Castle Air Museum Aviation Pavilion Project (Atwater, CA)

RSO 0272-25, SP 25-10-0200, and AR 25-10-0300

Initial Study – Mitigated Negative Declaration

Public Review Draft

October 2025

City of Atwater
1350 Broadway Avenue
Atwater, CA 95301

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1 MITIGATED NEGATIVE DECLARATION

As Lead Agency under the California Environmental Quality Act (CEQA), the City of Chowchilla reviewed the Project described below to determine whether it could have a significant effect on the environment because of its development. In accordance with CEQA Guidelines Section 15382, "[s]ignificant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.

1.1 Project Name

Castle Air Museum Aviation Pavilion Project (RSO 0272-25, SP 25-10-0200, and AR 25-10-0300)

1.2 Project Location

The Project site is in the jurisdiction of the City of Atwater, County of Merced, California. The site is located on the northwest corner of Santa Fe Drive and Buhach Road at 5050 Santa Fe Drive, Atwater, CA 95301, consisting of one (1) parcel that totals approximately 31.14 acres. The site is identified by the Merced County Assessor as Assessor's Parcel Number (APN) 051-030-006. The Project site is a portion of Section 31, Township 6 South, Range 13 East, Mount Diablo Base and Meridian.

1.3 Project Description

Span Construction and Engineering, Inc. (Applicant) request approval of RSO 0272-25, SP 25-10-0200, and AR 25-10-0300 (Project) to facilitate the Castle Air Museum Aviation Pavilion Project pertaining to one (1) parcel that totals approximately 31.14 acres located at 5050 Santa Fe Drive, Atwater, CA 95301 (APN 051-030-0066). The Project proposes a multi-phased development consisting of new construction buildings, relocation of an existing pre-engineered metal building from Beale Air Force Base, and site improvements, described as follows.

Phase 1

- Pavilion Building 1: 60,000 square feet
- Roof Covered Area: 28,000 square feet
- SR-71 Hanger (Relocation): 9,600 square feet

Phase 2

- Pavilion Building 2: 50,000 square feet
- Café/Gift Shop Building: 10,000 square feet
- Roof Covered Area: 30,000 square feet
- Parking Lot: 177 vehicle parking stalls

Phase 3

- Pavilion Building 3: 80,000 square feet

1.4 Mailing Address and Phone Number of Contact Person

Lead Agency
City of Atwater
Community Development Department
Chris Hoem, City Manager
(209) 357-6300
choem@atwater.org

Applicant
Span Construction and Engineering Inc.
3353 Yeager Drive, Madera, CA 93637
(559) 474-7947
george.grim@spanconstruction.com

1.5 Findings

As Lead Agency, the City of Atwater finds that the Project will not have a significant effect on the environment. The Environmental Checklist (CEQA Guidelines Appendix G) or Initial Study (IS) (see Section 3 - Environmental Checklist Form) identified one or more potentially significant effects on the environment, but revisions to the Project have been made before the release of this Mitigated Negative Declaration (MND), or mitigation measures would be implemented that reduce all potentially significant impacts to less than significant levels. The Lead Agency further finds that there is no substantial evidence that this Project would have a significant effect on the environment.

1.6 Mitigation Measures included in the Project to Avoid Potentially Significant Effects

Mitigation Measure BIO-1 (Pre-Construction Survey): Within 14 days of the start of Project activities on-site and in adjacent habitat, a pre-activity survey shall be conducted by a qualified biologist knowledgeable in the identification of this species, including San Joaquin Kit Fox, Burrowing Owl, and protected birds. The surveys shall cover the canal plus surrounding upland habitat within 50 feet of the canal. Pedestrian surveys achieving 100 percent visual coverage will be conducted. Multiple surveys are anticipated to be needed, which would be phased with the construction of the Project. If no evidence of these species is detected, no further action is required.

Mitigation Measure BIO-2 (Avoidance Buffers): If dens/burrows that could support any of these species are discovered during the pre-activity surveys conducted under Mitigation Measure BIO-1, the avoidance buffers outlined below shall be established. No work would occur within these buffers unless the biologist approves and monitors the activity.

San Joaquin Kit Fox

- Potential Den - 50 feet
- Atypical Den - 50 feet (includes pipes and other manmade structures)
- Known Den - 100 feet
- Natal/Pupping Den - 500 feet

Burrowing Owl (active burrows)

- April 1-October 15 - 500 feet
- October 16-March 31- 100 feet

Mitigation Measure BIO-3 (Avoidance and Minimization): The following avoidance and minimization measures shall be implemented during all phases of the Project to reduce the potential for impact from the Project. They are modified from the US Fish and Wildlife Service Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance (USFWS 2011) and apply to all three species.

- Project-related vehicles shall observe a daytime speed limit of 20 mph throughout the site in all Project areas, except on county roads and state and federal highways. Nighttime construction speed limits shall be 10 mph.
- Off-road traffic outside of designated Project areas shall be prohibited.
- All Project activities shall occur during daylight hours.
- To prevent inadvertent entrapment of kit foxes or other animals during the construction of the Project, all excavated, steep-walled holes or trenches more than two-feet deep shall be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed.
- Before holes or trenches are filled, they shall be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the USFWS and the CDFW shall be contacted before proceeding with the work.
- In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape, or the USFWS shall be contacted for guidance.
- All construction pipes, culverts, or similar structures with a diameter of four inches or greater that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for kit foxes and burrowing owls before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox or burrowing owl is discovered inside a pipe, that section of pipe shall not be moved until the USFWS has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity until the fox or owl has escaped.
- All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once a week from a construction or Project site.
- No firearms shall be allowed on the Project site, except by authorized law enforcement personnel.
- No pets, such as dogs or cats, shall be permitted on the Project site.
- Use ofrodenticides and herbicides in Project areas shall be restricted.
- A representative shall be appointed by the Project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or burrowing owl or who finds a dead, injured, or entrapped kit fox, or burrowing owl. The representative shall be identified during the employee education program and their name and telephone number shall be provided to the US Fish and Wildlife Service and California Department of Fish and Wildlife.
- An employee education program shall be developed and presented to Project personnel. The program shall consist of a brief presentation by persons knowledgeable in kit fox, and burrowing owl, biology, and the legislative protections in place. The program shall include the following: a description of each species' natural history and habitat needs; a report of the occurrence of each species in the Project area; an explanation of the status of each species and its protections under federal and state laws; and a list of measures being taken to reduce impacts to each species during Project construction and implementation. A fact sheet conveying this information shall be prepared for distribution to the previously referenced people and anyone else who may enter the Project site.
- Upon completion of the Project, all areas subject to temporary ground disturbances (including storage and staging areas, temporary roads, pipeline corridors, etc.) shall be recontoured if necessary and revegetated to promote restoration of the area to pre-project conditions. An area subject to temporary disturbance

means any area that is disturbed during the Project, but after project completion, will not be subject to further disturbance and has the potential to be revegetated.

- Any Project personnel who are responsible for inadvertently killing or injuring one of these species should immediately report the incident to their representative. This representative shall contact the CDFW and USFWS immediately in the case of a dead, injured, or entrapped listed animal.
- The Sacramento Fish and Wildlife Office and CDFW shall be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox during Project related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information.
- New sightings of kit fox shall be reported to the California Natural Diversity Database (CNDDB). A copy of the reporting form and a topographic map clearly marked with the location of where the kit fox was observed should also be provided to the USFWS.

Mitigation Measure BIO-4 (Swainson's Hawk): If Project activities must occur during the nesting season (February 15 to August 31), pre-activity nesting bird surveys shall be conducted within seven days prior to the start of construction at the construction site plus a 250-foot buffer for songbirds and a 500-foot buffer for raptors (other than Swainson's hawk). The surveys shall be phased with the construction of the Project. If no active nests are found, no further action is required, however, nests may become active at any time throughout the summer, including when construction activities are occurring. If active nests are found during the survey or at any time during the construction of the Project, an avoidance buffer ranging from SO feet to 350 feet may be required, as determined by a qualified biologist. The avoidance buffer will remain in place until the biologist has determined that the young are no longer reliant on the nest Work may occur within the avoidance buffer under the approval and guidance of the biologist. The biologist shall have the ability to stop construction if nesting adults show sign of distress.

Mitigation Measure BIO-5 (Pre-Construction Survey for Swainson's Hawk): If Project activities must occur during the nesting season (February 15 to August 31), pre-activity surveys shall be conducted for Swainson's hawk nests in accordance with the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley, Swainson's Hawk Technical Advisory Committee (CDFW 2000). The surveys would be conducted on the Project site plus a half-mile buffer. To meet the minimum level of protection for the species, surveys shall be conducted during at least two survey periods. The survey will be conducted in accordance with the methodology outlined in existing protocols and shall be phased with the construction of the Project. If no Swainson's hawk nests are found, no further action is required.

Mitigation Measure BIO-6 (Avoidance and Monitoring for Swainson's Hawk): If an active Swainson's hawk nest is discovered at any time within one-half mile of active construction, a qualified biologist will complete an assessment of the potential for current construction activities to impact the nest. The assessment will consider the type of construction activities, the location of construction relative to the nest, the visibility of construction activities from the nest location, and other existing disturbances in the area that are not related to the construction activities of this Project. Based on this assessment, the biologist will determine if construction activities can proceed and the level of nest monitoring required. Minimally, construction activities should not occur within 100 feet of an active nest and may require monitoring if within 500 feet of an active nest. The qualified biologist should have the authority to stop work if it is determined that Project construction is disturbing the nest. These buffers may need

to increase depending on the sensitivity of the nest location, the sensitivity of the nesting Swainson's hawk to disturbances, and the discretion of the qualified biologist.

Mitigation Measure BIO-7 (Burrowing Owls): The Project shall implement the following measures to avoid any potential impacts of nesting habitat of the Project in compliance with the federal Migratory Bird Treaty Act and relevant Fish and Game Codes:

- Avoidance. Initiate grading/ground disturbance from Sept 1 – February 1 during the non-breeding period.
- Preconstruction Surveys. If construction is initiated during the nesting period (Feb 1 – Aug 30), conduct a preconstruction survey to confirm that no burrowing owl has taken up residence in any parcels with ground burrowing mammals. If burrowing owl occupation is found, consult with the California Department of Fish and Wildlife to determine the appropriate avoidance and minimization measures.

