DRAFT ENVIRONMENTAL ASSESSMENT

PROPOSED AIRPORT TRAFFIC CONTROL TOWER REPLACEMENT

FRESNO YOSEMITE INTERNATIONAL AIRPORT (FAT)
FRESNO, FRESNO COUNTY, CALIFORNIA

Prepared for: City of Fresno

and

U.S. Department of Transportation

Federal Aviation Administration

As lead Federal Agency pursuant to the National Environmental Policy Act of 1969

Prepared by: RS&H California, Inc

June 2025

This Environmental Assessment becomes a Federal document when evaluated, signed and dated by the responsible FAA official.

| | | |
|------------------------------|------|--|
| Responsible Federal Official | Date | |

GENERAL INFORMATION ABOUT THIS DOCUMENT

WHAT'S IN THIS DOCUMENT? This document contains a Draft Environmental Assessment (Draft EA) for the proposed Airport Traffic Control Tower (ATCT) Replacement at Fresno-Yosemite International Airport (FAT) in Fresno County, California. The proposed improvements analyzed in the Draft EA include the construction of a new ATCT facility, demolition of the existing ATCT facility once the new ATCT facility is fully operational, the installation of new equipment in the new ATCT, utility services to the new ATCT facility, reconstruction of the existing employee parking, and installation of security fencing around the ATCT facility and accompanying employee parking lot. This document discloses the analysis and findings of the potential impacts of the Proposed Project and the No Action Alternative, including an adverse effect to a property eligible for listing on the National Register of Historic Places and a use of a resource under Section 4(f) of the Department of Transportation Act.

BACKGROUND. The existing ATCT was commissioned in 1961 and has not undergone any major renovations or remodels, only minor alterations. The ATCT has a total of seven floors and is 94 feet in height. The new ATCT facility would meet the design policy described in Federal Aviation Administration (FAA) Job Order 6480.7E, *ATCT and TRACON Design Policy*. The cab would be approximately 440 square feet in size and be able to accommodate four controller positions plus a supervisor. The floor of the cab would be 150 feet tall; the cab would be about 17 feet tall with up to 23 feet of additional height from antennas extending above the cab for a total ATCT height of up to 190 feet.

WHAT SHOULD YOU DO? Read this Draft EA and provide comments, if applicable. Copies of the document are available on the Fresno-Yosemite International Airport website (https://flyfresno.com/statistics/), the City's Planning website (https://www.fresno.gov/planning/plans-projects-under-review/#airport-tower-relocation-project), and at FAA's Airports District Office, in Walnut Creek, California. Written comments may be emailed to https://www.fresno.gov or by mail to the following address:

Fresno-Yosemite International Airport ATTN: Francisco Partida Address: 4995 East Clinton Way Fresno, California 93727-1525

The cutoff date for comments is **August 6, 2025, not later than 5:00 p.m. Pacific Daylight Time**. Please allow enough time for mailing. Your comments must be **received** by the deadline, they cannot simply be postmarked by that date.

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

WHAT HAPPENS AFTER THIS? Written responses to substantive comments received on the Draft EA will be developed and a Final EA will be prepared for transmittal to FAA. Following review of the Final EA, FAA will either issue a Finding of No Significant Impact (FONSI) or decide to prepare an Environmental Impact Statement (EIS).

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CHAPTER 1. PURPOSE AND NEED

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1.1 INTRODUCTION

The City of Fresno (City) proposes to replace its Airport Traffic Control Tower (ATCT) at the Fresno Yosemite International Airport (FAT or Airport) (Proposed Project). The ATCT is owned and maintained by the City and is operated by the Federal Aviation Administration (FAA) through a lease agreement. The Proposed Project would provide FAT with an up-to-date and taller ATCT to help the FAA fulfill its mission to ensure the safe and efficient use of navigable airspace at FAT.

The Proposed Project requires approval (action) by the FAA, and this action is subject to environmental review under the National Environmental Policy Act of 1969 (NEPA) (42 United States Code [USC.] §§ 4321-4335, as amended). This Environmental Assessment (EA) was prepared pursuant to the requirements of Section 102(2)(c) of NEPA. This EA was also prepared in accordance with FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, guidance provided in the 1050.1 Desk Reference, and FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*. This EA was prepared to identify and consider the potential environmental impacts associated with the Proposed Project that would result from the requested federal action. The FAA is the lead federal agency to ensure compliance with NEPA for the purpose of the Proposed Project.

Federal actions subject to NEPA for this Proposed Project include approval of revisions or modifications to the Airport Layout Plan (ALP) (see **Appendix A** for the ALP) in accordance with Section 743 of the FAA Reauthorization Act of 2024. In addition to local funds, the City is seeking funding from federal sources to construct the project, such as the Infrastructure Investment and Jobs Act (IIJA) or Airport Terminal Program (ATP).

1.2 BACKGROUND

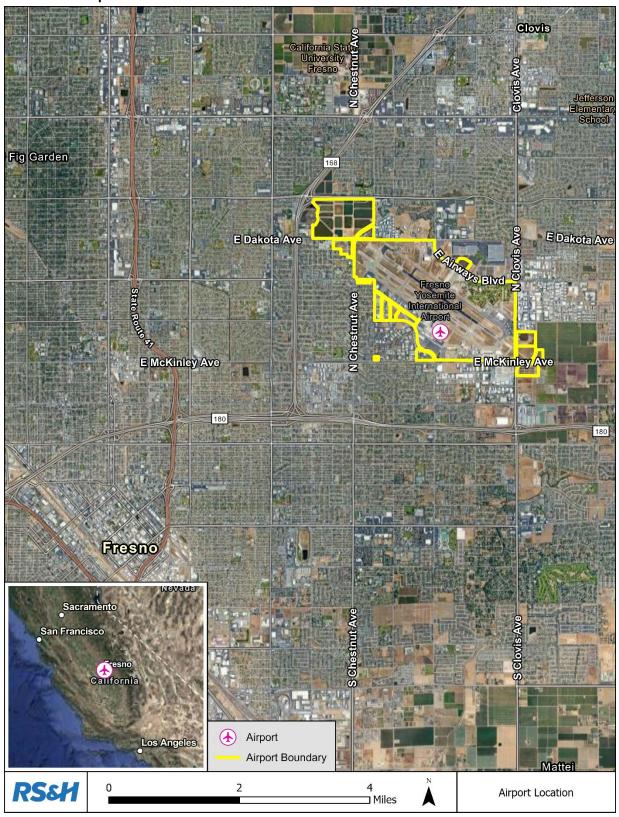
1.2.1 Description of Existing Airport

The Airport is owned and operated by the City under the Airports Department within the City's administration. The Airport encompasses about 1,728 acres within the city of Fresno, approximately five miles northeast of downtown Fresno and adjacent to the city of Clovis. The Airport is accessed from the south via East Clinton Way. Major roadways near the Airport include State Route (SR) 168 to the west and SR 180 to the south. **Exhibit 1-1** shows the Airport location.

The FAA's National Plan of Integrated Airports Systems (NPIAS) classifies the Airport as a small hub primary¹ commercial service airport (FAA, 2022). There are two parallel runways at FAT: Runway 11L-29R, which is the primary runway for commercial, air cargo, and military operations, and Runway 11R-29L, which is more often used for general aviation (GA) traffic and provides operational redundancy when the primary runway is closed for maintenance. The runways are served by two parallel taxiways that flank the runways and multiple taxilanes that provide access to and from the runways and aircraft parking positions.

A primary airport is defined by the Federal Aviation Administration as a commercial service airport that has more than 10,000 passenger boardings each year. See https://www.faa.gov/airports/planning_capacity/categories.

Exhibit 1-1: Airport Location



The Airport has a terminal building with 12 main boarding gates, two ancillary gates, two aircraft parking stands for international arrivals, a ticketing lobby, baggage claim, concessions, a federal inspection station, a passenger security checkpoint area, Transportation Security Administration (TSA) baggage screening areas, and rental car facilities. FAT also has two fixed base operators (FBOs), an aircraft rescue and firefighting (ARFF) station, and an ATCT (see in **Exhibit 1-2**).

1.2.1.1 Description of Existing Airport Traffic Control Tower

The ATCT is owned and maintained by the City and is leased by the FAA. The ATCT is staffed and operated by FAA personnel, ensuring safe and efficient air traffic management within the Airport's airspace. The ATCT is located on a 2.25-acre site northwest of the passenger terminal and adjacent to the ARFF station. The location of the ATCT is shown in **Exhibit 1-2**.

The ATCT was commissioned in 1961 and has not undergone any major renovations or remodels, only minor alterations. The ATCT facility includes the ATCT tower structure itself and a base building, which consists of administrative offices and storage spaces. The ATCT has a total of seven floors and is 80 feet in height from the ground to the floor of the control cab.² Including the control cab, the existing ATCT is approximately 94 feet in height with an eye height for controllers of about 82 feet. The airport rotating beacon is located on top of the control cab. A 48-stall unfenced parking lot dedicated for FAA personnel is located south of the ATCT facility. A view of the ATCT facility from the parking lot can be seen in **Exhibit 1-3**.

The ATCT is continuously operated 24 hours a day, 7 days a week by approximately 35 total FAA staff members. The ATCT facility houses both Air Traffic Control (ATC)³ and Terminal Radar Approach Control (TRACON)⁴ operations in the same building. ATC has five operational positions in the ATCT and TRACON has six. Most ATC operators at FAT are trained in both ATC and TRACON, which makes it a prominent training facility for controllers beginning their career. The ATCT facility also houses the FAA Technical Operation (Tech Ops) division in charge of the maintenance of aviation safety equipment at the Airport. The location of Tech Ops within the ATCT facility allows for a prompt maintenance response to equipment malfunctions to enable continuous safe operation of aircraft arriving to and departing from FAT. The existing Tech Ops division includes 12 stations or positions for up to 12 employees.

1.2.2 Description of Aviation Activity

Aircraft operations at the Airport include commercial, military, emergency services, corporate and business, and GA. The majority of military operations out of FAT are the California Air National Guard's 144th Fighter Wing and the California Army National Guard's 1106th Theater Aviation Sustainment Maintenance Group, both of which are based out of FAT. Emergency services operations include medical transport and wildland firefighting. GA operators and service providers at FAT include two FBOs (Signature Flight Services and Atlantic Aviation) that

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The control cab is the portion of the facility located at the top of the functional shaft of the tower that houses ATC positions and provides the line of sight to the airport operations area (AOA).

³ Air Traffic Controllers (ATCs) at an ATCT provide air traffic services for phases of flight associated with aircraft takeoff and landing. The ATCT typically controls airspace extending from the airport out to a distance of several miles.

Controllers at a TRACON provide air traffic service to aircraft as they transition between an airport and the en route phase of flight, and from the en route phase of flight to an airport. This includes the departure, climb, descent, and approach phases of flights.

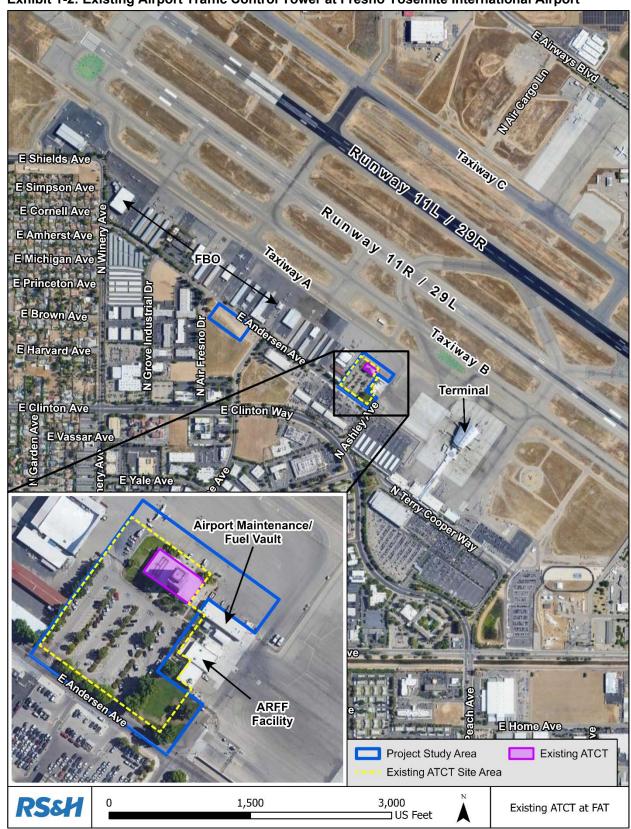


Exhibit 1-2: Existing Airport Traffic Control Tower at Fresno Yosemite International Airport

Source: RS&H, 2024



Exhibit 1-3: View of Existing Airport Traffic Control Tower Facility

cater to personal, corporate, charter, and occasionally transient military aircraft; aircraft sales and maintenance; and flight training. FAT is also the closest commercial service airport to Yosemite, Kings Canyon, and Sequoia National Parks.

Table 1-1 shows the Airport's operations, passenger enplanements and based aircraft⁵ at the Airport from 2018 through 2023 as reported in the Terminal Area Forecast (TAF) issued by the FAA in January 2025. As the total operations and passenger enplanements presented in **Table 1-1** show, the COVID-19 pandemic resulted in a sharp drop in passenger enplanements in 2020. However, by the following year, FAT already recovered to pre-pandemic operations and passenger enplanement totals. By 2022, total passenger enplanements nearly doubled from 2020. In 2023, the Airport reported a total of 1,220,733 enplanements which is 69,893 more enplanements than the TAF had reported for the same year (City of Fresno, 2024a). Based aircraft at the Airport increased by eight between 2018 and 2019 and has remained at 187 since 2019.

⁵ Based aircraft are GA aircraft that use a specific airport as a home base.

Table 1-1: Fresno Yosemite International Airport Operations and Enplanements

| Year | Operations | Passenger Enplanements | Based Aircraft |
|------|------------|------------------------|----------------|
| 2018 | 81,670 | 830,004 | 179 |
| 2019 | 92,038 | 933,309 | 187 |
| 2020 | 73,141 | 589,949 | 187 |
| 2021 | 83,419 | 830,413 | 187 |
| 2022 | 85,682 | 1,082,129 | 187 |
| 2023 | 89,711 | 1,150,840 | 187 |

Source: Terminal Area Forecast (FAA, 2025a)

Table 1-2 summarizes the Airport's forecast operations, passenger enplanements, and based aircraft at the Airport for 2024 through 2034.

Table 1-2: Fresno Yosemite International Airport Forecast

| Year | Operations | Passenger Enplanements | Based Aircraft |
|------|------------|------------------------|----------------|
| 2024 | 89,184 | 1,286,647 | 187 |
| 2025 | 92,506 | 1,405,071 | 187 |
| 2026 | 94,958 | 1,440,431 | 187 |
| 2027 | 96,795 | 1,475,079 | 187 |
| 2028 | 98,078 | 1,510,661 | 187 |
| 2029 | 98,879 | 1,545,443 | 187 |
| 2030 | 99,680 | 1,580,295 | 187 |
| 2031 | 100,474 | 1,614,973 | 187 |
| 2032 | 101,269 | 1,649,817 | 187 |
| 2033 | 102,072 | 1,685,161 | 187 |
| 2034 | 102,881 | 1,720,874 | 187 |

Source: Terminal Area Forecast (FAA, 2025a)

1.3 DESCRIPTION OF PROPOSED PROJECT

The Proposed Project is for the replacement of the existing ATCT facility and associated infrastructure at the Airport.

The Proposed Project includes the following components, which are illustrated in Exhibit 1-4:

- Construction of a new ATCT facility and demolition of the existing ATCT facility once the new ATCT facility is fully operational.
- Installation of new equipment in the new ATCT and utility services to the new ATCT facility.



Exhibit 1-4: Proposed New Airport Traffic Control Tower

Source: RS&H, 2024

 Reconstruction of the existing employee parking and installation of security fencing around the ATCT facility and accompanying employee parking lot.

All components are located within the Project Study Area. The Project Study Area is the footprint of the Proposed Project and the boundary in which all components and staging areas would be located and, therefore, where there is potential for direct impacts to occur.

1.3.1 Construct New ATCT Facility and Demolish Existing ATCT Facility

The Proposed Project would construct a new ATCT facility approximately 250 feet south of the existing ATCT. The new facility would have an estimated building footprint of 13,000 square feet (sq ft) and include a base building at the base of the functional shaft of the tower and a control cab at the top of the functional shaft with an airport rotating beacon and antennae atop the cab.

The new ATCT facility would meet the design policy described in Federal Aviation Administration (FAA) Job Order 6480.7E, ATCT and TRACON Design Policy. The base building would include administrative offices and operational and storage spaces.⁶ The cab would be approximately 440 square feet in size and be able to accommodate four controller positions plus a supervisor. The floor of the cab would be 150 feet tall; the cab would be about 17 feet tall with up to 23 feet of additional height from antennas extending above the cab for a total ATCT height of up to 190 feet.

Access to the building would remain the same as to the existing ATCT, which is accessible from E. Andersen Avenue.

Once the new ATCT is fully operational, the existing ATCT would be demolished, and the site would be converted to parking to replace the parking lost because of the construction of the new ATCT.

Install New Equipment and Utility Services 1.3.2

The Proposed Project would install new equipment in the new ATCT such as navigation and management systems, communications equipment, and electrical panels. New utility services would also be connected to the new ATCT facility from existing utility systems. Utilities installation to the new ATCT facility would include:

- Electrical connections from the existing electrical network under the apron to the north of the existing ATCT.
- Stormwater pipe connection from the existing stormwater drainage system under East Andersen Avenue.
- Sanitary sewer pipe connection from the existing sewer system under East Andersen Avenue.
- Water pipe connection from the existing water system under North Ashley Avenue, east of the proposed new ATCT location.

Operational space is for ATCs to provide air traffic service to aircraft as they transition between an airport and the en route phase of flight, and from the en route phase of flight to an airport. This includes the departure, climb, descent, and approach phases of flights.

FAA duct banks that house various electrical and other conduits would be extended from their existing terminus between the existing ATCT and the Airport maintenance building to the proposed new ATCT facility.

1.3.3 Reconstruct Employee Parking Lot and Install Security Fencing

The existing employee parking lot on the existing ATCT site has 48 vehicle parking spaces. The new ATCT facility would overlap with the existing parking lot, therefore the parking lot would be reconstructed in order to provide a minimum of 48 vehicle parking spaces to ensure sufficient employee parking availability.

The existing ATCT site currently only has fencing on the portion of the west side and does not have fencing enclosing the ATCT site, leaving it unsecure. Security fencing is proposed as part of the Proposed Project that would connect to the existing fence and enclose the new ATCT facility and the adjacent parking lot. A portion of existing fence that connects to the existing ATCT would be removed. The new ATCT would also include gate-controlled access to the parking lot and site.

1.3.4 Anticipated Construction Schedule and Haul Routes for the Proposed Project

The Proposed Project would be implemented in four stages between 2027 and 2028 (**Table 1-3**). The stages are general in nature and could be modified once approval for the Proposed Project is provided and detailed design of project components occurs. Identified haul routes are shown in **Exhibit 1-5**.

Table 1-3: Anticipated Construction Schedule of the Proposed Project

| Stage | Activities | Timeframe |
|---|-----------------------------------|-----------|
| Stage 1 - ATCT Facility Site Preparation | | 2027 |
| | Grading and drainage | 4 weeks |
| | Trenching and utility extensions | 2 weeks |
| Stage 2 - ATCT Facility Construction | | 2027-2028 |
| | ATCT construction | 30 weeks |
| | Base building construction | 30 weeks |
| | Architectural coating | 4 weeks |
| Stage 3 - Existing ATCT Facility Demolition | | 2028 |
| | ATCT and base building demolition | 6 weeks |
| Stage 4 - Parking Lot Reconstruction | | 2028 |
| | Grading and drainage | 3 weeks |
| | Paving | 3 weeks |

Source: RS&H, 2024; Pond & Company, 2024.

Exhibit 1-5: Haul Routes



Source: RS&H, 2025

1.4 PURPOSE AND NEED

The following section discusses the purpose and need for the Proposed Project.

1.4.1 Sponsor's Need

The existing airport owned ATCT was commissioned in 1961 and has exceeded its useful life. According to the U.S. Department of Transportation (U.S. DOT) Office of the Inspector General, the average useful life of an ATCT facility is approximately 25 to 30 years (U.S. DOT, 2008). Despite its continued service, parts of the existing ATCT facility, including the elevator and HVAC system, no longer function as intended and/or no longer meet current building code requirements. These issues pose several safety deficiencies and challenges to the Airport's ongoing maintenance efforts to keep the ATCT operational and safe for FAA's air traffic control purposes.

Below are the purpose and need criteria for replacement of the existing ATCT.

- 1. Existing ATCT Does Not Meet Current Standards: The existing ATCT does not meet current FAA space and height requirements as detailed in FAA Order 6480.7E, Airport Traffic Control Tower (ATCT) and Terminal Radar Approach Control (TRACON) Design Policy and FAA Order 6480.4B, Airport Traffic Control Tower Siting Criteria. Additionally, the existing ATCT does not meet current State and local building requirements, including seismic requirements as specified in the California Code of Regulations, Title 24, California Building Code, Section 2, Volume 2, Chapter 16, Structural Design and Section 1613, Earthquake Loads; and the latest State fire protection requirements as identified in 2022 California Fire Code, Title 24, Part 9. Further, the existing ATCT does not meet current Americans with Disability Act (ADA) requirements.
- 2. Inadequate Height and Obstructed Line of Sight: The existing ATCT, at 80 feet in height from the ground to the cab floor, is too low, which poses an obstructed line of sight. As a result of FAT's terminal building expansion project in 2000, the existing ATCT's southeastward line of sight is partially obstructed due to the increased height of the passenger terminal. The inability for ATC operators to have direct line of sight of the aircraft apron located immediately east of the terminal creates potential risks, including aircraft incursions,⁷ and delayed ATC pilot instructions. Additionally, FAT experiences wrong surface landings on Runways 29R and 29L due to closely spaced runways, parallel taxiways, and Runway 29L being displaced 312 feet to provide the FAA-required separation from Clovis Avenue. ATCs are the last line of control prior to pilots landing on the wrong runway; however, the angle and height of the existing ATCT cause a parallax⁸ issue for ATCs looking at Runways 29R and 29L that does not allow them to determine if a pilot is lined up to land on the correct runway.
- 3. **Operational Inefficiencies**: As a result of the partial obstruction of the aircraft apron immediately east of the terminal, communication with aircraft on that apron can be

Any occurrence at an airport involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and takeoff of aircraft.

The definition of "parallax" on the Merriam-Webster Dictionary is, "the apparent shift in position of an object as seen from two different points not on a straight line with the object."

- impeded. Due to the delay in communication with the ATCT, aircraft dwell times operating on this apron have increased.
- 4. Escalating Maintenance Costs: The existing ATCT facility has reached a point where its maintenance costs are increasing significantly and the City estimates that the ATCT needs \$10 million in improvements and upgrades (City of Fresno, 2019). Aging infrastructure, equipment, and systems require frequent repairs and updates. For example, the elevator in the building frequently breaks down requiring custom order parts that can have long lead times and high costs due to parts being discontinued. Additionally, the frequent break down of the elevator causes accessibility issues for the employees and affects staffing levels when employees cannot access the cab at the top of the ATCT. Other mechanical and electrical systems, such as the HVAC and boiler system, have exceeded their service life and require constant maintenance to remain in service. This results in disruptions to facility operations and additional high costs for emergency repairs.
- 5. Security Deficiencies: The parking area around the existing ATCT facility is not adequately secured. This poses a security risk, as ATC operators have reported a breach into the existing ATCT within the last decade and numerous other attempts. Unauthorized individuals could gain access to the existing ATCT and compromise the safety of the airspace and FAA personnel within the facility. FAA Advisory Circular (AC) 150/5300-13B, Airport Design, states that, "Part 1399 airports must provide safeguards that prevent unauthorized person entry to the movement area. This includes installation of fencing, provision of access controls, and conformance to the Transportation Security Administration's approved airport security program." Additionally, FAA Order 1600.69D, FAA Facility Security Management Program, identifies the required security countermeasures that must be in place at FAA facilities. At an ATCT, pedestrian access to the site must be deterred through the use of landscaping, fencing, and other barriers to restrict pedestrian access. FAA Order 1600.69D also requires that countermeasures are in place, such as access-controlled parking, to prohibit unauthorized vehicle access to the site.

