planned gates. Therefore, there is a need to reconfigure the apron pavement to allow for the airport to accommodate future air carrier operations.

Overall, approximately 13.1 acres will be disturbed by the project (not including the use of an existing 2.5-acre construction staging area). See Appendix B for figures showing the action areas and project components. The apron reconfiguration and terminal expansion/remodel will provide an additional 0.55 acre of apron and an additional 92,759 square feet (sf) of terminal building space. Demolition of the existing FIS building will also occur for an overall net building increase of 79,689 sf. A detailed description of these project components is below, starting with the apron reconfiguration, which will occur first.

2.1 East Terminal Apron Reconfiguration

The east terminal apron reconfiguration will replace apron area that will be removed by the terminal expansion and will align with the two new international/domestic terminal loading gates. Approximately 7.1 acres could be disturbed. This includes additional area to provide proper grades for drainage from the eastern pavement edge, which will be determined during design. The area of disturbance is shown to the fence line as a “worst-case” estimate of construction activity.

Approximately 10,525 square yards (sy) of asphalt concrete (AC), 267 sy of Portland cement concrete (PCC), and 200 sy of transition pavement (10,992 sy total) will be removed. In its place, 5,290 sy of AC and 15,810 sy of PCC (21,100 sy total) will be installed. The AC pavement section will be constructed of 9 inches of AC, 6 inches of aggregate base, and 12 inches of stabilized subgrade. The PCC pavement section will be constructed of 15 inches of PCC, 4 inches of asphalt base course, and 4 inches of aggregate base. Subgrade below either type of new pavement section will be excavated to a depth of 12 inches and recompacted. Overall, the depth of excavation will vary from approximately 9 to 39 inches to remove the existing terminal apron pavement and install the new terminal apron pavement. Exhibit 2 (see Appendix B) illustrates the areas and details of proposed pavement demolition and new pavement layout.

The apron will be constructed in two phases to allow international aircraft to park as close as possible to the existing FIS facility. The first phase will include paving the east half of the new apron area with aircraft parking on the west side of construction. In the second phase, aircraft will park on the new eastside pavement while the west half of the apron is paved.

Additional actions for this project include:

- Remove and replace existing security fence; disturbance depth will be 36 inches.
- Reroute an existing airport service road around the reconfigured apron (included in the pavement totals provided above); disturbance depth will be 18 inches.
- Install electrical improvements consisting of apron edge lights and new duct banks; disturbance depth will be 50 inches.
- Construct additional storm drain improvements, including installation of inlets, manholes, trench drains, and reinforced concrete pipe (RCP). These improvements will tie into the existing storm drain system; total disturbance depth will be 120 inches.

2.2 Passenger Terminal Expansion and Remodel

Once the new apron is functional, the FIS will be demolished, and new construction will begin. This project component includes the demolition of a small portion of the terminal building in the area where the new concourse will tie into the existing passenger screening checkpoint. The existing east wall of the passenger screening checkpoint was originally designed to allow the building to expand to the east, making the building expansion relatively simple to phase and construct. Expansion of the passenger screening checkpoint will also require minor demolition and addition of a firewall in the concourse just north of the existing checkpoint.

The passenger terminal expansion will increase the size of the existing terminal to the east by approximately 75,658 sf and will be comprised of both single-story and two-story space (see Appendix B: Exhibit 3). The new ground floor space will be approximately 52,088 sf; an additional 23,570 sf will be a new second floor area. The new building space will increase the passenger screening area and provide concession space, passenger holdrooms, and a new FIS Facility and expanded “baggage makeup” area, as well as new in-line Explosive Detection System (EDS) baggage screening space. Approximately 26,150 sf of pavement will be covered by the second-story building (see Appendix B: Exhibit 4) but will remain open for ground support equipment and emergency vehicle access.

Additional pavement work around the new terminal will be required. Approximately 19,490 sy of existing AC, PCC, and transition pavement will be demolished and replaced with approximately 12,027 sy of PCC pavement. When considered in conjunction with the east terminal apron reconfiguration proposed, the proposed action will increase the amount of apron within the project area by approximately 2,645 sy (0.55 acres). Overall, the depth of excavation will vary from approximately 12 to 28 inches to remove the existing terminal apron pavement and soil spoils to construct the new PCC and AC pavement around the terminal. Exhibit 4 (Appendix B) illustrates the areas and details of proposed pavement demolition and new pavement layout.

Work includes a detailed safety phasing plan to address interface with adjacent operational apron areas. Plans include safety pathways (through active construction areas) for passengers walking between parked aircraft and the existing FIS building. In addition, safety pathways will be provided for baggage tugs driving between the operational apron area and existing baggage makeup area. Alternate access routes and parking areas will also be required for airline ground service equipment and access to the autoclave incinerator unit.

Upon completion of the new FIS, the existing 13,070-sf FIS building and temporary walkways will be demolished. The existing FIS building was constructed in 2005 as a modular prefabricated building, making it relatively simple to demolish or to salvage and relocate the building. Once the FIS building is removed, the land will be cleared in preparation for construction of the baggage screening area.

A new in-line baggage screening system and building addition (17,101 sf) will be located on the east end of the existing ticket lobby/Air Traffic Organization (ATO) area. It also includes an overhead conveyor and canopy connecting to the new concourse baggage makeup area. Once the new in-line baggage screening conveyor system is installed, new conveyors connecting the ticket counter conveyors to the new in-line system will be installed. The existing baggage screening area and baggage makeup area will continue operation during this phase of the project until the very end, when the new baggage screening system becomes operational. Depending on how the baggage conveyor system fabrication and installation are bid, the new baggage makeup conveyor may be procured and installed during this phase.

The final phase of the proposed action includes remodeling the existing baggage screening area and baggage makeup area (approximately 6,537 sf). This space will be remodeled to become ATO lease space. The space also includes an access hallway between the ticket counter and north exterior yard.

Additional actions related to the terminal expansion and associated site work include:

- Remove and replace existing security fence; disturbance depth will be 36 inches.
- Construct storm drain improvements that will consist of inlets, manholes, trench drains, and RCP. These improvements will tie into the existing storm drain system; total disturbance depth will be 120 inches.
- Install new landscaping, including vegetation and irrigation system; total disturbance depth will be 48 inches.

Overall, approximately 6.5 acres will be disturbed for the passenger terminal expansion and associated site work, approximately 0.5 acre of which will overlap with the terminal apron disturbance area.

3 SURVEY METHODOLOGY

3.1 Literature Review and Field Survey

Prior to conducting a site visit, SWCA performed a literature review to gain familiarity with the proposed action area and identify target special-status species with potential to occur in or near the vicinity of the proposed action area. The review consisted of a search of the USFWS IPaC (USFWS 2020; see Appendix A) and the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) RareFind 5 (CNDDB 2020) focusing on the Clovis, California U.S. Geological Survey (USGS) 7.5-minute quadrangle map and the surrounding quadrangles: Round Mountain, Fresno North, Fresno South, Malaga, Sanger, and Friant. Previous biological surveys and documents reviewed or used in preparation of this BE include the *2013 Fresno Yosemite International Airport Burrowing Owl Survey* (Wildlife Control Technology, Inc. 2013).

SWCA biologist Travis Belt conducted concurrent botanical and general wildlife surveys of the staging area on May 16 and 17, 2019, and a survey of the entire action area on May 26, 2020. The botanical surveys were conducted in accordance with the *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants* (USFWS 2000) and the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural*

Communities (CDFW 2018). In addition to the concurrent botanical and general wildlife surveys, SWCA conducted two focused burrowing owl (*Athene cunicularia*) surveys in the proposed staging area per the *Burrowing Owl Survey Protocol and Mitigation Guidelines* (California Burrowing Owl Consortium 1993). The first survey was conducted May 16, 2019, from 5:30 p.m. to 7:00 p.m., and the second survey was conducted on May 17, 2019, from 7:00 a.m. to 8:15 a.m. The burrowing owl surveys included conducting modified avian point count surveys from three points in the staging area. Each point was surveyed for 5 minutes and all avian species observed were documented. Following the point count survey on May 17, 2019, and on May 26, 2020, the biologist surveyed the staging area for small mammal burrows that could be suitable for use by burrowing owls.

Biological resources were mapped with a Samsung Tablet and Geode Global Positioning System (GPS) Unit capable of sub-meter accuracy.

When necessary, the biologist referred to *The Jepson Manual* (Baldwin et al. 2012) to identify plant species. The IPaC Resources List is included in Appendix A, photos of the proposed action area are included in Appendix C, and the complete list of species observed within the proposed action area is included in Appendix D.

3.2 Special-Status Biological Resources Investigated for Potential Occurrence

Prior to conducting surveys, SWCA performed a search of the IPaC and CNDDB. This data was used to determine which species have been documented to occur near the proposed action area. Tables 1 and 2 provide a description of the federally protected plant and wildlife species reviewed. A rationale for expecting each species' presence or absence in the action area is provided in the tables. The vegetative communities, soils, and topography in the action area do not provide suitable conditions for any federally protected plant or wildlife species.

4 SURVEY RESULTS

4.1 Existing Conditions/Setting

The action area occurs in the Clovis 7.5-minute USGS quadrangle and includes developed land and ruderal undeveloped land in loamy or sandy soil (Figure 3). Of the 15.04 acres in the action area, 6.36 acres consist of ruderal vegetation and the remaining 8.68 acres are developed with asphalt and structures.

4.2 Topography and Soils

The topography within the proposed action area is flat with an elevation of approximately 336 feet (102 meters). According to the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2020), soils in the staging area consist Atwater sandy loam, 0 to 3 percent slopes.

Table 1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
succulent owl's-clover *Castilleja campestris* ssp. *succulenta*	Annual herb that occurs in vernal pools; often associated with acidic soil. Elevation: 50–750 meters.	April–May	FT/SE/1B.2	**Suitable Conditions Absent:** The proposed action area does not support any vernal pools. Species not expected to occur. Species not observed during survey conducted in the appropriate season. The proposed action will have no effect on this species.
California jewelflower *Caulanthus californicus*	Annual herb that occurs in nonnative grassland, upper Sonoran subshrub scrub, and cismontane juniper woodland and scrub communities in subalkaline and sandy loam soils. Current known naturally occurring populations are in Santa Barbara Canyon, the Carrizo Plain, and the Kreyenhagen Hills in Fresno County. Elevation: 210–870 meters.	February–May	FE/SE/1B.1	**Suitable Conditions Absent:** Due to ongoing disturbances in the staging area, the proposed action area does not support habitat suitable for special-status plant species. Species not expected to occur. Species not observed during survey conducted in the appropriate season. The proposed action will have no effect on this species.
San Joaquin Valley Orcutt grass *Orcuttia inaequalis*	Annual herb that occurs in vernal pools. Elevation: 10–755 meters.	April–September	FT/SE/1B.1	**Suitable Conditions Absent:** The proposed action area does not support any vernal pools. Species not expected to occur. Species not observed during survey conducted in the appropriate season. The proposed action will have no effect on this species.
Hartweg's golden sunburst *Pseudobahia bahiifolia*	Annual herb that occurs in cismontane woodland and valley and foothill grassland. Typically associated with clay and acidic soil. Elevation: 15–150 meters.	March–April	FE/SE/1B.1	**Suitable Conditions Absent:** Due to existing disturbances, the action area does not support habitat suitable for special-status plant species. Species not expected to occur. The proposed action will have no effect on this species.
Greene's tuctoria *Tuctoria greenei*	Annual herb that occurs in vernal pools. Elevation: 30–1,070 meters.	May–July (September)	FE, CH/ SR/1B.1	**Suitable Conditions Absent:** The proposed action area does not support any vernal pools. Species not expected to occur. Species not observed during the survey conducted in the appropriate season. The proposed action will have no effect on this species or its critical habitat.

General References: Baldwin et al. 2012. All plant descriptions paraphrased from California Native Plant Society (CNPS) 2020.

Status Codes:
--= No status; ***Federal:*** FE = Federal Endangered; FT=Federal Threatened; ***State:*** SE=State Endangered; ST= State Threatened; SR= State Rare

California Native Plant Society (CNPS):
Rank 1B **=** rare, threatened, or endangered in California and elsewhere; ***Rank 2*** **=** rare, threatened, or endangered in California, but more common elsewhere; ***Rank 3*** **=** plants that about which more information is needed; ***Rank 4*** **=** a watch list plants of limited distribution; CBR = Considered but Rejected
Threat Code:
_***.1*** **=** Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat); _***.2*** **=** Fairly endangered in California (20-80% occurrences threatened);
_***.3*** **=** Not very endangered in California (<20% of occurrences threatened or no current threats known)

Rationale Terms:
Species Present: Species was or has been observed in the survey area;
Suitable Conditions Present: The appropriate habitat, soils, and elevation are present in the survey area;
Marginal Conditions Present: The appropriate habitat and/or soils are present but other factors (past disturbances, elevation range) may preclude species occurrence.
Suitable Conditions Absent: The survey area did not support the appropriate habitat, soils, and/or elevation for the species.

Table 2. Special-Status Wildlife Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Legal Status Federal/ State/CDFW	Rationale for Expecting Presence or Absence
Invertebrates			
conservancy fairy shrimp *Branchinecta conservatio*	Occurs in vernal pools, not known to occur in permanent bodies of water, and are dependent upon seasonal fluctuations in their habitat, such as absence or presence of water during specific times of the year. Inhabit highly turbid water in vernal pools.	FE, CH/--/--	**Suitable Conditions Absent:** The proposed action area does not support vernal pool habitat. Species not expected to occur. The proposed action will have no effect on this species or its critical habitat.
vernal pool fairy shrimp *Branchinecta lynchi*	Occurs in vernal pool habitats including depressions in sandstone, to small swale, earth slump, or basalt-flow depressions with a grassy or, occasionally, muddy bottom in grassland.	FT, CH/--/--	**Suitable Conditions Absent:** The proposed action area does not support vernal pool habitat. Species not expected to occur. The proposed action will have no effect on this species or its critical habitat.
valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	Occurs in the central valley of California and vicinity, in association with blue elderberry (*Sambucus mexicana*).	FT/--/--	**Suitable Conditions Absent:** The proposed action area does not support any *Sambucus mexicana*, the necessary host plant for this subspecies. Species not expected to occur.
Fish			
delta smelt *Hypomesus transpacificus*	Euryhaline species (tolerant of a wide salinity range) occurring in estuarine waters up to 14 parts per trillion (ppt) salinity. Found only from Suisun Bay upstream through the California Delta in Contra Costa, Sacramento, San Joaquin, Solano, and Yolo Counties.	FT, CH/SE/--	**Suitable Conditions Absent:** The proposed action area does not support any aquatic habitat. Species not expected to occur. The proposed action will have no effect on this species or its critical habitat.
Amphibians			
California tiger salamander *Ambystoma californiense*	Occurs in vernal pools within grassland or oak woodlands; require seasonal water, ground squirrel burrows, or other underground refuges.	FT, CH/ST/--	**Suitable Conditions Absent:** The proposed action area does not support any suitable aquatic breeding habitat. The nearest documented occurrence is 5 miles north of the proposed action area, which exceeds the species' dispersal distance. In addition, small mammal burrows not observed in the proposed action area. Species not expected to occur. The proposed action will have no effect on this species or its critical habitat.
California red-legged frog *Rana draytonii*	Occurs in aquatic habitats with little or no flow and surface water depths to at least 2.3 feet, and the presence of fairly sturdy underwater supports such as cattails.	FT, CH/--/ SSC	**Suitable Conditions Absent**: The proposed action area does not support any aquatic habitats. No documented occurrences within seven reviewed quadrangles; therefore, airport is not within dispersal distance from a breeding pond. Species not expected to occur. The proposed action will have no effect on this species or its critical habitat.