Mitigation Measure BIO-8 (Protected Birds): If Project activities must occur during the nesting season (February 1 to September 15), pre-activity nesting bird surveys shall be conducted within seven (7) days prior to the start of construction on the construction site and a 500-foot buffer for raptors (other than Swainson's hawk).

1. If no active nests are found, no further action is required. However, existing nests may become active, and new nests may be built at any time prior to and throughout the nesting season, including when construction activities are in progress.
2. If active nests are found during the survey or at any time during construction of the Project, an avoidance buffer ranging from 50 feet to 500 feet may be required, with the avoidance buffer from any specific nest being determined by a qualified biologist. The avoidance buffer will remain in place until the biologist has determined that the young are no longer reliant on the adults or the nest. Work may occur within the avoidance buffer under the approval and guidance of the biologist, but full-time monitoring may be required. The biologist shall have the ability to stop construction if nesting adults show any sign of distress

Mitigation Measure CUL-1: In order to avoid the potential for impacts to historic and prehistoric archaeological resources, the following measures shall be implemented in conjunction with the construction of each phase of the Project:

If previously unknown historical, archeological, cultural, or paleontological resources are encountered before or during grading activities, construction shall stop in the immediate vicinity of the find and a qualified archeologist, historical resources specialist, or paleontologist, shall be consulted to determine whether the resource requires further study. Notification of discovery shall be provided to the City Community Development Department.

The qualified archeologist, historical resources specialist, or paleontologist shall make recommendations to the project proponent on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines and City's policies and procedures related to historical, cultural, and paleontological resources. Notification of the measures shall be provided to the City Community Development Department.

Mitigation Measure CUL-2: If the resources are determined to be unique historical resources as defined under Section 15064.5 of the CEQA Guidelines, measures shall be identified by the monitor and recommended to the project proponent, who shall notify the City Community Development Department. Appropriate measures for significant resources could include avoidance or capping, preservation in-place, recordation, additional

archeological resting, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds.

No further grading shall occur in the area of the discovery until the City Community Development Department approves the measures to protect these resources. Any historical, archeological, cultural, or paleontological artifacts recovered as a result of mitigation shall be provided to a City-approved institution or person who is capable of providing long-term preservation to allow future scientific study.

Mitigation Measure GEO-1: The Applicant will incorporate into the construction contract(s) a provision that in the event a fossil or fossil formations are discovered during any subsurface construction activities for the proposed Project (i.e., trenching, grading), all excavations within 50 feet of the find shall be temporarily halted until the find is examined by a qualified paleontologist, in accordance with Society of Vertebrate Paleontology standards. The paleontologist shall notify the Applicant, who shall coordinate with the paleontologist as to any necessary investigation of the find. If the find is determined to be significant under CEQA, the Applicant shall implement those measures, which may include avoidance, preservation in place, or other appropriate measures, as outlined in Public Resources Code Section 21083.2.

2 INTRODUCTION

Precision Civil Engineering, Inc. (PCE) has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) on behalf of the City of Atwater (City) to address the environmental effects of the proposed Castle Air Museum Aviation Pavilion Project (Resolution (RSO) 0272-25, Site Plan Review (SP) 25-10-0200, and Architectural Review (AR) 25-10-0300) ("Project" or "proposed Project"). This document has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 *et. seq*. The City of Atwater is the Lead Agency for this proposed Project. The site and the proposed Project are described in detail in SECTION 2 ENVIRONMENTAL CHECKLIST FORM.

2.1 Regulatory Information

An Initial Study (IS) is a document prepared by a lead agency to determine whether a Project may have a significant effect on the environment. In accordance with California Code of Regulations Title 14 (Chapter 3, Section 15000, et seq.), also known as the CEQA Guidelines, *Section 15064 (a)(1)* states that an environmental impact report (EIR) must be prepared if there is substantial evidence in light of the whole record that the proposed Project under review may have a significant effect on the environment and should be further analyzed to determine mitigation measures or Project alternatives that might avoid or reduce Project impacts to less than significant levels.

A mitigated negative declaration (MND) may be prepared instead if the lead agency finds that there is no substantial evidence in light of the whole record that the Project may have a significant effect on the environment. A Negative Declaration (ND) is a written statement describing the reasons why a proposed project, not otherwise exempt from CEQA, would not have a significant effect on the environment and, therefore, why it would not require the preparation of an EIR (CEQA Guidelines *Section 15371*). According to CEQA Guidelines *Section 15070*, a ND or MND shall be prepared for a Project subject to CEQA when either:

a. The IS shows there is no substantial evidence, in light of the whole record before the agency, that the proposed Project may have a significant effect on the environment, or

b. The IS identified potentially significant effects, but:

> *1. Revisions in the Project plans or proposals made by or agreed to by the applicant before the proposed Mitigated Negative Declaration and Initial Study is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur is prepared, and*
>
> *2. There is no substantial evidence, in light of the whole record before the agency, that the proposed Project as revised may have a significant effect on the environment.*

2.2 Document Format

This IS/MND contains five (5) chapters plus appendices. SECTION 1 INTRODUCTION provides bases of the IS/MND's regulatory information and an overview of the Project. SECTION 2 ENVIRONMENTAL CHECKLIST FORM provides a detailed description of Project components. SECTION 3 DETERMINATION concludes that the Initial Study is a mitigated negative declaration, identifies the environmental factors potentially affected based on the analyses contained in this IS, and includes with the Lead Agency's determination based upon those analyses. SECTION 4 EVALUATION OF ENVIRONMENTAL IMPACTS presents the CEQA checklist and environmental analyses for all impact areas and the mandatory findings of significance. A brief discussion of the reasons why the Project impact is anticipated to be potentially significant, less than significant with mitigation incorporated, less than significant, or

why no impacts are expected is included. SECTION 5 MITIGATION MONITORING AND REPORTING PROGRAM presents the mitigation measures recommended in the IS/MND for the Project.

3 ENVIRONMENTAL CHECKLIST FORM

This section describes the components of the proposed Project in more detail, including Project location, Project objectives, and required Project approvals.

3.1 Project Title

Castle Air Museum Aviation Pavilion Project (RSO 0272-25, SP 25-10-0200, and AR 25-10-0300)

3.2 Lead Agency Name and Address

City of Atwater
Community Development Department
1350 Broadway Avenue
Atwater, CA 95301

3.3 Contact Person and Phone Number

Lead Agency
City of Atwater
Community Development Department
Chris Hoem, City Manager
(209) 357-6300
choem@atwater.org

Applicant
Span Construction and Engineering Inc.
3353 Yeager Drive, Madera, CA 93637
(559) 474-7947
george.grim@spanconstruction.com

3.4 Study Prepared By

Precision Civil Engineering
1234 O Street
Fresno, CA 93721
(559) 449-4500

3.5 Project Location

The Project site is in the jurisdiction of the City of Atwater, County of Merced, California. The site is located on the northwest corner of Santa Fe Drive and Buhach Road at 5050 Santa Fe Drive, Atwater, CA 95301 (Figure 2-1), consisting of one (1) parcel that totals approximately 31.14 acres. The site is identified by the Merced County Assessor as Assessor's Parcel Number (APN) 051-030-006. Figure 2-2 shows the aerial image of the Project site. The Project site is a portion of Section 31, Township 6 South, Range 13 East, Mount Diablo Base and Meridian.

3.6 Latitude and Longitude

The centroid of the Project site is 37.365055878952376, -120.5778309094977.