1.4.2 Sponsor's Purpose

The purpose of the Proposed Project is to provide an ATCT facility that meets current FAA, State, and local building standards and improves safety and operations at the Airport for ATCT operators and Airport users.

1.4.3 FAA Purpose and Need

FAA's purpose and need is that an ATCT facility is established at the Airport that conforms to current FAA design and operation standards ensuring the safe and efficient use of navigable airspace in the United States pursuant to 49 USC § 47101.

^{9 14} CFR Part 139 requires FAA to issue airport operating certificates to airports that: serve scheduled and unscheduled air carrier aircraft with more than 30 seats; serve scheduled air carrier operations in aircraft with more than 9 seats but less than 31 seats; and the FAA Administrator requires to have a certificate. FAT operates under a Part 139 certificate.

1.5 PROPOSED FEDERAL ACTIONS

The following federal actions from the FAA are subject to NEPA review.

- Unconditional approval of portions of the ALP that depict those components of the Proposed Project subject to FAA review and approval pursuant to 49 USC § 47107(a)(16).
- Determinations under 49 USC §§ 47115 and 47124 that are associated with the eligibility of the Proposed Project for federal funding under the IIJA FAA Contract Tower Competitive (FTC) Grant Program and Airport Improvement Program (AIP) discretionary grants.

1.6 ORGANIZATION OF DOCUMENT

This EA is organized into the following chapters:

Chapter 1, Purpose and Need: This chapter provides an overview of the Airport, a description of the Proposed Project, and discusses the purpose and need of the Proposed Project and the proposed federal actions.

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

Chapter 3, Affected Environment: This chapter presents an overview of the existing environment in the Project Study Area.

Chapter 4, Environmental Consequences and Mitigation Measures: This chapter provides discusses and compares the environmental impacts associated with the Proposed Project, and the No Action Alternative and identifies avoidance, minimization, and mitigation measures.

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

Chapter 6, List of Preparers: This chapter lists the agencies, firms, and individuals who were primarily responsible for the preparation of this EA.

Chapter 7, References: This chapter identifies the reference materials that were used to prepare the EA.

Appendices: The appendices present relevant material and technical reports that were used as a basis for, or developed as part of, the preparation of this EA.

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CHAPTER 2. ALTERNATIVES

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2.1 INTRODUCTION

This chapter identifies the reasonable alternatives evaluated for the Proposed Project, describes the process for evaluating these alternatives, and presents the results of the evaluation. This chapter also includes a list of applicable laws, regulations, and executive orders that were considered in the development of this EA.

2.1.1 Scope of Alternatives Evaluation

This scope of the alternatives evaluation for the Proposed Project includes a two-tiered alternatives screening process, a description of the alternatives considered, an evaluation of each of these alternatives based on the identified screening criteria, and a determination on which alternatives were eliminated from further consideration, and which are carried over for detailed analysis in this EA.

2.1.2 Requirements of the National Environmental Policy Act

NEPA (42 USC. § 4321 *et seq.*, as amended) requires that a federal agency engaging in a major Federal action:

- Consider a reasonable range of alternatives that are technically and economically feasible and meet the purpose and need for the Proposed Project. At a minimum, the range of alternatives will include the Proposed Project and the No Action Alternative.
- Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives that were eliminated from detailed study — briefly discuss the reasons for their elimination.
- Discuss each alternative considered in detail, including the Proposed Project, so that reviewers may evaluate their comparative merits.

2.2 SCREENING PROCESS AND ALTERNATIVES EVALUATION CRITERIA

For this EA, a two-step screening process was used to identify and evaluate a range of reasonable alternatives.

In Step 1, each alternative was analyzed to determine whether the alternative could achieve the purpose and need for the Proposed Project, as described in **Section 1.4**:

- 1) Does the alternative meet current standards, including FAA space and height requirements, State and local building standards, including seismic and fire requirements, and ADA requirements?
- 2) Does the alternative provide adequate height and unobstructed lines of sight to the aircraft apron, runways, and taxiways for ATC operators?
- 3) Does the alternative allow for operational efficiency through the ability for clear communication between pilots and the ATCT?
- 4) Does the alternative not result in high costs of repairs and disruptions to facility operations due to frequent repairs and emergency maintenance?

5) Is the alternative secure from unauthorized access as required under FAA Order 1600.69D?

Alternatives that do not meet the criteria in Step 1 were eliminated from further consideration. Alternatives that met the criteria in Step 1 were retained for evaluation in Step 2 of the screening process.

In Step 2, each alternative was analyzed to determine whether it would be technically and economically feasible to implement.

Technically Feasible: This screening criteria includes the identification of a material effect on airfield operations, including ATC operations, using federal advisory circulars, orders, regulations, and design guidelines to determine whether an alternative would be technically feasible to implement. In other words, if the alternative would introduce conflicts for the movement of aircraft or create safety hazards for aircraft, employees, or passengers, or potentially interrupt ATC operations, it would not be technically feasible to implement. Additionally, an alternative that would not introduce potential conflicts or hazards is considered to be more viable than an alternative that would.

Economically Feasible: This screening criteria includes whether the alternative would be economically feasible to implement. In other words, if the alternative would not be reasonable to construct, the alternative would not be economically feasible to implement. "Reasonable to construct" is defined as an alternative that could be implemented using sound engineering judgement, with costs that would not be disproportionately greater than the costs of other alternatives. For example, disproportionately higher costs could be associated with the height of a structure or the construction of a facility at an undeveloped site compared to at a developed site because an undeveloped site could result in unavoidable complex site conditions (grading, excavation, foundation work, utility relocations, etc.), higher costs due to construction methods or materials, and a longer construction duration.

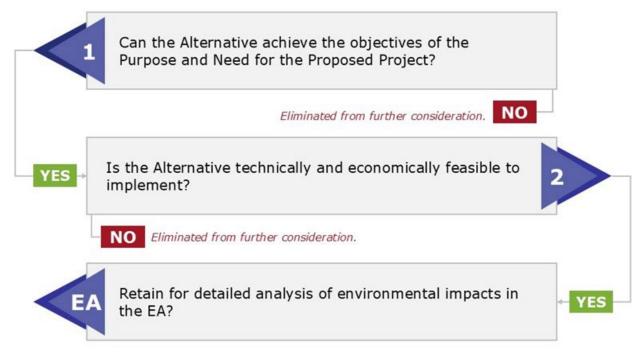
Alternatives that do not meet the criteria in Step 2 were eliminated from further consideration. Alternatives that were not eliminated in Step 2 of this screening process were retained for a detailed evaluation of their environmental impacts in **Chapter 4**. The screening process is portrayed conceptually in **Exhibit 2-1**.

2.3 RANGE OF ALTERNATIVES CONSIDERED

This section provides a brief description of potential alternatives that are subject to the screening process described in **Section 2.2**. The focus of these alternatives is on the ATCT building, including utilities. The other components of the project, such as fencing and parking, can be accommodated with each of the alternatives, so these components are not included in the alternatives screening process.

The alternative site locations described in the following sections were identified during initial planning for the replacement of the ATCT and are located on existing Airport property. Any additional sites, or tower placement options within those sites, that were initially identified as potential ATCT site locations during prior planning studies overlap with the site locations evaluated below and would not result in any change to the alternatives evaluation or results.

Exhibit 2-1: Alternatives Screening Process



Source: RS&H, 2024

The differing heights of a new ATCT at the alternative site locations were determined using the FAA's Air Traffic Control Visibility Analysis Tool, which assesses the impact of tower height on ATCT specialist distance perception (FAA, 2025b). Maximum visibility of airborne traffic patterns and airfield movement surfaces must be available to all ATC's positions. The minimum height of the tower was first determined by the Line of Sight (LOS) calculated over a distance from the proposed ATCT location to the furthest point of the aircraft movement area (referred to as the "key point") and then validated relative to airfield configuration and Airport buildings. The LOS was analyzed to all points on the airfield movement and non-movement areas relative to two basic perspectives: (1) from the ATC's eye to each runway and parallel taxiway; and (2) from the ATC's eye to other critical points, such as aircraft aprons and points of entry to airport operation areas, relative to /structures that may obstruct the view.

The site locations described in **Sections 2.3.1 through 2.3.6** were evaluated in the 2018 Airport Master Plan Update (City of Fresno, 2019) or the ATCT Siting Report (CTBX, 2024). Site locations identified in the 2018 Master Plan Update were recommended to be carried through the siting analysis. The ATCT Siting Report recommended Site X2, discussed under Alternative 1 below, for the proposed new ATCT tower.

With the exception of Alternative 2, each alternative includes three options on how the existing ATCT can be treated. These options are (A) preserve the existing ATCT in place, (B) retain the existing ATCT for other uses, and (C) demolish the existing ATCT. Options A and B were identified in response to a request by the City's Historic Preservation Commission (HPC) to evaluate all options that would preserve or retain the existing ATCT. Because these options are the same under each alternative, with the exception of Alternative 2, they are only discussed once, under Alternative 1.

The following potential alternatives were evaluated and are shown in **Exhibit 2-2**:

2.3.1 Alternative 1: Site X2 (Proposed Project)

Alternative 1 would construct a new ATCT facility approximately 250 feet south of the existing ATCT on a parcel that is also adjacent to the aircraft rescue and firefighting (ARFF) station, an Airport maintenance building, and a vehicle parking lot. The new facility would have an estimated building footprint of 13,000 square feet (sq ft) and be approximately 190 feet tall. Access to the new facility would remain the same as to the existing ATCT, which is accessible from E. Andersen Avenue. New Air Traffic Control (ATC) equipment, communications equipment, and electric panels would be installed in the new ATCT.

Utility services to the new facility would be connected from existing utility systems, as shown in **Exhibit 1-4**. As the new ATCT facility would be constructed adjacent to existing buildings, utility connections are accessible in close proximity and would not require extensive trenching or the need to extend existing utilities from offsite to reach the site of the new ATCT.

Once the new ATCT is in operation, there are three options for the existing facility: preservation in place, reuse of the facility for another use, or demolition. These options are described below.

2.3.1.1 Option A: Preserve Existing ATCT in Place

Option A would preserve the existing ATCT facility as a vacant building in its current location and move existing operations into the new ATCT facility.

The ATCT is eligible for listing on the National Register of Historic Places (NRHP), therefore necessary steps would be taken to ensure the long-term integrity and character-defining elements of the ATCT through repairs, restoration, and continued maintenance. See **Section 3.4.5** for additional information on NRHP eligibility.

Through the relocation of ATC operations to a new facility, the existing ATCT would not be required to meet the current FAA space and height requirements detailed in FAA Order 6480.7E, Airport Traffic Control Tower (ATCT) and Terminal Radar Approach Control (TRACON) Design Policy and FAA Order 6480.4B, Airport Traffic Control Tower Siting Criteria. Additionally, because the structure would remain vacant, extensive improvements to the ATCT would not be required to bring the building up to code to meet current State and local building requirements, such as seismic, fire, and ADA standards due to the potential for the City provide exceptions for historical structures.

Rehabilitation of the existing ATCT structure would be made with the goal of limiting alterations and repairs in an effort to preserve the features that convey its historic values and maintain eligibility on the NRHP. Rehabilitation would follow *The Secretary of the Interior's Standards for Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings* (U.S. Department of the Interior, 2017). Preservation would include measures to protect and stabilize the structure while using appropriate materials and techniques to preserve features that contribute to the eligibility of the ATCT as a historic resource, as identified in the Cultural Resources Analysis (**Appendix D**). Because limited alterations have been made to the structure since it was constructed and the elements of the original construction remain largely intact, it is assumed that restoration and reconstruction would not be required to revert any features back to its original state.

Exhibit 2-2: Alternatives Considered



Source: City of Fresno, 2024; CTBX, 2024; RS&H, 2024

After necessary repairs are made and restoration is completed, preservation of the existing ATCT would involve ongoing maintenance to prevent deterioration of the aging structure.

2.3.1.2 Option B: Retain Existing ATCT for Another Use at FAT

Retaining the existing ATCT for other uses would include all of the preservation, repairs, and rehabilitation identified under Option A. Additionally, because ATC operations would be relocated to a new facility, this option would also not require that the existing ATCT meet the current FAA space and height requirements. However, different than Option A and Alternative 2, because the facility would then be repurposed for another use at FAT, the building would need to be updated to meet current State and local building requirements, such as seismic, fire, and ADA standards. Therefore, this option would require extensive upgrades and repairs that could alter architectural features of the existing structure, resulting in the degradation of the integrity of the design, materials, and workmanship that contribute to the eligibility of the ATCT as a historic resource under 36 CFR § 60.4 Criterion C.

Following repairs and restoration of the existing ATCT, the building could be reused for other Airport uses, such as office space. However, because it is located on Airport property and is adjacent to an active airfield and access-controlled Airport facilities, it could not be converted into a facility that would allow for public access, per FAA AC 150/5300-13B, Airport Design, and FAA Order 1600.69D, *FAA Facility Security Management Program*. Further, the new ATCT would require prohibiting public access and securing employee parking, therefore a publicly-accessible building within the Project Study Area would not be able to provide public parking as required under Article 24 of the City of Fresno Municipal Code, Parking and Loading (City of Fresno, 2025).

2.3.1.3 Option C: Demolish Existing ATCT (Included in Proposed Project)

This option would demolish the existing ATCT facility once the new ATCT is fully operational. The site could then be converted to vehicle parking, as is proposed under the Proposed Project, or another Airport facility. The site could also be converted to airfield use or remain vacant with the addition of a security fence to prevent unauthorized access to the airfield.

2.3.2 Alternative 2: Rehabilitate Existing ATCT for Continued Use at FAT

Alternative 2 would include retaining the existing ATCT at its current location and continuing its use as the FAT ATCT. As identified under Alternative 1, Option B, the building would be required to be updated to meet current State and local building requirements, such as seismic, fire, and ADA standards. However, because the facility would also continue to be used for ATC operations, the ATCT would be rehabilitated to meet the current FAA space and height requirements detailed in FAA Order 6480.7E, *Airport Traffic Control Tower (ATCT) and Terminal Radar Approach Control (TRACON) Design Policy.* To meet these requirements, the height of the existing 94-foot tower would need to be increased by approximately 65 feet to meet line-of-sight requirements and the cab would need to be expanded from approximately 350 square feet to 440 square feet to meet cab size requirements based on Airport activity and staffing levels. Therefore, this option would require an addition to the existing structure that would degrade the eligibility of the ATCT under 36 CFR § 60.4 Criterion C as a historic resource, including extending the height of the tower and expanding or replacing the cab at the top of the tower.

Options A, B, and C do not apply to Alternative 2 because the options are only relevant if a new ATCT facility is constructed at a different location.

2.3.3 Alternative 3: Site X1

Alternative 3 is located at the intersection of E. Andersen Avenue and N. Fine Avenue on the southwest side of the airfield in a small remote parking lot surrounded by vacant land, approximately 1,340 feet northwest of the existing ATCT. Access to the building would be provided from E. Andersen Avenue or N. Fine Avenue.

The estimated building footprint and facilities included in the ATCT facility and base building would be equivalent to what is described for the Proposed Project in **Section 1.3**. The floor of the cab would be 200 feet tall; the cab would be about 17 feet tall with up to 23 feet of additional height from antennas extending above the cab for a total ATCT height of up to 240 feet. The height of this alternative is approximately 50 feet taller than the height required at other alternative locations because of the extended distance to the airfield, requiring the additional height to see over existing Airport structures in order to see the ends of each of the runways. New ATC equipment, communications equipment, and electric panels would be installed in the new ATCT.

Because there are currently no structures connected to utilities at the site or adjacent to the site, utilities would have to be extended from the facilities either across E. Andersen Avenue or N. Fine Avenue to reach Site X1.

2.3.4 Alternative 4: Site 13A

Alternative 4 is located within the parking lot of the existing ATCT, approximately 140 feet southwest of the existing facility. The estimated building footprint and facilities included in the ATCT facility and base building would be equivalent to what is described for the Proposed Project in **Section 1.3**. The floor of the cab would be 150 feet tall; the cab would be about 17 feet tall with up to 23 feet of additional height from antennas extending above the cab for a total ATCT height of up to 190 feet. Access to the new facility would remain the same as to the existing ATCT, which is accessible from E. Andersen Avenue. New ATC equipment, communications equipment, and electric panels would be installed in the new ATCT.

Utility services to the new facility would be connected to the new facility from existing utility systems. Similar to Alternative 1 (Proposed Project), utility connections are accessible in close proximity and would not require extensive trenching or the need to extend existing utilities from offsite to reach the site of the new ATCT.

2.3.5 Alternative 5: Site 6

Alternative 5 is located within the parking lot of the existing ATCT, approximately 100 feet south of the existing facility. The estimated building footprint and facilities included in the ATCT facility and base building would be equivalent to what is described for the Proposed Project in **Section 1.3**. The floor of the cab would be 100 feet tall; the cab would be about 17 feet tall with up to 23 feet of additional height from antennas extending above the cab for a total ATCT height of up to 140 feet. Access to the new facility would remain the same as to the existing ATCT, which is accessible from E. Andersen Avenue. New ATC equipment, communications equipment, and electric panels would be installed in the new ATCT.

Utility services to the new facility would be connected to the new facility from existing utility systems. Similar to Alternative 1 (Proposed Project), utility connections are accessible in close

proximity and would not require extensive trenching or the need to extend existing utilities from offsite to reach the site of the new ATCT.

2.3.6 Alternative 6: Across the Airfield from the Existing ATCT

Alternative 6 is located across the airfield from the existing ATCT on a vacant parcel off N. Cargo Lane. The estimated building footprint and facilities included in the ATCT facility and base building would be equivalent to what is described for the Proposed Project in **Section 1.3**. The floor of the cab would be 120 feet tall; the cab would be about 17 feet tall with up to 23 feet of additional height from antennas extending above the cab for a total ATCT height of up to 160 feet. Access to the building would be provided from N. Cargo Lane via E. Airways Boulevard. New ATC equipment, communications equipment, and electric panels would be installed in the new ATCT.

Because there are currently no structures connected to utilities at the site or adjacent to the site, utilities would have to be extended from either the hangar facility to the northwest of the site or from the animal shelter facilities E. Airways Boulevard.

2.3.7 No Action Alternative

Under the No Action Alternative, the existing ATCT facility would not be demolished or undergo any major renovations or repairs, and a new ATCT would not be built. The existing ATCT would continue to be used for ATC operations. The City would continue to pay for regular maintenance and repairs to infrastructure, equipment, and systems that break down. The facility would not meet current FAA space and height requirements, and it would not be brought up to State and local building requirements.

2.4 EVALUATION OF ALTERNATIVES

2.4.1 Screening Step 1: Does the Alternative Meet the Purpose and Need for the Proposed Project?

Each potential alternative was evaluated to determine its ability to meet the purpose and need for the Proposed Project, as described in **Section 1.4.1**.

2.4.1.1 Alternative 1: Site X2 (Proposed Project)

Alternative 1 would provide a new ATCT facility that meets the purpose and need for the Proposed Project. However, the ability of Alternative 1 to meet the purpose and need criteria for the Proposed Project depends on whether the existing ATCT facility remains in place. Therefore, this alternative is further evaluated with each option below.

Option A: Preserve Existing ATCT in Place

Option A would result in Alternative 1 continuing to meet criteria 1 and 5 for the Proposed Project. Option A would meet criterion 1 because the new ATCT would meet FAA, State, and local building standards. However, the existing ATCT would not meet these standards because the structure would remain vacant and extensive improvements to the ATCT would not be required to meet current State and local building requirements, such as seismic, fire, and ADA standards, due to the potential for the City to provide exceptions for historical structures. Option A would also meet criterion 5, as both the new and old ATCTs would remain in a secure area, however it would not meet any of the remaining criteria.

Option A would result in Alternative 1 not meeting criteria 2, 3 and 4 for the Proposed Project. Preserving the existing ATCT in place would affect the ability of Alternative 1 to meet criterion 2 because it would block the line of sight from the new ATCT to a portion of Taxiway A. This obstruction would also result in the option not meeting criterion 3 to allow for operational efficiency due to the potential disruption between pilot and ATC communication. Finally, this option does not meet criterion 4 because it would result in high costs of repairs to the existing facility in order to preserve the integrity of the building Therefore, Alternative 1, Option A would not meet the purpose and need of the Proposed Project and was eliminated from further consideration.

Option B: Retain Existing ATCT for Another Use at FAT

Option B, as under Option A, would result in Alternative 1 continuing to meet criteria 1 and 5. Option B would meet criterion 1 because the new ATCT would meet FAA, State, and local building standards, and the existing ATCT would not be required to meet FAA ATCT standards because it would no longer function as an ATCT. Additionally, the existing ATCT would be brought up to State and local building standards, as required, to retain it for another use as a functional building at FAT. Option B would meet criterion 5 by securing the future and existing ATCT sites from unauthorized access.

Option B would result in Alternative 1 not meeting criteria 2, 3 and 4 for the same reasons that Option A would not. Therefore, Alternative 1, Option B would not meet the purpose and need of the Proposed Project and was eliminated from further consideration.

Option C: Demolish Existing ATCT

Option C would result in Alternative 1 continuing to meet the purpose and need for the Proposed Project. Option C would meet criterion 1 because the new ATCT would meet FAA, State, and local building standards, and the existing ATCT would be demolished, thus not requiring upgrades to meet building standard codes for another use. Option C would meet criterion 2 because the line-of-sight obstruction caused by the existing facility would be removed. Option C would meet criterion 3 with the removal of the partial obstruction of the aircraft apron immediately east of the terminal, resulting in unimpeded communication with aircraft. Option C would meet criterion 4 because the existing ATCT would be demolished and would, therefore, no longer require frequent repairs and emergency maintenance. Option C would meet criterion 5 by securing the future ATCT site from unauthorized access. The existing ATCT would be demolished, so there would not be a need to provide secure access at that site. Therefore, Alternative 1, Option C meets the purpose and need of the Proposed Project and was considered in Step 2 Screening.

2.4.1.2 Alternative 2: Rehabilitate Existing ATCT for Continued Use at FAT

Rehabilitating the existing ATCT for continued use at FAT would require extensive upgrades and repairs. As indicated by Airport personnel, the existing ATCT is "outdated and in need of nearly \$10M in improvements and upgrades" (City of Fresno, 2019). Assuming the upgrades and repairs can successfully bring the existing ATCT up to current FAA space and height requirements and State and local building standards, Alternative 2 would meet criteria 1, 2, 3, and 5 in that it would meet current FAA, State, and local building standards, it would provide adequate height and unobstructed lines of sight, it would allow for operational efficiency by removing the partial obstruction of the aircraft apron immediately east of the terminal through

the increase in the tower height accomplished during the improvements and upgrades to the existing ATCT, and it would be secure from unauthorized access. However, this alternative would not meet criterion 4 of the purpose and need because it would result in high costs of repairs and disruptions to facility operations due to frequent repairs and emergency maintenance. As a result, Alternative 2 would not meet the purpose and need of the Proposed Project and was eliminated from further consideration.

2.4.1.3 Alternative 3: Site X1

Alternative 3 would provide a new ATCT facility that meets the purpose and need for the Proposed Project. However, the ability of Alternative 3 to meet the purpose and need criteria for the Proposed Project depends on whether the existing ATCT facility remains in place. Therefore, this alternative is further evaluated with each option below.

Option A: Preserve Existing ATCT in Place

Option A would result in Alternative 3 continuing to meet criteria 1, 2, 3 and 5 for the Proposed Project. Option A would meet criterion 1 because the new ATCT would meet FAA, State, and local building standards. However, the existing ATCT would not meet these standards, because the structure would remain vacant and extensive improvements would not be required to meet current State and local building requirements, such as seismic, fire, and ADA standards, due to the potential for the City to provide exceptions for historical structures. Criteria 2 and 3 would be met by providing an ATCT facility that provides adequate height and unobstructed lines of sight and allows for operational efficiency because Alternative 3 is located far enough away from the existing ATCT so it would not cause a line-of-sight obstruction. This option would also meet criterion 5 by securing the ATCT site from unauthorized access.