Species Name	Habitat and Distribution	Legal Status Federal/ State/CDFW	Rationale for Expecting Presence or Absence
Reptiles			
blunt-nosed leopard lizard *Gambelia sila*	Inhabits open, sparsely vegetated areas of low relief on the San Joaquin Valley floor and in the surrounding foothills. On the valley floor, most commonly found in nonnative grassland, saltbrush scrub, and valley sink scrub.	FE/SE/--	**Suitable Conditions Absent**: The proposed action area does not support the sparsely vegetated low-lying areas that species requires. No documented occurrences within seven reviewed quadrangles. Species not expected to occur. The proposed action will have no effect on this species.
giant garter snake *Thamnophis gigas*	Occurs in canals, creeks, ponds, and other areas that support permanent water with vegetative cover. Uses grasses, weeds, cattails, tules, and other vegetation for basking, foraging, and cover.	FT/ST/--	**Suitable Conditions Absent**: The proposed action area does not support any aquatic habitats. No documented occurrences within seven reviewed quadrangles. Species not expected to occur. The proposed action will have no effect on this species.
Birds			
western yellow-billed cuckoo *Coccyzus americanus occidentalis*	Occurs in forests to open riparian woodlands with thick understory.	FT, PCH, MBTA/SE/--	**Suitable Conditions Absent.** The proposed action area does not support riparian habitat. Species not expected to occur. The proposed action will have no effect on this species or its proposed critical habitat.
Least Bell's vireo *Vireo bellii pusillus*	Summer resident of southern California. Occurs in low riparian areas in the vicinity of water or in dry river bottoms below 2,000 feet. Nests along the margins of bushes or twigs of willow, *Baccharis*, or mesquite.	FE/SE/--	**Suitable Conditions Absent**: The proposed action area does not support low riparian habitat or dry river bottoms. Species not expected to occur.
Mammals			
Fresno kangaroo rat *Dipodomys nitratoides exilis*	Known historic range encompassed an area of grassland and alkali desert scrub communities on the San Joaquin Valley floor in Merced, Kings, Fresno, and Madera Counties. Recently have been found only in alkali sink communities from 200 to 300 feet in elevation. Currently no known populations within historical geographic range in Merced, Madera, and Fresno Counties. Last record in Fresno County was in 1992 at the Alkali Sink Ecological Reserve.	FE, CH/CE/--	**Suitable Conditions Absent:** The proposed action area does not support suitable grassland or alkali desert scrub communities and is located outside of remaining known range of subspecies. Species not expected to occur. The proposed action will have no effect on this species or its critical habitat
San Joaquin kit fox *Vulpes macrotis mutica*	Historic range included most of the San Joaquin Valley from San Joaquin County southward to southern Kern County (USFWS 1998). Currently occur in the remaining native valley and foothill grasslands and saltbush scrub communities of the valley floor and surrounding foothills from southern Kern County north to Merced County.	FE/ST/--	**Suitable Conditions Absent:** The proposed action area does not support suitable habitat and is likely located outside current range of subspecies. Species not expected to occur. The proposed action will have no effect on this species.

General references: Unless otherwise noted all habitat and distribution data provided by CNDDB (2020).

Status Codes: --= No status; ***Federal:*** FE = Federal Endangered; FT = Federal Threatened; FC = Federal Candidate; CH= Federal Critical Habitat; PCH = Proposed Federal Critical Habitat; BCC = USFWS Bird of Conservation Concern; MBTA= Protected by federal Migratory Bird Treaty Act; MMPA = Protected by Marine Mammal Protection Act; ***State:*** SE = State Endangered; ST = State Threatened; SD = State Delisted; FP = Fully Protected Species; SC = State Candidate; ***California Department of Fish and Wildlife (CDFW):*** SSC= California Species of Special Concern; WL = Included on CDFW Watch List; SA= Included in CDFW "Special Animals" List; CDFW Section 3503 = Protected by Section 3503 of California Fish and Game Code,

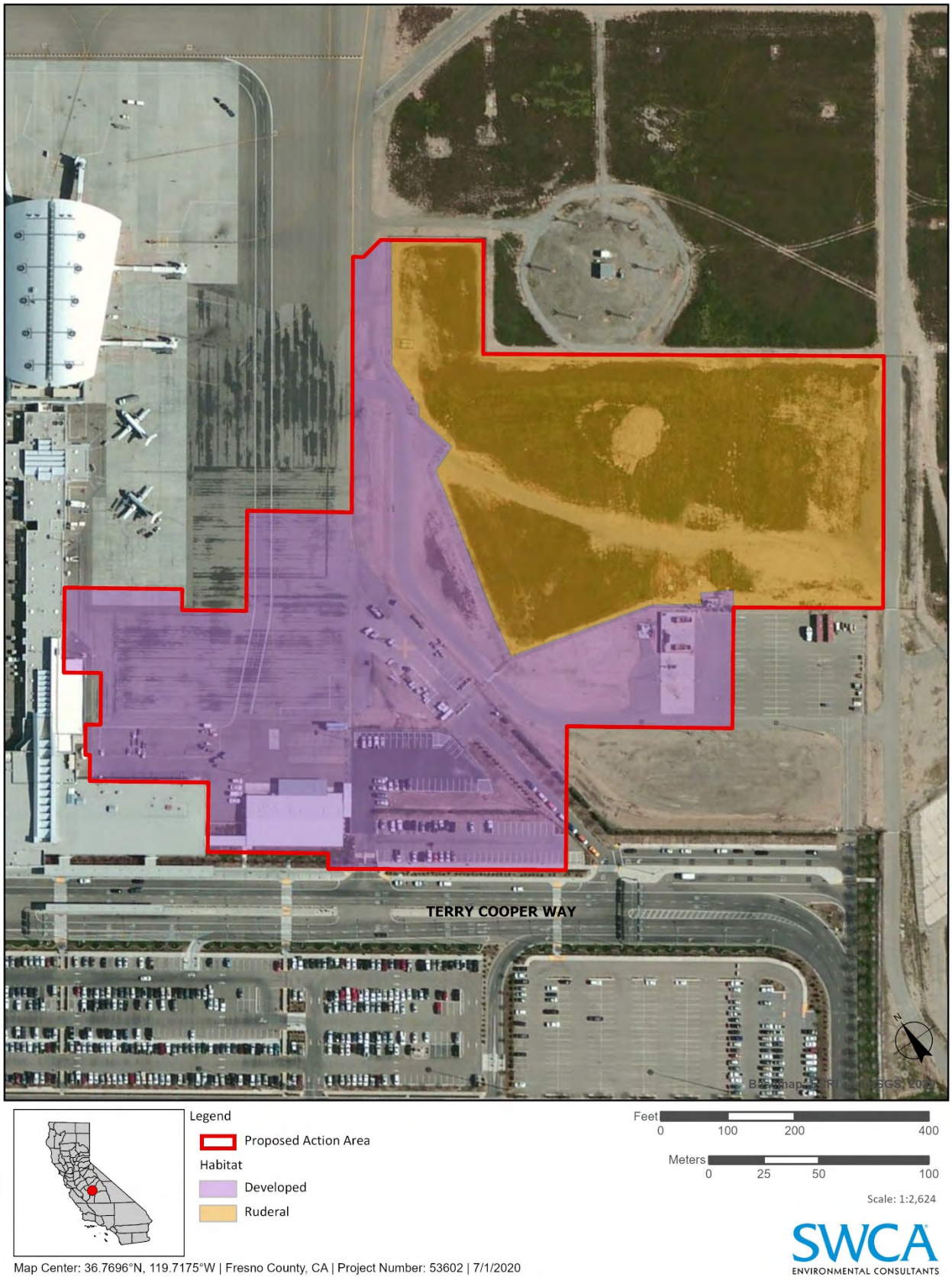

Figure 3. Habitat map.

4.3 Vegetation in the Proposed Action Area

The 15.04-acre proposed action area is mostly developed with asphalt and structures. The proposed 2.5-acre staging area and portions of the apron expansion area are the only section of the proposed action area that support vegetation. The vegetation in the staging and apron expansion areas is ruderal. Ruderal vegetation is found in disturbed areas that have been significantly altered by construction, landscaping, or other types of land-clearing activities. Ruderal habitats often occur along roadsides and fence lines, near developments, and in other areas experiencing severe surface disturbance. Ruderal vegetation is dominated by nonnative annual forbs and includes sporadic occurrences of hardy native annual forbs.

The proposed staging and apron expansion areas are managed for materials staging during airport improvement projects. Although the NRCS maps Atwater sandy loam in the staging area, the soil on the surface of the staging area is an odd mix of fill material from various airport projects. To reduce fire hazards, the airport regularly mows and treats the vegetation in the staging area with herbicides. Herbicides applied by the airport include Milestone and Cleantraxx; Milestone is a post-emergent selective herbicide and Cleantraxx is a pre-emergent selective herbicide. Both chemicals treat a variety of grass and broadleaf plant species. Due to this management regime, only ruderal vegetation consisting of nonnative annual grasses and few native annual forbs are present in the ruderal vegetation.

4.4 Special-Status Plant Species Observed

No special-status plant species were observed in the proposed action area during appropriately timed floristic surveys. Due to the developed nature of the site, unsuitable habitat conditions, and routine disturbances, no special-status plant species are expected to occur within the proposed action area.

4.5 Special-Status Wildlife Species Observed

No special-status wildlife species were observed in the proposed action area. Due to the developed conditions of the proposed action area, special-status wildlife species are not expected to occur in the proposed action area. Other ground nesting birds protected by the federal Migratory Bird Treaty Act (MBTA) may have the opportunity to nest in the staging area.

5 SPECIES ACCOUNTS AND FFFECTS DETERMINATIONS

The following discussion provides a brief description of federally listed species that were evaluated for potential occurrence in the proposed action area. The species accounts discuss the biology of the species in relation to effects associated with the proposed action.

- **Succulent owl's-clover (*Castilleja campestris* ssp. *succulenta*):** This annual herb from the Orobanchaceae family occurs in vernal pools. The proposed action area does not support any vernal pools and, therefore, does not support the appropriate habitat conditions for succulent owl's-clover. Succulent owl's clover was not observed in the proposed action area during surveys conducted during the species' blooming period. There are no documented occurrences of succulent owl's-clover in reviewed quadrangle maps. Due to the ongoing disturbance in the staging area and the developed conditions of the remainder of the proposed action area, the proposed action area does not provide suitable habitat for any special-status plant species.
    - Due to the absence of succulent owl's-clover and lack of suitable habitat in the proposed action area, ***the proposed action will have no effect on this species***.

- **California jewelflower (*Caulanthus californicus*):** This annual herb from the Brassicaceae family occurs in chenopod scrub, pinyon and juniper woodland, and valley and foothill grassland. None of these habitat types occur in the proposed action area; therefore, the proposed action area does not support the appropriate habitat for California jewelflower. California jewelflower does not have any known occurrences in reviewed quadrangle maps. All documented occurrences of California jewelflower are located at a higher elevation than the proposed action area. California jewelflower was not observed in the proposed action area during surveys conducted during the species' blooming period. Due to the ongoing disturbance in the staging area and the developed conditions of the remainder of the proposed action area, the proposed action area does not provide suitable habitat for any special-status plant species.
    - Due to the absence of California jewelflower and lack of suitable habitat in the proposed action area, ***the proposed action will have no effect on this species***.
- **San Joaquin Valley Orcutt grass (*Orcuttia inaequalis*):** This annual herb from the Poaceae family occurs in vernal pools. The proposed action area does not support any vernal pools and, therefore, does not support the appropriate habitat conditions for this species. San Joaquin Valley Orcutt grass was not observed in the proposed action area during surveys conducted during the species' blooming period. There are no documented occurrences of San Joaquin Valley Orcutt grass in reviewed quadrangle maps. Due to the ongoing disturbance in the staging area and the developed conditions of the remainder of the proposed action area, the proposed action area does not provide suitable habitat for any special-status plant species.
    - Due to the absence of San Joaquin Valley Orcutt grass and lack of suitable habitat in the proposed action area, ***the proposed action will have no effect on this species***.
- **Hartweg's golden sunburst (*Pseudobahia bahiifolia*):** This annual herb from the Asteraceae family occurs in clay soil among cismontane woodland and valley and foothill grassland. None of these habitat types occur in the proposed action area; therefore, the proposed action area does not support the appropriate habitat for this species. Hartweg's golden sunburst does not have any known occurrences in reviewed quadrangle maps. Due to the ongoing disturbance in the staging area and the developed conditions of the remainder of the proposed action area, the proposed action area does not provide suitable habitat for any special-status plant species.
    - Due to the lack of suitable habitat in the proposed action area, ***the proposed action will have no effect on this species***.
- **Greene's tuctoria (*Tuctoria greenei*):** This annual herb from the Poacea family occurs in vernal pools. The proposed action area does not support any vernal pools and, therefore, does not support the appropriate habitat conditions for Greene's tuctoria. This species was not observed in the proposed action area during surveys conducted during the species' blooming period. There are no documented occurrences of Greene's tuctoria in reviewed quadrangle maps. Due to the ongoing disturbance in the staging area and the developed conditions of the remainder of the proposed action area, the proposed action area does not provide suitable habitat for any special-status plant species.
    - Due to the absence of Greene's tuctoria and lack of suitable habitat in the proposed action area, ***the proposed action will have no effect on this species***.
- **Conservancy fairy shrimp (*Branchinecta conservation*):** This branchiopod occurs in vernal pools where it feeds on algae, bacteria, protozoa, and detritus. It occurs in larger vernal pools with cool and moderately turbid water. The USFWS is aware of conservancy fairy shrimp populations in Butte, Tehama, Glenn, Yolo, Solano, Stanislaus, Merced, and Ventura Counties (USFWS 2017c); however, the species has not been documented in Fresno County. The proposed action area does not support any vernal pools; therefore, conservancy fairy shrimp are not expected to occur in the proposed action area.

- Due to the absence of vernal pools in the proposed action area, conservancy fairy shrimp are not expected to occur in the proposed action area and ***the proposed action will have no effect on this species***.

- **Vernal pool fairy shrimp (*Branchinecta lynchi*):** Vernal pool fairy shrimp occur primarily in vernal pools, seasonal wetlands, and stagnant ditches that fill with water during fall and winter rains and dry up in spring and summer (USFWS 2019). The species' range includes appropriate vernal pool habitats in California, and it is now known to extend up to southern Oregon. There are no documented occurrences of vernal pool fairy shrimp in reviewed quadrangle maps. The proposed action area does not support any vernal pools; therefore, vernal pool fairy shrimp are not expected to occur in the proposed action area.
  - Due to the absence of vernal pools in the proposed action area, vernal pool fairy shrimp are not expected to occur in the proposed action area and ***the proposed action will have no effect on this species***.

- **Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*):** Valley elderberry longhorn beetle is associated with its host plant blue elderberry (*Sambucus* sp.). It is known to occur from southern Shasta County to Fresno County. There are no documented occurrences of valley elderberry longhorn beetle in reviewed quadrangle maps. The proposed action area does not support any blue elderberry plants; therefore, the proposed action area does not support suitable habitat for this species.
  - Due to the absence of elderberry shrubs in the proposed action area, valley elderberry longhorn beetle are not expected to occur in the proposed action area and ***the proposed action will have no effect on this species***.

- **Delta smelt (*Hypomesus transpacificus*):** This fish species occurs in estuarine waters of the San Francisco Bay in Contra Costa, Sacramento, San Joaquin, Solano, and Yolo Counties. This is a small fish that is typically only 60–70 millimeters but can reach 120 millimeters in length. Most spawning happens in tidally influenced backwater sloughs and channel edgewaters. Eggs are adhesive and thought to be released in batches over firm substrates or sand. Delta smelt are a euryhaline species, able to tolerate a wide salinity range. Delta smelt feed primarily on planktonic copepods, cladocerans, and amphipods (CDFW 2020). The proposed action area is not located on any estuarine water body; therefore, the proposed action area does not support suitable habitat for this species.
  - Due to the absence of aquatic habitats in the proposed action area, delta smelt are not expected to occur in the proposed action area and ***the proposed action will have no effect on this species***.