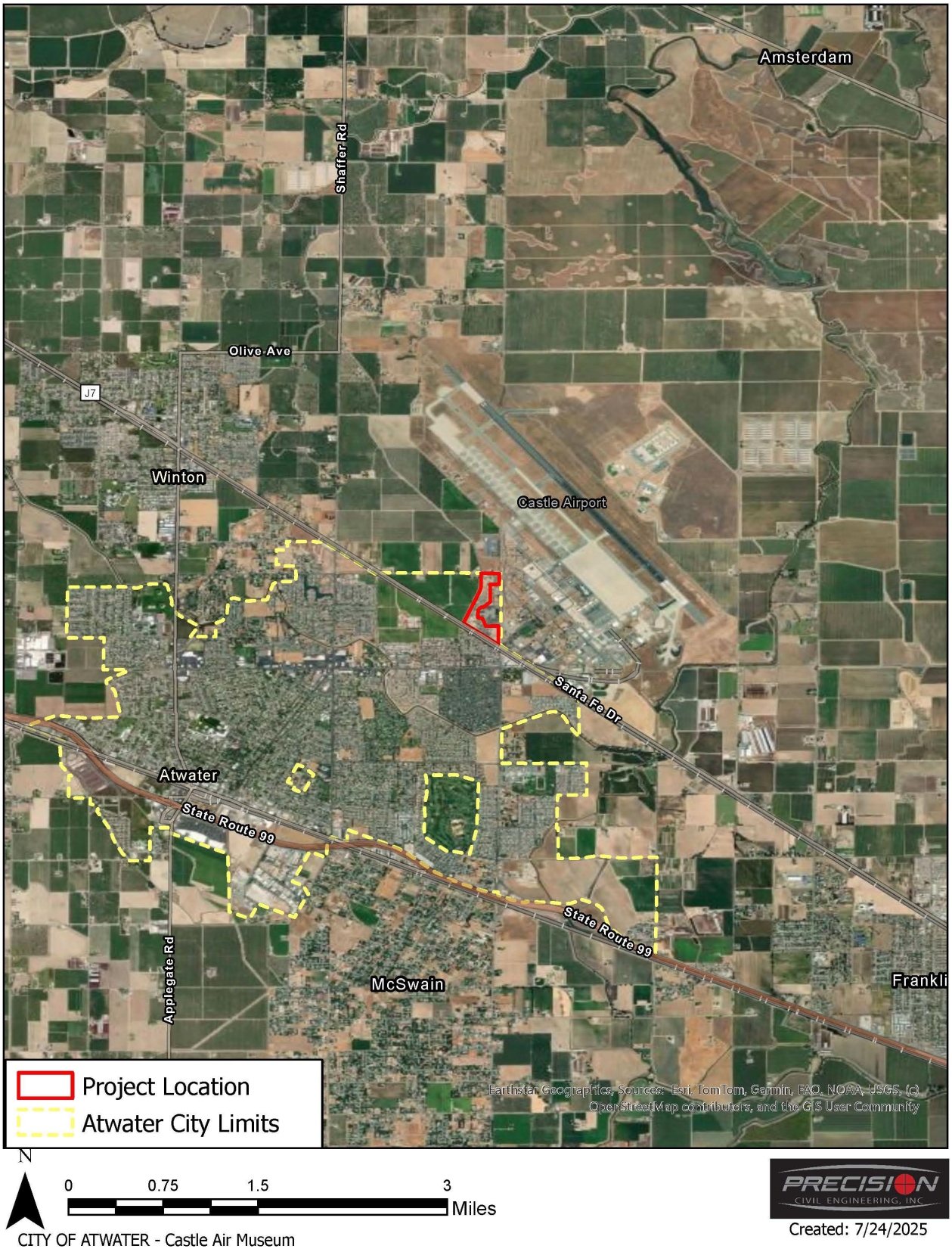

Figure 2-1 Project Location

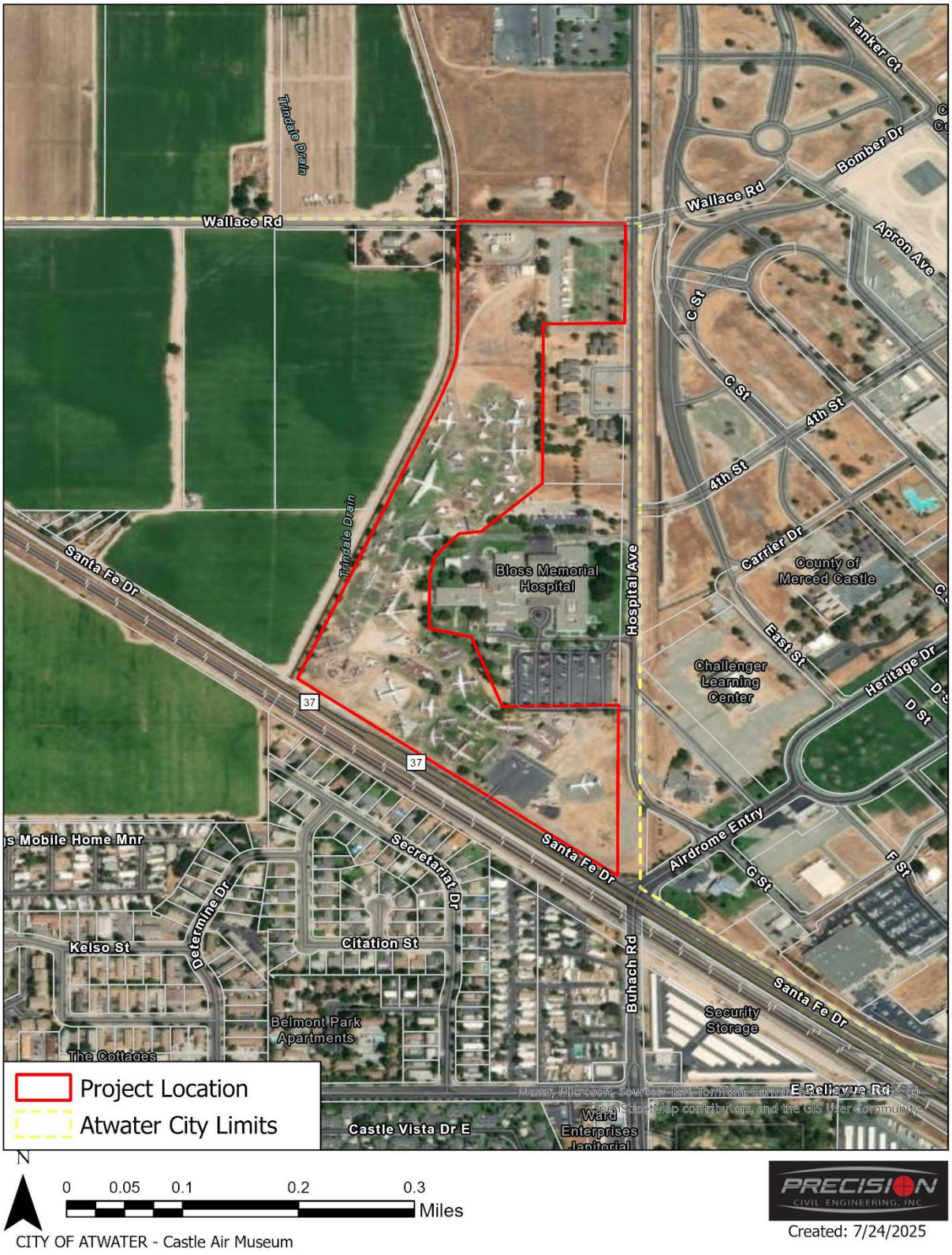

Figure 2-2 Project Site Aerial

3.7 General Plan Designation

The Project site has a City of Atwater General Plan land use designation of Commercial, Path, and Institutional (Figure 2-3). According to the General Plan, the purpose of the Commercial land use designation is "To provide a location for the retail, wholesale, and heavy commercial uses and services necessary within the City but not suited to other commercial districts and too small for the M-1 area." The Commercial land use designation is compatible with the General Commercial zoning districts. Typical uses of this land use designation include retail centers, restaurants, automotive services, and professional offices. The Path designation is indicated in locations considered desirable for development of a comprehensive system of linear parks and pathways. These facilities shall be required as appropriate within new residential developments. Utilization of the existing canal system shall serve as the backbone of this open space network. Lastly, the Institutional designation is intended for public and quasi-public facilities, including, but not limited to, government services and facilities, fire/police stations, wastewater treatment facilities, electrical substations, domestic water treatment and storage, and other similar uses. New facilities may be appropriate in any land use category based on need and environmental review.

3.8 Zoning

The Project site is within the General Commercial (C-G) zoning district (Figure 2-4). The zoning district is consistent with the General Plan land use designation.

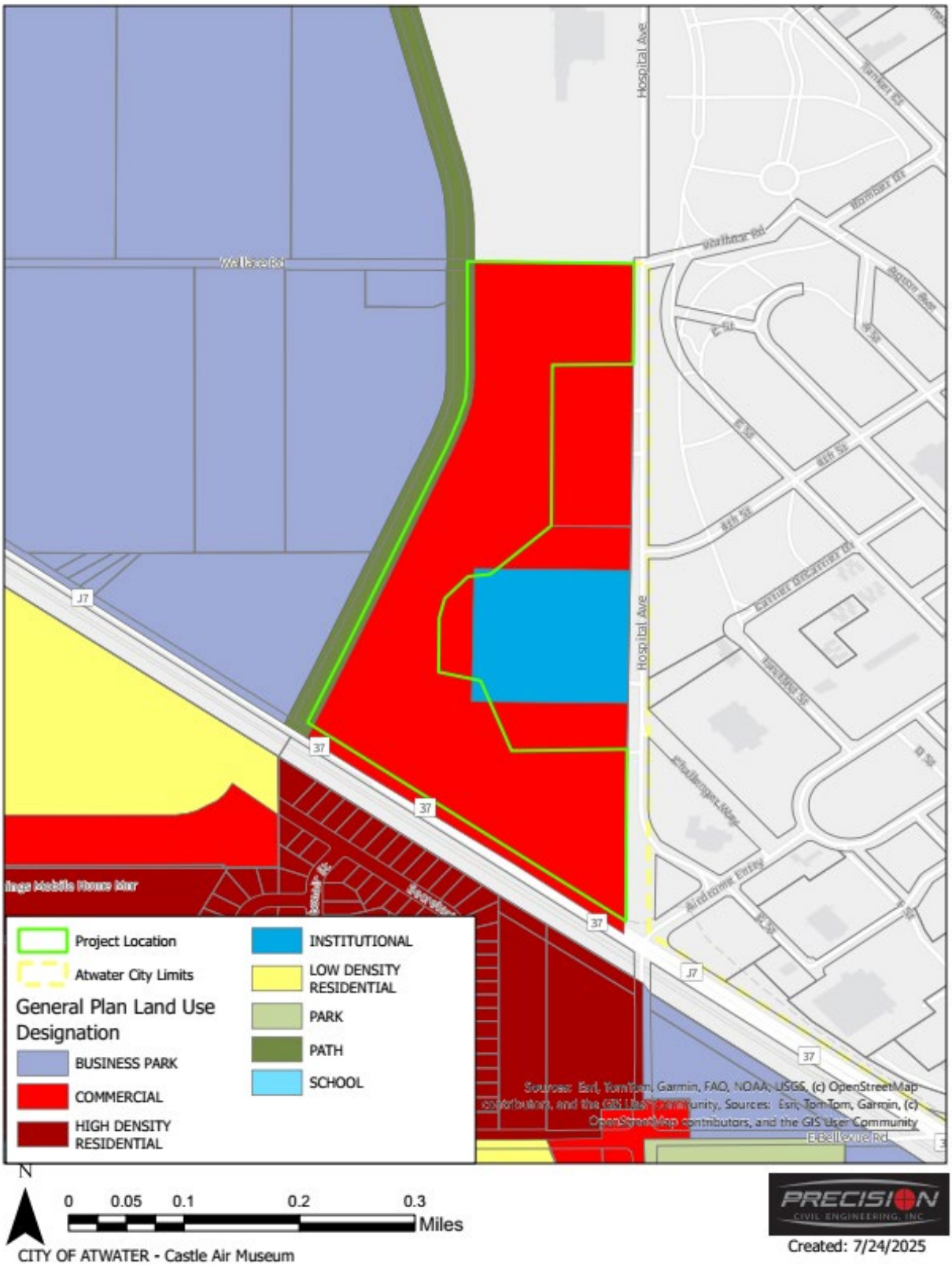

Figure 2-3 General Plan Land Use Designation Map (Existing)