Option A would result in Alternative 3 not meeting criterion 4 because it would result in high costs of repairs to the existing facility in order to preserve the integrity of the building. Therefore, Alternative 3, Option A would not meet the purpose and need of the Proposed Project and was eliminated from further consideration.

Option B: Retain Existing ATCT for Another Use at FAT

Option B would continue to meet criteria 1, 2, 3 and 5 for the same reasons as under Option A. However, Option B would not meet criterion 4 for the same reasons that Option A would not. Therefore, Alternative 3, Option B would not meet the purpose and need of the Proposed Project and was eliminated from further consideration.

Option C: Demolish Existing ATCT

Option C would result in Alternative 3 continuing to meet the purpose and need for the Proposed Project. Option C would meet criterion 1 because the new ATCT would meet FAA, State, and local building standards, and the existing ATCT would be demolished, thus not requiring upgrades to meet building standard codes for another use. Option C would meet criterion 2 because the line-of-sight obstruction caused by the existing facility would be removed. Option C would meet criterion 3 with the removal of the partial obstruction of the aircraft apron immediately east of the terminal, resulting in unimpeded communication with aircraft. Option C would meet criterion 4 because the existing ATCT would be demolished and would, therefore, no longer require frequent repairs and emergency maintenance. Option C would meet criterion 5 by securing the future ATCT site from unauthorized access. The existing

ATCT would be demolished, so there would not be a need to provide secure access at that site. Therefore, Alternative 3, Option C meets the purpose and need of the Proposed Project and was considered in Step 2 Screening.

2.4.1.4 Alternative 4: Site 13A

Alternative 4 would provide an ATCT facility that meets the purpose and need for the Proposed Project. However, the ability of Alternative 4 to meet the purpose and need criteria for the Proposed Project depends on whether the existing ATCT facility remains in place. Therefore, this alternative is further evaluated with each option below.

Option A: Preserve Existing ATCT in Place

Option A would result in Alternative 4 continuing to meet criteria 1 and 5 for the Proposed Project. Option A would meet criterion 1 because the new ATCT would meet FAA, State, and local building standards. However, the existing ATCT would not meet these standards, because the structure would remain vacant, extensive improvements to the ATCT would not be required to bring the building up to code to meet current State and local building requirements, such as seismic, fire, and ADA standards, due to the potential for the City to provide exceptions for historical structures. Option A would also meet criterion 5, as both the new and old ATCTs would remain in a secure area, however it would not meet any of the remaining criteria.

Option A would result in Alternative 4 not meeting criteria 2, 3 and 4 for the Proposed Project. Preserving the existing ATCT in place would affect the ability of Alternative 4 to meet criterion 2 because it would block the line of sight from the new ATCT to a portion of Taxiway A. This obstruction would also result in the option not meeting criterion 3 to allow for operational efficiency due to the potential disruption between pilot and ATC communication because of the partial obstruction of the aircraft apron immediately east of the terminal that would result in the ATC not being able to see the location of an aircraft at this location. This option does not meet criterion 4 because it would result in high costs of repairs to the existing facility in order to preserve the integrity of the building. Therefore, Alternative 4, Option A would not meet the purpose and need of the Proposed Project and was eliminated from further consideration.

Option B: Retain Existing ATCT for Another Use at FAT

Option B, as under Option A, would meet criteria 1 and 5. Option B would meet criterion 1 because the new ATCT would meet FAA, State, and local building standards, and the existing ATCT would not be required to meet FAA ATCT standards because it would no longer function as an ATCT. Additionally, the existing ATCT would be brought up to State and local building standards, as required, to retain it for another use as a functional building at FAT. Option B would meet criterion 5 by securing the future and existing ATCT sites from unauthorized access.

Option B would not meet criteria 2, 3 or 4 for the same reasons that Option A would not. Therefore, Alternative 4, Option B would not meet the purpose and need of the Proposed Project and was eliminated from further consideration.

Option C: Demolish Existing ATCT

Option C would result in Alternative 4 continuing to meet the purpose and need for the Proposed Project. Option C would meet criterion 1 because the new ATCT would meet FAA, State, and local building standards, and the existing ATCT would be demolished, thus not

requiring upgrades to meet building standard codes for another use. Option C would meet criterion 2 because the line-of-sight obstruction caused by the existing facility would be removed. Option C would meet criterion 3 with the removal of the partial obstruction of the aircraft apron immediately east of the terminal, resulting in unimpeded communication with aircraft. Option C would meet criterion 4 because the existing ATCT would be demolished and would, therefore, no longer require frequent repairs and emergency maintenance. Option C would meet criterion 5 by securing the future ATCT site from unauthorized access. The existing ATCT would be demolished, so there would not be a need to provide secure access at that site. Therefore, Alternative 4, Option C meets the purpose and need of the Proposed Project and was considered in Step 2 Screening.

2.4.1.5 Alternative 5: Site 6

Alternative 5 would provide an ATCT facility that meets criteria 1 and 5. Alternative 5 would meet criterion 1 because the new ATCT would meet current FAA, State, and local building standards, and the existing ATCT would not be required to meet FAA ATCT standards because it would no longer function as an ATCT. Additionally, the existing ATCT would be brought up to State and local building standards, as required, to retain it for another use as a functional building at FAT. Alternative 5 would meet criterion 5 by securing the future and existing ATCT sites from unauthorized access.

Alternative 5 would not meet criteria 2, 3 and 4. It would not correct the parallax issue identified under criterion 2 because from the new ATCT, ATCs would continue to not be able to determine if a pilot is lined up to land on Runway 29R or Runway 29L. In addition, Alternative 5 would not meet criterion 3 to allow for operational efficiency due to the potential disruption between pilot and ATC communication because of the partial obstruction of the aircraft apron immediately east of the terminal that would result in the ATC not being able to see the location of an aircraft at this location. Alternative 5 would not meet criterion 4 under Options A and B because those options would result in high costs of repairs to the existing facility in order to preserve the integrity of the building. However, Alternative 5 would meet criterion 4 under Option C because it would not result in high costs of repairs and disruptions to facility operations due to frequent repairs and emergency maintenance. As a result, Alternative 5, including all options, would not meet the purpose and need for the Proposed Project and has been eliminated from further consideration.

2.4.1.6 Alternative 6: Across the Airfield from the Existing ATCT

Alternative 6 would provide an ATCT facility that meets criteria 1 and 5. Alternative 6 would meet criterion 1 because the new ATCT would meet current FAA, State, and local building standards, and the existing ATCT would not be required to meet FAA ATCT standards because it would no longer function as an ATCT. Additionally, the existing ATCT would be brought up to State and local building standards, as required, to retain it for another use as a functional building at FAT. Alternative 6 would meet criterion 5 by securing the future and existing ATCT sites from unauthorized access.

Alternative 6 would not meet criteria 2, 3, and 4. It would present a new line of sight issue due to the location and angle of an ATCT at this location. From the new ATCT, ATCs would have difficulty discerning between Taxiways A and B and would continue to have a parallax issue at Runway 29L because of the increased distance from the runway end. Additionally, the angle of

the new ATCT would result in the afternoon/evening sun in the eyes of the ATCs. This would result in an obstructed line of sight and would not meet criterion 2. In addition, Alternative 6 would not meet criterion 3 to allow for operational efficiency due to the potential disruption between pilot and ATC communication because of the partial obstruction of the aircraft apron immediately east of the terminal that would result in the ATC not being able to see the location of an aircraft at this location. Alternative 6 would not meet criterion 4 under Options A and B because those options would result in high costs of repairs to the existing facility in order to preserve the integrity of the building. However, Alternative 6 would meet criterion 4 under Option C because it would not result in high costs of repairs and disruptions to facility operations due to frequent repairs and emergency maintenance. As a result, Alternative 6, including all options, would not meet the purpose and need of the Proposed Project and was eliminated from further consideration.

2.4.1.7 No Action Alternative

The No Action Alternative fails to meet the purpose and need for the Proposed Project in that it: 1) would not provide a new ATCT facility or undergo any major renovations or repairs to meet current FAA, State, and local building standards; 2) would not result in a facility that provides adequate height and unobstructed lines of sight because the existing parallax issue for ATCs looking at Runways 29R and 29L is not corrected and ATCs would not be able to determine if a pilot is lined up to land on the correct runway; 3) would not allow for operational efficiency; 4) would continue to require high cost repairs and result in disruptions to facility operations due to frequent repairs and emergency maintenance; and 5) would continue to not be secure from unauthorized access. However, the No Action Alternative must be carried forward in the assessment of environmental impacts as required by FAA Order 1050.1F. The No Action Alternative serves as the basis for comparison of the impacts of the other reasonable alternatives that are carried forward for analysis.

2.4.1.8 Summary of Step 1 Screening Process

Table 2-1 provides a summary of the Step 1 screening process for the potential alternatives. Alternative 1, Option C; Alternative 3, Option C; and Alternative 4, Option C achieve the purpose and need for the Proposed Project. These three potential alternatives and the No Action Alternative were considered in the Step 2 Screening process.

2.4.2 Screening Step 2: Is this Alternative Technically and Economically Feasible to Implement?

Each alternative advanced from the Step 1 screening process was evaluated to determine whether the potential alternative would be technically and economically feasible to implement.

2.4.2.1 Alternative 1: Site X2, with Option C (Proposed Project)

Is this alternative technically feasible to implement? Alternative 1, Option C would require the construction of a new ATCT facility approximately 250 feet south of the existing ATCT and demolition of the existing ATCT upon full operation of the new ATCT. Construction of the new facility at this distance from the existing facility would not be expected to result in disruptions to ongoing ATC operations or result in vibration or construction emissions effects that could affect the integrity of the structure or otherwise adversely affect ATC operators onsite or create safety hazards for aircraft, employees, or passengers. Because Alternative 1 is located on Airport property, near the existing ATCT, it is not anticipated that this alternative would have an effect

Table 2-1: Summary of Step 1 Screening Process

| | irpose and Need iteria | Alternative 1: Site X2 (Proposed Project) | Alternative 2: Rehabilitate Existing ATCT for Continued Use at FAT | Alternative 3: Site X1 | Alternative 4: Site 13A | Alternative 5: Site 6 | Alternative 6: Across the Airfield from the Existing ATCT | No Action Alternative |
|----|--|--|--|---|---|---|---|--------------------------|
| 1) | Does the alternative meet current standards, including FAA space and height requirements, State and local building standards, including seismic and fire requirements, and ADA requirements? | Option A: Yes Option B: Yes Option C: Yes | Yes | Option A: Yes Option B: Yes Option C: Yes | Option A: Yes Option B: Yes Option C: Yes | Option A: Yes Option B: Yes Option C: Yes | Option A: Yes Option B: Yes Option C: Yes | No |
| 2) | Does the alternative provide adequate height and unobstructed lines of sight to the aircraft apron, runways, and taxiways for ATC operators? | Option A: No Option B: No Option C: Yes | Yes | Option A: Yes Option B: Yes Option C: Yes | Option A: No Option B: No Option C: Yes | Option A: No Option B: No Option C: No | Option A: No Option B: No Option C: No | No |
| 3) | Does the alternative allow for operational efficiency through the ability for clear communication between pilots and the ATCT? | Option A: No Option B: No Option C: Yes | Yes | Option A: Yes Option B: Yes Option C: Yes | Option A: No Option B: No Option C: Yes | Option A: No Option B: No Option C: No | Option A: No Option B: No Option C: No | No |
| 4) | Does the alternative not result in high costs of repairs and disruptions to facility operations due to frequent repairs and emergency maintenance? | Option A: No Option B: No Option C: Yes | No | Option A: No Option B: No Option C: Yes | No |

| Purpose and Need Criteria | Alternative 1: Site X2 (Proposed Project) | Alternative 2: Rehabilitate Existing ATCT for Continued Use at FAT | Alternative 3: Site X1 | Alternative 4: Site 13A | Alternative 5: Site 6 | Alternative 6: Across the Airfield from the Existing ATCT | No Action Alternative |
|---|--|--|---|---|---|---|--------------------------|
| 5) Is the alternative secure from unauthorized access as required under FAA Order 1600.69D? | Option A: Yes Option B: Yes Option C: Yes | Yes | Option A: Yes Option B: Yes Option C: Yes | Option A: Yes Option B: Yes Option C: Yes | Option A: Yes Option B: Yes Option C: Yes | Option A: Yes Option B: Yes Option C: Yes | No |
| Move to Screening Level 2? | Option A: No Option B: No Option C: Yes | No | Option A: No Option B: No Option C: Yes | Option A: No Option B: No Option C: Yes | Option A: No Option B: No Option C: No | Option A: No Option B: No Option C: No | Yes ^a |

^a Required to be included in the EA by FAA Order 1050.1F Source: RS&H, 2024; City of Fresno, 2024; CTBX, 2024

on landside operations or create safety hazards for aircraft, employees, or passengers. Therefore, Alternative 1 would not have a material effect on airfield operations, including ATC operations, or landside operations, and would be technically feasible to implement.

Is this alternative economically feasible to implement? Alternative 1, Option C would construct a new structure comprised of the tower shaft and cab at the top of the shaft and demolish the existing ATCT. The structure would be approximately 167 feet tall with an additional 23 feet of height from antennas extending above the cab for a total of 190 feet. The proposed height of the structure is comparable to the height required under Alternative 4. Additionally, as the site is developed, the construction of this alternative would not involve complex site conditions, such as extensive grading or the relocation of utilities from another location at the Airport. Utility services to the new facility would be connected to the new facility from existing utility systems and would not require extensive trenching or the need to extend existing utilities from offsite to reach the site of the new ATCT, as shown in **Exhibit 1-4**. Therefore, neither the height of the structure nor the condition of the site would result in disproportionately higher costs of construction when compared to other alternatives and this alternative would be economically feasible to implement.

Screening Step 2 Determination: Because Alternative 1, Option C would be technically and economically feasible to implement, this alternative was retained for detailed evaluation in the EA.

2.4.2.2 Alternative 3: Site X1, with Option C

Is this alternative technically feasible to implement? Alternative 3, Option C would require the construction of a new ATCT facility at the intersection of E. Andersen Avenue and N. Fine Avenue in a small remote parking lot surrounded by vacant land, approximately 1,340 feet northwest of the existing ATCT. Construction of the new facility at this distance from the existing facility would not be expected to result in disruptions to airside operations, including ongoing ATC operations, or result in vibration or construction emissions effects that could affect the integrity of the structure or otherwise adversely affect ATC operators onsite or create safety hazards for aircraft, employees, or passengers. Therefore, Alternative 3 would not have a material effect on airfield operations, including ATC operations. However, because Alternative 3 is located 1,340 feet away from the existing ATCT and there are no existing structures or utilities at this location, major trenching and utility relocation would be required, resulting in the potential for disruption in landside operations from the development of additional landside infrastructure to operate a facility at this location. While Alternative 3 could result in additional landside development, it would still be technically feasible to implement.

Is this alternative economically feasible to implement? Alternative 3, Option C would construct a new structure, 217 feet tall with an additional 23 feet of height from antennas extending above the cab for a total of 240 feet and demolish the existing ATCT. The proposed height of the structure is approximately 50 feet taller than the height required at other alternative locations because of the extended distance to the airfield, requiring the additional height to see over existing Airport structures in order to see the ends of each of the runways. Additionally, as the site is undeveloped, the construction of this alternative would involve complex site conditions, such as extensive grading, foundation work, and utility relocations. Utilities would have to be extended from the facilities either across E. Andersen Avenue or N. Fine Avenue to reach Site X1. Therefore, due to the height of the structure and the condition of the site, this

alternative would result in disproportionately higher costs of construction when compared to other alternatives, would be subject to unavoidable complex site conditions, would result in higher costs due to construction methods or materials, and would have a longer construction duration. Therefore, this alternative would not be economically feasible to implement.

Screening Step 2 Determination: Because Alternative 3, Option C would not be economically feasible to implement, this alternative was eliminated from further consideration.

2.4.2.3 Alternative 4: Site 13A, with Option C

Is this alternative technically feasible to implement? Alternative 4, Option C would require the construction of a new ATCT facility approximately 140 feet southwest of the existing facility and demolition of the existing ATCT upon full operation of the new ATCT. Construction of a new facility at this distance from the existing facility would result in disruptions to ATC operations from vibrations, construction noise, construction emissions, or staging. Vibrations generated by construction activity may cause damage, such as cracking, to structures and have the potential to disrupt the operation of vibration-sensitive equipment (Caltrans, 2020). Ground vibration can also result in annoyance to a person that can disrupt concentration. Because of the close proximity of Alternative 4 to the existing ATCT, it was determined that Alternative 4 could introduce potential conflicts or hazards that could interrupt ATC operations. Therefore, this alternative would not be technically feasible to implement.

Is this alternative economically feasible to implement? Alternative 4, Option C would require the construction of a new ATCT approximately 167 feet tall with an additional 23 feet of height from antennas extending above the cab for a total of 190 feet and demolition of the existing ATCT. The proposed height of the structure at 167 feet is comparable to the height that would be required under Alternative 1. Additionally, as the site is developed, the construction of this alternative would not involve complex site conditions, such as extensive grading or the relocation of utilities from another location at the Airport. The new ATCT facility would be constructed adjacent to existing buildings, so utility connections are accessible in close proximity and would not require extensive trenching or the need to extend existing utilities from offsite to reach the site of the new ATCT. Therefore, neither the height of the structure nor the condition of the site would result in disproportionately higher costs of construction when compared to other alternatives and this alternative would be economically feasible to implement.

Screening Step 2 Determination: While this alternative would be economically feasible, due to the potential material effect on airfield operations from the potential adverse effect ATC operations during construction, this alternative would not be technically feasible to implement and was eliminated from further consideration.

2.4.2.4 No Action Alternative

While economically feasible to implement because no construction would occur under the No Action Alternative, the existing parallax issue for ATCs looking at Runways 29R and 29L that does not allow them to determine if a pilot is lined up to land on the correct runway would continue to exist. Therefore, this alternative would have a material effect on airfield operations and not be technically feasible to implement. Although the No Action Alternative would not meet the Step 2 Screening criteria, it is carried forward into the Environmental Consequences Chapter as required by FAA Order 1050.1F.

2.4.2.5 Summary of Step 2 Screening Process

Table 2-2 provides a summary of the Step 2 screening process for the three potential build alternatives that were carried forward from Step 1 Screening and the No Action Alternative.

Table 2-2: Summary of Step 2 Screening Process

| Feasibility Criteria | Alternative 1: Site X2, Option C (Proposed Project) | Alternative 3: Site X1 | Alternative 4: Site 13A, Option C | No Action Alternative |
|--|---|---------------------------|---|--------------------------|
| Is the alternative technically feasible to implement? | Yes | Yes | No | No |
| Is the alternative economically feasible to implement? | Yes | No | Yes | No |
| Retain for Detailed Evaluation in the EA? | Yes | No | No | Yesª |

^a Required to be included in the EA by FAA Order 1050.1F Source: RS&H, 2024; City of Fresno, 2024; CTBX, 2024

2.5 ALTERNATIVES RETAINED FOR ANALYSIS IN THIS EA

Based on the two-step screening process, Alternative 1, Option C (Proposed Project) is identified as the preferred alternative. Alternative 1, Option C and the No Action Alternative were retained for detailed evaluation in this EA.

2.6 FEDERAL LAWS AND REGULATIONS CONSIDERED IN THIS ANALYSIS

Table 2-3 lists the federal laws, statutes, executive orders (E.O.), U.S. DOT and FAA orders, FAA Advisory Circulars (AC), and other federal guidance considered during the preparation of this EA.

Table 2-3: Federal Laws and Regulations Considered in this Analysis

| Federal |
|--|
| Airport and Airway Improvement Act of 1982, as amended (49 USC [United States Code] 47101 et |
| seq.) |
| American Indian Religious Freedom Act (42 USC 1996) |
| Antiquities Act of 1906 (54 USC 320301 et seq.) |
| Archaeological and Historic Preservation Act (54 USC 312501 et seq.) |
| Archaeological Resources Protection Act (16 USC 470 et seq.) |
| Aviation Safety and Noise Abatement Act of 1979 (49 USC 47501 et seq.) |
| Bald and Golden Eagle Protection Act of 1940 (16 USC 668 et seq.) |
| Clean Air Act of 1970, as amended (42 USC 7401 et seq.) |
| Clean Water Act (33 USC 1251 et seq.) |

Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Community Environmental Response Facilitation Act of 1992 (42 USC 9601 et seq.)

Endangered Species Act of 1973 (16 USC 1531 et seq.)

FAA Reauthorization Act of 2024 (Public Law No. 118-63)

Farmland Protection Policy Act (7 USC 4201 et seq.)

Federal Aviation Act of 1958, as amended (49 USC 40101 et seq.)

Hazardous Materials Transportation Act of 1975 (49 USC 5101 et seq.)

Land and Water Conservation Fund Act of 1965 (16 USC 4601 et seq.)

Migratory Bird Treaty Act (16 USC 703 et seq.)

National Environmental Policy Act of 1969 (42 USC 4321 et seg.), as amended

National Flood Insurance Act (42 USC 4001 et seq.)

National Historic Preservation Act (54 USC 300101 et seq.)

Native American Graves Protection and Repatriation Act (25 USC 3001 et seq.)

Pollution Prevention Act (42 USC 13101 et seq.)

Protection of Historic and Cultural Properties (36 CFR Part 800)

Resource Conservation and Recovery Act of 1976, as amended by the Solid Waste Disposal Act of 1980 (42 USC 6901 et seq.)

Rivers and Harbors Act of 1899 (33 USC 401 et seq.)

Safe Drinking Water Act of 1974 (42 USC 300 et seq.)

Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 USC 61 et seq.)

U.S. Department of Transportation Act, Section 4(f) (49 USC 303[c])

Wild and Scenic Rivers Act (16 USC 1271 et seq.)

Code of Federal Regulations

Title 14, CFR Part 77, Safe, Efficient Use, and Preservation of Navigable Airspace

Title 14, CFR Part 150, Airport Noise Compatibility Planning

Title 14, CFR Part 158, Passenger Facility Charges

Title 33, CFR § 328.3, Navigation and Navigable Waters

Title 40, CFR Part 761, Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions

Executive Orders

E.O. 11593, Protection and Enhancement of the Cultural Environment (36 FR [Federal Register] 8921 et seq., May 13, 1971)

E.O. 11988, Floodplain Management (42 FR 26951 et seq., May 25, 1977)

E.O. 11990, Protection of Wetlands (42 FR 26961 et seq., May 24, 1977)

E.O. 13045, Protection of Children from Environmental Health Risks and Safety Risks (62 FR 19885 et seq., April 23, 1997)

E.O. 13175, Consultation and Coordination with Indian Tribal Governments (65 FR 67249, November 9, 2000)

E.O. 13186, Responsibilities of Federal Agencies to Protect Migratory Birds (66 FR 3853, January 17, 2001)

E.O. 14154, Unleashing American Energy (90 FR 8353, January 29, 2025)

U.S. Department of Transportation and FAA Orders

FAA Order 1050.1F: Environmental Impacts: Policies and Procedures (July 1, 2015) (See also 1050.1F Desk Reference)

FAA Order 5050.4B: National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions (April 28, 2006)

FAA Order 1050.10D: Environmental Pollution Control and Abatement at FAA Facilities (September 13, 2004)

FAA Order 1210.20; American Indian and Alaska Native Tribal Consultation Policy and Procedures. (January 28, 2004)

FAA Order 5100.38D, Change 1, Airport Improvement Program Handbook (February 26, 2019)

U.S DOT Order 5650.1: Protection and Enhancement of the Cultural Environment (November 20, 1972)

| FAA Advisory C | irculars |
|----------------|----------|
|----------------|----------|

FAA AC 150/5020-1: Noise Control and Compatibility Planning for Airports

FAA AC 150/5060-5: Airport Capacity and Delay

FAA AC 150/5070-6B: Airport Master Plans

FAA AC 150/5200-33C: Hazardous Wildlife Attractants On or Near Airports

FAA AC 150/5300-13B: Airport Design

FAA AC 150/5360-13A: Airport Terminal Planning

FAA AC 150/5370-10H: Standards for Specifying Construction of Airports

Source: RS&H, 2024.