- **California tiger salamander (*Ambystoma californiense*):** The California tiger salamander is a large terrestrial salamander that ranges from Sonoma County, south to northwest Tulare County, and in the Coast Range south to northern Santa Barbara County (Jennings and Hayes 1994). California tiger salamander breeding and estivation habitat includes vernal pools, seasonal and perennial ponds, and surrounding upland areas in grassland and oak savannah plant communities from sea level to about 3,600 feet.

  Adult California tiger salamanders mate in vernal pools and similar waterbodies where females lay their eggs in the water. California tiger salamanders spend most of their life in upland habitats. They can disperse up to 1.3 miles from the breeding pond to upland habitat. This species cannot dig their own burrows and, as a result, their presence is associated with burrowing mammals such as ground squirrels. Active ground-burrowing rodent populations probably are required to sustain California tiger salamanders because inactive burrow systems become progressively unsuitable over time. Based on the background review, the nearest breeding pond is

over 5 miles north of the airport. The staging area does not have any small mammal burrows in it. Since the proposed action area is greater than 1.3 miles from a breeding pond and does not support small mammal burrows, the proposed action area does not support suitable upland habitat for California tiger salamander.

- Due to the lack of suitable breeding ponds in the proposed action area, the proposed action area does not provide suitable aquatic habitat for California tiger salamander. Due to the lack of small mammal burrows and documented breeding ponds within 1.3 miles of the proposed action area, the proposed action area does not provide suitable upland habitat for California tiger salamander. California tiger salamander is not expected to occur in the proposed action area and ***the proposed action will have no effect on this species***.

- **California red-legged frog (*Rana draytonii*):** California red-legged frog breed in aquatic habitats with little or no flow and the presence of sturdy supports for attaching egg masses. Although breeding sites must support specific aquatic conditions, upland and or aquatic non-breeding season habitats can include any areas that stay moist during the dry season and are within 1 to 2 miles of a breeding site. During the dry season, California red-legged frog may estivate in small mammal burrows, under vegetation or woody debris, or other areas that maintain moisture.

  California red-legged frog are endemic to California and Baja California, and records of the species are known from Riverside County to Mendocino County along the Coast Range; from Calaveras County to Butte County in the Sierra Nevada; and in Baja California, Mexico (USFWS 2017b). The proposed action area does not support any aquatic habitats for California red-legged frog breeding or moist upland habitats for California red-legged frog estivation. There are no documented California red-legged frog breeding sites in any of the topographic quadrangles within 5 miles of the airport. Since the proposed action area does not support suitable breeding sites or upland estivation habitat and is beyond the dispersal distance from any known breeding sites, California red-legged frog are not expected to occur in the proposed action area.

  - Due to the lack of suitable aquatic habitat for breeding in the proposed action area, the proposed action area does not provide suitable aquatic habitat for California red-legged frog. Due to the lack of small mammal burrows and documented breeding ponds within 2 miles of the proposed action area, the proposed action area does not provide suitable upland habitat for California red-legged frog. California red-legged frog is not expected to occur in the proposed action area and ***the proposed action will have no effect on this species***.

- **Blunt-nosed leopard lizard (*Gambelia sila*):** This relatively large lizard is only found in the San Joaquin Valley and adjacent foothills, the Carrizo Plain, and the Cuyama Valley. It occurs in sparsely vegetated valley floors and foothills, alkali flats, annual grasslands, and saltbrush scrub. Blunt-nosed leopard lizard use small mammal burrows for shelter (USFWS 2017a).

  The proposed action area is within the range of the blunt-nosed leopard lizard but does not support the sparsely vegetated habitat or small mammal burrows necessary for this species. The airport is surrounded by development, which isolated the airport from any suitable blunt-nosed leopard lizard habitat. The background search did not identify any blunt-nosed leopard lizard occurrences within the reviewed quadrangle maps. Since the proposed action area does not support suitable habitat and is not located adjacent to suitable blunt-nosed leopard lizard habitat, blunt-nosed leopard lizard is not expected to occur in the proposed action area.

  - Due to the lack of suitable blunt-nosed leopard lizard habitat in or adjacent to the proposed action area, blunt-nosed leopard lizard is not expected to occur in the proposed action area and ***the proposed action will have no effect on this species***.

- **Giant garter snake (*Thamnophis gigas*):** This large garter snake occurs in aquatic habitats such as rice fields, canals, sloughs, ponds, small lakes, low-gradient streams, and adjacent uplands. The aquatic habitat must have enough water to provide food and cover is early spring through mid-fall. The giant garter snake uses wetland plants such as cattails and bulrushes for cover and foraging, and grassy banks and openings in vegetation are for used for sunning.

  Giant garter snake are confined to the Central Valley. The proposed action area is within the range of this species but does not support any aquatic habitat suitable for this species. The background search indicates that no occurrences within 5 miles of the airport have been documented. Since the proposed action area does not support suitable aquatic habitat for giant garter snake and there are no documented occurrences of this species near the airport, giant garter snake is not expected to occur in the proposed action area.

  - Due to the lack of suitable aquatic habitats in or adjacent to the proposed action area, giant garter snake is not expected to occur in the proposed action area and ***the proposed action will have no effect on this species***.

- **Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*):** This medium-sized bird occurs in riparian habitats. Its winter range incudes Columbia, Venezuela, and northern Argentina. Currently, its breeding range includes northern Mexico to the Sacramento Valley in California. In California, most of the occurrences are confined to the Sacramento and Kern Rivers (USFWS 2017d).

  In the San Joaquin Valley, the greatest cause of decline in the western yellow-billed cuckoo population has been the incremental loss of riparian habitat resulting from agricultural development, dams, river management, and stream and river channelization. The proposed action area does not support any riparian habitat. The nearest documented occurrence of western yellow-billed cuckoo is 5 miles to the south of the airport. Since the proposed action area does not support suitable riparian habitat and the nearest occurrence of the species is 5 miles from the airport, western yellow-billed cuckoo is not expected to occur in the proposed action area.

  - Due to the lack of riparian habitat in or adjacent to the proposed action area, western yellow-billed cuckoo is not expected to occur in the proposed action area and ***the proposed action will have no effect on this species***.

- **Least Bell's vireo (*Vireo bellii pusillus*):** This subspecies of vireo is the westernmost subspecies that breeds in California and northern Baja California. Historically, the least Bell's vireo was a common to locally abundant species in lowland riparian habitat, ranging from coastal southern California through the Sacramento and San Joaquin Valleys as far north as Red Bluff in Tehama County. Populations also occurred in the foothill streams of the Sierra Nevada and Coast Ranges, and in Owens Valley, Death Valley, and scattered locations in the Mojave Desert. Currently, the breeding range is restricted to riparian habitats in Santa Clara, Santa Barbara, Ventura, San Diego, and San Bernardino Counties. Roughly half of the current vireo population occurs on drainages within Marine Corps Base Camp Pendleton in San Diego County (Kus 2002).

  The proposed action area does not support any riparian habitat suitable for least Bell's vireo. CNDDB reports two occurrences of least Bell's vireo from reviewed quadrangle maps. These occurrences—from 1906 and 1912—are reported as possibly extirpated. Since the proposed action area does not support suitable riparian habitat and there has not been sightings of this species near the proposed action area for over 100 years, least Bell's vireo is not expected to occur in the proposed action area.

  - Due to the lack of riparian habitat in or adjacent to the proposed action area, least Bell's vireo is not expected to occur in the proposed action area and ***the proposed action will have no effect on this species***.

- **Fresno kangaroo rat (*Dipodomys nitratoides exilis*):** The historic range of the Fresno kangaroo rat encompassed an area of grassland and chenopod scrub communities on the San Joaquin Valley floor, from about the Merced River in Merced County to the north, to the northern edge of the marshes surrounding Tulare Lake in Kings County to the south, and extending from the edge of the Valley floor near Livingston, Madera, Fresno, and Selma westward to the wetlands of Fresno Slough and the San Joaquin River. There are no known populations within the historical geographic range in Merced, Madera, and Fresno Counties (USFWS 1998, 2010). The nearest documented occurrence to the airport is 9.5 miles to the west of the airport. This occurrence was last seen in 1898 and reported as extirpated.

  The proposed action area does not support chenopod scrub or grassland habitat, nor is the proposed action area located adjacent to such habitats. Since the proposed action area does not support the appropriate habitat and Fresno kangaroo rat does not have documented occurrences in the area, Fresno kangaroo rat is not expected to occur in the proposed action area.

  - Due to the lack of suitable habitat in and adjacent to the proposed action area, Fresno kangaroo rat is not expected to occur in the proposed action area and ***the proposed action will have no effect on this species***.

- **San Joaquin kit fox (*Vulpes macrotis mutica*):** Prior to 1930, the San Joaquin kit fox's range extended from southern Kern County north to eastern Contra Costa County on the valley's westside and to Stanislaus County on the eastside. Today the San Joaquin kit fox inhabits a fragmented landscape of remnant native habitat and altered lands. The largest extant populations are in western Kern County on and around the Elk Hills and Buena Vista Valley and in the Carrizo Plain Natural Area in San Luis Obispo County. The northern extent of its current distribution includes the Antioch area of Contra Costa County.

  San Joaquin kit fox require friable or loose soils to excavate their dens (U.S. Environmental Protection Agency [USEPA] 2010). They commonly occur in annual grassland habitats but can adapt to urban and agricultural environments as well. The CNDDB does not document any records of San Joaquin kit fox in reviewed quadrangle maps. The nearest documented occurrence is located 10 miles to the northwest of the airport in the Herndon, California USGS 7.5-minute topographic quadrangle map; this occurrence was mapped along SR-99 in 1993. The individual San Joaquin kit fox was found dead on the road adjacent to a fallow agricultural field. The proposed action area is developed and surrounded by development. Due to the extensive development in and adjacent to the proposed action area, the proposed action area does not provide a suitable prey base or denning opportunities for San Joaquin kit fox. San Joaquin kit fox is not expected to occur in the proposed action area.

  - Due to lack of a suitable prey base and denning opportunities, San Joaquin kit fox is not expected to occur in the proposed action area and ***the proposed action will have no effect on this species***.

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APPENDIX A

IPaC Resource List

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Fresno County, California

Local office

Sacramento Fish And Wildlife Office

(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS

Fresno Kangaroo Rat Dipodomys nitratoides exilis — Endangered
There is **final** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/5150

San Joaquin Kit Fox Vulpes macrotis mutica — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/2873

Birds

NAME	STATUS
Yellow-billed Cuckoo Coccyzus americanus There is **proposed** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/3911	Threatened

Reptiles

NAME	STATUS
Blunt-nosed Leopard Lizard Gambelia silus No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/625	Endangered
Giant Garter Snake Thamnophis gigas No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog Rana draytonii There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander Ambystoma californiense There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS

Delta Smelt Hypomesus transpacificus — Threatened
There is **final** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/321

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp Branchinecta conservatio There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp Branchinecta lynchi There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/498	Threatened

Flowering Plants

NAME	STATUS
Greene's Tuctoria Tuctoria greenei There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/1573	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Clark's Grebe *Aechmophorus clarkii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Dec 31
Common Yellowthroat *Geothlypis trichas sinuosa* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/2084	Breeds May 20 to Jul 31

Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

Oak Titmouse Baeolophus inornatus — Breeds Mar 15 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656

Song Sparrow Melospiza melodia — Breeds Feb 20 to Sep 5
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Spotted Towhee Pipilo maculatus clementae — Breeds Apr 15 to Jul 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/4243

Tricolored Blackbird Agelaius tricolor — Breeds Mar 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3910

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted

Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

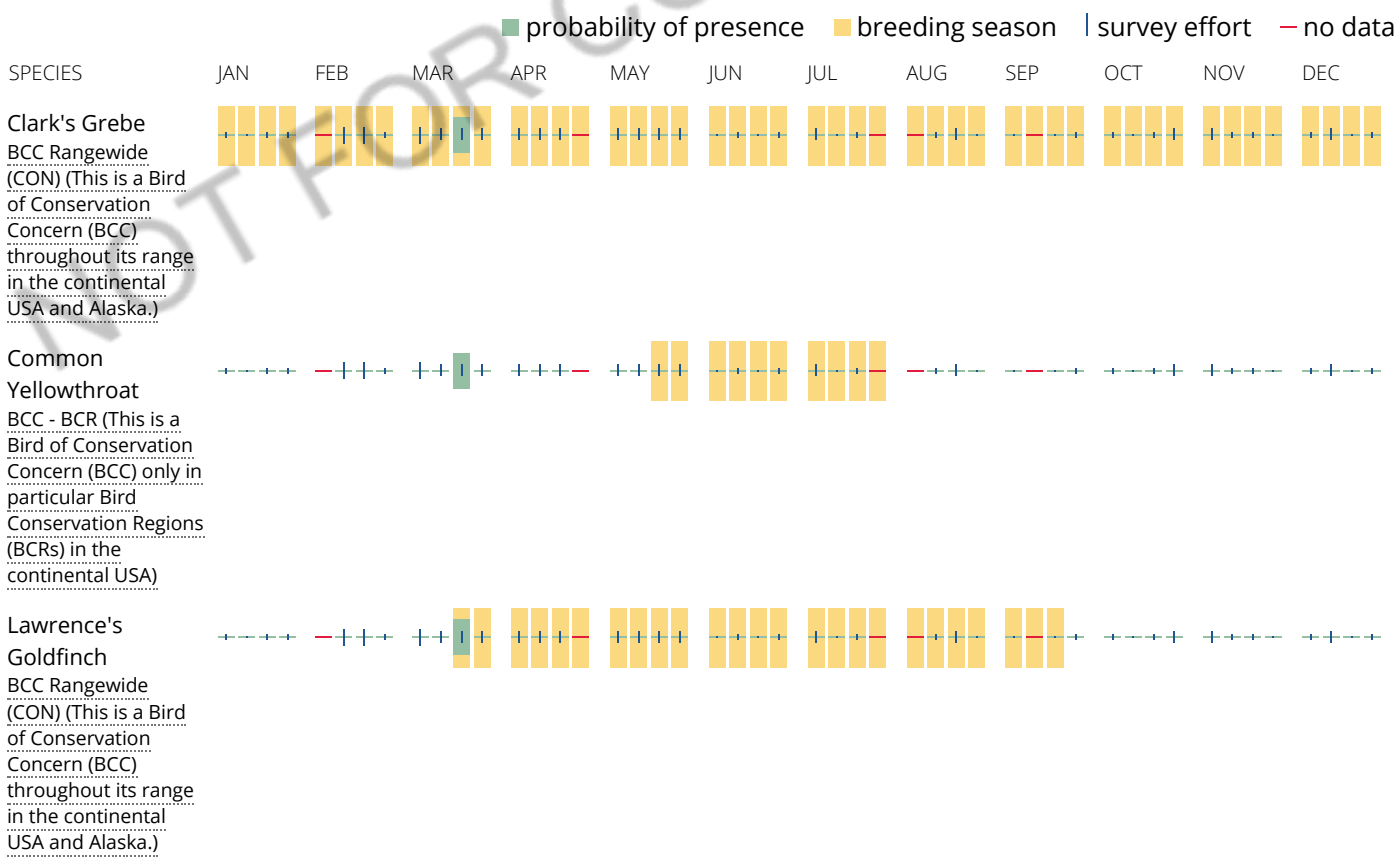
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