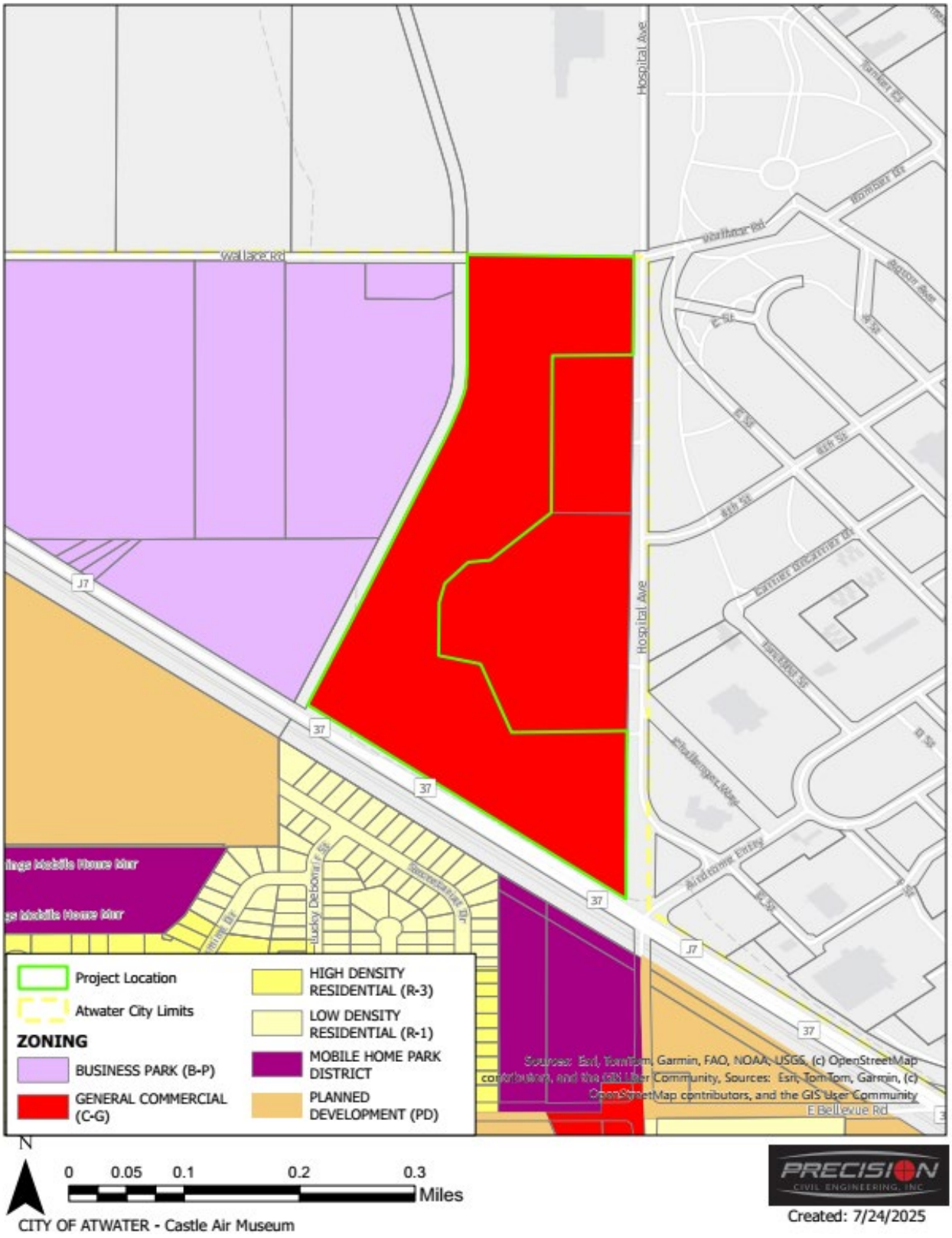

Figure 2-4 Zoning District Map (Existing)

3.9 Description of Project

Span Construction and Engineering, Inc. (Applicant) request approval of RSO 0272-25, SP 25-10-0200, and AR 25-10-0300 (Project) to facilitate the Castle Air Museum Aviation Pavilion Project pertaining to one (1) parcel that totals approximately 31.14 acres located at 5050 Santa Fe Drive, Atwater, CA 95301 (APN 051-030-0066). The Project proposes a multi-phased development consisting of new construction buildings, relocation of an existing pre-engineered metal building from Beale Air Force Base, and site improvements, described as follows.

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Phase 2

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- Café/Gift Shop Building: 10,000 square feet
- Roof Covered Area: 30,000 square feet
- Parking Lot: 177 vehicle parking stalls

Phase 3

- Pavilion Building 3: 80,000 square feet

3.10 Project Setting and Surrounding Land Uses

3.10.1 Existing Site Conditions

The Project site has historically been used for military purposes as part of the former Castle Air Force Base and is now operated by the Castle Air Museum Foundation as the Castle Air Museum. The Project site is currently developed with open tarmacs, display pads with non-operational aircrafts, paved access roads, and the existing Castle Air Museum building. The site is generally flat and does not contain any geologic formations. The existing biotic conditions and resources of the site can be defined primarily as ruderal and herbaceous vegetation with heavy alteration due to the development and ongoing museum operations. There are existing trees and shrubs on the western boundary of the site and surrounding the existing buildings and parking lots. No water features are present on the site.

3.10.2 Existing Roadways and Access

The Project site is located on the northwest corner of Santa Fe Drive and Buhach Road. Santa Fe Drive along the southern boundary of the site is a northwest-southeast roadway. Buhach Road is a north-south roadway that connects to the Project site via Airdrome Entry.

3.10.3 Surrounding Land Uses

As referenced in Table 2-1, to the north of the Project site, the existing land use is primarily agriculture and vacant land. The planned land use and zoning district in this area is designated as General Agricultural by the County of Merced. To the south, the existing land use includes single-family residences and a mobile home park. The planned land use for these properties is High-Density Residential and the current zoning is Low Density Residential / Mobile

Home Park. To the east, the existing land use is an RV park, health center, and multi-family residences. The planned land use for this property is Institutional and Commercial and the current zoning is General Commercial. To the west, the existing land use is agriculture and vacant land. The planned land use and zoning district for these properties is Business Park.

Table 2-1 Existing Uses, General Plan Designations, and Zoning districts of Surrounding Properties

Direction from the Project site	Existing Land Use	Planned Land Use	Zoning district
North	Agriculture, vacant land	Agricultural (County)	General Agricultural (County)
South	Single family residences, mobile home park	High Density Residential	Low Density Residential / Mobile Home Park District
East	RV park, health center, multi-family residences	Institutional/Commercial	General Commercial
West	Agriculture, vacant land	Business Park	Business Park

3.11 Site Preparation

Site preparation would include removal of existing non-operating aircraft as well as typical grading activities and minor excavation for installation of utility infrastructure for conveyance of water, sewer, stormwater, and irrigation. Site preparation, building, grading, encroachment, and site utilities permits would be subject to review and approval by the appropriate agency and/or department to ensure compliance with applicable codes and regulations. Compliance would be verified through the building permit and inspection process.

3.12 Project Construction and Phasing

Construction would be limited to the portion of the site proposed for the new buildings. The proposed Project will be constructed in three (3) phases. Phase 1 would include the construction of one (1) pavilion building one, roof-covered display area, and the relocation of the SR-71 hanger from the Beale Air Force Base. Phase 2 would include the construction of a one (1) pavilion building two, café/gift shop building, an additional roof-covered display area, and associated parking improvements. Phase 3 would include the construction of one (1) pavilion building three. The timing of phasing is dependent on entitlement review and approval.

3.13 Project Components

This section describes the overall components of the Project, such as the proposed buildings, landscaping, vehicle and pedestrian circulation, and utilities.

Site Layout and Elevations

As shown in Figure 2-5, the Project proposes a multi-phased development within the existing Castle Air Museum campus consisting of new construction buildings, relocation of an existing pre-engineered metal building from Beale Air Force Base, and site improvements including new concrete curb, concrete flatwork, and asphalt fire lane.

Building and Site Design Features

Figure 2-6 and Figure 2-7 show the building elevations for the proposed Castle Air Museum Pavilion Project. The Project would include multiple pre-engineered metal buildings intended to house aircraft displays and museum exhibits. Buildings would include vertical and horizontal metal panel siding, parapet rooflines, overhead roll-up

doors for aircraft access, and aluminum-framed storefront entry points. Roof-mounted mechanical equipment would be screened by parapets.

The Project would be built in accordance with all mandatory indoor water use requirements as outlined in the 2022 California Green Building Standards Code, Title 24, Part 11, Section 5.303 – Indoor Water Use and verified through the building permit process. As a nonresidential development that contains plumbing fixtures and fittings, the Project shall comply with water-conserving measures for water closets, urinals, showerheads, faucets, and fountains. The Project would be required to install low flow plumbing fixtures with flow rates that comply with requirements. In addition, as a nonresidential development, the Project would be required to install submeters (separate submeters are required for buildings in excess of 50,000 sf.) to measure water usage of individual tenants in accordance with the California Plumbing Code.

The Project would also be built in accordance with all mandatory outdoor water use requirements as outlined in the 2022 California Green Building Standards Code, Title 24, Part 11, Section 5.304 – Outdoor Water Use and verified through the building permit process. As a nonresidential development that contains landscaping including trees, shrubs, ground cover/annual plants, and/or lawn, the Project shall comply with the updated Model Water Efficient Landscape Ordinance (MWELO) (California Code of Regulations, Title 23, Chapter 2.7, Division 2), as implemented and enforced through the building permit process.

Site Circulation and Parking

The Project site would be accessible via existing driveways along Santa Fe Drive and Buhach Road via Airdrome Entry, providing ingress/egress to the main museum campus and proposed improvements. Internal circulation would be maintained through walkways and fire lanes connecting all phases of development, including access to the relocated SR-71 hangar and future pavilion buildings. A total of 177 vehicle parking stalls are proposed as part of Phase 2 of the Project, including standard, compact, and accessible parking spaces, to serve museum visitors, staff, and special event needs.

Open Space and Landscaping

Proposed landscaping is depicted in Figure 2-5.The existing landscaping and trees within the exterior of the site, adjacent to proposed buildings, and surrounding the parking lot would remain.