2.7 PERMITS, LICENSES, OTHER APPROVALS OR REVIEWS REQUIRED FOR THE PROPOSED PROJECT

Table 2-4 lists the permits, licenses, other approvals or reviews anticipated for construction of the Proposed Project.

Table 2-4: Anticipated Permits, Licenses, other Approvals or Reviews

| Permit, License, Approval, or Review | Approval / Reviewing / Issuing Agency | Timeframe |
|--|---|---|
| Federal | | |
| Creation of electronics engineering package to support relocation of FAA equipment into Proposed Project | Federal Aviation Administration (FAA) | Prior to final design, estimate 2026 |
| Determinations under 49 USC §§ 47115 and 47124 associated with the eligibility of the Proposed Project for federal funding under the IIJA FAA FTC Grant Program and AIP discretionary grants | FAA | Prior to final design, estimate 2026 |
| Lease agreement for new ATCT facility | FAA | Prior to implementation, estimate 2029 |
| National Environmental Policy Act (NEPA) Decision Document | FAA | Estimate fall 2025 |
| Review of architectural design in support of space allocation for FAA owned equipment and FAA air traffic control staffing | FAA | During final design, estimate 2026 |
| Section 106 of the National Historic Preservation Act (NHPA), Finding of Effect (FOE) | State Historic Preservation Officer (SHPO) | Complete, 10/24/24 |

| Permit, License, Approval, or Review | Approval / Reviewing / | Timeframe |
|--|-------------------------------|---------------------------|
| | Issuing Agency | |
| Section 106 of the NHPA, Memorandum of | SHPO; Advisory Council on | Estimate fall 2025 |
| Agreement (MOA) | Historic Preservation (ACHP) | LStilllate fall 2023 |
| Unconditional ALP approval | FAA | After completion of NEPA |
| U.S. Department of Transportation (U.S. | Department of the Interior | Estimate fall 2025 |
| DOT), Section 4(f) Evaluation | (DOI) | LStilliate Iail 2023 |
| State | | |
| California State Water Resources Control | Central Valley Regional Water | Prior to construction, |
| Board (SWRCB) Industrial General Permit | Quality Control Board | estimate 2027 |
| | (CVRWQCB) | |
| SWRCB National Pollution Discharge | CVRWQCB | Prior to construction, |
| Elimination System (NPDES) General | | estimate 2027 |
| Permit for Storm Water Discharges | | |
| Associated with Industrial Activities, Order | | |
| No. 2014-0057-DWQ, (CGP) identified as | | |
| NPDES No. CAS000001 | | |
| Local | | |
| Consistency Determination | Fresno County Airport Land | Prior to issuance of |
| | Use Commission (ALUC) | building permit, estimate |
| | | 2026 |
| Building Permit | City of Fresno | Prior to construction, |
| | | estimate 2027 |

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CHAPTER 3. AFFECTED ENVIRONMENT

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3.1 INTRODUCTION

This chapter describes existing physical, natural, and human environmental conditions within those areas that would be directly, or indirectly, affected by the Proposed Project and its alternatives. The information describes the airport environs and provides information by which potential environmental impacts of the alternatives retained for detailed evaluation can be assessed and compared. The environmental resource categories described in this chapter are organized as identified in 1050.1 Desk Reference and FAA Order 1050.1F. Potential direct and indirect impacts of the Proposed Project are discussed in **Chapter 4**, **Environmental**Consequences and Mitigation Measures. Regulations associated with each environmental resource category are located in **Appendix B**.

3.2 STUDY AREA AND STUDY YEAR

Per FAA 1050.1F, a study area can vary based on the resource category being analyzed. A Project Study Area was identified for use in describing the affected environment and the potential environmental consequences associated with the implementation of the Proposed Project (refer to **Exhibit 3-1**). The Project Study Area encompasses approximately 5.5 acres and is located entirely on Airport Property. All project components discussed in **Chapter 1** are located within the Project Study Area. The Project Study Area is the footprint of the Proposed Project and the boundary in which all components and staging areas would be located and, therefore, where there is potential for direct impacts to occur. Unless otherwise stated, this study area was used in the analyses throughout **Chapter 3** and **Chapter 4**.

The baseline year for identifying existing conditions in this chapter is 2024, unless otherwise noted.

3.3 ENVIRONMENTAL RESOURCES NOT AFFECTED

The No Action Alternative and the Proposed Project would not have the potential to affect the resource categories identified in this section.

3.3.1 Biological Resources

The Project Study Area is in the Clovis, California U.S. Geological Survey (USGS) 7.5-minute quadrangle (Clovis Quad). The Project Study Area is located in an urbanized area and within an operational airport facility. The majority of the Project Study Area is currently developed with the existing ATCT, adjacent parking lot, airfield apron, and regularly maintained landscaping. The staging area is not developed but has been highly disturbed through regular use as a parking lot and staging area for other construction projects.

According to the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) tool (see **Appendix C**), there are 12 species of federal concern with the potential to occur within the Project Study Area (U.S. Fish and Wildlife Service, 2024a). However, there is no suitable habitat for any special status species present and, according to the USFWS, there are no designated critical habitats within the Project Study Area.

Additionally, based on the vegetation communities map prepared for the City's General Plan Program Environmental Impact Report, the land within the study area is urban, or

Exhibit 3-1: Project Study Area



Source: RS&H, 2024

Developed, lands which "have been constructed upon or otherwise covered with a permanent unnatural surface (e.g., concrete, asphalt, buildings, homes, etc.) or large amount of debris or other materials. Urban land provides poor quality habitat for any special-status species. Special-status species are unlikely to occur within this vegetation community" (City of Fresno, 2020). As such, the FAA has determined that the Proposed Project would have no effect on federally listed species or critical habitat.

3.3.2 Coastal Resources

The Project Study Area is located about 115 miles east of the California coastline. The Proposed Project is outside of the California Coastal Zone and would not affect any coastal resources.

3.3.3 Farmlands

The Proposed Project is located within an urbanized area of Fresno. There are no agricultural uses located within or adjacent to the Project Study Area. No farmland would be acquired or converted as a result of the Proposed Project. Under 7 CFR Part 658.2(a) of the Farmland Protection Policy Act (FPPA), land that is committed to urban development¹⁰ is not subject to provisions of the FPPA. The Project Study Area is identified as an "urbanized area" on the 2020 U.S. Census Bureau Map (U.S. Census Bureau, 2020a). Additionally, the site is classified by the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) as "Urban and Built Up" (California Department of Conservation, 2022).

3.3.4 Socioeconomics and Children's Environmental Health

The Project Study Area is located entirely in Census Tract 31.04 Block Group 2 (U.S. Census Bureau, 2020b). The Block Group is compared with the City of Fresno and Fresno County to determine any potential effects to socioeconomics, and children's environmental health and safety risks. There are about 3,810 people living within the Project Study Area census tract block group, of which 18 percent are living below the poverty level (American Community Survey, 2022). Within the city of Fresno, 22 percent of the population live below the poverty level. The Proposed Project would not increase aircraft operations or vehicle traffic and would not significantly affect surrounding communities.

3.3.5 Water Resources

3.3.5.1 Wetlands

According the USFWS National Wetlands Inventory, there are no wetlands within the Project Study Area (U.S. Fish and Wildlife Service, 2024b). The closest wetlands are a riverine wetland located about 0.5 mile south of the Project Study Area, a riverine wetland located about 0.6-mile north of the Project Study Area, and a freshwater pond located about 0.8-mile northeast of the Project Study Area, at the Airways Golf Course. The Proposed Project would occur entirely on Airport property and Best Management Practices (BMPs) would be implemented during construction to prevent pollutants generated during construction from indirectly impacting wetlands and water bodies outside of the Project Study Area.

[&]quot;Committed to urban development" is defined as land with a density of 30 structures per 40-acre area; lands identified as "urbanized area" (UA) on the Census Bureau Map; land with a "tint overprint" on USGS topographical maps; or areas shown as "urban-built-up" on the USDA Important Farmland Maps.

3.3.5.2 Floodplains

According to the Federal Emergency Management Agency (FEMA), the Project Study Area is located within flood map number 06019C1590H, effective February 18, 2009 (Federal Emergency Management Agency, 2024a). There are no regulatory floodways within the Project Study Area and the closest floodplain is located about 0.4-mile south of the Project Study Area. The Project Study Area is within an area of minimal flood hazard classified as Zone X, which is defined by FEMA as an area "protected by levee from 100-year flood" (Federal Emergency Management Agency, 2024b).

3.3.5.3 Surface Waters

The Project Study Area is located within the Kings Subbasin which is generally bounded by the San Joaquin River to the north, the alluvium-granitic rock interface of the Sierra Nevada foothills to the east, the southern fork of the Kings River to the south, and the Delta-Mendota and Westside Subbasins to the west (California Department of Water Resources, 2006). According to the U.S. Geological Survey (USGS), there are no surface waters present within the Project Study Area (U.S. Geological Survey, 2024).

Flood control and stormwater collection and disposal for the City of Fresno, City of Clovis, and the unincorporated areas within the City of Fresno's sphere of influence are provided by the Fresno Metropolitan Flood Control District

3.3.5.4 Groundwater

The Project Study Area is located within the City of Fresno, which lies within the Kings Subbasin of the San Joaquin Valley Groundwater Basin (California Department of Water Resources, 2019). The Kings Subbasin comprises of about 1,530 square miles, is located in the southern half of the San Joaquin Valley Groundwater Basin, and is generally bounded by the San Joaquin River to the north, the alluvium-granitic rock interface of the Sierra Nevada foothills to the east, the southern fork of the Kings River to the south, and the Delta-Mendota and Westside Subbasins to the west (California Department of Water Resources, 2006). The Project Study Area lies within the jurisdictional boundary of the North Kings Groundwater Sustainability Agency. Within the Kings Subbasin, the Project Study Area is located in the recharge area of the Fresno Sole Source Aguifer (U.S. Environmental Protection Agency, 2008).

The Fresno 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.

3.3.5.5 Wild and Scenic Rivers

Kings River, located about 27 miles northeast of the Project Study Area, is the closest Wild and Scenic River and river listed within the Nationwide Rivers Inventory (National Park Service, 2024).

3.4 ENVIRONMENTAL RESOURCES POTENTIALLY EFFECTED

3.4.1 Air Quality

The U.S. Environmental Protection Agency (USEPA) and California Air Resources Board (CARB) have established health-based ambient air quality standards (NAAQS and CAAQS,

respectively) for different criteria air pollutants including carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM₁₀ and PM_{2.5}), and sulfur dioxide (SO₂). **Table 3-1** presents the federal and State ambient air quality standards.

Table 3-1: Federal and State Ambient Air Quality Standards

| | Averaging | California Standards ^{/1/} | National Stan | dards ^{/2/} |
|--|------------------------------|-------------------------------------|---------------------------|-----------------------------|
| Pollutant | Time | Concentration | Primary ^{/3/} | Secondary |
| Ozone (O ₃) | 8 Hour | 0.07 ppm | 0.075 ppm | Same as Primary Standard |
| | 1 Hour | 0.09 ppm | _ | _ |
| Carbon Monoxide | 8 Hour | 9.0 ppm | 9 ppm | _ |
| (CO) | 1 Hour | 20 ppm | 35 ppm | _ |
| Nitrogen Dioxide | 1 Hour | 0.18 ppm | 0.100 ppm ^{/6/} | _ |
| (NO ₂) | Annual Arithmetic Mean | 0.030 ppm | 0.053 ppm | Same as Primary Standard |
| Sulfur Dioxide (SO ₂) ^{/7/} | 1 Hour | 0.25 ppm | 0.075 ppm | _ |
| / | 3 Hour | _ | _ | 0.5 ppm |
| | 24 Hour | 0.04 ppm | 0.14 ppm | _ |
| | Annual Arithmetic Mean | _ | 0.030 ppm | _ |
| Particulate Matter (PM ₁₀) | Annual Arithmetic Mean | 20 μg/m³ | | _ |
| | 24 Hour | 50 μg/m³ | 150 µg/m³ | Same as Primary Standard |
| Particulate Matter – Fine (PM _{2.5}) | Annual Arithmetic Mean | 12 μg/m³ | 12 μg/m ^{3 /9/} | 15 μg/m³ |
| | 24 Hour | _ | 35 μg/m ^{3 /10/} | Same as Primary Standard |
| Lead (Pb) ^{/8/} | 30-day Average | 1.5 μg/m ³ | _ | _ |
| | Calendar Quarter | _ | 1.5 μg/m ³ | _ |
| | Rolling 3 Month Average | _ | 0.15 µg/m³ | Same as Primary Standard |

| A=Attainment N=Nonattainment U=Unclassified | | |
|---|-----------------------|----------------------------------|
| mg/m³=milligrams per cubic meter | ppm=parts per million | μg/m³=micrograms per cubic meter |

NOTES:

- 1. California standards for Ozone (O₃), carbon monoxide (CO) (except Lake Tahoe), sulfur dioxide (SO₂) (1-hour and 24-hour), nitrogen dioxide, and suspended particulate matter (PM) PM₁₀ are values that are not to be exceeded. The standards for lead are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour or 24-hour average (i.e., all standards except for lead and the PM₁₀ annual standard), then some measurements may be excluded, e.g., measurements are excluded that CARB determines would occur less than once per year on the average.
- 2. National standards shown are the "primary standards" designed to protect public health. National standards other than for O₃, particulates and those based on annual averages are not to be exceeded more than once a year. The 1-hour O₃ standard is attained if, during the most recent three-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour O₃ standard is attained when the 3-year average of the 4th highest daily concentrations is 0.070 ppm (70 ppb) or less. The 24-hour PM₁₀ standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than 150 μg/m³. The 24-hour PM_{2.5} standard is attained when the 3-year average of 98th percentiles is less than 35 μg/m³.
 - Except for the national particulate standards, annual standards are met if the annual average falls below the standard at every site. The national annual particulate standard for PM_{10} is met if the 3-year average falls below the standard at every site. The annual $PM_{2.5}$ standard is met if the 3-year average of annual averages spatially averaged across officially designed clusters of sites falls below the standard.
- 3. National air quality standards are set by USEPA at levels determined to be protective of public health with an adequate margin of safety.
- 4. On October 1, 2015, the national 8-hour O₃ primary and secondary standards were lowered from 0.075 to 0.070 ppm. An area will meet the standard if the fourth-highest maximum daily 8-hour O₃ concentration per year, averaged over three years, is equal to or less than 0.070 ppm. USEPA will make recommendations on attainment designations by October 1, 2016, and issue final designations October 1, 2017. Nonattainment areas will have until 2020 to late 2037 to meet the health standard, with attainment dates varying based on the O₃ level in the area.
- 5. Statewide VRP Standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.
- 6. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100ppm (effective January 22, 2010).
- 7. On June 2, 2010, the USEPA established a new 1-hour SO₂ standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The existing 0.030 ppm annual and 0.14 ppm 24-hour SO₂ NAAQS however must continue to be used until one year following USEPA initial designations of the new 1-hour SO₂ NAAQS. USEPA expects to make designation for the Bay Area by the end of 2017.
- 8. CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure below which there are no adverse health effects determined.
- 9. In December 2012, USEPA strengthened the annual PM_{2.5} NAAQS from 15.0 to 12.0 micrograms per cubic meter (μg/m³). In December 2014, USEPA issued final area designations for the 2012 primary annual PM_{2.5} NAAQS. Areas designated "unclassifiable/attainment" must continue to take steps to prevent their air quality from deteriorating to unhealthy levels. The effective date of this standard is April 15, 2015.

Source: (San Joaquin Valley Air Pollution Control District, 2024); (U.S. Environmental Protection Agency, 2024a)

The Project Study Area is located within the San Joaquin Valley Air Basin (SJVAB). The SJVAB represents the study area for air quality. Currently, Fresno County is in nonattainment for O_3 , which is comprised of ozone precursors nitrogen oxides (NO_x) and volatile organic compounds (VOCs), and PM_{2.5} and in maintenance for CO and PM₁₀ under federal standards (U.S.

Environmental Protection Agency, 2024a). Under State standards, Fresno County is in nonattainment for O₃, PM_{2.5}, and PM₁₀ (San Joaquin Valley Air Pollution Control District, 2024). The closest air quality monitors operated by CARB are located about 3.15-miles north and 3.2-miles south of the Project Study Area (California Air Resources Board, 2024). **Table 3-2** presents the federal and State attainment status for Fresno County.

Table 3-2: Fresno County Attainment Status

| Pollutant | Federal Standards | State Standards |
|--|---|--|
| Ozone (O ₃) | Revoked (1-hour Standard) ^a | Severe Nonattainment (1-hour Standard) |
| | Nonattainment (8-hour Standard) ^b | Nonattainment (8-hour Standard) |
| Carbon Monoxide (CO) | Maintenance ^c | Attainment |
| Nitrogen Dioxide (NO ₂) | Attainment | Attainment |
| Sulfur Dioxide (SO ₂) | Attainment | Attainment |
| Particulate Matter (PM ₁₀) | Maintenance ^d | Nonattainment |
| Particulate Matter – Fine (PM _{2.5}) | Nonattainmente | Nonattainment |
| Lead (Pb) | No Designation/Classification | Attainment |

^a Air quality meets Federal 1-hour Ozone standard (77 FR 64036). USEPA revoked this standard, but some associated requirements still apply. The SJVAPCD attained the standard in 2004.

Source: SJVAPCD, 20224; USEPA, 2024.

Because the Proposed Project would not affect aircraft operations, an existing aircraft operational emissions inventory was not prepared for this EA.

3.4.2 Climate

This section defines greenhouse gases (GHGs), describes the sources of GHG emissions, and provides the context for climate change analysis in the vicinity of FAT. The air quality and climate change supporting data is provided in **Appendix G**. The principal GHGs that enter the atmosphere because of human activities include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases such as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6) (U.S. Environmental Protection Agency, 2018).

The transportation sector accounts for 28 percent of U.S. GHG emissions, with aircraft representing 9 percent of this total (U.S. Environmental Protection Agency, 2024b). In California, the dominant contributor to GHG emissions is transportation (39 percent), underscoring the particular importance of emissions reductions in this sector (California Air Resources Board, 2023a). Increased efforts to mitigate GHG emissions have become prevalent both in California and globally, with efforts primarily focused on the reduction of GHG emissions generated by human activity such as CO_2 , methane (NH₄), and N₂O.

The project is located within SJVAB. The Project Study Area for climate evaluations is defined by the extent of the project changes, and so, the Project Study Area previously defined meets

^b Extreme nonattainment for both the 2008 and 2015 standards.

^c Maintenance for the 1971 standard.

^d Serious maintenance for the 1987 standard.

^e Serious nonattainment for the 1997, 2006, and 2012 standards.

this definition. Existing GHG emissions within the Project Study Area are predominantly from stationary sources associated with the operation of buildings, such as the Airport maintenance building, ARFF building, and existing ATCT.

3.4.3 Department of Transportation Act, Section 4(f), and Land and Water Conservation Fund Act, Section 6(f)

Section 4(f) of the U.S. Department of Transportation Act of 1966 (49 USC § 303) protects publicly owned parks, recreational areas, wildlife and waterfowl refuges, and public and private historic sites eligible for listing in the NRHP. Section 4(f) provides that the Secretary of Transportation may approve a transportation program or project requiring the use of a Section 4(f) resource only if (1) there is no feasible and prudent alternative to using that resources and (2) the program or project includes all possible planning to minimize harm resulting from the use. ¹¹ **Appendix E** contains the Section 4(f) Evaluation prepared for the Proposed Project.

FAA determined that the existing ATCT building is eligible for listing in the NRHP and thus is subject to Section 4(f). Further details on the historic nature and eligibility of the existing ATCT building are addressed in **Section 3.4.5**. Refer to **Appendix D** for the Cultural Resource Assessment conducted by LSA Associates Inc and documentation of Section 106 consultation by the FAA.

There are no publicly owned parks, recreation areas, wildlife refuges, waterfowl refuges, or NRHP-listed properties located within or adjacent to the Project Study Area. The closest Section 4(f) property is Reedy Park, which is about 1,000 feet southwest of the Project Study Area.

Section 6(f) of the Land and Water Conservation Fund Act of 1965 (LWCFA) (16 USC § 4601-4 et seq.) provides funds for buying or developing public use recreational lands through grants to local and state governments. No properties purchased or improved with LWCFA funds are within the Project Study Area. Therefore, the Proposed Project would not affect such uses.

3.4.4 Hazardous Materials, Solid Waste, and Pollution Prevention

According to FAA 1050.1F Desk Reference, "hazardous material is any substance or material that has been determined to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce" and includes hazardous wastes and hazardous substances. According to the Resource Conservation and Recovery Act (RCRA), solid waste includes construction and demolition debris, food waste from concession activities in the terminal, and paper/cardboard. Pollution prevention includes methods to avoid, prevent, or reduce pollutant discharges or emissions as a result of a project.

3.4.4.1 Hazardous Materials

According to the USEPA Cleanups in My Community Map, there are RCRA hazardous waste generators, Toxic Release Inventory sites, Superfund sites, or Brownfield sites within the Project Study Area (U.S. Environmental Protection Agency, 2024c). The nearest Superfund site, Fresno Shields Armory, is located about 1.25 miles northeast of the Project Study Area (U.S. Environmental Protection Agency, 2024d), and the nearest Brownfield site, Parcel 468-282-23T,

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As defined in 23 CFR § 774.17, *all possible planning* means that all reasonable measures to minimize harm or mitigate adverse impacts must be included in the project.

is located about 4.5 miles southwest of the Project Study Area (U.S. Environmental Protection Agency, 2024e). The nearest RCRA site, Fresno County Department of Agriculture, is located about 3.5 miles southwest of the Project Study Area (U.S. Environmental Protection Agency, 2024f). The nearest Toxic Release Inventory sites are Cmb Industries, located about 0.75 mile southeast of the Project Study Area, and California Air National Guard Fresno, located about 0.9 mile southeast of the Project Study Area (U.S. Environmental Protection Agency, 2024g). There were no RCRA violations reported for any of the RCRA facilities in the vicinity of the Project Study Area.

A Phase I Environmental Site Assessment (Phase I ESA) was conducted in 2023 for the Proposed Project that identified a study area of an approximate one-mile radius around the existing ATCT (see **Appendix F** and **Exhibit 3-2**). Through the Phase I ESA, a regulatory agency database search was prepared for the Proposed Project that identified 167 agency-listed hazardous sites within the hazardous materials study area. Sites with documented releases affecting groundwater located within 0.25-mile upgradient and/or cross-gradient of the Project Study Area or otherwise judged to be of potential impact to soil, soil vapor, or groundwater quality, are summarized in **Table 3-3**.

No records of contamination within the Project Study Area were identified in the Phase I ESA. Additionally, the existing ATCT and adjacent facilities are not listed on the Federal National Priorities List database. The Project Study Area and immediately surrounding area were historically used for agricultural purposes and aircraft operations, including maintenance and service, rental car facilities, and other similar airport operations. These types of uses are typically associated with the potential release of petroleum products and other hazardous materials, such as lead arsenate, pesticides and herbicides. Although no records of contamination impacting the Project Study Area were identified from these facilities as part of the regulatory review, long-term operations of this nature are land uses reasonably associated with the potential release of petroleum products and other hazardous materials, such as lead arsenate, pesticides and herbicides. Lead arsenate, historically used as a pesticide well into the 1940s, breaks down over time, becoming lead and arsenic that settle into the topsoil. The only database listing with the Project Study Area is for a "vacant lot" located at N. Fine Avenue and E. Andersen Avenue, which may be associated with the location of the proposed staging area. This location was identified on the Fresno Certified Unified Public Agency (CUPA) Listing database, which only noted that the location was identified for "miscellaneous site assessment." No further information was available.