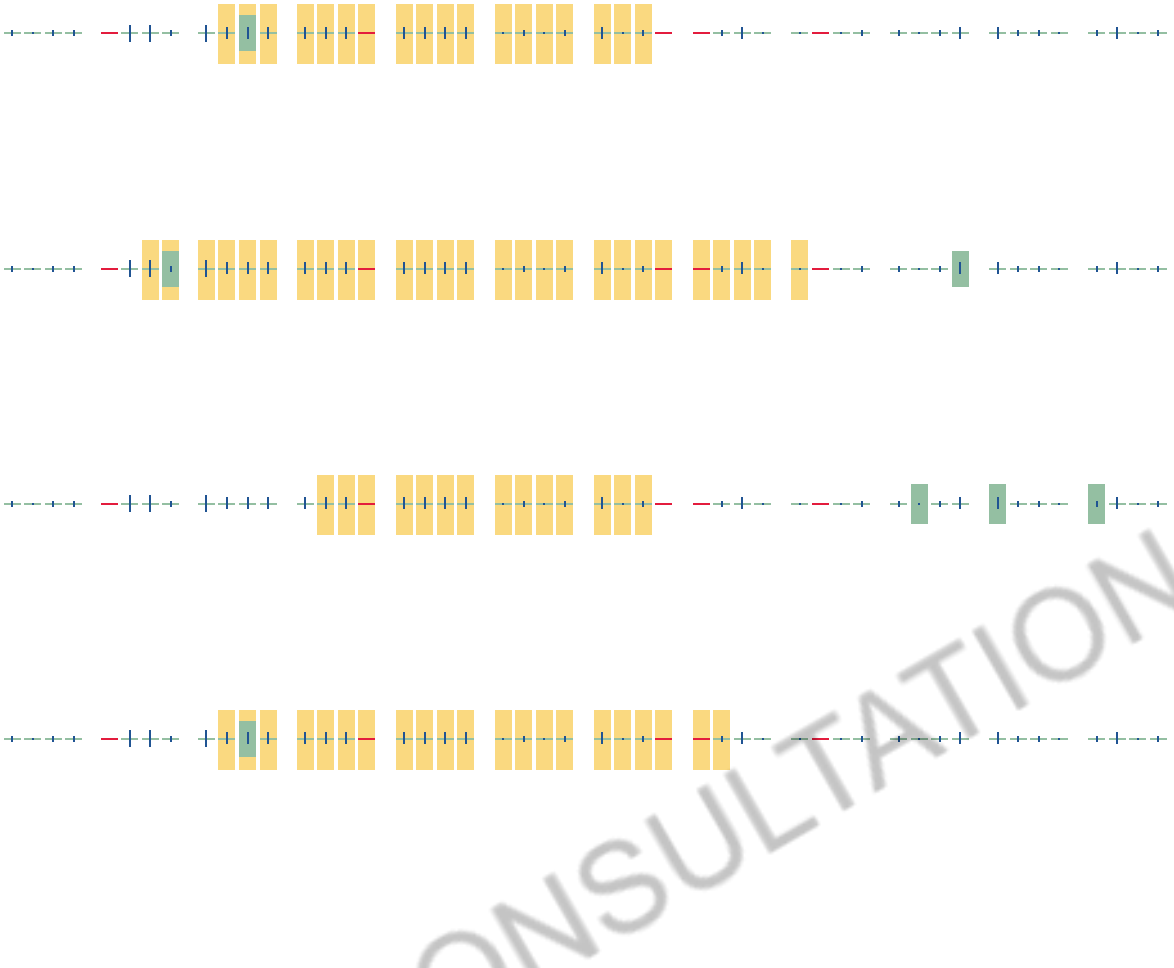
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Oak Titmouse
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Song Sparrow
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Spotted Towhee
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Tricolored Blackbird
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

APPENDIX B

Project Exhibits

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SCALE IN FEET

Aerial Photo: Google Earth 8-23-18

LEGEND

- Airport Property Line
- Area of Potential Effect (13.1 acres)

Taxiway B

Existing Terminal

Apron Expansion

Staging Area (2.5 acres)

Terminal Expansion

Haul Route

E Clinton Way

E McKinley Ave

PROJECT COMPONENT LOCATIONS

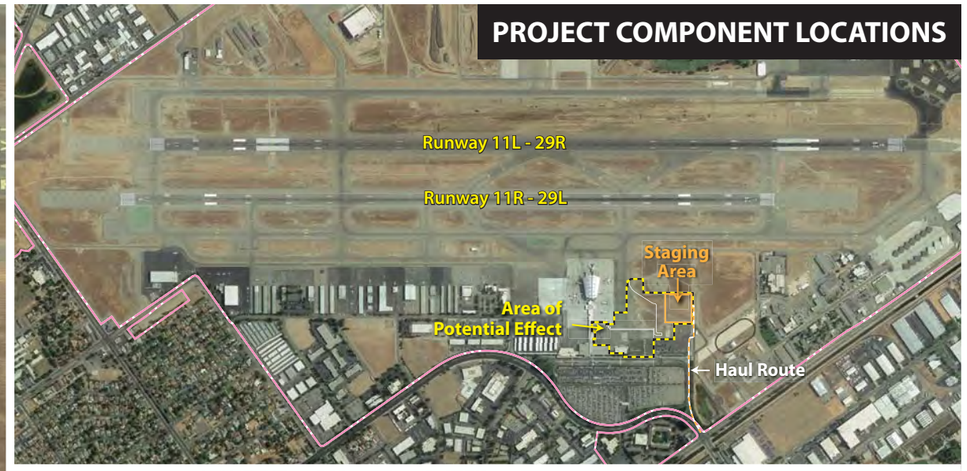
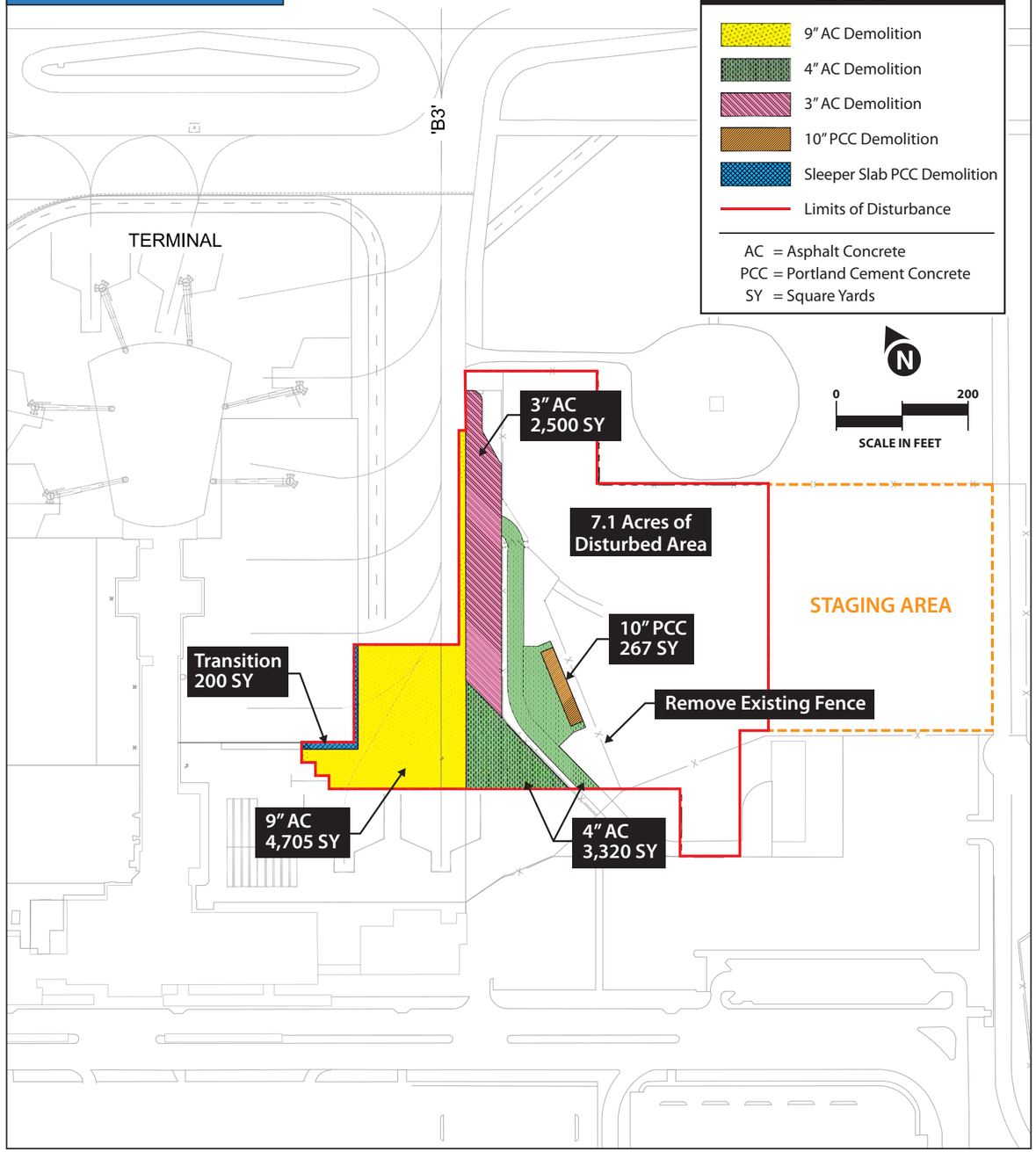
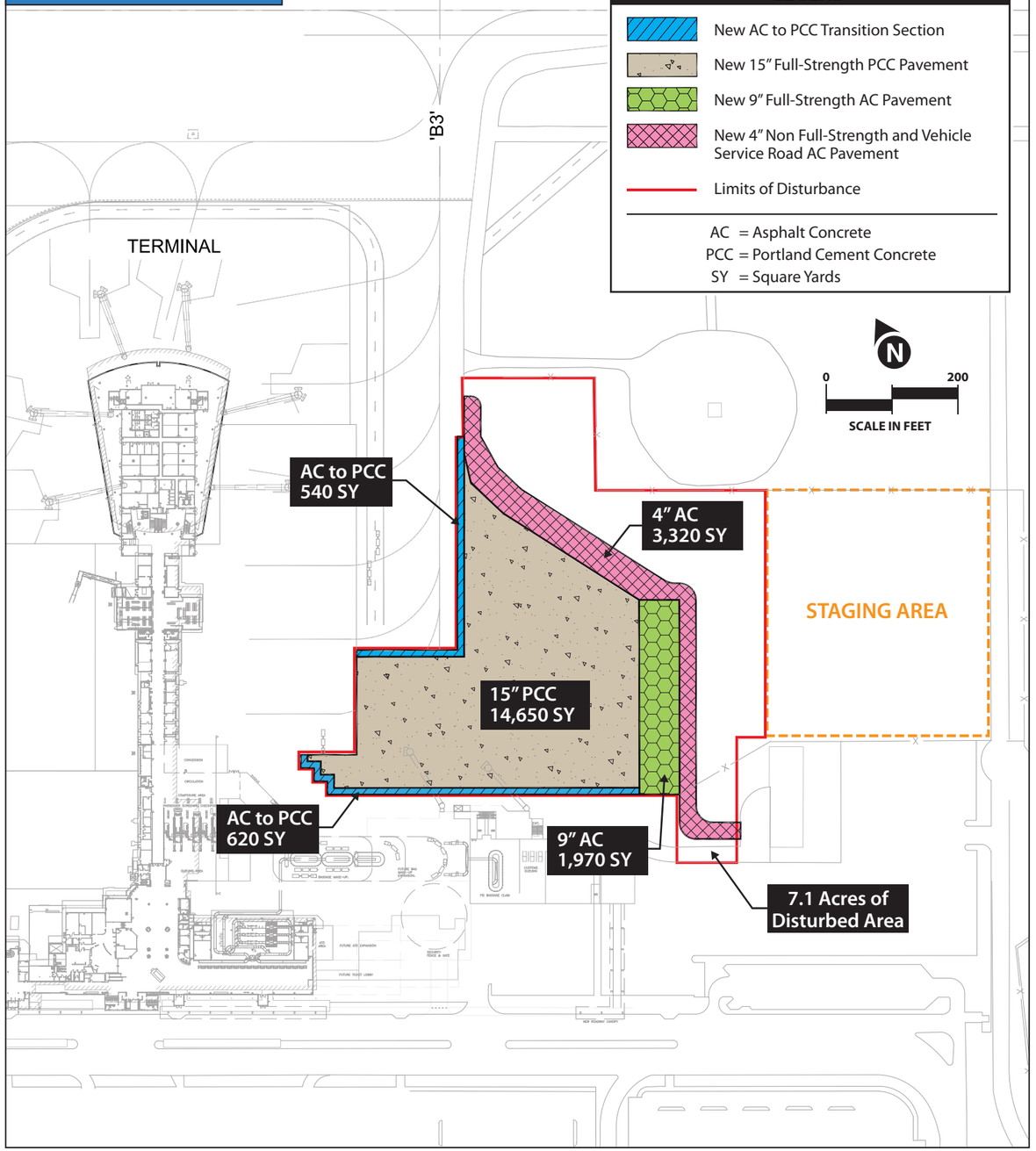