Public Services and Utilities

The Project site was previously developed and is within City limits and thus, is connected to water, wastewater, and stormwater services. Natural gas and electricity are provided by Merced Irrigation District. Telecommunications and solid waste services are provided by private companies. In addition, the Project would be subject to fees for the construction, acquisition, and improvements for public services including but not limited to: Fire Protection Services, Police Protection Services, and Schools. Water, wastewater, and stormwater services are described below.

Domestic water service would be provided to the site through connections to existing City of Atwater water infrastructure located along Santa Fe Drive. New water lines would be extended internally throughout the site to service each of the proposed buildings.

Sanitary sewer service would be provided to the site through connections to the existing City of Atwater sewer infrastructure located along Santa Fe Drive and the existing building. New sewer lines would be extended internally through the site to service each of the proposed buildings.

Stormwater drainage would be managed through storm drain infrastructure. The infrastructure would be designed to comply with City of Atwater stormwater management standards and would ensure no increase in off-site runoff.

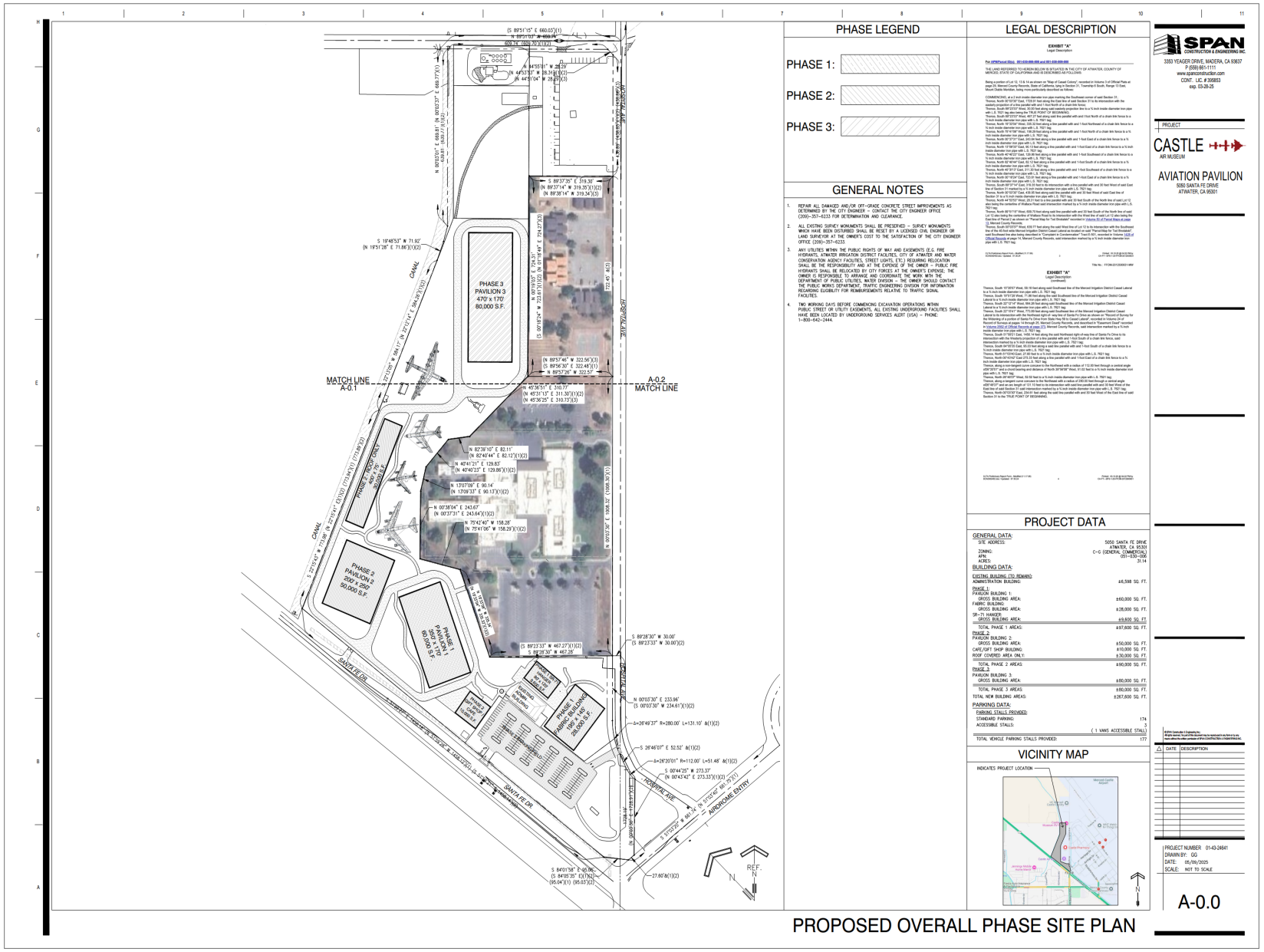

Figure 2-5 Project Site Plan

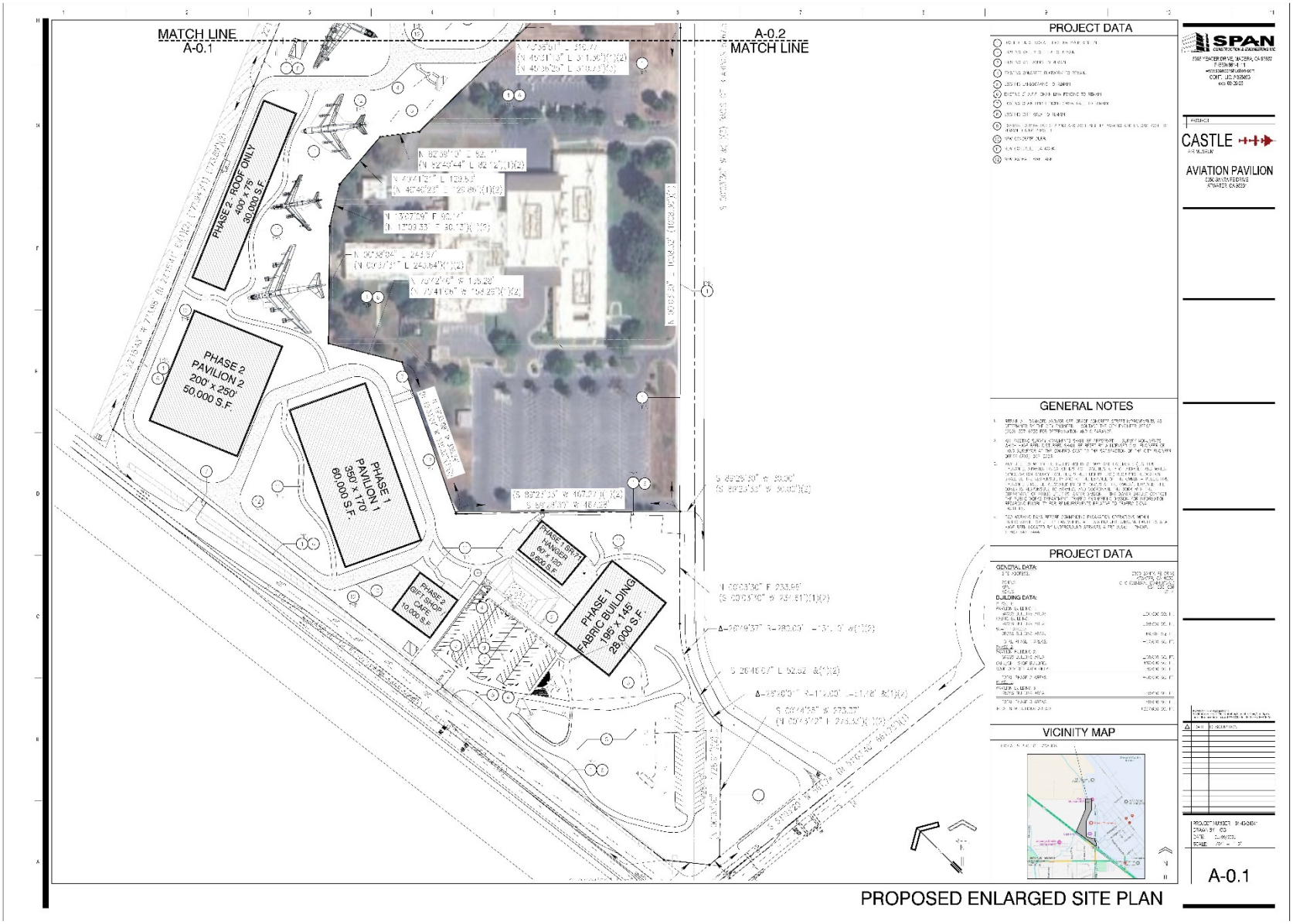

Figure 2-6 Project Site Plan

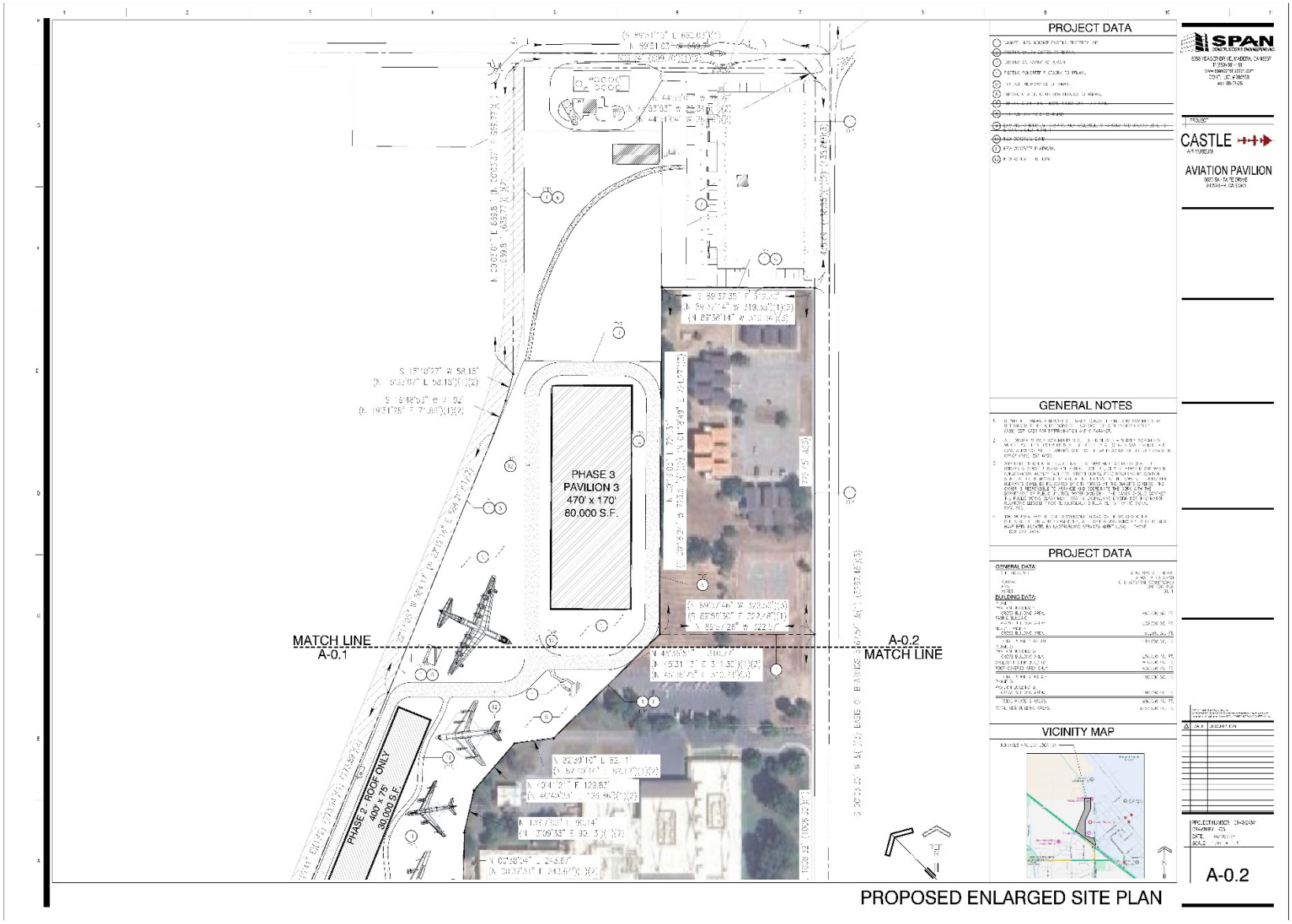

Figure 2-7 Project Site Plan

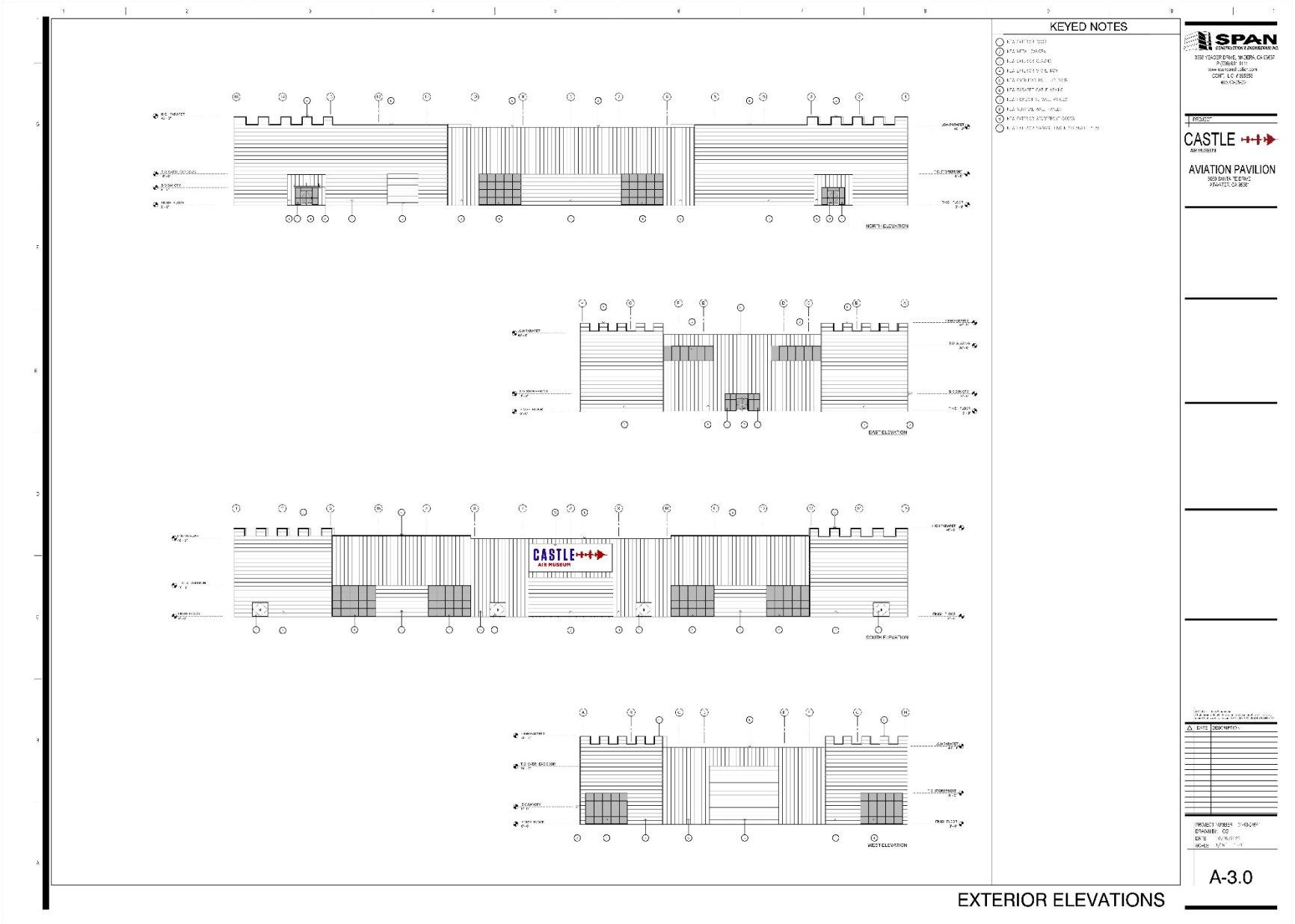

Figure 2-8 Building Elevations

Figure 2-9 3D Elevation Renderings

3.14 Required Project Approvals

The City of Atwater requires the following review, permits, and/or approvals, for the proposed Project. Other approvals not listed below may be required as identified through the entitlement process.

- Site Plan Review
- Architectural Review
- Building Permit
- Grading Permit
- Encroachment Permit
- Site Utilities Permit
- Sign Permit

In addition, other agencies may have the authority to issue permits prior to implementation of the Project including but not limited to: Atwater Fire Department, Merced County Department of Public Health, San Joaquin Valley Air Pollution Control District, Pacific Gas & Electric, Merced Irrigation District, Caltrans, and California Regional Water Quality Control Board.

3.15 Technical Studies

The analysis of the Project relied in part on the technical studies listed below prepared for the Project.

- CalEEMod Output Files (*Appendix A)*
- Biological Resources Database Results (*Appendix B*)
- CHRIS Search Results (*Appendix C*)
- NAHC Correspondence (*Appendix D*)

3.16 Consultation with California Native American Tribes