The Phase I ESA documented that asbestos-containing wastes were removed from the existing ATCT and ARFF buildings in 2019 and 1996, respectively. Therefore, there is a potential for additional asbestos-containing materials associated with the removal, handling and disposal activities to be present in shallow soils in the vicinity of these buildings. Based on the ages of these buildings, lead based paint and polychlorinated biphenyl (PCBs) could also be present in building materials. Weathering of these materials over time could constitute a source for lead and PCBs to have accumulated in shallow soils within the Project Study Area.

FAT is known to have subsurface impacts to soil and groundwater of VOCs including tetrachloroethylene (PCE) and trichloroethylene (TCE). Investigations indicated that the source of these impacts was the former aircraft and military operations. Additional information obtained during interviews conducted as part of the Phase I ESA indicated that a final remedial action

OVERVIEW MAP - 7412120.2S 1 mile boundary 1/2 mile boundary 1/4 mile boundary Target Property Sites at elevations higher than or equal to the target property Indian Reservations BIA Areas of Concern Sites at elevations lower than the target property Power transmission lines Special Flood Hazard Area (1%) Manufactured Gas Plants 0.2% Annual Chance Flood Hazard National Priority List Sites National Wetland Inventory Dept. Defense Sites State Wetlands This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view. Existing FAT ATCT SITE NAME: Fresno Yosemite International Airport - ATCT
ADDRESS: 5055 E ANDERSEN AVE
Fresno CA 93727
LAT/LONG: 36.774404 / 119.726231 CLIENT: Northgate Env. Management, Inc.
CONTACT: Nicky Robinson
INQUIRY#: 7412120.2s
DATE: August 09, 2023 3:11 pm August 09, 2023 3:11 pm ht © 2023 EDR, Inc. © 2015 TomTom Rel. 2015.

Exhibit 3-2: Phase I Environmental Site Assessment Study Area

Source: Northgate Environmental Management, Inc., 2023

Table 3-3: Potential Environmental Concerns within One Quarter Mile of Project Study Area

| Property Name | Location on Exhibit 3-2 | Potential Environmental Concern | | |
|---|-------------------------|--|--|--|
| FAA ATCT | Existing FAT | Operation of 500-gallon and 1,000-gallon UST containing diesel fuel | | |
| | ATCT | Presence of 500-gallon waste UST | | |
| | | Operation of AST between 1,320 and 9,999-gallons | | |
| | | Hazardous waste generator | | |
| | | Potential release of petroleum products | | |
| | | Potential for asbestos-containing materials, lead-based paint, and polychlorinated biphenyls (PCBs) in building materials | | |
| City of Fresno Fire | D | Presence of 1,000-gallon UST containing gasoline and 550-gallon UST containing diesel fuel. | | |
| Station No. 10 | | Potential release of petroleum products | | |
| | | Release of per- and polyfluoroalkyl substances (PFAS) in firefighting foams | | |
| | | PFAS in shallow soils adjacent to the fire station (to the northeast, east and south) | | |
| Fresno Air Terminal | D | Release of fuel from UST in 1988 | | |
| | | Operated at least one 25,000-gallon UST containing aviation fuel, three 500-gallon USTs containing motor vehicle product fuel, one 5,000-gallon UST containing paint stripper | | |
| | | Potential release of petroleum products | | |
| Wofforos (Wofford) | С | Release of aviation fuel | | |
| Flying Service/ APR Aviation/ Mercury Air Center/ Enoch Packing Co | | Operation of 11 USTs: 30,000-gallon UST containing jet fuel, three 30,000-gallon USTs containing gasoline, two 20,000-gallon USTs containing gasoline, one 1,000-gallons UST containing gasoline, and two 500-gallon USTs containing waste oil | | |
| r doking Go | | Gas production and/or distribution facility | | |
| | | Potential release of petroleum products | | |
| Corporate Aircraft | Α | Release of gasoline | | |
| | | Potential release of petroleum products | | |
| Hertz Rent-a- | Е | Various automobile rental | | |
| Car/Consolidated Rental/National | | Operation of 20,000-gallon UST containing gasoline fuel | | |
| Alamo Car | | Automobile repair and maintenance facility | | |
| | | Hazardous waste generator | | |

| Property Name | Location on Exhibit 3-2 | Potential Environmental Concern |
|--|-------------------------|--|
| Rental/Avis Rent a Car/ Dollar Rent a | | Potential use of hydrocarbons and/or solvents |
| West Air Inc./ United | F | Operated 500-gallon and two 550-gallon USTs containing waste oil |
| Beechcraft/ Beechcraft West Inc. | | Operated eight 12,000-gallons and one 1,000-gallon USTs containing gasoline |
| | | Potential release of petroleum products |
| Mercury Air/Wofford | F | Release of aviation fuel |
| | | Operated USTs |
| Beechcraft West | F | Release of gasoline |
| Western Piper Sales/WPS Holdings | Н | Release of aviation fuel from a UST |
| Budget Rent a Car/ | G | Gasoline service station |
| Airport Chevron Station | | Release of gasoline |
| Clausii | | Automotive service station |
| | | Operated three gasoline USTs and one waste oil UST |
| Hertz Renta a Car | G | Release of gasoline |
| | | Operated one 12,000-gallon and one 3-,000-gallon UST both containing gasoline |
| Hammer Field | R | Known or suspected to contain military munitions and explosives of concern, for example unexploded ordnance |
| | | Potential landfill and several USTs from the Department of Defense Occupancy |
| | | VOC contamination, including PCE and TCE, from former aircraft and military operations |
| | | Final remedial action plan prepared for soil and groundwater for soil and groundwater contamination, including PCE and TCE |
| | | TCE, 1,2,3-TCP, and PFAS/PFOAS detected |

PFAS: Per- and polyfluoroalkyl substances; PCBs: polychlorinated biphenyls; PCE: tetrachloroethylene; TCE: trichloroethylene; TCP: 1,2,3-trichloropropane; UST: underground storage tank

Source: Northgate Environmental Management, In. 2023. Phase I Environmental Site Assessment, Fresno Yosemite International Airport - Air Traffic Control Tower. Fresno, California.

plan was prepared for soil and groundwater related to the OHF at FAT for soil and groundwater contamination. Additionally, TCE, 1,2,3-trichloroproane (TCP), and PFAS/PFOAS were detected at various locations at FAT and may be present within the Project Study Area.

The Phase I ESA also identified several records of leaking underground storage tanks (LUSTs) in the immediate vicinity of the Project Study Area, an emergency generator shed that appears to be associated with a diesel aboveground storage tank (AST), and reports of per- and polyfluoroalkyl substances (PFAS) detected in shallow soils associated with the ARFF facility.

According to the State Water Resource Control Board's GeoTracker site, due to historic firefighting activities that occurred at the Airport prior to the early 2000s, the Airport is being monitored by the Central Valley Regional Water Quality Control Board (RWQCB) for PFAS contamination and is currently under a cleanup program (State Water Resources Control Board, 2024).

There are two operating commercial hazardous waste facilities in California. The Kettleman Hills facility is located in Kings County, approximately 60 miles from FAT and accepts solid, semisolid, liquid hazardous, and extremely hazardous wastes. Kettleman Hills is the only facility in California that is permitted to dispose of PCBs. The facility is open and has capacity available (Department of Toxic Substances Control, 2025).

3.4.4.2 Solid Waste

The City's Department of Public Utilities' Solid Waste Division provides solid waste removal for the Airport through a third-party service called Mid Valley Disposal. The Airport currently maintains four six-cubic yard garbage bins and two six-cubic yard recycling bins. All bins are emptied three times per week and transported to the Cedar Avenue Recycling and Transfer Station, located about 6.3 miles southwest of the Project Study Area. After the solid waste and recycling are sorted, garbage is then transferred to the American Avenue Landfill (i.e., American Avenue Disposal Site 10-AA-0009), located about 26 miles west of the Airport (City of Fresno, 2024b). The American Avenue Landfill has a maximum permitted capacity of 32,700,000 cubic yards and a remaining capacity of 29,358,535 cubic yards, with an estimated closure date of August 31, 2031. The maximum permitted throughput is 2,200 tons per day (CalRecycle, 2024a).

Other landfills within the County of Fresno include the Clovis Landfill (City of Clovis Landfill 10-AA-0004) with a maximum remaining permitted capacity of 7,740,000 cubic yards, a maximum permitted throughput of 2,000 tons per day, and an estimated closure date of 2047 (CalRecycle, 2024b).

3.4.4.3 Pollution Prevention

Activities conducted by the City and its tenants at FAT involve the storage and use of various hazardous materials. These materials include gasoline, diesel, aircraft fuels, motor oils, lubricants, cleaning solvents, paint, herbicides, pesticides, and fertilizer. Petroleum fuels, such as Jet-A, diesel, and gasoline are the primary hazardous materials stored and used at the Airport. The storage systems are designed and operated in accordance with applicable federal and state regulatory requirements.

As a commercial service airport, the Airport is required to enforce spill prevention, control, and countermeasure plans, as appropriate, as well as its hazardous materials business response

plan. 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 has prepared a stormwater pollution prevention plan (SWPPP) that outlines BMPs, which are implemented to prevent the discharge of pollutants in stormwater.

3.4.5 Historical, Architectural, Archaeological, and Cultural Resources

To assess properties included on or eligible for the NRHP and potential impacts to those properties, an Area of Potential Effect (APE) was delineated by the FAA (see **Exhibit 3-3**). FAA determined these boundaries through consultation with Airport staff on the extent of the Proposed Project. The APE is "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking. ¹² For the Proposed Project, the APE was expanded from the Project Study Area to include the Airport maintenance building and the ARFF facility due to their proximity to the Proposed Project. These structures would not be affected by the Proposed Project. A Cultural Resources Assessment for the APE was completed to determine the presence of such properties (see **Appendix D**). The California State Historic Preservation Office (SHPO) concurred with FAA's delineation of the APE on September 10, 2024 (see **Appendix D**). One structure within the APE, the existing ATCT, was determined by the FAA to be eligible for inclusion on the NRHP. SHPO concurred with the FAA's determination of eligibility on October 24, 2024 (see **Appendix D**).

The ATCT was designed by master architect and Fresno native Allen Y. Lew, Fellow of the American Institute of Architects (FAIA), and was completed in 1961. The ATCT was designed in the International style and embodies many of the distinctive characteristics of International style of architecture, including: simple, rectilinear geometric form; concrete and steel construction; unadorned wall surfaces that are generally smooth; absence of ornamentation; flat roofs; large areas of glass; and bands of metal-framed windows that are flush with the exterior walls. The ATCT had only a few minor alterations (two vents and two window-mounted air conditioning units), so it is a highly intact representative example of the International style of architecture as applied to an ATCT.

The ATCT is significant under Criterion C as a highly intact representative example of the International style of architecture as applied to an ATCT and as a good example of the work of master architect Allen Y. Lew, FAIA. The ATCT retains high integrity of location, design, materials, workmanship, feeling, and association. Its period of significance is 1961, when it was first occupied.

The Cultural Resources Assessment reported negative results of the records search for archaeological resources and determined that due to the severely disturbed/obscured nature of the APE, there is a very low sensitivity for archaeological resources.

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¹² 36 CFR 800.4

Exhibit 3-3: Area of Potential Effects (APE)



Source: RS&H, 2025

3.4.6 Land Use

The City of Fresno General Plan designates the Airport as Public/Quasi-public Facility for land use (City of Fresno, 2022). In addition, the City of Fresno designates the Airport property within the Project Study Area for "public and institutional" use (City of Fresno, 2024c).

3.4.7 Natural Resources and Energy Supply

The study area for natural resources and energy supply is Fresno County. Pacific Gas & Electric Company (PG&E) is the main power and natural gas provider for FAT facilities. Electricity production facilities include natural gas-fired, nuclear, hydroelectric, coal, and other renewable sources. PG&E obtains its energy supplies from power plants and natural gas fields in Northern California as well as from electricity and natural gas purchased outside its service area and delivered through high-voltage transmission lines of the power grid and gas pipelines. However, in conjunction with PG&E, the Airport also owns and operates a 4.2-megawatt solar farm which offsets the cost of electricity purchased from the local utility company, PG&E.

Two divisions of the City of Fresno Department of Public Utilities (DPU) are responsible for the water supply and wastewater utility in the City, which includes the Airport: the Water Division and the Wastewater Management Division. The City's Water Division is responsible for managing and operating the City's water system. Water supply demands are met by a "conjunctive use" system of both surface water and groundwater storage sources. The major source of water supply for DPU water customers comes from groundwater pumped from the Fresno Sole Source Aquifer. The secondary source of water comes from surface water delivered by the Fresno Irrigation District canals from both Millerton and Pine Flat lakes, both located in the foothills east of the City. The City's Wastewater Management Division of the DPU is responsible for collecting, conveying, treating, and reclaiming wastewater generated by sewer customers in the Fresno-Clovis metropolitan area.

Energy use at the Airport is primarily in the form of electricity required for the operation of Airport-related facilities (e.g., terminal building, hangars, airfield lighting) and fuel for aircraft, aircraft support vehicles/equipment, and Airport maintenance vehicles/equipment.

Various construction activities and operations at the Airport require the use of consumable materials to maintain various landside and airside facilities and services, such as asphalt, concrete, aggregate for sub-based materials, various metals associated with such maintenance, as well as fuel associated with the operation of aircraft and vehicles. None of the natural resources that the Airport uses, or has used, are in rare or short supply.

No mining operations or other mineral/gas extraction activities occur on airport property.

3.4.8 Noise and Noise-Compatible Land Use

As defined in Paragraph 11-5.b(10) of FAA Order 1050.1F, a noise sensitive area is "an area where noise interferes with normal activities associated with its use. Normally, a noise sensitive area includes residential, educational, health, and religious structures and sites, and parks, recreational areas, areas with wilderness characteristics, wildlife refuges, and cultural and historical sites." The Project Study Area is located entirely on Airport property, and noise sources in the area are primarily associated with that of an airport. Existing land uses in the vicinity of the Project Study Area include Airport uses. The nearest residences and school are located approximately 0.5 mile west of the Project Study Area. A hotel, the Wyndham Garden

Fresno Yosemite Airport Hotel, is located approximately 800 feet southwest of the Project Study Area along East Clinton Avenue. Noise associated with demolishing and constructing an ATCT would be the highest at the construction sites and along access roads leading to and from the sites, so the noise study area includes these areas.

3.4.9 Visual Effects

According to FAA 1050.1F, visual effects deal broadly with the extent to which a proposed action or alternative(s) would either: 1) produce light emissions that create annoyance or interfere with activities; or 2) contrast with, or detract from, the visual resources and/or the visual character of the existing environment. In keeping with FAA 1050.1F, the analysis is separated into two sections: Light Emissions; and Visual Resource and Visual Character.

3.4.9.1 Light Emissions

The Project Study Area encompasses a total of 5.98 acres and includes the existing ATCT, the adjacent employee parking lot, the airfield apron directly adjacent to the existing ATCT, an Airport maintenance building, the ARFF facility, a landscaped area south of the ARFF facility, and a portion (1.78 acres) of a vacant lot approximately 0.23 mile southwest of the existing ATCT off East Andersen Avenue for use as a construction staging area.

The visual resource study area (see **Exhibit 3-4**) is located in an urbanized area subject to preexisting exterior lighting from surrounding Airport development, other commercial and industrial development, and street lighting. There are several existing sources of light and glare within the study area, including streetlights along streets and within the parking lot, and lighting from the interior and exterior of the existing ATCT. The existing ATCT contains glass and metal exterior or materials which contribute to localized sources of glare. In addition, the parked cars within the parking lot within the Project Study Area are a source of glare when sunlight reflects off the windows.

3.4.9.2 Visual Resources and Visual Character

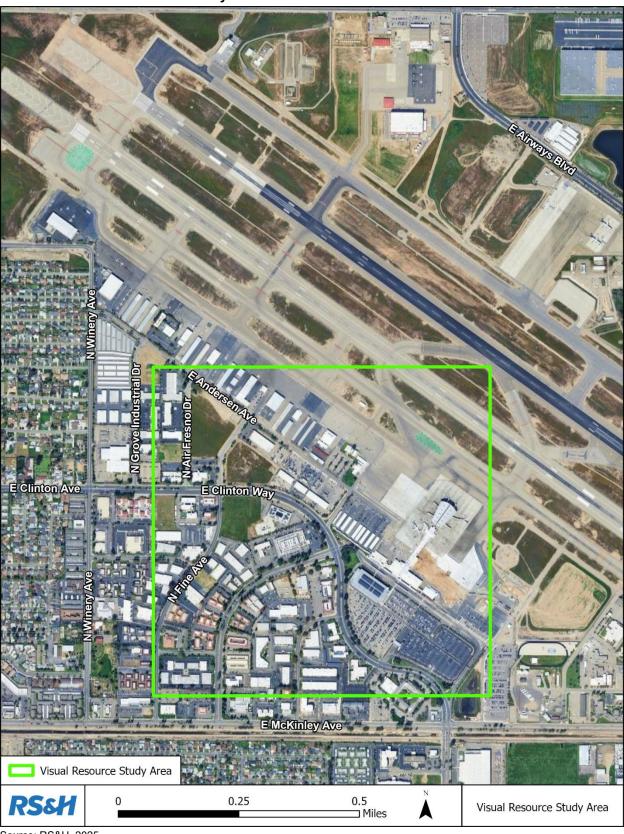
The City's General Plan designates land uses in the vicinity of the Airport light industrial, general commercial, and airport (City of Fresno, 2024d).

The visual character of the Project Study Area largely consists of the existing ATCT and parking lot and is consistent with other landside facilities at the Airport. FAA determined the existing ATCT is eligible for inclusion into the NRHP (see **Section 3.4.3**) and is visible from East Anderson Avenue while looking in the northeast direction. The existing ATCT is also partially visible from North Fine Avenue and North Air Fresno Drive while looking eastward and from East Clinton Way while looking in the northeast direction, although visibility of the tower is mostly blocked from this viewpoint. The existing ATCT is the dominant visual resource within the visual resource study area.

3.5 PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE ACTIONS

This section identifies past, present, and reasonably foreseeable actions near the Proposed Project. The Past, Present, and Reasonably Foreseeable Study Area (see **Exhibit 3-5**)includes the entire airport and the area south of the existing ATCT that has a potential view of the existing ATCT. Other projects in this study area were identified by using federal, State, and local

Exhibit 3-4: Visual Resources Study Area



Source: RS&H, 2025



Exhibit 3-5: Past, Present, and Reasonably Foreseeable Study Area

Source: RS&H, 2025

agency websites, such as from the City of Fresno, Fresno County, and California Department of Transportation (Caltrans). On-Airport projects were identified from the Airport's Capital Improvement Program and information provided by Airport staff (see **Table 3-4**).

Table 3-4: Identified Past, Present, and Reasonably Foreseeable Future Actions

| Project | Project Location | Project Description | Project Type | Construction Years |
|--|---------------------|---|-----------------|-----------------------|
| On-Airport Projects | | | | |
| Parking Garage | Airport | Construct four-level parking garage | Building | 2020-2021 |
| Taxiway B Rehabilitation | Airport | Rehabilitate Taxiway B pavement | Infrastructure | 2024 |
| Terminal Expansion Program | Airport | Terminal expansion adding 97,000 sq ft concourse to the existing terminal, with expanded TSA checkpoint, circulation halls, concession spaces, 2 hold rooms and a federal inspection station with dedicated arrivals atrium that deconflicts lobby congestion for the international passengers' meet & greet. | Building | 2024-2025 |
| Runway 11L/29R Reconstruction | Airport | Reconstruct the main runway at FAT, Runway 11L/29R | Infrastructure | 2025-2027 |
| RTR Relocation | Airport | Relocate the remote transmitter/receivers (RTR) for air traffic control and other radio communications following the terminal expansion. | Building | 2028 |
| ARFF Station Replacement Project | Airport | Construct a new ARFF station and demolish the old ARFF station. | Building | 2028-2029 |
| Off-Airport Projects | | | | |
| None Identified in the Study Area | | | | |

Source: City of Fresno, 2024; Fresno County, 2024.

Past actions include those which occurred within the last five years, and reasonably foreseeable future actions include those planned within the next five years. Because some future projects are in various stages of conceptual development, are subject to change, and do not provide enough data to ensure reasonable analysis, it is not possible to fully quantify the impacts associated with them.

CHAPTER 4. ENVIRONMENTAL CONSEQUENCES AND MITIGATION MEASURES

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4.1 INTRODUCTION

This chapter provides an assessment of potential construction and operational impacts to environmental resource categories identified in the Exhibit 4-1 of FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*. This assessment determines if potential direct or indirect impacts caused by the Proposed Project or the No Action Alternative are considered significant under NEPA or other applicable environmental special purpose laws as specified in FAA Orders 1050.1F and 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*. For purposes of this EA, a direct impact is caused by the Proposed Project and occurs at the same time and place as the Proposed Project. An indirect impact is caused by the Proposed Project and are later in time or farther removed in distance but is still reasonably foreseeable. An indirect impact may include growth inducing effects and other effects related to changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems. This chapter also describes the significance thresholds, methodology used, and any proposed mitigation that would be implemented to avoid, minimize or mitigate potential environmental impacts. This EA evaluates the following environmental resource categories:

- Air quality Section 4.2
- Climate Section 4.3
- Department of Transportation Act (U.S. DOT), Section 4(f) Section 4.4
- Hazardous Materials, Solid Waste, and Pollution Prevention Section 4.5
- Historical, Architectural, Archeological, and Cultural Resources Section 4.6
- Land Use Section 4.7
- Natural Resources and Energy Supply Section 4.8
- Noise And Noise-Compatible Land Use Section 4.9
- Visual Effects Section 4.10

Regulations associated with each environmental resource category are located in **Appendix B**.

4.1.1 Analysis Years

This chapter analyzes operational years that include the project completion year (2029) and five years after project completion (2034). The FAA uses 2029 as a basis for analysis because 2029 is the projected implementation year of the Proposed Project. Analysis year 2034 is the fifth full year after project opening thereby providing a reasonable time frame to evaluate ongoing operation-related environmental impacts. Additionally, temporary effects and ground disturbance effects associated with construction of the Proposed Project would occur from 2027 to 2028, as discussed in **Section 1.3.4**.

4.2 AIR QUALITY

This section evaluates the potential construction and operational impacts of the Proposed Project and the No Action Alternative on air quality and identifies measures to minimize potential impacts related to air quality emissions.

4.2.1 Significance Threshold

As provided in FAA Order 1050.1F, an action would cause a significant air quality impact if pollutant concentrations would exceed one or more of the NAAQS established by USEPA under the CAA for any of the time periods analyzed or would increase the frequency or severity of any such existing violations.

Federal and San Joaquin Valley Air Pollution Control District (SJVAPCD) *de minimis* emission thresholds for nonattainment and maintenance areas relevant to FAT are listed in **Table 4-1**. As noted in the table, pollutants designated as attainment do not have USEPA *de minimis* thresholds; therefore, as a conservative assumption, the maintenance *de minimis* thresholds were used to determine significant impacts under NEPA for attainment pollutants.

Table 4-1: General Conformity De Minimis Pollutant Emission Thresholds

| Pollutants | Federal / State Attainment Status (Severity) | Federal Threshold (tons per year) | SJVAPCD Threshold (tons per year) |
|--|---|-----------------------------------|-----------------------------------|
| Ozone (O ₃) | Nonattainment (Extreme) / Severe Nonattainment | 10 | 10 |
| Carbon Monoxide (CO) | Maintenance / Attainment | 100 | 100 |
| Nitrogen Dioxide (NO ₂) | Attainment ^{/a/} / Attainment | 100 | 10 |
| Sulfur Dioxide (SO ₂) | Attainment ^{/a/} / Attainment | 100 | 27 |
| Particulate Matter (PM ₁₀) | Maintenance / Nonattainment | 100 | 15 |
| Particulate Matter – Fine (PM _{2.5}) | Nonattainment (Moderate) / Nonattainment | 100 | 15 |
| Lead (Pb) | No Designation / Attainment | 25 | 25 |

^{/a/} No NAAQS *de minimis* threshold exists for attainment pollutants. As a conservative approach, the *de minimis* threshold for maintenance was assumed.