Exhibit 1
PROPOSED ACTION AND AREA OF POTENTIAL EFFECT

DEMOLITION LAYOUT

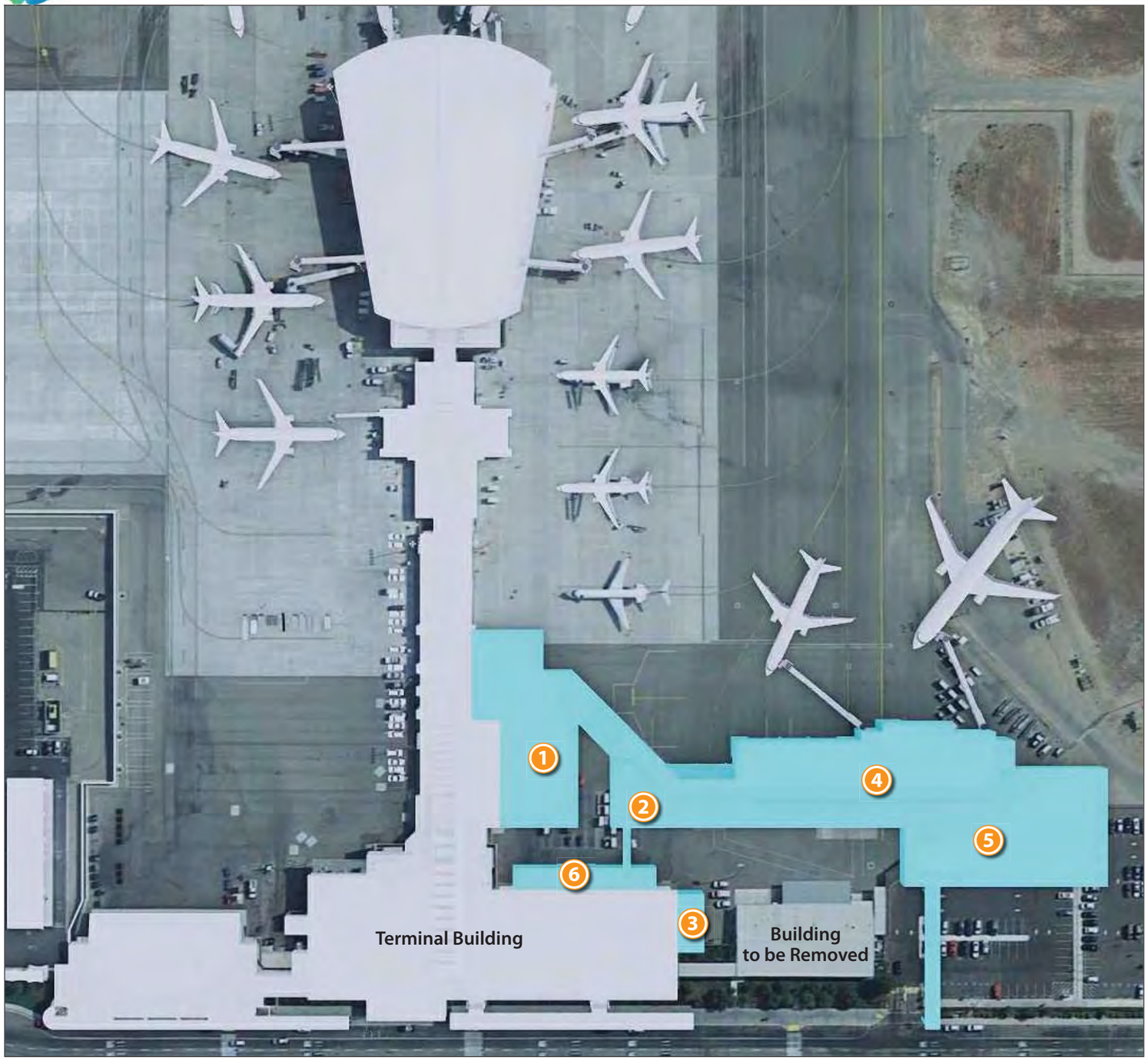


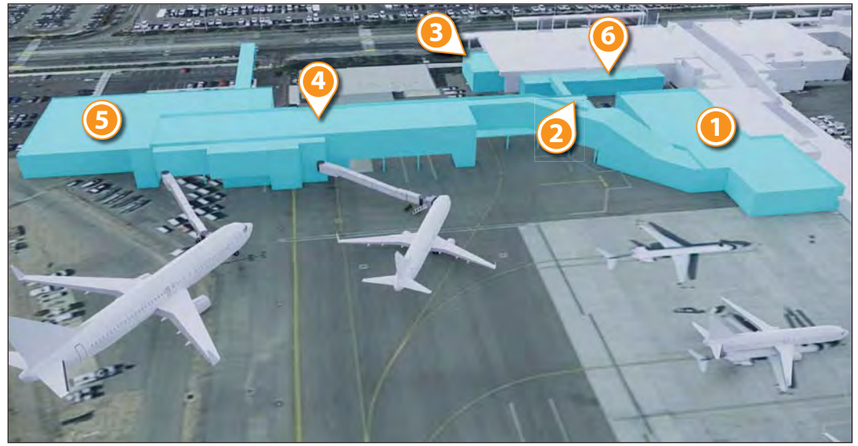
HORIZONTAL LAYOUT

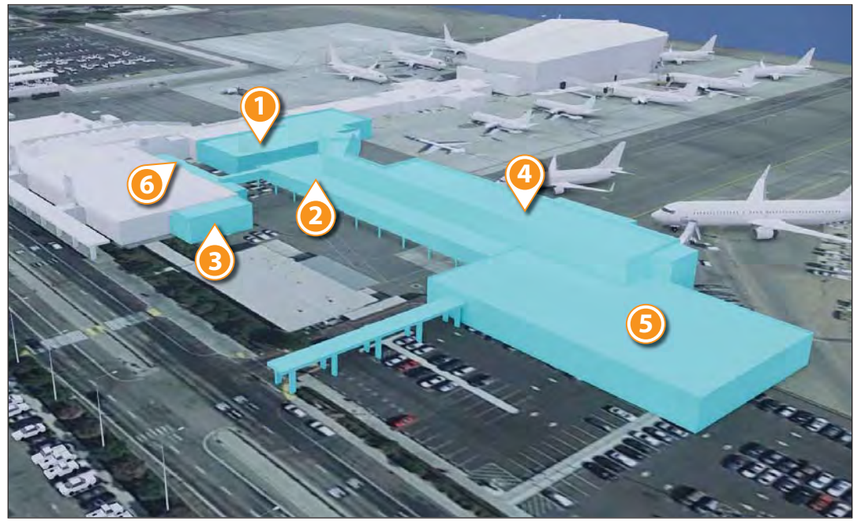


Source: Kimley-Horn Associates 2019. Design Support Memorandum – Terminal Apron Reconfiguration, September 19.

Exhibit 2
PROPOSED EAST TERMINAL APRON RECONFIGURATION







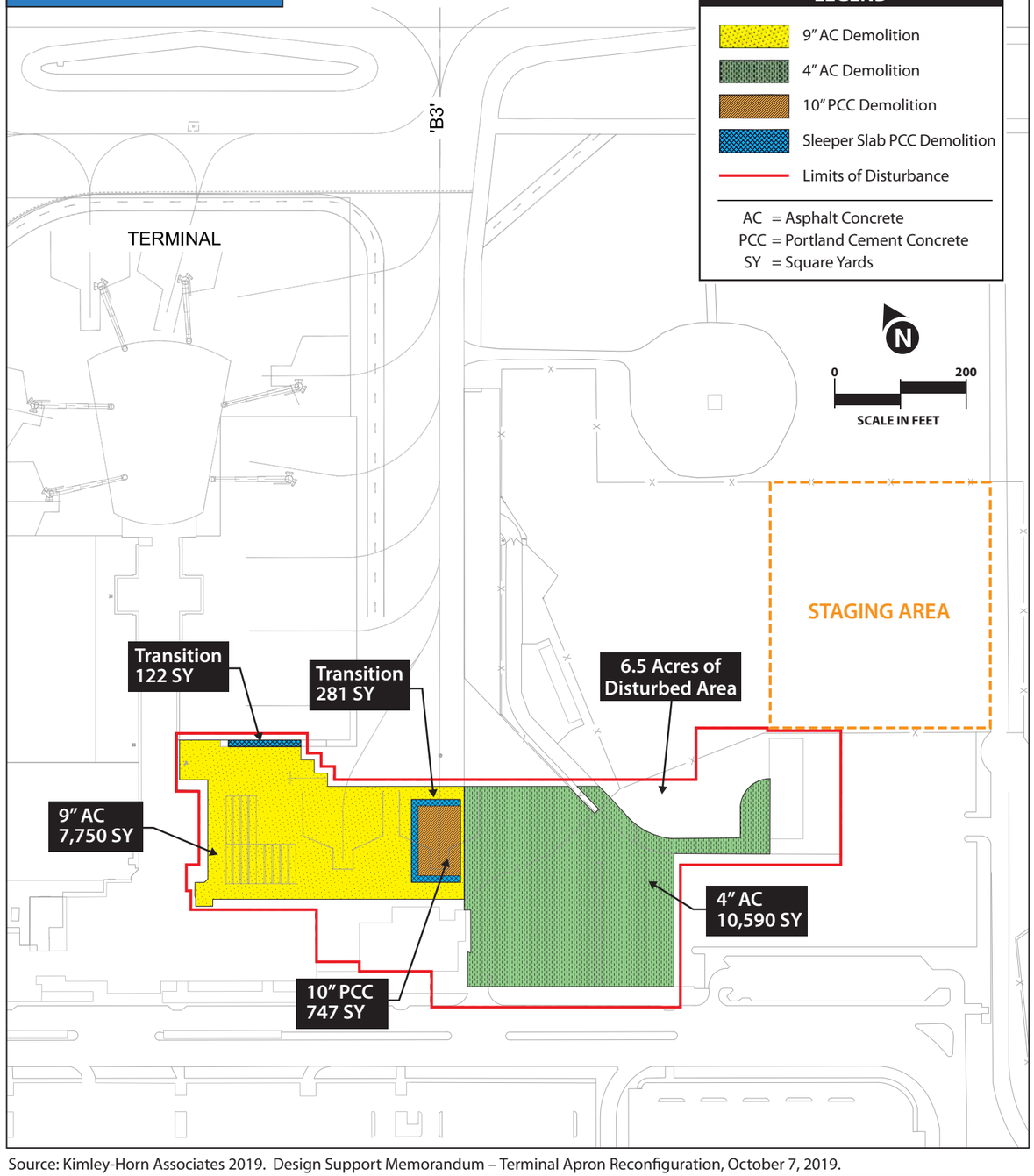
LEGEND

1. Passenger Screening Checkpoint
2. Baggage Make-Up
3. ATO Office
4. Hold Room
5. FIS Building
6. In-Line Baggage Screening

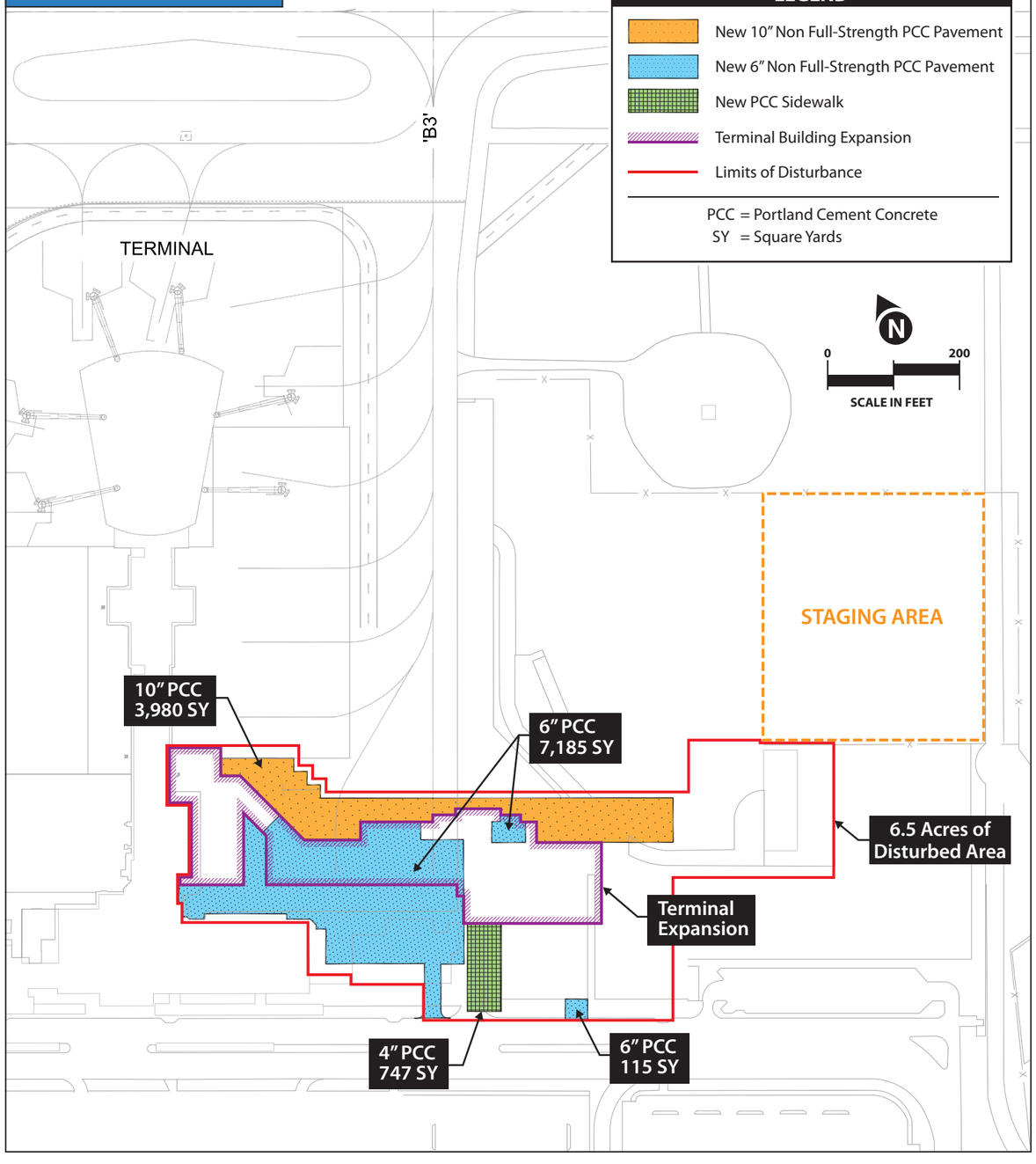
Source: CSHQA 2019, Design Support Memorandum on Terminal Building Expansion and Remodel, September 27

Exhibit 3
PROPOSED TERMINAL EXPANSION

DEMOLITION LAYOUT



HORIZONTAL LAYOUT



Source: Kimley-Horn Associates 2019. Design Support Memorandum – Terminal Apron Reconfiguration, October 7, 2019.

APPENDIX C

Photo Documentation

Photo C-1. Representative view of developed conditions in proposed action area. Photo taken May 26, 2020.

Photo C-2. Representative view of developed conditions in proposed action area. Photo taken May 26, 2020.

Photo C-3. Representative view of developed conditions in proposed action area. Photo taken May 26, 2020.

Photo C-4. Representative view of developed conditions in proposed action area. Photo taken May 26, 2020.

Photo C-5. Representative view of developed conditions in proposed apron expansion area. Photo taken May 26, 2020.

Photo C-6. Representative view of developed conditions in proposed action area. Photo taken May 26, 2020.

Photo C-7. Representative view of ruderal conditions in proposed apron expansion area. Photo taken May 26, 2020.

Photo C-8. Representative view of ruderal conditions in proposed apron expansion area. Photo taken May 26, 2020.

Photo C-9. Representative view of ruderal conditions in proposed staging area. Photo taken May 26, 2020.

Photo C-10. Representative view of ruderal conditions in proposed staging area. Photo taken May 26, 2020.

Photo C-11. Representative view of ruderal conditions in proposed staging area. Photo taken May 26, 2020.

APPENDIX D

Lists of Species Observed

Table D-1. List of Plant Species Observed in the Proposed Action Area

Scientific Name	Common Name	Native	Species Status / Notes
Vascular Plants nomenclature follows *The Jepson Manual* (Baldwin et al. 2012) and http://ucjeps.berkeley.edu/interchange.html.			
ANGIOSPERMS (DICOTS)			
Asteraceae	**Sunflower family**		
Ambrosia sp.	n/a	n/a	No flowering parts
Centromadia pungens	common spikeweed	Yes	
Erigeron bonariensis	flax-leaved horseweed	No	
Hypochaeris glabra	smooth cat's ear	No	Cal IPC: limited
Boraginacea	**Borag family**		
Amsinckia menziesii	small-flowered fiddleneck	Yes	
Plagiobothrys nothofulvus	popcornflower	Yes	
Brassicaceae	**Mustard family**		
Brassica nigra	black mustard	No	
Chenopodiaceae	**Goosefoot family**		
Salsola tragus	Russian thistle	No	
Crassulaceae	**Stonecrop family**		
Crassula tillaea	pygmy weed	No	
Euphorbiaceae	**Spurge family**		
Croton setiger	doveweed/turkey mullein	Yes	
Fabaceae	**Pea family**		
Acmispon americanus	Spanish lotus	Yes	
Geraniaceae	**Geranium family**		
Erodium moschatum	white-stemmed filaree	No	
Lamiaceae	**Mint Family**		
Trichostema lanceolatum	vinegar weed	Yes	
Plantaginaceae	**Plantain family**		
Plantago erecta	California plantain	Yes	
ANGIOSPERMS (MONOCOTS)			
Poaceae	**Grass family**		
Avena barbata	slender wild oats	No	Cal IPC: moderate
Bromus diandrus	ripgut brome	No	Cal IPC: moderate
Bromus hordeaceus	soft chess brome	No	Cal IPC: limited
Bromus madritensis ssp. *madritensis*	foxtail chess	No	
Cynodon dactylon	Bermuda grass	No	
Festuca myuros	rattail fescue	No	Cal IPC: moderate
Hordeum murinum	foxtail	No	

* Cal-IPC = California Invasive Plant Council

Cal-IPC Ratings:
Moderate: These species have substantial and apparent-but generally not severe-ecological impacts on physical processes, plant and wildlife communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.

Limited: These species are invasive, but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.