The State requires lead agencies to consider the potential effects of proposed projects and consult with California Native American tribes during the local planning process for the purpose of protecting Traditional Tribal Cultural Resources through the CEQA Guidelines. Pursuant to PRC *Section 21080.3.1(b)*: Prior to the release of a mitigated negative declaration, the lead agency shall begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if: (1) the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe, and (2) the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation.

Per AB 52, the City of Atwater compiled a list of tribes that have requested, in writing, to be informed by the City through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe. The City also requested a list of tribes with traditional lands or cultural places located within Merced County from the California Native American Heritage Commission (NAHC). This list was received on July 29, 2025. The compiled lists of tribes to be informed by the City include Amah Mutsun Tribal Band, Northern Valley Yokut / Ohlone Tribe, Southern Sierra Miwuk Nation, Tule River Indian Tribe, and Wuksachi Indian Tribe/Eshom Valley Band. The NAHC also conducted a Sacred Lands File (SFL) search which was negative. On August 21, 2025, the City

submitted written notices to each of the aforementioned tribes inviting them to engage in tribal consultation pursuant to AB 52. No responses were received within the 30-day consultation period.

4 DETERMINATION

4.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- ☐ Aesthetics
- ☐ Agriculture and Forestry Resources
- ☐ Air Quality
- ☒ Biological Resources
- ☒ Cultural Resources
- ☐ Energy
- ☒ Geology and Soils
- ☐ Greenhouse Gas Emissions
- ☐ Hazards and Hazardous Materials
- ☐ Hydrology and Water Quality
- ☐ Land Use Planning
- ☐ Mineral Resources
- ☐ Noise
- ☐ Population and Housing
- ☐ Public Services
- ☐ Recreation
- ☐ Transportation
- ☒ Tribal and Cultural Resources
- ☐ Utilities and Service Systems
- ☐ Wildfire

For purposes of this Initial Study, the following answers have the corresponding meanings:

"No Impact" means the specific impact category does not apply to the Project, or that the record sufficiently demonstrates that Project specific factors or general standards applicable to the Project will result in no impact for the threshold under consideration.

"Less Than Significant Impact" means there is an impact related to the threshold under consideration, but that impact is less than significant.

"Less Than Significant with Mitigation Incorporation" means there is a potentially significant impact related to the threshold under consideration, however, with the mitigation incorporated into the Project, the impact is less than significant. For purposes of this Initial Study "mitigation incorporated into the Project" means mitigation originally described in the GP PEIR and applied to an individual Project, as well as mitigation developed specifically for an individual Project.

"Potentially Significant Impact" means there is substantial evidence that an effect may be significant related to the threshold under consideration.

4.2 Determination

On the basis of this initial evaluation (to be completed by the Lead Agency):

☐ I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT (EIR) is required.