Source: USEPA De Minimis Tables https://www.epa.gov/general-conformity/de-minimis-tables, USEPA, 2024

4.2.2 Methodology

Under 72 Federal Register 41565, Federal Presumed to Conform Actions Under General Conformity, the FAA identified a list of actions presumed to conform to an applicable State Implementation Plan for criteria pollutants and their precursors as identified under 40 CFR § 93.153(b)(1) and (b)(2) and in the NAAQS. With this Rule, under existing exemptions, 15. Routine Installation and Operation of Navigation Aids, the in-kind replacement of navigational

SJVAPCD = San Joaquin Valley Air Pollution Control District

aids, including ATCTs, are "presumed to conform because these activities would not generate emissions that exceed de minimis levels. Moreover, emissions generated by construction equipment and maintenance vehicles used to transport workers and equipment to CNS [Communications, Navigation, and Surveillance] system sites are negligible considering the temporary nature of construction and maintenance activities and the limited number of vehicles involved." (FAA, 2007). Therefore, under the CAA, a detailed analysis and Conformity Determination are not required.

To determine air pollutant emissions resulting from construction of the Proposed Project, a construction emissions inventory report was conducted using the California Emissions Estimator Model (CalEEMod) and is included in **Appendix G**. The construction emissions inventory includes all air pollutants from the use of construction equipment, from the demolition of the existing ATCT, and from all other ground-disturbing activities. Criteria air pollutant and precursor emissions were evaluated for the Proposed Project, including O₃, CO, NO₂, SO₂, PM₁₀, and PM_{2.5}.

Emissions of CO, NO₂, SO₂, PM₁₀, and PM_{2.5} are primarily emitted through the combustion of fuel by mobile sources and industrial facilities. The analysis evaluated the following sources that are expected to be associated with the construction of the Proposed Project: off-road equipment powered by diesel, gasoline, and natural gas; fugitive dust from site preparation and grading; on-road vehicle usage by workers and vendors accessing the Project Study Area; paving of asphalt surfaces; application of architectural coating; and electricity usage.

For informational purposes, (GHG emissions were also analyzed and are further discussed in **Section 4.3**. The primary GHG emissions are Carbon Dioxide (CO_2), Methane (CH_4), and Nitrous Oxide (N_2O).

4.2.3 Environmental Consequences

4.2.3.1 No Action Alternative

Construction Impacts

Under the No Action Alternative construction of the Proposed Project would not occur. Therefore, there would be no construction emissions. Regular maintenance and repairs would continue to occur on the existing ATCT, resulting in emissions equal or similar to those occurring today. No new air quality impacts would occur under the No Action Alternative.

2029 and 2034 Operational Impacts

Under the No Action Alternative, a new ATCT would not be constructed and the existing ATCT would not be demolished. No changes to aircraft operations at the Airport would occur and the No Action Alternative would have no new impacts on air quality.

Because the No Action Alternative is a continuation of the existing conditions, no project-associated indirect impacts would occur under the No Action Alternative.

4.2.3.2 Proposed Project

Construction Impacts

Construction of the Proposed Project would result in a temporary increase of air pollutant emissions in the area but would not exceed NAAQS or SJVAPCD standards for criteria air

pollutants. A construction emissions inventory was conducted using CalEEMod to analyze the air pollutant emissions that would occur during construction (see **Appendix G**). As summarized in **Table 4-2**, construction of the Proposed Project would not cause or contribute to an exceedance of the NAAQS, increase the frequency or severity of any such existing violation or exceed the SJVAPCD *de minimis* thresholds.

Table 4-2: Total Annual Construction Emissions of Proposed Project Compared to NAAQS and SJVAPCD Standards (tons per year)

| | VOCa | со | NOxª | SO ₂ | PM ₁₀ | PM _{2.5} |
|-------------------------------|-------------|-------------|--------------|-----------------|------------------|-------------------|
| Proposed Project (2027) | 0.17 | 1.98 | 1.36 | <0.005 | 0.18 | 0.09 |
| Proposed Project (2028) | 0.49 | 0.99 | 0.77 | <0.005 | 0.11 | 0.03 |
| NAAQS Threshold | 100 tons/yr | 100 tons/yr | 100 tons/yr | 100 tons/yr | 100 tons/yr | 100 tons/yr |
| SJVAPCD Threshold | 10 tons/yr | 100 tons/yr | 10 tons/year | 27 tons/yr | 15 tons/yr | 15 tons/yr |
| Exceedance of Threshold? | No | No | No | No | No | No |

^a Following standard industry practice, O_3 was evaluated by evaluating emissions of volatile organic compounds (VOC) and nitrous oxides (NO_X), which are precursors in the formation of O_3 .

SJVAPCD = San Joaquin Valley Air Pollution Control District

Source: USEPA, 2024; SJVAPCD, 2015; RS&H, 2024

Air quality impacts associated with the construction of the Proposed Project would cease once construction is completed and no air quality impacts would occur at a later time. In addition, air pollutant emissions are localized at the project site and would not occur at a distance from the new ATCT. Therefore, no indirect impacts related to air quality would occur as a result of construction of the Proposed Project.

2029 and 2034 Operational Impacts

Operation of the Proposed Project would not increase landside or airside capacity at the Airport. When compared to the No Action Alternative, the Proposed Project would not result in a change in aircraft operations (takeoffs and landings), and the existing runway configuration, arrival/departures procedures, and runway use percentages would remain unchanged. Therefore, there would be no change in aircraft emissions when comparing the No Action Alternative to the Proposed Project.

The Proposed Project would provide replacement Airport Traffic Control facilities. The new ATCT would be more energy efficient and produce less emissions than the existing ATCT facilities via new construction techniques, better insulation of the structure, more efficient windows, as well as new generation stationary sources (boilers, power plants, etc.). Overall air emissions at the new ATCT would be less than the existing ATCT. Operation of the Proposed Project would not have a significant impact on air quality, although there would be some improvement compared to the No Action Alternative

ATCT staff would use the same parking facilities as they currently do. Therefore, no additional vehicle miles travelled by ATCT staff would occur. In addition, the operation of the new ATCT would not result in any change in the pattern of land use, population density, or growth rate in the Fresno metropolitan region. Finally, the Proposed Project would not result in induced growth in terms of aircraft operations at the Airport. Therefore, no indirect operational impacts related to air quality would occur.

4.2.4 Avoidance, Minimization and Mitigation Measures

Construction of the Proposed Project would not cause significant impacts to air quality and mitigation measures are not required. Reasonably available dust control and emissions control measures would be implemented to further minimize air emissions as follows:

- Construction sequencing
- Require the use of equipment that meets Tier IV emission standards
- Minimization of exposed soils at any given time during construction activities
- Water spray for dust suppression and preventing fugitive dust from becoming airborne from construction vehicles
- Suspending or adjusting intensity of earthwork during periods of sustained high wind speeds (e.g., 30 mph and over), as defined by the Occupational Safety and Health Administration (OSHA)
- Maintaining construction vehicles in good working condition
- Limiting construction vehicle engine idling by turning off engines after three to five minutes of inactivity
- Decreasing vehicle speed limits while onsite to reduce fugitive dust generation and obeying posted vehicle speed limits while off-site
- Requiring construction contractors to use properly maintained and operated construction equipment
- Not overloading construction trucks beyond their maximum hauling capacity with fill borrow material or construction debris
- Using tarp covers on construction trucks transporting construction materials and construction debris to and from the site
- Re-vegetating areas of disturbance following completion of construction activities in designated area

4.3 CLIMATE

This section evaluates the potential construction and operational impacts of the Proposed Project and the No Action Alternative on the climate.

4.3.1 Significance Threshold

FAA Order 1050.1F does not provide a significance threshold for aviation-related GHG emissions. The FAA 1050.1F Desk Reference states "it is not currently useful for the NEPA

analysis to attempt to link specific climatological changes, or the environmental impacts thereof, to the particular project or emissions, as such direct linkage is difficult to isolate and to understand."

4.3.2 Methodology

GHG emissions associated with the Proposed Project were prepared for CO_2 , CH_4 , and N_2O and presented as CO_2e in metric tons per year relevant to their global warming potential (GWP). The CO_2 equivalent (CO_2e) is estimated by taking the mass equivalent of each pollutant (tons per year), multiplying by the GWP equivalent of each pollutant, and then adding them together. For example, CO_2 is 1 GWP, CH_4 is 29.8 GWP, and N_2O is 273 GWP, according to the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report (ERC Evolution, 2021).

In general, FAA's GHG emissions inventory procedures are intended to accomplish the following:

- Identify and characterize the types and sources of GHGs to include in an emissions inventory.
- Apply appropriate and consistent methods for calculating GHG emission inventories.
- Aid in the integration of GHG inventories into larger regional, national, and global inventories.
- Clarify the specific makeup and percent contribution of applicant-generated GHGs, by source and emission type.

The methodology and assumptions for the GHG analysis are consistent with the air quality analysis discussed in **Section 4.2**.

4.3.3 Environmental Consequences

4.3.3.1 No Action Alternative

Construction Impacts

Under the No Action Alternative construction of the Proposed Project would not occur and would not generate emissions that would affect the local and global climate. Regular maintenance and repairs would continue to occur on the existing ATCT, resulting in GHG emissions equal or similar to those occurring today. No new impacts to the local or global climate would occur under the No Action Alternative.

2029 and 2034 Operational Impacts

Under the No Action Alternative, a new ATCT would not be constructed and the existing ATCT would not be demolished. The No Action Alternative would not change existing ATCT emissions at FAT or emit additional GHGs. The No Action Alternative would not affect the existing climate surrounding FAT or the production of climate impacting substances. Under the No Action Alternative, energy efficiency, resource usage, and GHG emissions at the existing ATCT would remain unchanged.

Because the No Action Alternative is a continuation of the existing conditions, no project-associated indirect impacts would occur under the No Action Alternative.

4.3.3.2 Proposed Project

Construction Impacts

The Proposed Project would generate GHG emissions during construction. Using fossil fuel-powered machinery during the construction of the Proposed Project would emit GHGs such as CO₂. Increasing the number of construction-related personal vehicles traveling to and from the Airport would increase vehicle-related GHG emissions. For this EA, it is assumed that most construction-related workers already live and work in the region; therefore, the region's vehicle-related GHG emissions would not significantly change. Therefore, the construction of the Proposed Project would not have a significant impact on GHG emissions.

GHG emissions estimates resulting from construction activities for 2027 and 2028 are presented in **Table 4-3**. As shown, GHG emissions are estimated to be from about 179 to 375 metric tons of CO₂e (mtCO₂e) per year.

Table 4-3: Proposed Project Construction-related Greenhouse Gas Emissions (metric tons per year)

| Year | CO ₂ | CH₄ | N ₂ O | CO ₂ e |
|------|-----------------|------|------------------|-------------------|
| 2027 | 371 | 0.01 | 0.01 | 375 |
| 2028 | 178 | 0.01 | <0.005 | 179 |

Source: RS&H, 2025

Climate-related impacts associated with the construction of the Proposed Project would cease once construction is completed and no climate-related impacts would occur at a later time. In addition, the GHG emissions are localized at the project site and would not occur at a distance from the new ATCT. Therefore, no indirect climate-related construction impacts would occur as a result of the Proposed Project.

2029 and 2034 Operational Impacts

The Proposed Project would provide replacement facilities that would be similar to what is currently provided. The new ATCT would be constructed with energy-efficient and modern building materials and equipment. This would result in the new ATCT using less energy and, therefore, emitting less GHG emissions compared to the existing ATCT. Operation of the Proposed Project is anticipated to have no significant impact on climate.

The operation of the new ATCT would not result in any change in the pattern of land use, population density, or growth rate in the Fresno metropolitan region. In addition, the Proposed Project would not result in induced growth in terms of surface traffic or aircraft operations at the Airport. Therefore, no indirect operational impacts related to climate would occur.

4.3.4 Avoidance, Minimization and Mitigation Measures

As these calculations are for information purposes, no avoidance, minimization or mitigation measures are required or proposed.

4.4 DEPARTMENT OF TRANSPORTATION, SECTION 4(F)

This section evaluates the potential construction and operational impacts of the Proposed Project and the No Action Alternative to affect Section 4(f) resources. This section also

documents FAA's preliminary Section 4(f) use determinations for the Section 4(f) property that would be used as a result of the Proposed Project. **Appendix E** contains the Draft Section 4(f) Evaluation completed in accordance with Section 4(f) of the U.S. DOT Act of 1966, 49 USC 303(c).

4.4.1 Significance Threshold

FAA Order 1050.1F, provides the FAA's significance threshold for Section 4(f), which states that a significant impact would occur if "the action involves more than a minimal physical use of a Section 4(f) resource or constitutes a 'constructive use' based on an FAA determination that the aviation project would substantially impair the Section 4(f) resource."

4.4.2 Methodology

The primary steps of a Section 4(f) evaluation are as follows:

- 1. Identify any Section 4(f) properties within or near the project study area.
- 2. Determine if the project would "use" the Section 4(f) resource.
- 3. Analyze avoidance alternatives to determine if a feasible and prudent alternative that would avoid the use of the Section 4(f) property exists.
- 4. Consider all possible planning to minimize harm, including design adjustments and mitigation, if no feasible and prudent avoidance alternative exists.
- 5. Determine which alternative(s) causes the least overall harm to the Section 4(f) property.
- 6. Coordinate with the Official(s) with Jurisdiction (OWJ) over the Section 4(f) property and document all coordination efforts.

In accordance with FAA Order 1050.1F, a Draft Section 4(f) Evaluation was completed and is available as **Appendix E**. The following sections summarize the Draft Section 4(f) Evaluation.

4.4.3 Identify Section 4(f) Properties

The Project Study Area was reviewed for any publicly owned parks, recreational areas, wildlife or waterfowl refuges, and public or private historic sites. Information was gathered from public resources and spatial data from the City of Fresno, California Department of Fish and Wildlife, USFWS National Wildlife Refuge System Map, U.S. Forest Service Interactive Map, U.S. National Park Service (NPS) Parks Finder, U.S. NPS NRHP database, and recent and past aerial imagery.

The existing ATCT is a historic property eligible for listing on the NRHP and is a Section 4(f) resource. See **Section 3.4.5** for more detail on the eligibility of the existing ATCT.

4.4.4 Determine Section 4(f) Use

The demolition of the existing ATCT as part of the Proposed Project would result in the removal of a structure that is eligible for listing on the NRHP, constituting a physical use of a Section 4(f) property. A physical use involves an actual physical taking of Section 4(f) property through purchase of land or a permanent easement, physical occupation of a portion or all of the property, or alteration of structures or facilities on the property.

4.4.5 Analyze Avoidance Alternatives

The Section 4(f) statute requires the selection of an alternative that completely avoids the use of Section 4(f) property if that alternative is deemed feasible and prudent. A total of 17 potential site locations for the ATCT were evaluated along with the No Action as the avoidance alternatives. The alternatives analysis included an assessment of the feasibility and prudence of these alternatives. An alternative is feasible and prudent if it avoids using Section 4(f) property and does not cause other severe problems of a magnitude that substantially outweigh the importance of protecting the Section 4(f) property.

The Section 4(f) alternatives analysis determined that there is no feasible and prudent alternative that would avoid the physical use of the Section 4(f) property (See Chapter 6 in **Appendix E** for additional information).

4.4.6 Preliminary All Possible Planning to Minimize Harm

Section 4(f), 23 CFR 774.17, states that FAA may not approve the use of a Section 4(f) resource unless it determines that the Proposed Project includes all possible planning to minimize harm to the property resulting from such use. FAA consulted with California SHPO, as the OWJ for the Section 4(f) property, and Section 106 consulting parties to develop mitigation measures for the adverse effect to the historic property

A draft Section 106 Memorandum of Agreement (MOA) was prepared to document mitigation measures for the adverse effect on the historic property. Comments from SHPO and the consulting parties were solicited and incorporated into the draft MOA.

FAA has preliminarily determined in accordance with 23 CFR 774.17 that all possible planning to minimize harm will be conducted and implemented through the completion of the Section 106 consultation process with the execution of the Project's MOA prior to the issuance of the NEPA decision document. The consultation process is ongoing and will continue to proceed through execution of the MOA. The draft MOA and draft Section 4(f) Evaluation are included in **Appendix D** and **Appendix E**, respectively, to this Draft EA and available for public review and comment during the comment period for the Draft EA. Any substantive comments received on the MOA or Section 4(f) Evaluation will be considered and the documents updated, as necessary, prior to being finalized. The Final MOA and Final Section 4(f) Evaluation will be included in the Final EA.

4.4.7 Preliminary Least Overall Harm Analysis

Per 23 CFR 774.3(c), if the Section 4(f) analysis for a property that would be used by a project concludes that there is no feasible and prudent avoidance alternative, then FAA may approve, from among the remaining alternatives that use Section 4(f) property, only the alternative that causes the least overall harm in light of the statute's preservation purpose. If the assessment of least overall harm finds that two or more alternatives are substantially equal, FAA can approve any of those alternatives. To determine which of the alternatives would cause the least overall harm, FAA must compare seven factors set forth in 23 CFR 774.3(c)(1):

1. The ability to mitigate adverse effects to each Section 4(f) property (including any measures that result in benefits to the property):

- 2. The relative severity of the remaining harm, after mitigation, to the protected activities, attributes, or features that qualify each Section 4(f) property for protection;
- 3. The relative significance of each Section 4(f) property;
- 4. The views of the official(s) with jurisdiction over each Section 4(f) property;
- 5. The degree to which each alternative meets the purpose and need for the project;
- 6. After reasonable mitigation, the magnitude of any adverse impacts to resources not protected by Section 4(f); and
- 7. Substantial differences in costs among the alternatives.

The Draft Section 4(f) Evaluation considered the six alternatives and the No Action Alternative from Chapter 2 of the EA against these seven factors (See **Exhibit 2-2**). Of the six alternatives evaluated in the EA, three of the alternatives meet the purpose and need of the Proposed Project, but would result in the physical use of the ATCT.

- Alternative 1: Site X2 with Option C
- Alternative 3: Site X1 with Option C would have additional or more substantial adverse
 effects on other resources not protected by Section 4(f) and would be the costliest.
- Alternative 4: Site 13A with Option C would have additional or more substantial adverse effects on other resources not protected by Section 4(f).

Based on the proposed mitigation measures identified in the MOA, FAA determined that Alternative 1 with Option C is the alternative that would result in the least overall harm to the existing ATCT as a historic resource. The Proposed Project includes mitigation to resolve adverse effects to historic properties by appropriately documenting the existing ATCT for airport users and the public (refer to **Section 4.6.4**). These mitigation measures are identified in the Draft MOA between the FAA and the SHPO (see **Appendix D**). The final least overall harm analysis determination is based on the execution of the MOA and will be included in the Final EA.

4.4.8 Coordination

FAA coordinated with SHPO, as the OWJ with jurisdiction over the Section 4(f) resource and will coordinate with the Department of the Interior (DOI) Office of Environmental Policy and Compliance (OEPC) with the release of the Draft EA and Section 4(f) Evaluation for a 45-day public and agency comment period.

FAA hosted an online kickoff meeting on November 18, 2024, with the City and SHPO to discuss the Section 106 and 4(f) processes, the adverse effect to a historic resource and the use of a Section 4(f) resource. SHPO concurred with the adverse effect finding and agreed to address the adverse effect and Section 4(f) use through an MOA. See Chapter 7 of **Appendix E** for additional information on OWJ coordination.

4.4.9 Preliminary Section 4(f) Determination

Based on the analysis completed, FAA and the City determined that the Proposed Project would result in a physical use to a Section 4(f) resource and there is no feasible and prudent alternative that would avoid this use. In addition, FAA determined that all possible planning to

minimize harm will be completed through the Proposed Project's Section 106 process through the execution of a Section 106 MOA. FAA and the City determined that Alternative 1: Site X2 with Option C will be the alternative that will result in the least overall harm to the historic resource as described in **Section 4.4.7** and Chapter 6 of the Section 4(f) Evaluation (**Appendix E**).

4.5 HAZARDOUS MATERIALS, SOLID WASTE, AND POLLUTION PREVENTION

This section identifies the potential for the Proposed Project and the No Action Alternative to generate or disturb hazardous wastes or solid wastes and identifies measures to prevent and minimize potential impacts related to the use of hazardous materials.

4.5.1 Significance Threshold

The FAA has not established a significance threshold for hazardous materials, solid waste, or pollution prevention. However, FAA Order 1050.1F provides the following factors to consider in evaluating the context and intensity of potential environmental impacts. These factors include when the action would have the potential to:

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

4.5.2 Methodology

Information regarding existing hazardous materials within the Project Study Area was obtained from the Phase I ESA prepared for the Proposed Project (refer to **Appendix F**). The Phase 1 was prepared in general conformance with the scope and limitations of ASTM E-1527-13 and E-1527-21, Standard Practices for Environmental Site Assessments: Phase I Environmental Site Assessment Process and 40 CFR Part 312, Standards and Practices for All Appropriate Inquiry – Final Rule. The scope of services includes a review of readily available information regarding the history of the project site, a review of environmental lien documents obtained for the project site, a reconnaissance of the project site, a review of regulatory agency files for the project site, and an evaluation of potential Recognized Environmental Conditions (RECs).Information on solid waste was obtained from various City sources, including the City's General Plan and the City's Department of Public Utilities website.

An analysis was then performed to determine the potential increase in hazardous materials and waste at the Airport under the No Action Alternative and Proposed Project, including construction and operation activities, and how those materials and waste would be handled and stored at the Airport.

4.5.3 Environmental Consequences

4.5.3.1 No Action Alternative

Construction Impacts

Under the No Action Alternative construction of the Proposed Project would not occur. Regular maintenance and repairs would continue to occur on the existing ATCT, which would not introduce new types of hazardous materials. In addition, no excavations relating to the Proposed Project would occur that would potentially encounter hazardous materials.

2029 and 2034 Operational Impacts

The No Action Alternative would not result in any change to the existing ATCT or involve construction activities associated with building a new ATCT. The current ATCT was built in 1961 and, based on the results of the Phase I ESA (see **Appendix F**), potential safety concerns associated with leaving the existing tower in place include the following:

- Continued possible exposure of employees to lead-based paint. Lead-based paint was
 used extensively prior to 1978 and leaving the paint in place would increase the risk of
 exposure to employees as the paint deteriorates posing a potential danger to human and
 environmental health.
- Continued possible exposure of employees to PCBs. PCBs were manufactured in several construction and industrial materials between 1929 and 1979. Leaving PCB containing materials in place increases the risk of employee exposure over time as materials deteriorate.

Because the No Action Alternative is a continuation of the existing conditions, no project-associated indirect impacts related to hazardous materials would occur under the No Action Alternative.

4.5.3.2 Proposed Project

Construction Impacts

Construction of the Proposed Project would include the use of lubricants and fuels for the operation of construction vehicles and equipment. In addition, construction of the Proposed Project would involve the use, transport, and disposal of the hazardous materials, including paints, solvents, coatings, cement, glues, lubricants, and fuels.

Fuel and oil would be used by equipment employed during demolition and construction activities. No storage of any hazardous materials would occur for construction purposes. The temporary use of these materials would be in compliance with all regulations regarding the use of fuel and oil in construction equipment. Therefore, no significant impact related to the temporary use of fuel and oil during demolition and construction activities would occur.

Construction of the Proposed Project would result in soil disturbance. As discussed in **Section 3.4.4.1**, shallow soils present within the Project Study Area may contain ACM, lead, PCBs, and PFAS. The presence of known or suspected contaminated soil requires testing and investigation procedures to be supervised by a qualified person, as appropriate, to meet federal and State regulations. If excavation of hazardous materials is required, the materials would be disposed of in accordance with applicable regulations.