Table D-2. List of Wildlife Species Observed in the Proposed Action Area

Scientific Name	Common Name	Notes
Birds		
Pigeons and Doves		
Zenaida macroura	mourning dove	Foraging
Streptopelia decaocto	Eurasian collared dove	Exotic
Tyrant Flycatchers		
Sayornis nigricans	black phoebe	Foraging
Tyrannus verticalis	western kingbird	Foraging
Jays, Crows, and Allies		
Corvus brachyrhynchos	American crow	Perching
Corvus corax	common raven	Local movements around airfield
Larks		
Eremophila alpestris	horned lark	Foraging
Swallows		
Tachycineta bicolor	tree swallow	Foraging
Finches and Old World Sparrows		
Carpodacus mexicanus	house finch	Foraging
Waxwings, Silky Flycatchers, and Starlings		
Sturnus vulgaris	European starling	

FRESNO YOSEMITE
International Airport

Appendix C

FAT Forward

NATIONAL HISTORIC PRESERVATION ACT, SECTION 106 CONSULTATION

State of California • Natural Resources Agency
Gavin Newsom, *Governor*

DEPARTMENT OF PARKS AND RECREATION
OFFICE OF HISTORIC PRESERVATION
Julianne Polanco, State Historic Preservation Officer
1725 23rd Street, Suite 100, Sacramento, CA 95816-7100
Telephone: (916) 445-7000 FAX: (916) 445-7053
calshpo.ohp@parks.ca.gov www.ohp.parks.ca.gov

Armando Quintero, *Director*

October 14, 2021 Reply in Reference To: FAA_2021_0902_001

Submitted Via Electronic Mail

Richard P. Doucette
Environmental Protection Specialist
Federal Aviation Administration
San Francisco Airports District Office
1000 Marina Blvd, Suite 220
Brisbane, CA 94005-1835

Re: Fresno Yosemite International Airport, Proposed Terminal Expansion and Remodel and East Terminal Apron Reconfiguration Project, Fresno, Fresno County, California

Dear Mr. Doucette:

The United States Federal Aviation Administration (FAA) is consulting with the State Historic Preservation Officer (SHPO) in order to comply with Section 106 of the National Historic Preservation Act of 1966 (54 U.S.C. § 306108), as amended, and its implementing regulations at 36 CFR Part 800. The FAA is requesting SHPO concurrence with a determination of eligibility and a finding of no historic properties affected.

The FAA and the City of Fresno are preparing a Draft Environmental Assessment evaluating potential impacts that could result from the above-referenced undertaking. Historic properties identification efforts for this undertaking are summarized in following report:

- *Cultural Resources Report for the Fresno-Yosemite International Airport Terminal Expansion/Remodel and East Terminal Apron Reconfiguration, Fresno, Fresno County, California (*SWCA Environmental Consultants: August 2020)

Project components include removal of one gate to expand security checkpoint screening areas and support space, the addition of 96,294 square feet of the east concourse, expansion of the Terminal Apron, demolition of the U.S. Customs and Border Protection Federal Inspection Station building, and construction of a new inspection station building.

The Area of Potential Effect (APE) is 15.6 acres, as shown on aerial images included in the cultural resources report.

October 14, 2021

In an effort to identify historic properties in the APE, qualified cultural resources specialists performed a records search at the Southern San Joaquin Valley Information Center. Records indicate that no historic properties have been identified in the APE. Archaeological fieldwork undertaken at Fresno Yosemite International Airport in 2007 indicates that, due to prior disturbance, the APE is considered to a have a low sensitivity for archaeological resources. Records indicate that one resource over 50 years of age, the Fresno Air Terminal building, is located in the APE. SWCA Environmental Consultants evaluated the terminal for its potential eligibility for inclusion on the National Register of Historic Places (NRHP). The evaluation concludes that due to a loss of design and material integrity stemming from subsequent remodeling and additions, the property is ineligible for listing on the NRHP under all criteria. The evaluation notes that a mosaic mural located on the building's facade may meet eligibility criteria for listing on the California Register of Historic Resources; however, the undertaking will not impact the mural.

The FAA initiated consultation with the federally-recognized Santa Rosa Rancheria Tachi Yojut Tribe, Table Mountain Rancheria, and other, non-federally recognized tribes. No responses have been received to date.

Having reviewed your submittal, SHPO offers the following comments:

1) SHPO agrees that the APE is adequate to account for direct and indirect effects to historic properties;

2) SHPO concurs that Fresno Air Terminal building is ineligible for listing on the NRHP under all criteria;

3) SHPO concurs that the undertaking will not affect historic properties.

Please be reminded that in the event of an inadvertent discovery or a change in scale or scope of the undertaking, the FAA may have further consultation responsibilities under 36 CFR Part 800. If the FAA has any questions or comments, please contact staff historian Tristan Tozer at (916) 445-7027 or Tristan.Tozer@parks.ca.gov.

Sincerely,

Julianne Polanco
State Historic Preservation Officer

U.S. Department of Transportation
Federal Aviation Administration

Western-Pacific Region
San Francisco Airports District Office

1000 Marina Boulevard, Suite 220
Brisbane, CA 94005-1835

August 31, 2021

Ms. Julianne Polanco
State of California
State Historic Preservation Office
Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, CA 95816

Fresno Yosemite International Airport (FAT)
Proposed Terminal Expansion-Remodel and East Terminal Apron Reconfiguration Project
Fresno, Fresno County, California
Section 106 Coordination

Dear Ms. Polanco:

The Federal Aviation Administration (FAA) and the City of Fresno are preparing a Draft Environmental Assessment evaluating the potential impacts that could result from a proposed *Terminal Expansion-Remodel and East Terminal Apron Reconfiguration Project* at Fresno Yosemite International Airport (**Figure 1**). The City of Fresno is the sponsor for Fresno Yosemite International Airport. The FAA is the lead federal agency thereby charged with conducting Section 106 consultation with the State Historic Preservation Office.

The FAA is initiating Section 106 consultation with your office, effective the date of this letter. The purpose of this consultation effort is to seek concurrence that there are no historic, architectural, archaeological, or cultural resources impacts of the proposed undertaking that would occur or are likely to occur in the vicinity of the project site.

Project Information

The proposed undertaking includes the following major components:

- Reconfigure and remodel of Existing Terminal
  - Remove one gate to expand Dept. of Homeland Security, Transportation Security Administration (TSA) security checkpoint screening areas and support space
- East Concourse Addition
  - New 96,294 square feet east concourse
  - Airline baggage make-up and TSA screening facility
  - Two new dual use (domestic & international) gates and associated boarding bridges
  - Concession areas and passenger hold rooms
  - New U.S. Customs and Border Protection, Federal Inspection Station (FIS)

- Expanded Terminal Apron
    - Approximately 625 feet by 825 feet
- Demolition of existing FIS building
    - Cleared and paved for emergency vehicle access; vehicle circulation and parking

Figure 2 shows the Area of Potential Effect (APE). The APE is 15.6 acres and includes all areas where permanent and temporary impacts could occur from project activities.

Project Consultation

On June 17, 2019, staff at the Southern San Joaquin Valley Information Center (SSJVIC) conducted a California Historical Resources Information System (CHRIS) records search of the entire airport property. The records search revealed that six cultural resources studies on file have been conducted at the airport, but none overlap with the current APE. Eleven cultural resources have been previously recorded within the airport property. All 11 cultural resources consist of historic buildings and structures related to the Fresno Air National Guard (FANG) and are not within the current APE.

An architectural evaluation of the Fresno Air Terminal building, which is a built resource older than 50 years of age and partially within the current APE, was also completed to determine if the building may be eligible for including in the National Register of Historic Places (NRHP). Because of the severe loss of integrity of design, materials, workmanship, feeling, and association experienced by the Fresno Air Terminal building, the building does not appear to meet the eligibility criteria for listing in the NRHP. (A mosaic mural located on the building facade may meet the eligibility criteria for listing on the California Register of Historic Resources (CRHR) but is not within the proposed undertaking's APE.)

As documented in the enclosed copy of *Fresno-Yosemite International Airport Terminal Expansion/Remodel and East Terminal Apron Reconfiguration Cultural Resources Report* (SWCA Environmental Consultants, August 2020), no significant resources were identified within the APE as a result of the study. Therefore, FAA has determined there are no historic properties listed or eligible for listing on the National Register of Historic Places within the APE for the proposed undertaking.

Native American Consultation

California Native American Heritage Commission (NAHC) was contacted to request a search of their sacred lands file (SLF). The NAHC responded on June 11, 2019, indicating that the results of the search were negative and providing a list of tribes that they recommend being contacted. There are two federally recognized tribes on the NAHC list. FAA is in the process of conducting government to government consultation with the Santa Rosa Rancheria Tachi Yojut Tribe and Table Mountain Rancheria tribes. FAA also contacted other tribes on the NAHC list to notify these organizations of the proposed undertaking and to inquire about any concerns related to historic properties of a traditional religious or cultural significance. It is not anticipated that any significant Native American concerns will be noted, as the City reached out to Native American tribal representatives as part of its state-required Assembly Bill (AB) 52 process for the project in November 2019, and no responses were received. The results of the Native American consultation will be documented within the Environmental Assessment.

Request for Concurrence

Based on the information contained in the *Fresno-Yosemite International Airport Terminal Expansion/Remodel and East Terminal Apron Reconfiguration Cultural Resources Report*, there are no historic properties listed or eligible for listing on the National Register of Historic Places within the APE for the proposed undertaking (**Figure 3**). Therefore, in accordance with 36 CFR 800, FAA has determined that there are no historic properties affected by the proposed undertaking.

We request your concurrence for:

- the enclosed APE;
- FAA's finding that there are no properties on or eligible for inclusion in the National Register of Historic Places in the APE; and
- a No Historic Properties Affected Determination.

Please provide your written response within 30 days of receiving this letter, or we will presume you have no comments regarding the proposed undertaking. If you have any questions concerning this matter, please contact me at (781) 238-7613 or richard.doucette@faa.gov or Camille Garibaldi (FAA San Francisco Airports District Office) at camille.garibaldi@faa.gov.

Sincerely,

Richard P. Doucette
Environmental Protection Specialist

Enclosures:

1) Project Location exhibit
2) Area of Potential Effect exhibit
3) Proposed Project exhibit
4) *Fresno-Yosemite International Airport Terminal Expansion/Remodel and East Terminal Apron Reconfiguration Cultural Resources Report*

CC: Camille Garibaldi, FAA San Francisco Airports District Office

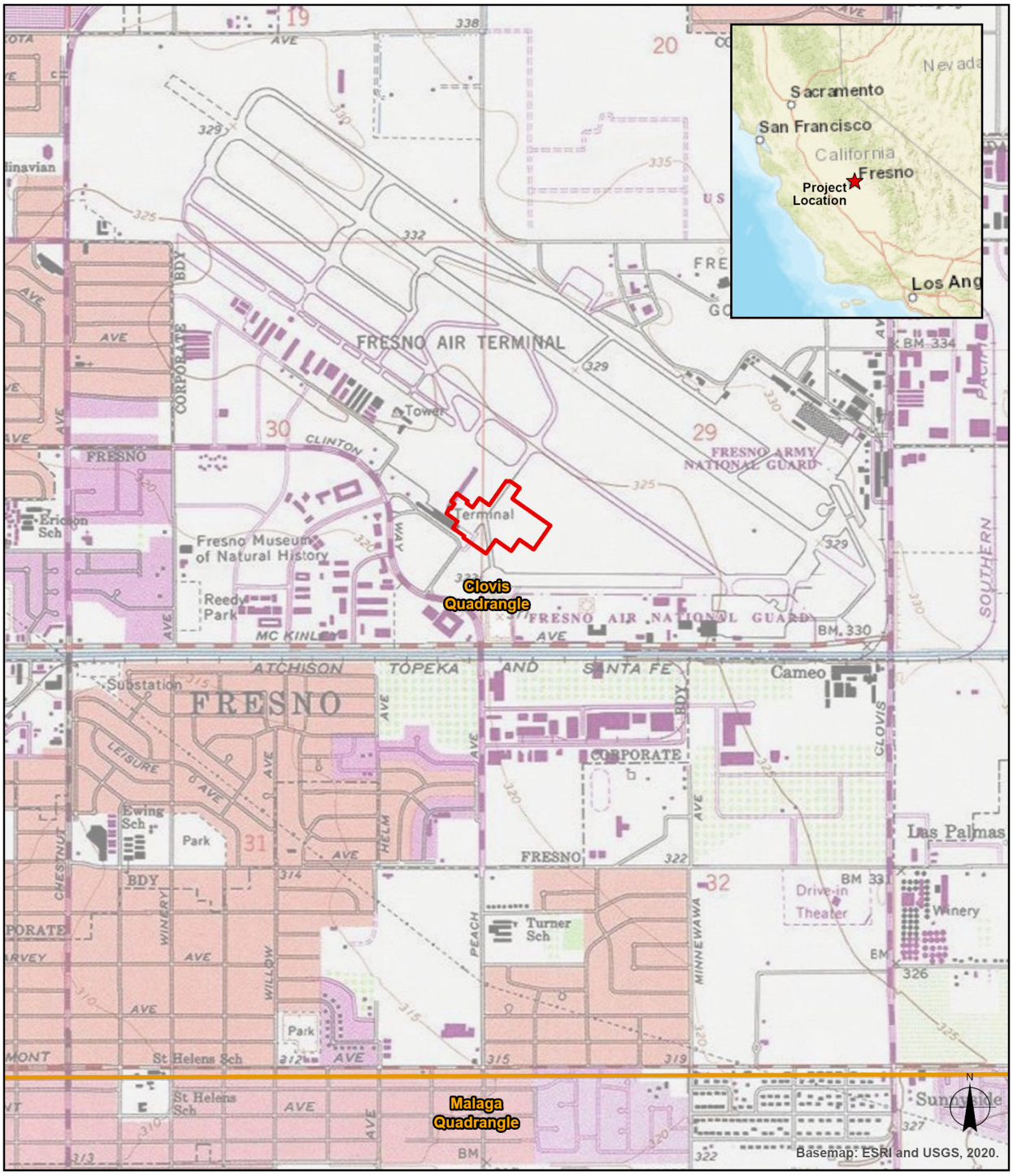


Figure 1. Project vicinity map.

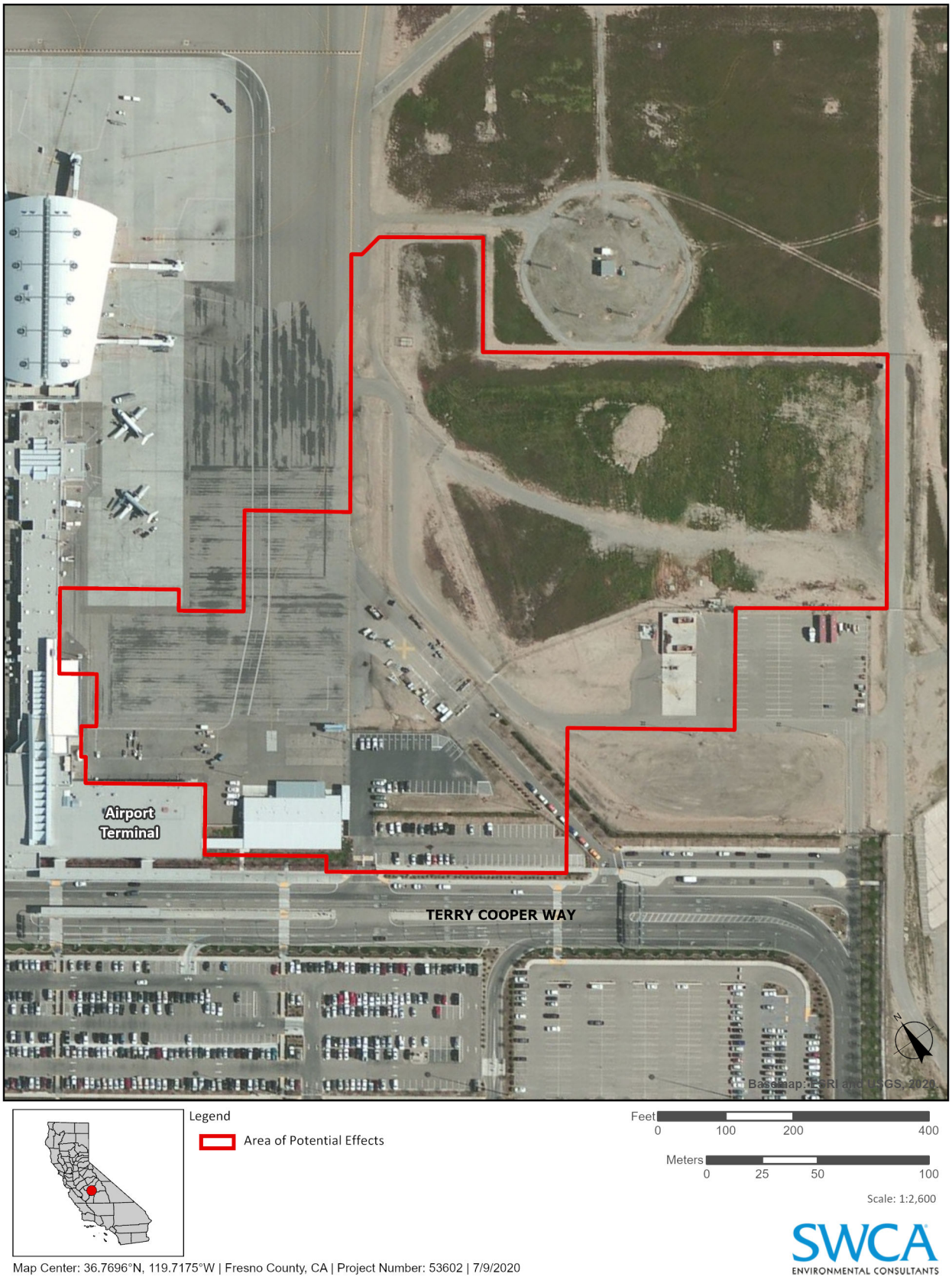


Figure 2. Area of potential effects map.