☐ I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An EIR is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Approved By:

Christopher Hoem 10/27/2025

Chris Hoem, City Manager Date
City of Atwater, Community Development Department

5 EVALUATION OF ENVIRONMENTAL IMPACTS

5.1 AESTHETICS

Except as provided in Public Resources Code *Section 21099*, would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Have a substantial adverse effect on a scenic vista?				X
b)	Substantially damage scenic resources, including, but not limited to, trees, rock out-croppings, and historic buildings within a state scenic highway?				X
c)	In non-urbanized areas, substantially degrade the existing visual character or quality public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?			X	
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

5.1.1 Environmental Setting

Generally, aesthetics may include scenic vistas and scenic resources (e.g. trees, rock outcroppings, historic buildings, and highways). The City of Atwater's visual features predominately include urbanized and agricultural land uses. The Project site is currently developed with open tarmacs, display pads with non-operational aircrafts, paved access roads, and the existing Castle Air Museum building. The site is generally flat. The site does not contain any geologic formations. The Project site is generally surrounded by single-family residential development (south), educational facilities (north), commercial development(east), and vacant land (east and west).

Atwater General Plan

According to the Atwater General Plan, the City recognizes scenic resources to be "open space areas" (i.e., agricultural lands) in addition to several transportation routes or "scenic corridors". The General Plan does not identify or designate "scenic vistas." The identified scenic corridors include Atwater Boulevard, First Street, Bellevue Road, Shaffer Road, Winton Way, Broadway from Winton Way to First Street, Buhach Road, Third Street, Part of Grove Avenue, and all entrances to the city. Buhach Road is south of the Project site entrance, south of Santa Fe

Drive and the railway. A scenic corridor is the view from the road that may include a distant panorama and/or the immediate roadside area. A scenic corridor encompasses the outstanding natural features and landscapes that are considered scenic, including man-made or natural environments.

Although there are two (2) state-designated scenic highways in the County of Merced (SR 152, approximately 23 miles south, and Interstate 5, approximately 36 miles west), these highways are not within city limits and thus, the City does not designate them as scenic resources. Lastly, the General Plan identifies places of contemporary historical significance in the city including the Bloss Manson, Bloss Library, and Castle Air Museum. Applicable goals and policies within the Open Space and Conservation Element are as follows.

GOAL CO-9 Protect and enhance historical and culturally significant resources within the Planning Area.

Policy CO-9.1 Ensure consideration and proper handling of prehistoric, cultural, and archaeological resources during the development process.

Policy CO-9.2 Preserve and maintain structures and features identified as historically significant by the City, including but not limited to, the Bloss Mansion and Bloss Library.

Policy CO-0.3 Encourage public and private efforts to identify, preserve, protect, and/or restore historic buildings, structures, landmarks, and important cultural resources. Implementation

Program CO-9.a Attach the following standard condition to all discretionary development projects: "If a previously unknown archaeological site is uncovered during in the course of development, all development activity in the vicinity of the site shall cease until a qualified archaeologist completes an investigation. The archaeologist shall submit a report to the City that includes a determination of the significance of the site and recommendations on its disposition. "

The City Code of Atwater, California

The City Code of Atwater, California, also known as the Atwater Municipal Code (AMC), outlines enforceable requirements for all new developments to prevent lighting and glare impacts, as listed below:

Section17.44.150 – Site Design

L. Lighting.

> *1. Lighting should be used to provide illumination for the security and safety of onsite areas such as parking, loading, pathways, and work areas.*
>
> *2. The design of light fixtures and their structural supports shall be architecturally compatible with the main structures in the development and shall not impact adjacent properties.*

California Scenic Highway Program

The California Scenic Highway Program was established in 1963 with the purpose of protecting and enhancing the natural scenic beauty of California highways and adjacent corridors, through special conservation treatment. A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment

of the view. There are no officially designated State Scenic Highways in the City of Atwater, inclusive of the Project site. [1]

5.1.2 Impact Assessment

*Except as provided in PRC Section 21099, **would the Project**:*

a) Have a substantial adverse effect on a scenic vista?

No Impact. The Project site has historically been used for military purposes as part of the former Castle Air Force Base and is now operated by the Castle Air Museum Foundation as the Castle Air Museum. As discussed in the Environmental Setting, the Project site is not near state-designated scenic highways; the nearest scenic highways are SR 152, located approximately 23 miles south and Interstate 5, located approximately 36 miles west. [2] The Project site contains the Castle Air Museum, which the General Plan identifies as a place of contemporary historical significance and applies policies, CO-9.1, CO-9.2, and CO-9.3, intended to ensure consideration and proper handling of cultural and archeological resources, preserve and maintain historically significant structures and features, and encourage efforts to identify, preserve, protect, and/or restore historic buildings, structures landmarks, and resources. The Project is part of the Castle Air Museum, and the development of the Castle Air Museum Pavilion Project would be subject to compliance with these applicable policies and through compliance would not adversely affect the campus. As a result, the Project would not adversely affect scenic vistas and no impact would occur because of the Project.

Mitigation Measures

None required.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. According to the California State Scenic Highway Program, there are no officially designated State Scenic Highways in the City of Atwater, inclusive of the Project site. The nearest designated highways are located approximately 23 miles south and Interstate 5, located approximately 36 miles west. [3] As such, the proposed Project would not impact or damage scenic resources, including trees, rock-out croppings, and historic buildings with a state scenic highway and no impact would occur as a result of the Project.

Mitigation Measures

None required.

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[1] Caltrans. California State Scenic Highway System Map. Accessed on August 18, 2025 https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa

[2] Caltrans. California State Scenic Highway System Map. Accessed on August 18, 2025 https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa

[3] Caltrans. California State Scenic Highway System Map. Accessed on August 18, 2025 https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?

Less than Significant Impact. The Project site has historically been used for military purposes as part of the former Castle Air Force Base and is now operated by the Castle Air Museum Foundation as the Castle Air Museum. Development of the Project site will not have a significantly different character from the surrounding area. In addition, through the entitlement process, development would be subject to compliance with applicable policies and regulations that govern scenic quality including but not limited to the General Plan, Atwater Municipal Code, and California Building Code. Compliance would ensure that development of the site would not conflict with applicable zoning and other regulations governing scenic quality. Therefore, a less than significant impact would occur.

Mitigation Measures

None required.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less than Significant Impact. Generally, lighting impacts are associated with artificial lighting in evening hours either through interior lighting from windows or exterior lighting (e.g., street lighting, parking lot lighting, landscape lighting, cars, and trucks). Development of the Project site would incrementally increase the amount of light from streetlights, exterior lighting, and vehicular headlights within the footprint of the existing museum campus. Such sources could create adverse effects on day or nighttime views in the area.

As mentioned above, the Project would introduce new light sources into the area, including temporary light and glare resulting from construction activities that could adversely affect day or nighttime views. Although construction activities are anticipated to occur primarily during daylight hours, it is possible that some activities could occur during dusk or early evening hours (pursuant to Atwater Municipal Code *Section 8.44.050*, construction activities are allowed between 7:00 AM and 7:00 PM). Construction during these time periods could result in light and glare from construction vehicles or equipment. However, construction would occur primarily during daylight hours, within the campus footprint, and would be temporary in nature. Once construction is completed, any light and glare from these activities would cease to occur.

Regarding operations, the Project includes lighting to provide interior lighting, lamps, outdoor lighting, etc. Lighting design would be required to comply with the Atwater Municipal Code, which contains specific, enforceable requirements and/or restrictions intended to prevent light and glare impacts (pursuant to Atwater Municipal Code *Section 8.32.030*, the City does not allow lights, lighted signs, or other devices that direct or reflect glare onto public right-of-way or neighboring properties). The lighting design guide covers outdoor spaces including regulations for mounted luminaires (i.e., high efficacy, motion sensor controlled, time clocks, energy management control systems, etc.). As such, conditions imposed on the Project by the City of Atwater under their Municipal Code, in addition to Title 24 requirements, would reduce light and glare impacts to a less than significant impact.

Mitigation Measures

None required.

5.2 AGRICULTURE AND FORESTRY RESOURCES

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				X
d)	Result in the loss of forest land or conversion of forest land to non-forest use?				X
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

5.2.1 Environmental Setting

The Project site is located within the City of Atwater and is planned and zoned for commercial uses. The Project site is currently developed with open tarmacs, display pads with non-operational aircrafts, paved access roads, and the existing Castle Air Museum. The existing biotic conditions and resources of the site can be defined primarily as ruderal and herbaceous vegetation with heavy alteration due to the development and ongoing museum operations. There are existing trees and shrubs on the western boundary of the site and surrounding the existing buildings and parking lots. No water features are present onsite. The Project site does not contain any forestry resources (e.g., forest land or timberland).

Farmland Monitoring and Mapping Program

The California Department of Conservation manages the Farmland Mapping and Monitoring Program (FMMP) that provides maps and data for analyzing land use impacts on farmland. The FMMP produces the Important Farmland Finder as a resource map that shows quality (soils) and land use information. Agricultural land is rated according to soil quality and irrigation status, in addition to many other physical and chemical characteristics. The highest quality land is called "Prime Farmland" which is defined by the FMMP as "farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date. 4 Maps are updated every two years. According to the FMMP, California Important Farmland Finder, the Project site is classified as "Urban and Built-Up Land as defined below.[5] Figure 4-1 shows the farmland type classification within the Project vicinity.

> Urban and Built-Up Land (D): Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.

California Land Conservation Act

The California Land Conservation Act of 1965 (i.e., the Williamson Act) allows local governments to enter contracts with private landowners to restrict parcels of land agricultural or open space uses. In return, property tax assessments of the restricted parcels are lower than full market value. The minimum length of a Williamson Act contract is 10 years and automatically renews upon its anniversary date; as such, the contract length is essentially indefinite. The Project site is not subject to the Williamson Act.