Demolition of the existing ATCT and construction of the Proposed Project would result in a temporary increase in the generation of solid waste over the two-year construction period. The landfills within the County of Fresno have the capacity to accommodate the construction-related solid waste from the Proposed Project (see **Section 3.4.4.2**). Therefore, the temporary increase in solid waste during construction would not be significant. Any hazardous substances generated or encountered during construction would be managed and disposed of by the contractor at a permitted facility in compliance with federal, State, and local hazardous materials management guidelines.

Hazardous materials impacts associated with the construction of the Proposed Project would cease once construction is completed and no hazardous materials impacts would occur at a later time. In addition, hazardous materials impacts are localized at the project site and would not occur at a distance from the new ATCT. Therefore, no indirect impacts related to hazardous materials would occur as a result of construction of the Proposed Project.

2029 and 2034 Operational Impacts

During the operation of the new ATCT, similar volumes of waste would be generated relative to the existing ATCT operation, and no new or additional hazardous wastes would be generated. Unlike the No Action Alternative, ATCT staff would not be exposed to lead-based paints and PCBs potentially located in the existing ATCT.

The operation of the new ATCT would not result in any change in the pattern of land use, population density, or growth rate in the Fresno metropolitan region. In addition, the Proposed Project would not result in induced growth in terms of aircraft operations or the use of hazardous materials at the Airport. Therefore, no indirect operational impacts related to hazardous materials would occur.

4.5.4 Avoidance, Minimization and Mitigation Measures

To avoid, minimize, and mitigate for potential hazardous materials impacts, the below measures will be implemented by the City. Additionally, all work will be conducted in compliance with applicable federal, State, and local regulations, including the State's NPDES General Industrial Permit and the Airport's SWPPP with BMPs for spill prevention, response, and pollution prevention measures.

- Pre-Demolition Survey: A pre-demolition survey will be performed to identify hazardous building materials including ACM, LBP, and PCBs. The results of the survey will determine what hazardous materials are present and be the basis for the development of a comprehensive Hazardous Materials Management Plan (HMMP).
- Limited Soil Investigation: As recommended in the Phase I ESA and based on the results of the potential for ACM, LBP PCBs, and PFAS identified within the Project Study Area, a limited soil investigation will be conducted prior to construction to evaluate and address hazardous materials in soil that could be disturbed through construction activities within the Project Study Area. The investigation will follow requirements of the SJVAPCD and a soil investigation plan will be developed by a qualified contractor prior to the start of any testing. The plan will identify the testing protocols, the locations where samples will be collected, the contaminants that will be tested for, and the standards used to determine if contamination is present. If contamination is found to exceed

applicable regulatory thresholds, cleanup of contaminated sites, including the implementation of engineering controls, will be completed by the City before construction.

- The following plans will be developed prior to construction:
 - HMMP: describes the proper use, handling, and storage practices and procedures for hazardous materials management
 - Spill Prevention Control and Countermeasures Plan: details how project storage facilities for petroleum products would be constructed, operated, and maintained.
 - Site Management Plan: provides guidelines to protect human health during grading and construction activities will be prepared.
 - Hazardous Materials Contingency Plan: address potential contamination in soil, soil vapor, and groundwater from releases on or near the Proposed Project, as well as the potential for existing hazardous materials on site (e.g., drums and tanks).
 - Health and Safety Plan: outline measures to protect construction workers and the public from exposure to hazardous materials during demolition and construction activities.
- Removal, Handling, Storage, Transport, Treatment and Disposal: Materials identified during the pre-demolition survey will be abated prior to demolition and disposed of at a landfill authorized to accept such waste. Any project-related demolition activities that have the potential to expose construction workers and/or the public to ACMs, LBP, or PCBs will be conducted in accordance with applicable regulations. The removal, handling, storage, transport, and treatment or disposal of contaminated materials from the limited soil investigation will be subject to federal and State requirements related to hazardous waste. There are two operating commercial hazardous waste facilities in California. The Kettleman Hills facility is located in Kings County, approximately 60 miles from FAT and accepts solid, semi-solid, liquid hazardous, and extremely hazardous wastes. Kettleman Hills is the only facility in California that is permitted to dispose of PCBs. The facility is open and has capacity available (Department of Toxic Substances Control, 2025).
- Worker Hazardous Material Procedures Training: Prior to construction, workers will be trained in hazardous material procedures to minimize the potential exposure of the public and site workers to potential hazardous materials.

4.6 HISTORICAL, ARCHITECTURAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

This section evaluates the potential construction and operational impacts of the Proposed Project and the No Action Alternative on historical, architectural, archaeological, and cultural resources, and identifies measures to minimize potential impacts related to historic resources.

4.6.1 Significance Threshold

FAA Order 1050.1F has not established a significance threshold for historical, architectural, archeological, or cultural resources. Instead, the FAA is required to consider the impact of any action that would result in a finding of Adverse Effect to Historic Properties through the Section 106 process of the National Historic Preservation Act of 1966, as amended. Section 106 allows for ways to avoid, minimize or mitigate adverse effect and document how the adverse effects will be resolved in a memorandum of agreement sufficient for the proposed action to avoid a significant impact under NEPA (36 CFR Part 800.6).

4.6.2 Methodology

To identify historic, architectural, archaeological, and cultural resources, an APE was developed. A Cultural Resources Assessment was then prepared to identify historic resources within the APE that included a cultural resources record search completed by staff at the Southern San Joaquin Valley Information Center (SSJVIC) at California State University, Bakersfield. The Cultural Resources Assessment, including a historic resources survey, research, FAA determination of NRHP-eligible resources and project effects, and Section 106 consultation for the Project Proposed, is summarized below and is available in **Appendix D**. Because the existing ATCT was determined by FAA to be eligible for inclusion into the NRHP, the Cultural Resources Assessment included the determination that the Proposed Project would result in an adverse effect on the resource and further Section 106 consultation was initiated, including the preparation of a draft MOA. The draft MOA, including mitigation measures to resolve adverse effects to the historic property, was developed in coordination with SHPO and two invited consulting parties, the City's HPC and the FCHS.

FAA Section 106 consultation activities included the following (see **Appendix D**):

- Consultation letter sent to 11 tribal communities providing the APE and project description to seek input on concerns that uniquely or significantly affect the Tribe related to the Proposed Project
- Consultation telephone notification to federal tribal communities seeking input on determination of NRHP-eligible properties and project effects
- Consultation letters sent to SHPO requesting concurrence with the APE, determination
 of NRHP-eligible properties and project effects
- Consultation meeting with SHPO to review Section 106 and Section 4(f) processes and inform preparation of the MOA
- Consultation letters to the Advisory Council on Historic Preservation (ACHP), the City's HPC, and the FCHS inviting them to become consulting parties and outlining minimization and mitigation stipulations for adverse impacts to historic properties
- Consultation meetings held with the City, SHPO, and the Consulting Parties to review comments on the draft MOA, identify how comments are being addressed, discuss mitigation measures, and identify next steps

FAA received one response from the Amah Mutsun Tribal Band stating the proposed project is outside of the tribe's traditional territory and they have no comments. No other comments from

Native American Tribes have been received by FAA for the proposed undertaking. FAA also received SHPO's concurrence with the proposed determination of effects on September 13, 2024. Both the City's HPC and the FCHS agreed to be consulting parties, and the ACHP chose not to participate in the consultation at this time.

FAA and the City continue to work with the consulting parties through the Section 106 process and development of the MOA. The draft MOA and consultation documentation are included in **Appendix D** and will be available for public review and comment during the public comment period for the Draft EA. The final MOA will be included in the Final EA.

The extent to which the Proposed Project and No Action Alternative could affect historical, architectural, archeological, or cultural resources was evaluated based on FAA significance thresholds and guidelines noted in **Section 4.6.1**.

4.6.3 Environmental Consequences

4.6.3.1 No Action Alternative

Construction Impacts

Under the No Action Alternative, construction of the Proposed Project would not occur and the existing ATCT would not be demolished. Regular maintenance and repairs would continue to occur on the existing ATCT. No effects to historical, architectural, archaeological, or cultural resources would occur.

2029 and 2034 Operational Impacts

Under the No Action Alternative, the current ATCT would not be replaced or removed, and activities associated with the ATCT would remain the same. Continued operation of the ATCT in this location would require substantial improvements and upgrades to maintain the existing level of operations. The No Action Alternative would not impact historic or cultural resources.

Because the No Action Alternative is a continuation of the existing conditions, no project-associated indirect impacts to a historic, architectural, archaeological, or cultural resource would occur under the No Action Alternative.

4.6.3.2 Proposed Project

Construction Impacts

Following the initiation of consultation with tribal communities, FAA received one response from Chairperson Valentin Lopez of the Amah Mutsun Tribal Band stating the proposed project is outside of the tribe's traditional territory and they have no comments. None of the eleven tribal communities requested to consult on the Proposed Project.

SHPO concurred with the FAA-recommended APE on September 10, 2024, and with the FAA's determination of eligible properties and project effects on October 24, 2024.

The Cultural Resources Assessment included a Finding of Adverse Effect based on the eligibility of the existing ATCT for the NRHP and because the Proposed Project would result in the demolition of the NRHP-eligible existing ATCT, which would be an adverse effect. SHPO reviewed the Cultural Resources Assessment and the Finding of Adverse Effect and concurred with the FAA's determination on October 24, 2024 (refer to **Appendix D**).

Due to prior disturbance within the APE where construction of the Proposed Project would occur, archaeological resources are unlikely to be present.

Mitigation measures agreed upon in the draft MOA (see **Appendix D**) and listed in **Section 4.6.4** would be implemented as part of the Section 106 process to resolve the adverse effect. Through implementation of these proposed mitigation measures, the Proposed Project would have no significant effect on the historical resource.

Because no other properties eligible for listing on the NRHP exist in the APE and because the property eligible for listing on the NRHP would be demolished once construction is completed, no indirect impacts to any historic, architectural, archaeological, or cultural resources would occur at a later time or at a distance from the new ATCT. Therefore, no indirect impacts to any other properties eligible for listing on the NRHP would occur as a result of the construction of the Proposed Project.

2029 and 2034 Operational Impacts

Because the existing ATCT would be demolished during construction of the Proposed Project, there would be no further effects to historic resources from operation of the Proposed Project.

The operation of the new ATCT would not result in any change in the pattern of land use, population density, or growth rate in the Fresno metropolitan region. In addition, the Proposed Project would not result in induced growth in terms of surface traffic or aircraft operations at the Airport. Therefore, no indirect operational impacts related to properties eligible for listing on the NRHP would occur.

4.6.4 Avoidance, Minimization and Mitigation Measures

FAA and the City are working to resolve the adverse effect to the historic resource through consultation with SHPO, consulting parties, and the public and development of the MOA. Proposed mitigation measures included in the draft MOA are as follows:

- Measure 1: Prepare documentation of the existing ATCT to meet modified Historic American Building Survey (HABS) Level II-like standards. Submit the HABS documentation to SHPO, the FCHS, and the Fresno County Public Library.
- Measure 2: Prepare and provide educational information to the public regarding the
 existing ATCT in the form of interpretive signage to be placed within the Airport terminal
 building. The interpretive sign will include a narrative historic context, historic
 photographs, and, if feasible, salvaged architectural elements of the existing ATCT.
- Measure 3: Prepare and provide educational information to the public regarding the
 existing ATCT in the form of an exhibit at an FCHS building and electronically provided
 education materials to the FCHS. The exhibit and materials will focus on the history and
 importance of the ATCT as an International style building designed by the prominent
 architect, Allen Y. Lew. The exhibit and materials will include narrative historic context
 and historic photographs.
- Measure 4: Prepare a historic context for posting on the City website that discusses the development of the existing ATCT and the background and importance of the architect who designed the ATCT.

Further, in the event that a previously unidentified resource is encountered during this undertaking, or if an unanticipated effect to a known historic property results from the undertaking, the City will halt activities in the vicinity of the resource and notify the FAA. The FAA shall comply with 36 CFR 800.13(b) by notifying the SHPO and inviting comments from signatories to the MOA. In the case of prehistoric or historic Native American sites, the FAA shall notify appropriate state and federally recognized tribal leaders. The agency's notifications will include a description of unanticipated effects, an eligibility recommendation or a proposed schedule for assessing eligibility, and if appropriate, a process to resolve potential adverse effects.

The draft MOA in **Appendix D** provides additional details on mitigation measures, stipulations, implementation actions, and timelines. The final MOA will be included in the Final EA.

4.7 LAND USE

This section evaluates the potential construction and operational impacts of the Proposed Project and the No Action Alternative on land use.

4.7.1 Significance Threshold

FAA Order 1050.1F does not provide a significance threshold or specific independent factors to consider for land use impacts; however, it does state that the determination that significant impacts exist in the land use impact category is normally dependent on the significance of other impact categories such as noise, disruption of communities, relocation, and induced socioeconomic impacts.

4.7.2 Methodology

The City of Fresno General Plan were reviewed for land use consistency. Additionally, the Airport Master Plan was reviewed to determine consistency of the Proposed Project with the land use plans and policies contained within the plan. The land use evaluation considers whether each the Proposed Project or No Action Alternative would create conflicts with land use, zoning, and/or comprehensive plans for the City and the Airport.

4.7.3 Environmental Consequences

4.7.3.1 No Action Alternative

Construction Impacts

Under the No Action Alternative, construction of the Proposed Project would not occur. Regular maintenance and repairs would continue to occur on the existing ATCT. No changes to land use would occur.

2029 and 2034 Operational Impacts

The No Action Alternative would not result in any change to the existing ATCT or involve construction activities associated with building a new ATCT. No changes to land use would occur.

4.7.3.2 Proposed Project

Construction Impacts

Construction of the Proposed Action would occur entirely on Airport property and would be compatible with the existing City General Plan and Airport Master Plan land use.

2029 and 2034 Operational Impacts

The Proposed Project would not result in a change in land use and is consistent with City of Fresno land use designations. The new ATCT facility is identified on the conditionally approved ALP for the Airport and is consistent with the planned land use in the Airport Master Plan. The Proposed Project would not result in a change in noise contours, so there would be no change in noise compatibility. Therefore, the Proposed Project would not affect land use.

4.7.4 Avoidance, Minimization and Mitigation Measures

Construction and implementation of the Proposed Project would not result in changes to or effect on land use. No avoidance, minimization or mitigation measures are required or proposed.

4.8 NATURAL RESOURCES AND ENERGY SUPPLY

This section evaluates the potential construction and operational impacts of the Proposed Project and the No Action Alternative on natural resources and energy supply.

4.8.1 Significance Threshold

FAA Order 1050.1F does not define a significance threshold for natural resources and energy supply; however, it provides several factors to consider in evaluating the context and intensity of potential environmental impacts. Potentially significant impacts could occur if the action has the potential to cause demand to exceed available or future supplies of these resources, which include aviation and surface vehicle fuel, construction materials, and electrical power.

4.8.2 Methodology

This EA evaluates the potential impacts of the Proposed Project related to the use of natural resources and energy supplies in terms of construction activity and building efficiency. Energy usage assumptions are based on annual electricity consumption data for commercial building space provided by the U.S. Department of Energy. In addition, the U.S. Department of Energy's Commercial Building Energy Consumption Survey was referenced for potential variances in the electricity demand of the Proposed Project and No Action Alternative.

4.8.3 Environmental Consequences

4.8.3.1 No Action Alternative

Construction Impacts

The No Action Alternative would not require the use of natural resources typically used during construction, such as asphalt, water, plastic, stone, metals, and wood, other than what is necessary for general maintenance purposes. Therefore, the No Action Alternative would have no significant impact on natural resources and energy supply.

2029 and 2034 Operational Impacts

Under the No Action Alternative, the existing ATCT would not be replaced and demolished, and energy consumption would remain the same. The No Action Alternative would not result in any new impacts to natural resources and energy supplies.

Because the No Action Alternative is a continuation of the existing conditions, no new indirect impacts related to natural resources or energy supply would occur under the No Action Alternative.

4.8.3.2 Proposed Project

Construction Impacts

Construction of the Proposed Project would include the use of natural resources at the Airport. These resources, which would include building components, aggregate, soils, sub-base materials, and oils, are not rare or in short supply. In addition, the quantity of building materials required for the Proposed Project would not place an undue strain on supplies when compared to the No Action Alternative.

During construction, non-potable water use would be necessary for dust suppression and the washing of construction vehicles but would not exceed local water supplies. 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; and construction debris removal. Off-road sources of energy consumption include the fuel consumption for equipment during construction. CARB's energy efficiency measures (California Air Resources Board, 2023b) 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.

Natural resource and energy impacts associated with the construction of the Proposed Project would cease once construction is completed and no natural resource or energy impacts would occur at a later time. In addition, natural resource and energy impacts are localized at the project site and would not occur at a distance from the new ATCT. Therefore, no indirect impacts related to natural resources and energy would occur as a result of construction of the Proposed Project.

2029 and 2034 Operational Impacts

The Proposed Project would be constructed using energy-efficient and modern building materials and construction practices and would install new equipment in accordance with California Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608). Additionally, all new buildings would be constructed to meet CALGreen requirements (CCR, Title 24, part 11), which includes mandatory measures for nonresidential development in a variety of categories (e.g., 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 the new ATCT would also be required to conform to the standards of 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.

By using energy-efficient materials and following the latest standards and regulations discussed above, the new ATCT will be more energy efficient and use fewer natural resources than the existing ATCT. Therefore, the Proposed Project would not place undue strain on existing natural and energy resources when compared to the No Action Alternative. The Proposed Project would have no significant impact on natural resources and energy supply.

The new ATCT would not affect the demand for energy for any other properties. In addition, the operation of the new ATCT would not result in any change in the pattern of land use, population density, or growth rate in the Fresno metropolitan region. Finally, the Proposed Project would not result in induced growth in terms of aircraft operations or the use of energy at the Airport. Therefore, no indirect operational impacts related to natural resources and energy would occur.

4.8.4 Avoidance, Minimization and Mitigation Measures

The Proposed Project would not cause demand to exceed current or future supplies of natural resources or energy supplies identified in FAA Order 1050.1F. No avoidance, minimization or mitigation measures are required or proposed.

4.9 NOISE AND NOISE-COMPATIBLE LAND USE

This section evaluates the potential construction and operational impacts of the Proposed Project and the No Action Alternative on noise sensitive areas.

4.9.1 Significance Threshold

Per FAA Order 1050.1F, "a significant noise impact would occur if the action would increase noise by DNL 1.5 dB or more for a noise-sensitive area that is [already] 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." Noise-sensitive areas generally include residential neighborhoods; educational, health, and religious facilities; and cultural and historic sites.

FAA Order 1050.1F states, "Special consideration needs to be given to the evaluation of the significance of noise impacts on noise-sensitive areas within Section 4(f) properties (including, but not limited to, noise-sensitive areas within national parks; national wildlife and waterfowl refuges; and historic sites, including traditional cultural properties) where the land use compatibility guidelines in 14 CFR Part 150 are not relevant to the value, significance, and enjoyment of the area in question".

The FAA does not have a threshold of significance for construction noise. FAA Order 1050.1F states that, "If appropriate, an analysis of surface transportation impacts, including construction noise, should be conducted using accepted methodologies from the appropriate modal administration, such as the Federal Highway Administration [FHWA] for highway noise."

4.9.2 Methodology

Neither the No Action Alternative nor the Proposed Project would result in any changes to aircraft operations (takeoffs and landings), runway configuration, arrival/departures procedures,

or runway use percentages. Therefore, there would be no change in aircraft noise exposure when comparing the No Action Alternative to the Proposed Project and no aircraft noise analysis is required.

Because the Proposed Project would not result in operational noise impacts, including traffic, this section focused on construction noise. The FHWA's Roadway Construction Noise Model (RCNM) methodologies were used to assess construction noise.

4.9.3 Environmental Consequences

4.9.3.1 No Action Alternative

Construction Impacts

Under the No Action Alternative, no construction would occur. Regular maintenance and repairs would continue to occur on the existing ATCT, which would not result in any perceptible noise changes. Therefore, there would be no impact on noise sensitive areas.

2029 and 2034 Operational Impacts

Noise levels would remain the same and there would be no change to existing noise conditions. No impacts from noise are anticipated from the No Action Alternative.

Because the No Action Alternative is a continuation of the existing conditions and because the No Action Alternative would not change in the number of aircraft operations, no new indirect impacts related to noise would occur under the No Action Alternative.

4.9.3.2 Proposed Project

Construction Impacts

A temporary increase in noise generation would be expected with construction and demolition activities over the two-year construction period associated with the Proposed Project. Additional noise sources would likely include the presence and operation of construction vehicles, operation of construction/demolition equipment on site, the operation of generators as a power source, and the operation of vehicles using the haul routes to and from the construction site. Construction of the Proposed Project would result in varying levels of noise generation subject to change based on the construction intensity and distance to a given receptor.

Construction noise is temporary in nature and the nearest noise sensitive land uses are approximately 0.5 miles away (2,640 feet). In addition, construction noise typically dissipates at a rate of approximately 6 dB for each doubling of distance (between the noise source and the receptor, which is the location that is representative of where the sound would be experienced (e.g., a residence)) (Federal Highway Administration, 2006). As an example, the typically loudest piece of construction equipment, a jackhammer, generates a noise level of approximately 88 dBA at 50 feet from the noise source. Based on a sound dissipation rate of 6 dB per doubling of distance, a sound level of 88 dBA at 50 feet from the noise source would be approximately 82 dBA at a distance of 100 feet, 76 dBA at a distance of 200 feet, and so on. Therefore, a jackhammer that is 88 dBA from 50 feet away, would be about 54 dB at 2,640 feet, which is the distance to the nearest sensitive noise receptor. Due to the distance from the closest sensitive noise receptor, this noise level would not likely be perceptible over typical ambient noise levels of the Airport. The dominant noise generator at the Airport is noise from

aircraft and the impact on noise levels from construction of the Proposed Project would not be significant.

Construction-related traffic noise would require a doubling of vehicles on a haul route for a significant noise impact to occur. The haul routes accessing the project site (Clinton Avenue, Chestnut Avenue, Peach Avenue, and Shields Avenue) are arterial roadways with noise levels above 60 dB LDN (City of Fresno, 2014). The number of construction-related vehicles on these roadways would be a fraction of the existing traffic volumes.

Additionally, as set forth in Chapter 10, Article 1 (Noise Regulations) of the Fresno Municipal, Section 10-109 – Exemptions, the provisions of Article 1, Noise Regulations, shall not apply to Construction, repair or remodeling work accomplished pursuant to a building, electrical, plumbing, mechanical, or other construction permit issued by the city or other governmental agency, or to site preparation and grading, provided such work takes place between the hours of 7:00 a.m. and 10:00 p.m. on any day except Sunday. However, Chapter 10, Article 1 does identify the opportunity for the issuance of a permit to exempt construction work completely if an application to do so is approved. Therefore, while there is potential for construction activities to occur outside of these hours or on a Sunday no construction-related noise impacts would occur as a result of the Proposed Project.

Noise impacts associated with the construction of the Proposed Project would cease once construction is completed and no noise impacts would occur at a later time. In addition, construction noise dissipates over distance from the project site and would not result in an indirect impact. Therefore, no indirect impacts related to noise would occur as a result of construction of the Proposed Project.

2029 and 2034 Operational Impacts

The Proposed Project would have no effect on aircraft operations at the Airport and would not change the noise contours associated with the Airport.

Operation of the Proposed Project would not result in a change in aircraft noise exposure when comparing the No Action Alternative. Therefore, operation of the Proposed Project would have no impact on the noise setting at the Airport.

The operation of the new ATCT would not result in any change in the pattern of land use, population density, or growth rate in the Fresno metropolitan region. In addition, the Proposed Project would not result in induced growth in terms of aircraft operations at the Airport. Therefore, no indirect operational impacts related to noise would occur.

4.9.4 Avoidance, Minimization and Mitigation Measures

Because there would be no change in aircraft operations when comparing the No Action Alternative to the Proposed Project, there are no noise impacts. No avoidance, minimization or mitigation measures are required or proposed.

4.10 VISUAL EFFECTS

This section evaluates the potential construction and operational impacts of the Proposed Project and the No Action Alternative on visual resources.