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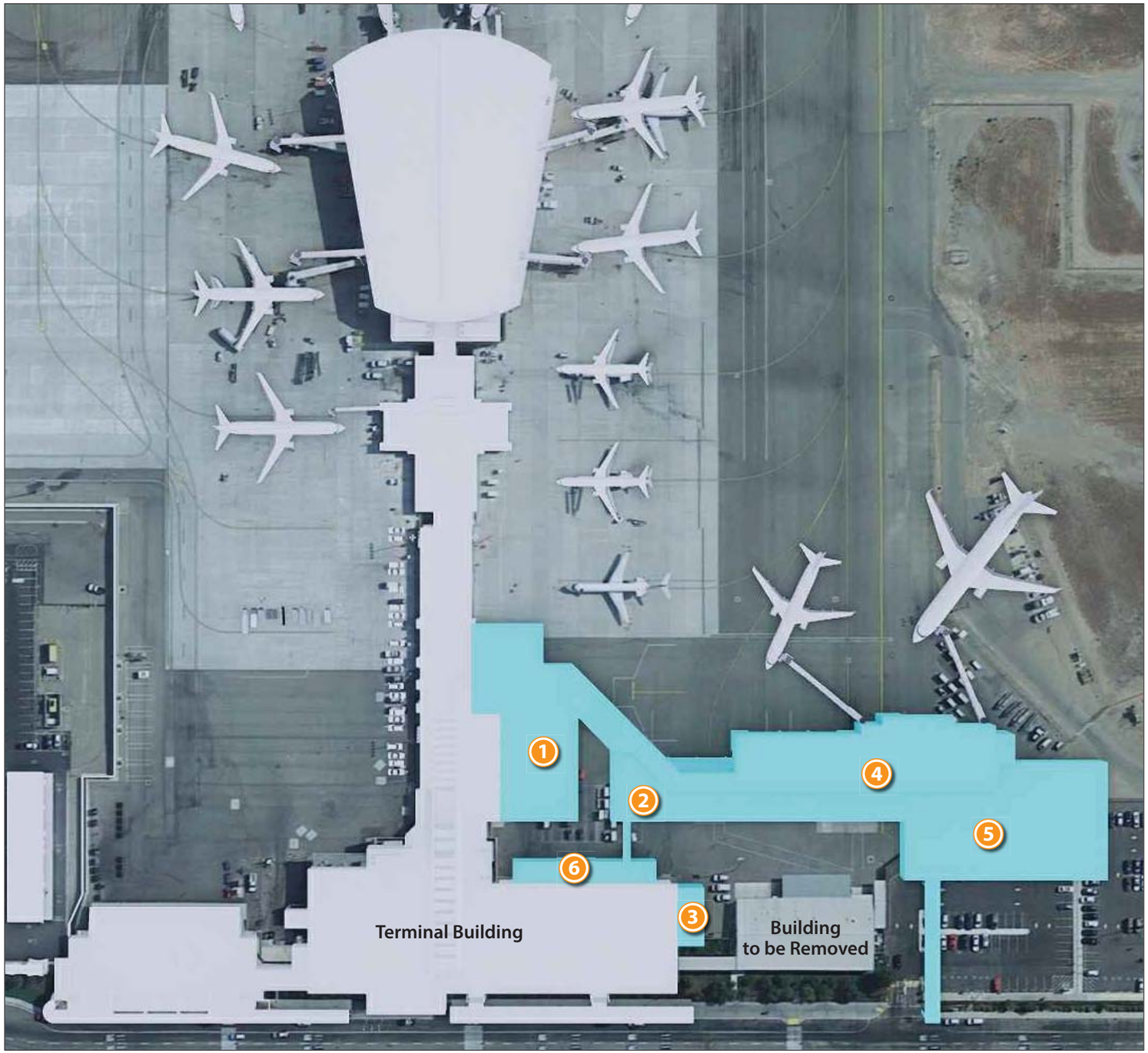

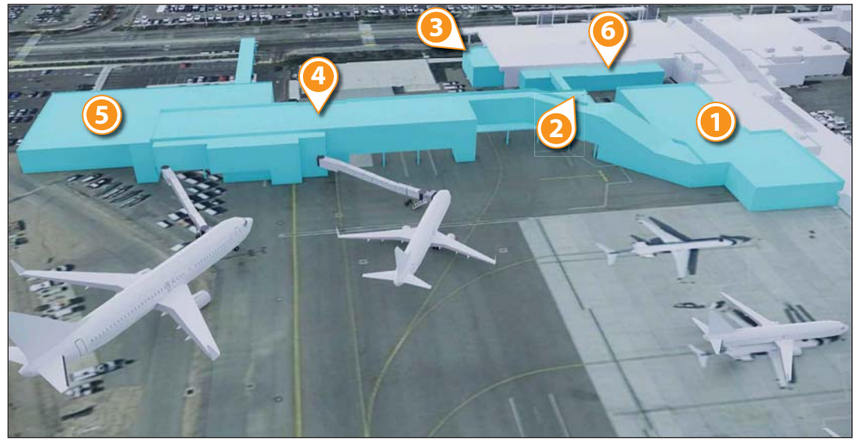

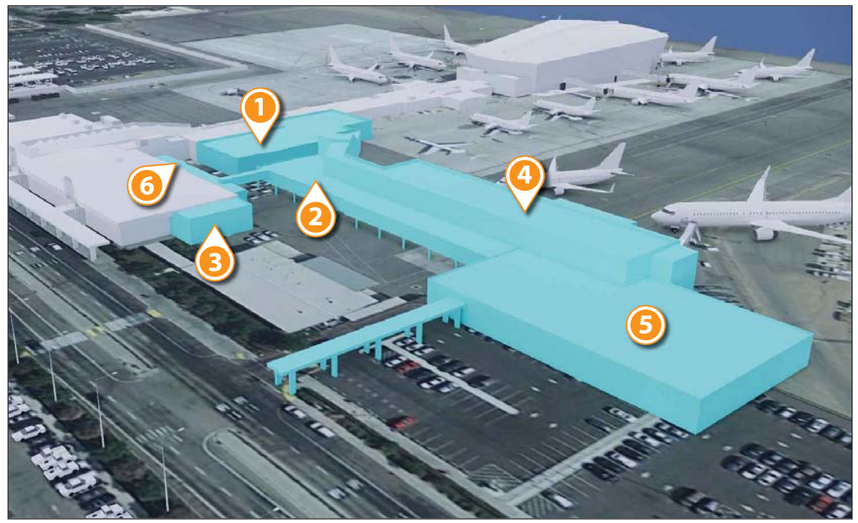

LEGEND

1. Passenger Screening Checkpoint
2. Baggage Make-Up
3. ATO Office
4. Hold Room
5. FIS Building
6. In-Line Baggage Screening

Source: CSHQA 2019, Design Support Memorandum on Terminal Building Expansion and Remodel, September 27

Figure 3
PROPOSED TERMINAL EXPANSION

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U.S. Department
of Transportation
Federal Aviation Administration

Western-Pacific Region
Office of Airports
San Francisco Airports District Office

1000 Marina Boulevard, Suite 220
Brisbane, CA 94005-1835

June 17, 2021

VIA EMAIL ledgerrobert@ymail.com

Robert Ledger Sr.
Chairperson
Dumna Wo-Wah Tribal Government
2191 West Pico Avenue
Fresno, CA 93705

Subject: Proposed Terminal Expansion-Remodel and East Terminal Apron Reconfiguration Project at Fresno Yosemite International Airport (FAT), Fresno, California

Dear Chairperson Ledger:

The Federal Aviation Administration (FAA) and the City of Fresno, are preparing federal environmental documentation under the National Environmental Policy Act (NEPA) of 1969, as amended, for the proposed *Terminal Expansion-Remodel and East Terminal Apron Reconfiguration Project* at Fresno Yosemite International Airport (FAT) (Airport), in Fresno, California. The City of Fresno is the sponsor for the Airport. The City of Fresno is proposing to implement its *Terminal Expansion-Remodel and East Terminal Apron Reconfiguration Project* (proposed project), which includes the following major components:

- Reconfigure and remodel of Existing Terminal
  - Remove one gate to expand United States (U.S.) Department of Homeland Security, Transportation Security Administration (TSA) security checkpoint screening areas and support space
- East Concourse Addition
  - New 96,294 square feet east concourse
  - Airline baggage make-up and TSA screening facility
  - Two new dual use (domestic and international) gates and associated passenger boarding bridges
  - Concession areas and passenger hold rooms
  - New U.S. Customs and Border Protection, Federal Inspection Station (FIS)
- Expanded Terminal Apron
  - Approximately 625 feet by 825 feet
- Demolition of existing FIS building
  - Cleared and paved for emergency vehicle access; vehicle circulation and parking

The FAA is the lead Federal Agency for Native American consultation for the proposed project. Your name and contact information was provided to us by the California Native American Heritage Commission. Tribal sovereignty, culture, traditional values and customs will be respected at all times during the consultation process.

<u>Consultation Initiation</u>
With this letter, the FAA is seeking input on concerns that uniquely or significantly affect your Tribe related to proposed airport improvements. Early identification of Tribal concerns, or known

properties of traditional, religious, and cultural importance, will allow the FAA to consider ways to avoid or minimize potential impacts to Tribal resources as project planning and alternatives are developed and refined. We are available to discuss the details of the proposed project with you.

Project Information

The City of Fresno is proposing to expand and reconfigure the existing passenger terminal, terminal apron and the FIS building at the Airport. As previously described the proposed project would modify the existing terminal by removing an existing gate to expand the area for TSA passenger screening and support space, and add a new 96,294 square feet east concourse with two dual use gates with boarding bridges. The east concourse would also include concession areas, passenger hold rooms, accommodate baggage screening and processing, and a new FIS. The east terminal apron would be expanded to approximately 625 feet by 825 feet. Upon completion of the existing stand-alone FIS building would be demolished and the area would be cleared and paved for emergency vehicle access, and vehicle circulation and parking. The proposed project also includes removal and replacement of the existing security fence; rerouting of an airport service road; and associated utility and storm drain improvements.

The enclosed Figure 1, identifies the Airport Area of Potential Effects (APE) vicinity location. Figure 2, enclosed, provides the proposed project APE which is approximately 15.7 acres. The vertical depth of the APE varies from approximately 9 inches to 11 feet for relocation of an existing sanitary sewer.

Confidentiality

We understand that you may have concerns about the confidentiality of information on areas or resources of traditional, religious, and cultural importance to your Tribe. We are available to discuss these concerns and develop procedures to ensure the confidentiality of such information is maintained.

FAA Contact Information

Your timely response within 30-days of receipt of this correspondence will greatly assist us in incorporating your concerns into project planning. If you wish to provide comments related to this proposed project, please contact me at (650) 827-7600, or by e-mail at Laurie.Suttmeier@faa.gov. You can also contact Camille Garibaldi, Environmental Protection Specialist, at (650) 827-7613, or by e-mail at Camille.Garibaldi@faa.gov.

Sincerely,

Laurie J. Suttmeier

Digitally signed by Laurie J. Suttmeier
Date: 2021.06.16 16:01:27 -07'00'

Laurie J. Suttmeier
Manager, San Francisco Airports District Office

Enclosures

U.S. Department
of Transportation
Federal Aviation Administration

Western-Pacific Region
Office of Airports
San Francisco Airports District Office

1000 Marina Boulevard, Suite 220
Brisbane, CA 94005-1835

June 17, 2021

Stan Alec
Chairperson
Kings River Choinumni Farm Tribe
3515 East Fedora Avenue
Fresno, CA 93726

Subject: Proposed Terminal Expansion-Remodel and East Terminal Apron Reconfiguration Project at Fresno Yosemite International Airport (FAT), Fresno, California

Dear Chairperson Alec:

The Federal Aviation Administration (FAA) and the City of Fresno, are preparing federal environmental documentation under the National Environmental Policy Act (NEPA) of 1969, as amended, for the proposed *Terminal Expansion-Remodel and East Terminal Apron Reconfiguration Project* at Fresno Yosemite International Airport (FAT) (Airport), in Fresno, California. The City of Fresno is the sponsor for the Airport. The City of Fresno is proposing to implement its *Terminal Expansion-Remodel and East Terminal Apron Reconfiguration Project* (proposed project), which includes the following major components:

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  - Remove one gate to expand United States (U.S.) Department of Homeland Security, Transportation Security Administration (TSA) security checkpoint screening areas and support space
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The FAA is the lead Federal Agency for Native American consultation for the proposed project. Your name and contact information was provided to us by the California Native American Heritage Commission. Tribal sovereignty, culture, traditional values and customs will be respected at all times during the consultation process.

Consultation Initiation

With this letter, the FAA is seeking input on concerns that uniquely or significantly affect your Tribe related to proposed airport improvements. Early identification of Tribal concerns, or known properties of traditional, religious, and cultural importance, will allow the FAA to consider ways to

avoid or minimize potential impacts to Tribal resources as project planning and alternatives are developed and refined. We are available to discuss the details of the proposed project with you.

Project Information

The City of Fresno is proposing to expand and reconfigure the existing passenger terminal, terminal apron and the FIS building at the Airport. As previously described the proposed project would modify the existing terminal by removing an existing gate to expand the area for TSA passenger screening and support space, and add a new 96,294 square feet east concourse with two dual use gates with boarding bridges. The east concourse would also include concession areas, passenger hold rooms, accommodate baggage screening and processing, and a new FIS. The east terminal apron would be expanded to approximately 625 feet by 825 feet. Upon completion of the existing stand-alone FIS building would be demolished and the area would be cleared and paved for emergency vehicle access, and vehicle circulation and parking. The proposed project also includes removal and replacement of the existing security fence; rerouting of an airport service road; and associated utility and storm drain improvements.

The enclosed Figure 1, identifies the Airport Area of Potential Effects (APE) vicinity location. Figure 2, enclosed, provides the proposed project APE which is approximately 15.7 acres. The vertical depth of the APE varies from approximately 9 inches to 11 feet for relocation of an existing sanitary sewer.

Confidentiality

We understand that you may have concerns about the confidentiality of information on areas or resources of traditional, religious, and cultural importance to your Tribe. We are available to discuss these concerns and develop procedures to ensure the confidentiality of such information is maintained.

FAA Contact Information

Your timely response within 30-days of receipt of this correspondence will greatly assist us in incorporating your concerns into project planning. If you wish to provide comments related to this proposed project, please contact me at (650) 827-7600, or by e-mail at Laurie.Suttmeier@faa.gov. You can also contact Camille Garibaldi, Environmental Protection Specialist, at (650) 827-7613, or by e-mail at Camille.Garibaldi@faa.gov.

Sincerely,

Laurie J. Suttmeier Digitally signed by Laurie J. Suttmeier
Date: 2021.06.16 15:56:10 -07'00'

Laurie J. Suttmeier
Manager, San Francisco Airports District Office

Enclosures

U.S Department
of Transportation

**Federal Aviation
Administration**

Western-Pacific Region
Airports Division

Federal Aviation Administration
777 So. Aviation Blvd, Suite 150
El Segundo, California 90245

August 11, 2021

VIA EMAIL lsisco@tachi-yokut-nsn.gov

Leo J. Sisco
Chairperson
Santa Rosa Rancheria Tachi Yokut Tribe
P. O. Box 8
Lemoore, CA 93245

Subject: Proposed Terminal Expansion-Remodel and East Terminal Apron Reconfiguration Project at Fresno Yosemite International Airport (FAT), Fresno, California

Dear Chairperson Sisco:

Government-to-Government Consultation Initiation

The Federal Aviation Administration (FAA) and the City of Fresno are preparing federal environmental documentation under the National Environmental Policy Act (NEPA) of 1969, as amended, for the proposed Terminal Expansion-Remodel and East Terminal Apron Reconfiguration Project at Fresno Yosemite International Airport (FAT)(Airport), in Fresno, California. The FAA is the lead Federal agency for Government-to-Government consultation, and the City of Fresno is the Airport sponsor (Sponsor). The FAA is evaluating potential impacts associated with this request. Tribal sovereignty, culture, traditional values and customs will be respected at all times during the consultation process.

Purpose of Government-to-Government Consultation

The primary purpose of government-to-government consultation, as described in Federal Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments*, and FAA Order 1210.20, *American Indian and Alaska Native Tribal Consultation Policy and Procedures*, is to ensure that Federally Recognized Tribes are given the opportunity to provide meaningful and timely input regarding proposed FAA actions that uniquely or significantly affect the Tribes. I am the FAA Official with the responsibility of coordinating Government-to-Government consultations with Tribes under FAA Order 1210.20.

Consultation Initiation

The FAA seeks input on concerns that uniquely or significantly affect your Tribe related to proposed airport improvements. Early identification of Tribal concerns, or known properties of traditional religious and cultural importance, will allow the FAA to consider ways to avoid or minimize potential impacts to Tribal resources as project planning and alternatives are developed and refined. We are available to discuss the details of the proposed project with you.

Project Information

The City of Fresno is proposing to expand and reconfigure the existing passenger terminal, terminal aircraft parking apron and the United States (U.S.) Customs and Border Protection – Federal Inspection Station (FIS) building at the Airport. The proposed project would modify the existing terminal by removing an existing gate to expand the area for U.S. Department of Homeland Security, Transportation Security Administration (TSA) passenger screening and support space; and add a new 96,294 square feet east concourse with two dual use gates with passenger boarding bridges. The east concourse would also include concession areas, passenger hold rooms, accommodate baggage screening and processing, and a new FIS. The east terminal aircraft parking apron would be expanded to approximately 625 feet by 825 feet. Upon completion of the east concourse, the existing stand-alone FIS building would be demolished and the area would be cleared and paved for emergency vehicle access, and vehicle circulation and parking. The proposed project also includes removal and replacement of the existing security fence; rerouting of an airport service road; and associated utility and storm drain improvements.

The enclosed Figure 1, identifies the Airport Area of Potential Effects (APE) vicinity location. Figure 2, enclosed, provides the proposed project APE which is approximately 15.7 acres. The vertical depth of the APE varies from approximately 9 inches to 11 feet.

Confidentiality

We understand that you may have concerns about the confidentiality of information on areas or resources of religious, traditional and cultural importance to your Tribe. We are available to discuss these concerns and develop procedures to ensure the confidentiality of such information is maintained.

FAA Contact Information

Your timely response within 30-days of receipt of this correspondence will greatly assist us in incorporating your concerns into project planning. If you wish to provide comments related to this proposed project, please contact Camille Garibaldi, Environmental Protection Specialist in our San Francisco Airports District Office, by telephone at 650-827-7613 or by e-mail at Camille.Garibaldi@faa.gov. Please feel free to contact me directly at 424-405-7300 or mark.mcclardy@faa.gov.

Sincerely,

MARK A MC CLARDY
Digitally signed by MARK A MC CLARDY
Date: 2021.08.11 16:33:52 -07'00'

Mark A. McClardy
Director, Airports Division
Western-Pacific Region

Enclosures

cc:
Leland McGee, Santa Rosa Rancheria Tachi Yokut Tribe

U.S Department
of Transportation

**Federal Aviation
Administration**

Western-Pacific Region
Airports Division

Federal Aviation Administration
777 So. Aviation Blvd, Suite 150
El Segundo, California 90245

August 11, 2021

VIA EMAIL: rpennell@tmr.org

Brenda Lavell
Chairperson
Table Mountain Rancheria
P. O. Box 410
Friant, CA 93626

Subject: Proposed Terminal Expansion-Remodel and East Terminal Apron Reconfiguration Project at Fresno Yosemite International Airport (FAT), Fresno, California

Dear Chairperson Lavell:

Government-to-Government Consultation Initiation

The Federal Aviation Administration (FAA) and the City of Fresno are preparing federal environmental documentation under the National Environmental Policy Act (NEPA) of 1969, as amended, for the proposed Terminal Expansion-Remodel and East Terminal Apron Reconfiguration Project at Fresno Yosemite International Airport (FAT)(Airport), in Fresno, California. The FAA is the lead Federal agency for Government-to-Government consultation, and the City of Fresno is the Airport sponsor (Sponsor). The FAA is evaluating potential impacts associated with this request. Tribal sovereignty, culture, traditional values and customs will be respected at all times during the consultation process.

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Consultation Initiation

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Sincerely,

MARK A MC CLARDY

Digitally signed by MARK A MC CLARDY
Date: 2021.08.11 16:30:47 -07'00'

Mark A. McClardy
Director, Airports Division
Western-Pacific Region

Enclosures

cc:
Bob Pennell, Table Mountain Rancheria

U.S. Department of Transportation
Federal Aviation Administration

Western-Pacific Region
Office of Airports
San Francisco Airports District Office

1000 Marina Boulevard, Suite 220
Brisbane, CA 94005-1835

June 17, 2021

VIA EMAIL kwood8934@aol.com

Kenneth Woodrow
Chairperson
Wuksache Indian Tribe/Eshorn Valley Band
1179 Rock Haven Court
Salina, CA 93906

Subject: Proposed Terminal Expansion-Remodel and East Terminal Apron Reconfiguration Project at Fresno Yosemite International Airport (FAT), Fresno, California

Dear Chairperson Woodrow:

The Federal Aviation Administration (FAA) and the City of Fresno, are preparing federal environmental documentation under the National Environmental Policy Act (NEPA) of 1969, as amended, for the proposed *Terminal Expansion-Remodel and East Terminal Apron Reconfiguration Project* at Fresno Yosemite International Airport (FAT) (Airport), in Fresno, California. The City of Fresno is the sponsor for the Airport. The City of Fresno is proposing to implement its *Terminal Expansion-Remodel and East Terminal Apron Reconfiguration Project* (proposed project), which includes the following major components:

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Sincerely,

LAURIE J SUTTMEIER

Digitally signed by LAURIE J SUTTMEIER
Date: 2021.06.16 15:52:56 -07'00'

Laurie J. Suttmeier
Manager, San Francisco Airports District Office

Enclosures

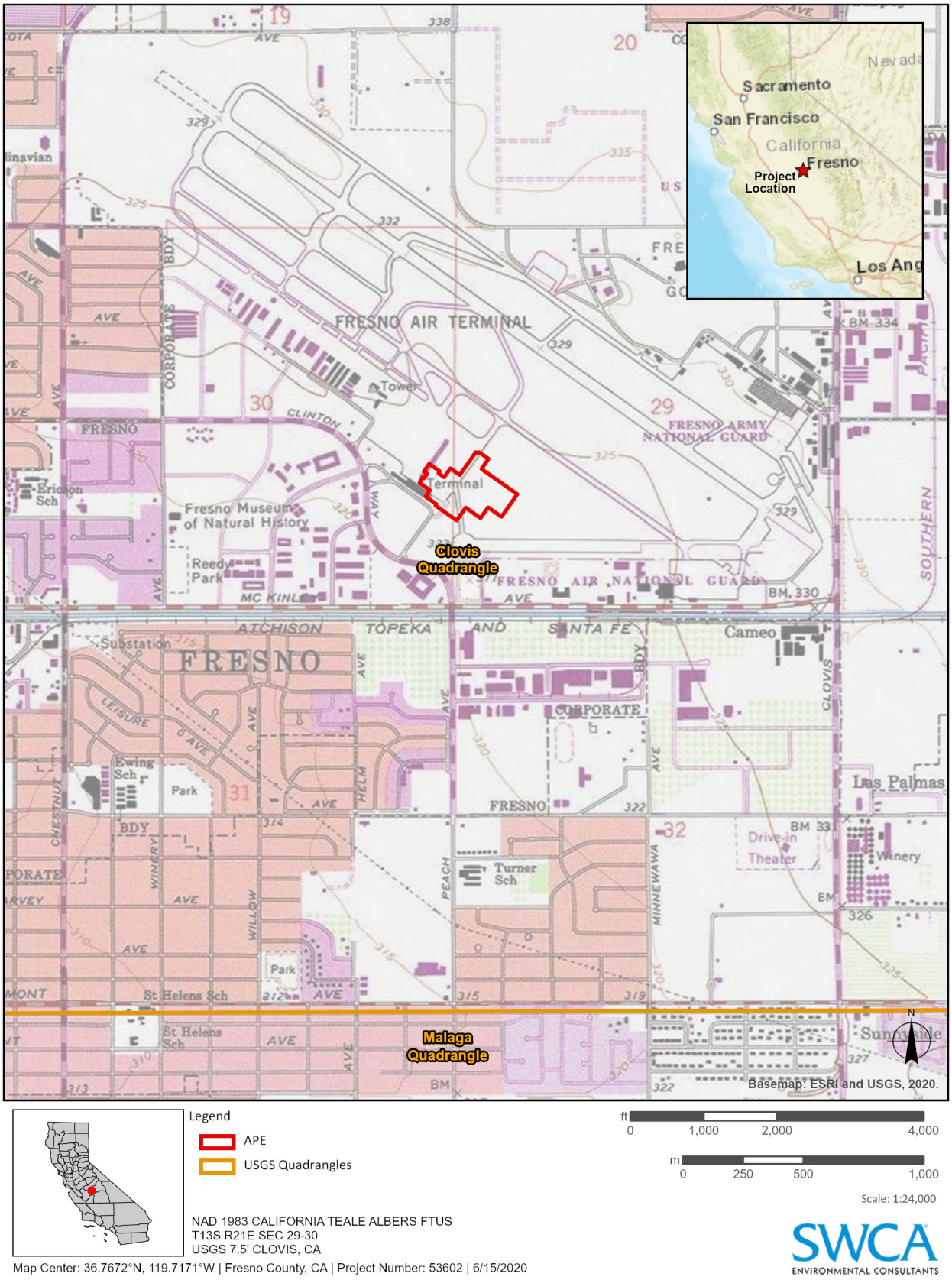

Figure 1. Project vicinity map.

Enclosure 1

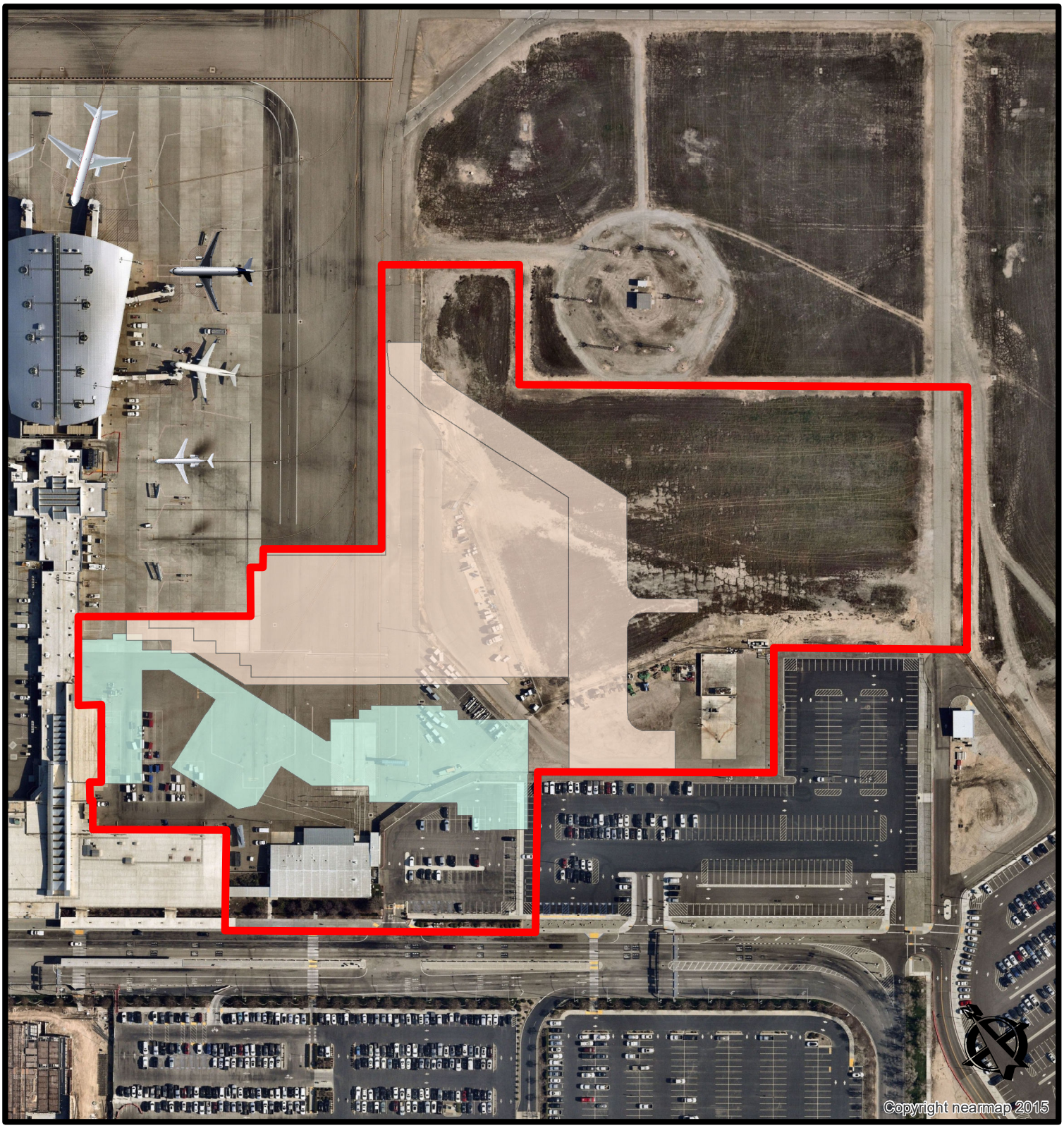

Figure 2. Area of potential effects map.

www.coffmanassociates.com

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