4.10.1 Light Emissions

4.10.1.1 Significance Threshold

FAA Order 1050.1F does not provide a significance threshold for visual effects; however, it does provide factors to consider in evaluating the context and intensity of potential environmental impacts. For light emissions, these factors include the degree to which the action would have the potential to:

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

4.10.1.2 Methodology

The visual effects analysis first identified existing visual resources for the Project Study Area. This includes light emissions (i.e., airfield lighting, building lighting, streetlights, etc.) and existing light-sensitive land uses (i.e., homes, parks, natural areas). Next, the analysis identified the extent to which the Proposed Action and No Action Alternative would produce light emissions (during construction or operation) that create annoyance or interfere with activities.

4.10.1.3 Environmental Consequences

No Action Alternative

Construction Impacts

Under the No Action Alternative, no construction activities would occur that would require the use of lighting. Regular maintenance and repairs would continue to occur on the existing ATCT, but additional lighting is not anticipated to be necessary for this work. Therefore, the No Action Alternative would have no impact on light-sensitive land uses.

2029 and 2034 Operational Impacts

Under the No Action Alternative, there would be no physical changes to Airport buildings or infrastructure that could produce light emissions. Therefore, the No Action Alternative would have no impact on light-sensitive land uses.

Because the No Action Alternative is a continuation of the existing conditions and because the No Action Alternative would not change the visual character of the Project Study Area, no new indirect impacts related to light emissions would occur under the No Action Alternative.

Proposed Project

Construction Impacts

Construction of the Proposed Project would take place on Airport property. If nighttime construction is necessary, any light emissions from nighttime-related construction would be temporary and would be unlikely to be visible from the nearest residence, located 0.5 miles west, due to the distance and the regular operational and security lighting at the Airport. There would not be a significant impact from light emissions.

Visual resource impacts associated with the construction of the Proposed Project would cease once construction is completed and no visual resources impacts would occur at a later time. In addition, the construction of the new ATCT would not be visible from areas beyond those

included in the analysis of direct impacts and no visual resources impacts would occur in areas that are farther removed in distance. Therefore, no indirect impacts related to light-sensitive land uses would occur as a result of construction of the Proposed Project.

2029 and 2034 Operational Impacts

The Proposed Project would construct a new ATCT over an already urbanized area. The Proposed Project would require lighting to be installed outside for safety and security reasons. Although the Proposed Project would introduce new light sources to the Airport, the lighting installed would be consistent with that of an airport. Light for the new ATCT would illuminate the interior and exterior of the facility. The renovated automobile parking lot would be illuminated with directional and focused lighting on parking, vehicle, and pedestrian movement areas. The closest light-sensitive land use (e.g., a recreational or residential area) is located about 0.5 mile west of the Project Study Area and does not have a direct line of site to the Project Study Area. In addition, the existing ATCT would be demolished upon completion of the new ATCT. Therefore, the Proposed Project would not create annoyance or interfere with normal activities from light emissions.

The operation of the new ATCT would not result in any change in the pattern of land use, population density, or growth rate in the Fresno metropolitan region. In addition, the Proposed Project would not result in induced growth in terms of aircraft operations at the Airport. Therefore, no indirect operational impacts related to impact on light-sensitive land uses would occur.

4.10.1.4 Avoidance, Minimization, and Mitigation Measures

The Proposed Project would not create annoyance or interfere with normal activities from light emissions or affect the visual character of the area due to the light emissions. No avoidance, minimization or mitigation measures are required or proposed.

4.10.2 Visual Resources and Visual Character

4.10.2.1 Significance Threshold

The FAA has not established a significance threshold for visual resources and character. Factors to consider include the extent to which the action would have the potential to:

- Affect the nature of the visual character of the area, including the importance, uniqueness, and aesthetic value of the affected visual resources;
- · Contrast with the visual resources and/or visual character in the study area; or
- Block or obstruct the views of visual resources, including whether these resources would still be viewable from other locations.

4.10.2.2 Methodology

The visual effects analysis first identified existing visual resources for the Project Study Area. This includes visual characteristics (i.e., infrastructure, development, and natural areas); existing light-sensitive land uses (i.e., homes, parks, natural areas); and the presence of any visual resources protected under other federal, state, or local regulations (i.e., historic resources, scenic roadways, wildlife refuges).

Next, the extent to which the Proposed Action and No Action Alternative would contrast with, or detract from, the visual resources and/or the visual character of the existing environment was evaluated

4.10.2.3 Environmental Consequences

No Action Alternative

Construction Impacts

Under the No Action Alternative, no construction activities would occur that would result in any changes to the existing Project Study Area. Regular maintenance and repairs would continue to occur on the existing ATCT but would not result in any impacts on visual resources or visual character. Therefore, the No Action Alternative would have no impact on visual resources or visual character.

2029 and 2034 Operational Impacts

Under the No Action Alternative, no physical changes to Airport buildings or infrastructure would occur that could affect visual resources and visual character of the existing environment. Therefore, the No Action Alternative would have no impact on visual resources or visual character.

Because the No Action Alternative is a continuation of the existing conditions and because the No Action Alternative would not change the visual character of the Project Study Area, no new indirect impacts related to visual resources or visual character would occur under the No Action Alternative.

Proposed Project

Construction Impacts

Temporary construction of the new ATCT and removal of the existing ATCT would not affect or obstruct visually important resources. The temporary presence of construction vehicles would likely have a negligible impact on visual resources or visual character.

Light emissions impacts associated with the construction of the Proposed Project would cease once construction is completed and no light emissions impacts would occur at a later time. In addition, the lighting associated with the construction of the new ATCT would not be visible from areas beyond those included in the analysis of direct impacts and no light emissions impacts would occur in areas that are farther removed in distance. Therefore, no indirect impacts related to light emissions would occur as a result of construction of the Proposed Project.

2029 and 2034 Operational Impacts

Demolition of the existing ATCT and construction of the new ATCT would result in a change to the visual character of the Airport. However, impacts to the visual character of the Airport from removing the existing tower would likely be negligible. Because an ATCT has been present within the study area, construction of a new, taller ATCT in a slightly different location would result in minimal, if any, impacts to visual resources. Therefore, the Proposed Project would not result in a viewshed change for residents or communities off-Airport property.

The NRHP-eligible ATCT building located within the Project Study Area is proposed for demolition under the Proposed Project. As detailed in the Cultural Resources Assessment (see **Appendix D**), the immediate setting consisting of the ATCT and adjacent parking lot, fire station, maintenance building, and hangars is relatively unchanged from 1961 when the building was first occupied. However, development within the larger airport facility has resulted in changes to the broader setting. These changes have minimized and/or changed views of the ATCT from the terminal and other public locations within the airport property. No other visual resources protected under other federal, state, or local regulations are located within the Project Study Area.

The Proposed Project would not change the visual character of the area or block or obstruct views of any visual resources, the Proposed Project would have no significant impact on visual resources or visual character.

The new ATCT is in an urban area and visual character of the ATCT would be consistent with that at an airport. The operation of the new ATCT would not result in any change in the pattern of land use, population density, or growth rate in the Fresno metropolitan region. In addition, the Proposed Project would not result in induced growth in terms of aircraft operations at the Airport. Therefore, no indirect operational impacts related to light emissions would occur.

4.10.2.4 Avoidance, Minimization and Mitigation Measures

The Proposed Project would not affect the nature of the visual character of the area, contrast with the visual resources and/or visual character in the Project Study Area, or block or obstruct the views of visual resources. No avoidance, minimization or mitigation measures are required or proposed.

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CHAPTER 5. AGENCY AND PUBLIC INVOLVEMENT

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5.1 INTRODUCTION

FAA's National Environmental Policy Act Implementing Instructions for Airport Actions (FAA Order 5050.4B) directs FAA to involve environmental agencies, applicants and the public, to the extent practicable, in the preparation of EAs. A public involvement program was implemented to ensure that information about the Proposed Project, alternatives, and potential environmental impacts was made available to the public, and that comments from the public were considered during the preparation of the EA. The following sections summarize the agency coordination and public involvement program for this EA. The primary components of the agency coordination and public involvement for this EA include:

- Agency coordination/consultation;
- Native American coordination/consultation;
- Notification of the availability of the Draft EA for agency and public review (see Appendix H); and
- Public review and comment period of 45 days to accommodate comments on the FAA's DOT Act Section 4(f) Statement.

5.2 AGENCY COORDINATION

Table 5-1 lists agencies and organizations consulted with during the development of the Draft EA.

Table 5-1: Agency and Organization Coordination

| Party Consulted | Туре | Purpose |
|---|--------------|------------------------------|
| California State Historic Preservation Officer | Agency | Section 106 and Section 4(f) |
| Department of the Interior | Agency | Section 4(f) |
| 11 Native American Tribes | Agency | Section 106 |
| City of Fresno Planning and Development Department / Historic Preservation Commission | Agency | Section 106 |
| Fresno County Historical Society | Organization | Section 106 |

Source: RS&H, 2025

5.2.1 Section 106 Consultation

To comply with Section 106 (36 CFR § 800.3(c)(3)), consultation was conducted with Tribes and the California SHPO, as described in **Section 4.6.2**. Additionally, during the development of the draft MOA, the City of Fresno Planning and Development Department and HPC and the FCHS were invited to be Consulting Parties and provided input on the stipulations in the MOA.

Additionally, the FAA notified the ACHP of the determination of adverse effect and intention to enter into a MOA with specified documentation on December 5, 2024. The ACHP chose not to participate in the consultation on December 20, 2024.

5.2.2 Section 4(f) Consultation

To comply with Section 4(f), FAA initiated coordination with California SHPO as the OWJ with jurisdiction over the Section 4(f) resource, as described in **Section 4.4.2**. The FAA will coordinate with DOI OEPC with the release of the Draft EA, including the Section 4(f) Evaluation, for a **45-day** public and agency comment period. Further details on consultation related to Section 4(f) are discussed in the Draft Section 4(f) Evaluation in **Appendix E**.

5.3 PUBLIC INVOLVEMENT AND DISTRIBUTION OF DRAFT ENVIRONMENTAL ASSESSMENT

This Draft EA is issued for public and agency review. FAA published a notice of availability for the Draft EA in the Fresno Bee and on the Airport's website (https://flyfresno.com/statistics/) on June 22, 2025. The Draft EA is being made available for a 45-day review period (ending at 5:00 p.m. Pacific Daylight Time August 6, 2025) at the City Planning and Development office, at the FAA's Airport District Office in Walnut Creek, California and on the Airport's website.

Written comments may be emailed to <u>AirportEnvironmental@fresno.gov</u> or by mail to the following address:

Fresno-Yosemite International Airport ATTN: Francisco Partida Address: 4995 East Clinton Way Fresno, California 93727-1525

CHAPTER 6. LIST OF PREPARERS

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6.1 INTRODUCTION

The following sections present the list of agencies, firms, and individuals that were primarily responsible for the preparation of this EA in accordance with NEPA. The list of individuals includes their name, title, degree, years of experience, and primary responsibility or role during the preparation of the EA.

6.2 FEDERAL AVIATION ADMINISTRATION

FAA is the lead agency for this EA and associated environmental documentation. FAA is responsible for the review and approval of these materials. The following FAA staff member was involved in these reviews.

Nani M. Jacobson, M. Sc. Environmental Protection Specialist San Francisco Airports District Office M.S. Environmental Science and Policy

Ms. Jacobson has over 25 years of environmental experience. Responsible for detailed FAA evaluation of environmental documentation and consultation, as well as coordination of comments received from federal, tribal, state and local agencies and the public.

6.3 CITY OF FRESNO

The City of Fresno is the project sponsor responsible for development of the EA and associated environmental documentation.

Henry Thompson
Director of Aviation
M.B.A. Finance; B.A. Business

Mr. Thompson has more than 30 years of experience in airport operations, aviation safety, and airport management. Responsible for information regarding the Proposed Project.

Francisco Partida
Assistant Director of Aviation

M.S. Leadership; B.S. Tourism and Business Administration

Mr. Partida has more than 10 years of experience in airport management and operations. Responsible for information regarding the Proposed Project.

6.4 RS&H, INC.

Listed below are the persons responsible for the preparation of this EA and associated documentation.

Karin Bouler

Project Manager

B.A. Anthropology

Ms. Bouler has 17 years of experience. She served as the Project Manager responsible for oversight of the EA preparation and client/subconsultant coordination.

Dave Full, AICP

Project Director/Quality Control

M.A. Urban Planning; B.A. Urban Planning

Mr. Full has 40 years of experience. He served as the Project Director responsible for the quality assurance/quality control of the EA, and client coordination.

Dean McMath

Quality Control

B.S. Biology

Mr. McMath has 39 years of experience. He served as the quality control reviewer of the EA.

Audrey Hsu

Aviation Environmental Planning Specialist

B.S. Environmental Management and Protection

Ms. Hsu has 3 years of experience. She assisted with the preparation of exhibits and EA development.

CHAPTER 7. REFERENCES

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7.1 INTRODUCTION

The following section lists the references used in order of their appearance in each chapter of the EA. If a reference was used more than once in a chapter of the EA, only the first occurrence appears.

7.2 PURPOSE AND NEED CHAPTER

- City of Fresno. (2019). *Master Plan Update 2018*. Retrieved June 2024, from https://flyfresno.com/wp-content/uploads/2019/05/FAT-Master-Plan-ExecSum.pdf
- City of Fresno. (2024a, March). *Reports and Statistics*. Retrieved June 2024, from Fresno Yosemite International Airport: https://flyfresno.com/wp-content/uploads/2024/03/2023.12.pdf
- FAA. (2022). *National Plan of Integrated Airport Systems (NPIAS)*. Retrieved February 2024, from https://www.faa.gov/airports/planning_capacity/npias/current
- FAA. (2025a). APO Terminal Area Forecast Detail Report.
- U.S. DOT. (2008). FAA's Management and Maintenance of Air Traffic Control Facilities.

 Retrieved June 2024, from

 https://www.oig.dot.gov/sites/default/files/REVIEW OF FAA FACILITIES.pdf

7.3 ALTERNATIVES CHAPTER

- Caltrans. (2020). *Transportation and Construction Vibration Guidance Manual*. Retrieved November 2024, from https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf
- City of Fresno. (2019). *Master Plan Update 2018*. Retrieved June 2024, from https://flyfresno.com/wp-content/uploads/2019/05/FAT-Master-Plan-ExecSum.pdf
- City of Fresno. (2025, May). City of Fresno Municipal Code, Article 24, Parking and Loading.

 Retrieved from

 https://library.municode.com/ca/fresno/codes/code of ordinances?nodeId=MUCOFR C

 H15CIDECOINRE PTIIIREAPSOALDI ART24PALO S15-2401PU
- CTBX. (2024). Replace Airport Traffic Control Tower Siting Report. Fresno Yosemite International Airport.
- FAA. (2025b). *Air Traffic Control Visibility Analysis Tool*. Retrieved from https://www.hf.faa.gov/visibility/
- U.S. Department of the Interior. (2017). The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings. Retrieved from https://www.nps.gov/orgs/1739/upload/treatment-guidelines-2017-part1-preservation-rehabilitation.pdf

7.4 AFFECTED ENVIRONMENT CHAPTER

- American Community Survey. (2022). *B17021: Poverty Status of Individuals in the Past*1Months by Living Arrangement. Retrieved November 2024, from United States Census
 Bureau:
 - https://data.census.gov/table/ACSDT5Y2022.B17021?q=B17021:%20Poverty%20Status %20of%20Individuals%20in%20the%20Past%2012%20Months%20by%20Living%20Arr angement&g=1500000US060190031042 160XX00US0627000
- California Air Resources Board. (2023a). *GHG Emission Inventory Graph*. Retrieved November 2024, from https://ww2.arb.ca.gov/ghg-inventory-data
- California Air Resources Board. (2024). *Air Monitoring Sites Interactive Map*. Retrieved May 2024, from CA.GOV: https://ww2.arb.ca.gov/applications/air-monitoring-sites-interactive-map
- California Coastal Commission. (2019). *Coastal Zone Boundary, Maps*. Retrieved November 2024, from https://www.coastal.ca.gov/maps/czb/ California Department of Conservation. (2022).
- California Department of Conservation. (2022). *California Important Farmland Finder*. Retrieved December 2023, from https://maps.conservation.ca.gov/DLRP/CIFF/
- California Department of Water Resources. (2006, January 20). San Joaquin Valley
 Groundwater Basin Kings Subbasin. *California's Groundwater Basin 118*. Retrieved
 Novemer 2024, from https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Bulletin-118/Files/2003-Basin-Descriptions/5_022_08_KingsSubbasin.pdf
- California Department of Water Resources. (2019). *Groundwater Basin Boundary Assessment Tool*. Retrieved June 2024, from California State Portal: https://gis.water.ca.gov/app/bbat/
- CalRecycle. (2024a). SWIS Facility/Site Activity Details: American Avenue Disposal Site (10-AA-0009). Retrieved November 2024, from https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/4535?siteID=352
- CalRecycle. (2024b). SWIS Facility/Site Activity Details: City Of Clovis Landfill (10-AA-0004).

 Retrieved November 2024, from

 https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/4529?siteID=347
- City of Fresno. (2020). *Draft Program Environmental Impact Report*. Retrieved Feburary 2024, from https://www.fresno.gov/wp-content/uploads/2023/03/Fresno-GP-Public-Review-Draft-Program-EIR.pdf
- City of Fresno. (2022, April). *Official General Plan Land Use and Circulation Map*. Retrieved November 2024, from https://www.fresno.gov/wp-content/uploads/2023/03/Official-General-Plan-Land-Use 20220411-1.pdf
- City of Fresno. (2024b). *Solid Waste Facilities*. Retrieved November 2024, from https://www.fresno.gov/publicutilities/trash-disposal-recycling/solid-waste-facilities/

- City of Fresno. (2024c). *City of Fresno GIS Data Viewing Application*. Retrieved November 2024, from City of Fresno:

 https://cityoffresno.maps.arcgis.com/apps/webappviewer/index.html?id=dbd9813b2fa74382b3096b9613e7470d
- City of Fresno. (2024d). *City of Fresno GIS Viewer*. Retrieved April 2024, from https://experience.arcgis.com/experience/2b2f1f8322fb426db97ed50fc1693786#data-s-id%3AdataSource-2-18a097a94ae-layer-57%3A129905
- Department of Toxic Substances Control. (2025). *Kettleman Hills Facility*. Retrieved from https://dtsc.ca.gov/kettleman-hills-facility-information/
- Federal Emergency Management Agency. (2024a). FEMA Flood Map Service Center: Search By Address. Retrieved November 2024, from FEMA:

 https://msc.fema.gov/portal/search?AddressQuery=Fresno%20International%20Airport
- Federal Emergency Management Agency. (2024b). *Zone C or X (Unshaded)*. Retrieved November 2024, from FEMA: https://www.fema.gov/glossary/zone-c-or-x-unshaded#:~:text=Zone%20X%20is%20the%20area,levee%20from%20100%E2%80%90%20year%20flood.
- National Park Service. (2024). *Wild & Scenic Rivers*. Retrieved November 2024, from NPS: https://nps.maps.arcgis.com/apps/View/index.html?appid=ff42a57d0aae43c49a88daee0 e353142
- San Joaquin Valley Air Pollution Control District. (2024). *Ambient Air Quality Standards* & *Attainment Status*. Retrieved November 2024, from https://ww2.valleyair.org/air-quality-information/ambient-air-quality-standards-valley-attainmet-status/
- State Water Resources Control Board. (2024, June). FRESNO YOSEMITE INTERNATIONAL AIRPORT (T10000012775). Retrieved June 2024, from GeoTracker: https://geotracker.waterboards.ca.gov/profile_report?global_id=T10000012775
- U.S. Census Bureau. (2020a). *TIGERweb Decennial*. Retrieved November 2024, from U.S. Census Bureau: https://tigerweb.geo.census.gov/tigerweb2020/
- U.S. Census Bureau. (2020b). *Block Group 2; Census Tract 31.04; Fresno County; California*.

 Retrieved November 2024, from U.S. Census Bureau:

 https://data.census.gov/profile/Block_Group_2, Census_Tract_31.04, Fresno_County,

 California?g=1500000US060190031042
- U.S. Environmental Protection Agency. (2008, Oct). *Fresno Sole Source Aquifer Designated Area*. Retrieved June 2024, from https://archive.epa.gov/region9/water/archive/web/pdf/fresno-ssa-map.pdf
- U.S. Environmental Protection Agency. (2018, September). *Overview of Greenhouse Gases*. Retrieved from https://www.epa.gov/qhgemissions/overview-greenhouse-gases
- U.S. Environmental Protection Agency. (2024a, October). *California Nonattainment / Maintenance Status for Each County by Year for All Criteria Pollutants*. Retrieved November 2024, from Green Book: https://www3.epa.gov/airquality/greenbook/anayo ca.html

- U.S. Environmental Protection Agency. (2024b, June). Fast Facts on Transportation

 Greenhouse Gas Emissions. Retrieved November 2024, from EPA:

 https://www.epa.gov/greenvehicles/fast-facts-transportation-greenhouse-gas-emissions
- U.S. Environmental Protection Agency. (2024c). *Cleanups in My Community*. Retrieved November 2024, from USEPA: https://map22.epa.gov/cimc/CA
- U.S. Environmental Protection Agency. (2024d). *Fresno Shields Armory*. Retrieved November 2024, from FRS Facility Detailed Report: https://frs-public.epa.gov/ords/frs-public2/fii-query-detail.disp-program-facility?p-registry-id=110-019002443
- U.S. Environmental Protection Agency. (2024e). *PARCEL 468-282-23T*. Retrieved November 2024, from FRS Facility Detail Report: https://frs-public.epa.gov/ords/frs public2/fii query detail.disp program facility?p registry id=110 056364009
- U.S. Environmental Protection Agency. (2024f). Fresno County Department of Agriculture.

 Retrieved November 2024, from FRS Facility Detail Report: https://frs-public.epa.gov/ords/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110_002944841
- U.S. Environmental Protection Agency. (2024g, September). *NEPAssist*. Retrieved November 2024, from NEPAssist Tool: https://nepassisttool.epa.gov/nepassist/nepamap.aspx
- U.S. Fish and Wildlife Service. (2024a). *Explore Location*. Retrieved November 2024, from Information for Planning and Consultation:

 https://ipac.ecosphere.fws.gov/location/EFXLD5VW7RBYFAGAZJVD7CJD4Q/resources
- U.S. Fish and Wildlife Service. (2024b). *National Wetlands Inventory*. Retrieved November 2024, from USFWS: https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/
- U.S. Geological Survey. (2024). *TNM Download v2.0*. Retrieved November 2024, from National Map: https://apps.nationalmap.gov/downloader/

7.5 ENVIRONMENTAL CONSEQUENCES AND MITIGATION MEASURES CHAPTER

- California Air Resources Board. (2023b, October 1). *In-Use Off-Road Diesel-Fueled Fleets Regulation*. Retrieved November 2024,from https://ww2.arb.ca.gov/our-work/programs/use-road-diesel-fueled-fleets-regulation
- City of Fresno. (2014, December 18). *City of Fresno General Plan*. Retrieved February 2025, from https://www.fresno.gov/wp-content/uploads/2023/03/upload_temp_Consolidated-GP-10-13-2022_compressed.pdf
- ERC Evolution. (2021, August). *IPCC Sixth Assessment Report Global Warming Potentials*. Retrieved January 2025, from https://erce.energy/erceipccsixthassessment/
- FAA. (2007). Federal Presumed To Conform Actions Under General Conformity.

- FAA. (2017, October 26). FAA Order 1053.1C. Retrieved November 2024, from Energy and Water Management Program for FAA Buildings and Facilities: https://www.faa.gov/documentLibrary/media/Order/FAA Order 1053 1C.pdf
- Federal Highway Administration. (2006). *FHWA Roadway Construction Noise Model User's Guide*. U.S. Department of Transportation. Retrieved November 2024, from https://www.fhwa.dot.gov/environment/noise/construction_noise/rcnm/rcnm.pdf

7.6 AGENCY AND PUBLIC INVOLVEMENT CHAPTER

No references used.

7.7 LIST OF PREPARERS CHAPTER

No references used.

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