[4] California Department of Conservation. Important Farmland Categories. Accessed on August 25, 2025, https://www.conservation.ca.gov/dlrp/fmmp/Pages/Important-Farmland-Categories.aspx
[5] California Department of Conservation. (2018). California Important Farmland Finder. Accessed on August 25, 2025, https://maps.conservation.ca.gov/DLRP/CIFF/

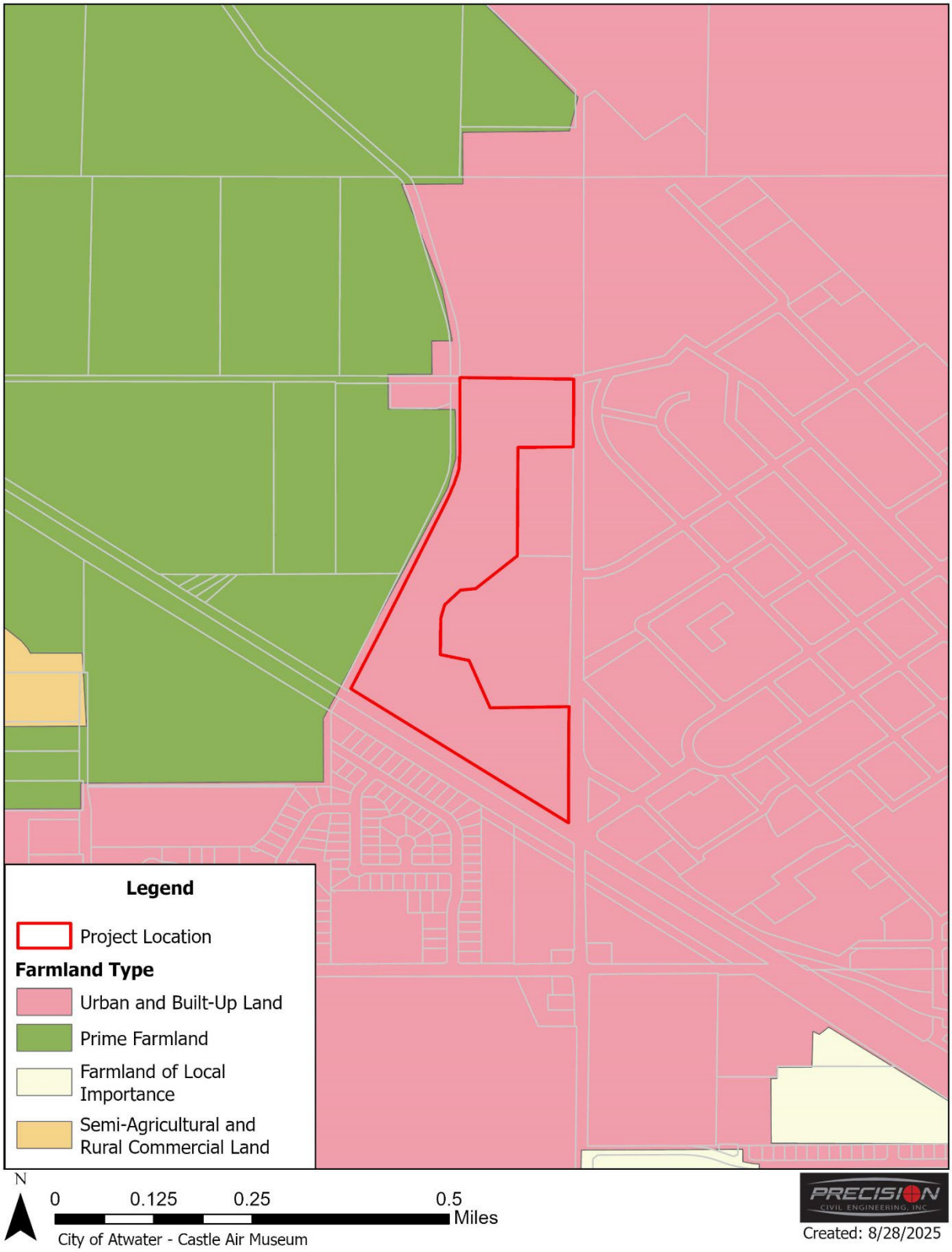


Figure 4-1 Farmland Type

5.2.2 Impact Assessment

Would the Project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. The Project is not located on any lands designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. According to the California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP), California Important Farmland Finder, the Project site is classified as "Urban and Built-Up Land." While surrounding properties include areas classified as Prime Farmland, Semi-Agricultural and Rural Commercial Land, and Urban and Built-Up Land, the Project would be confined to the existing, developed museum campus and would not convert, encroach upon, or otherwise alter any adjacent farmland. Therefore, the Project would not convert any designated farmland to non-agricultural use and there would be no impact.

Mitigation Measures

None required.

b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

No Impact. The Project site is not zoned for agricultural use and is currently developed as part of the Castle Air Museum campus. The Project site is not subject to a Williamson Act contract. While adjacent lands include areas zoned for agricultural use, they are not subject to a Williamson Act contract. The Project would not alter or conflict with the use or management of these agricultural lands or a Williamson Act contract. Therefore, no impact would occur.

Mitigation Measures

None required.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. The Project site is not located on land zoned for forest land, timberland, or Timberland Production, as defined by the relevant sections of the Public Resources Code and Government Code. Therefore, the Project would not conflict with existing zoning for these land uses or require any rezoning, and no impacts would occur.

Mitigation Measures

None required.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The Project site does not contain forest land, nor is it designated or zoned for forest uses. Therefore, the Project would not result in the loss of forest land or conversion of forest land into non-forest use, and no impacts would occur.

Mitigation Measures

None required.

e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No Impact. The Project site is not located on any lands designated for Farmland or forest land. Although portions of the surrounding area are designated for farmland or agricultural land, the Project would not extend into or physically alter those lands. The Project would not require the extension of infrastructure, such as new roads or utilities, into areas containing Farmland or forest land that could result in future conversion of Farmland or forest land to non-agricultural or non-forest use. The Project is consistent with the existing commercial and residential land use patterns in the surrounding area. This consistency minimizes the potential for the Project to result in future conversion of farmland or forest land to non-agricultural or non-forest use. In addition, the Project does not have any components that would affect the continued agricultural or forestry uses on nearby lands. Therefore, impacts would be less than significant.

Mitigation Measures

None required.

5.3 AIR QUALITY

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Conflict with or obstruct implementation of the applicable air quality plan?			X	
b)	Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?			X	
c)	Expose sensitive receptors to substantial pollutant concentrations?		X		
d)	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

5.3.1 Environmental Setting

Atwater lies within the central portion of the San Joaquin Valley Air Basin (SJVAPCD) that is bounded by the Sierra Nevada Mountain range to the east, Coastal Ranges to the west, and Tehachapi mountains to the south. The San Joaquin Valley Air Pollution Control District (SJVAPCD) regulates air quality in eight (8) counties including: Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare. The SJVAPCD oversees the SJVAB.

Impacts on air quality result from emissions generated during short-term activities (construction) and long-term activities (operations). Construction-related emissions consist mainly of exhaust emissions (NOx and PM) from construction equipment and other mobile sources, and fugitive dust (PM) emissions from earth moving activities. Operational emissions are source specific and consist of permitted equipment and activities and non-permitted equipment and activities.

Air pollution in the SJVAB can be attributed to both human-related (anthropogenic) and natural (non-anthropogenic) activities that produce emissions. Air pollution from significant anthropogenic activities in the SJVAB includes a variety of industrial-based sources as well as on- and off-road mobile sources. Four main sources of air pollutant emissions in the SJVAB are motor vehicles, industrial plants, agricultural activities, and construction activities. All four (4) of the major pollutant sources affect ambient air quality throughout the SJVAB. These sources, coupled with geographical and meteorological conditions unique to the area, stimulate the formation of unhealthy air. Air pollutants can remain in the atmosphere for long periods and can build to unhealthful levels when stagnant conditions that are common in the San Joaquin Valley occur. Pollutants are transported downwind from urban areas with many emission sources which are also recirculated back to the urban areas.

Further, the SJVAB is in non-attainment for ozone, PM_{10}, and $PM_{2.5}$, which means that certain pollutants' exposure levels are often higher than the normal air quality requirements. Air quality standards have been set to protect

public health, particularly the health of vulnerable people. Therefore, if the concentration of those contaminants exceeds the norm, some susceptible individuals in the population are likely to experience health effects. Concentration of the pollutant in the air, the length of time exposed and the individual's reaction are factors that affect the extent and nature of the health effects.

San Joaquin Valley Air Pollution Control District

The SJVAPCD is the agency primarily responsible for ensuring that National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) are not exceeded and that air quality conditions are maintained in the SJVAB, within which the Project is located. Responsibilities of the SJVAPCD include, but are not limited to, preparing plans for the attainment of ambient air quality standards, adopting and enforcing rules and regulations concerning sources of air pollution, issuing permits for stationary sources of air pollution, inspecting stationary sources of air pollution and responding to citizen complaints, monitoring ambient air quality and meteorological conditions, and implementing programs and regulations required by the Federal Clean Air Act (FCAA) and the California Clean Air Act (CCAA).

The SJVAPCD rules and regulations that may apply to projects that will occur during buildout of the project include but are not limited to the following:

> ***Rule 2010 – Permits Required.*** *The purpose of this rule is to require any person constructing, altering, replacing or operating any source operation which emits, may emit, or may reduce emissions to obtain an Authority to Construct or a Permit to Operate. This rule also explains the posting requirements for a Permit to Operate and the illegality of a person willfully altering, defacing, forging, counterfeiting or falsifying any Permit to Operate.*
>
> ***Rule 2201 – New and Modified Stationary Source Review Rule.*** *The purpose of this rule is to provide for the following:*
>
> *The review of new and modified Stationary Sources of air pollution and to provide mechanisms including emission trade-offs by which Authorities to Construct such sources may be granted, without interfering with the attainment or maintenance of Ambient Air Quality Standards; and*
>
> *No net increase in emissions above specified thresholds from new and modified Stationary Sources of all nonattainment pollutants and their precursors.*
>
> ***Rule 4001 – New Source Performance Standards.*** *This rule incorporates the New Source Performance Standards from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR).*
>
> ***Rule 4002 – National Emission Standards for Hazardous Air Pollutants.*** *This rule incorporates the National Emission Standards for Hazardous Air Pollutants from Part 61, Chapter I, Subchapter C, Title 40, Code of Federal Regulations (CFR) and the National Emission Standards for Hazardous Air Pollutants for Source Categories from Part 63, Chapter I, Subchapter C, Title 40, Code of Federal Regulations (CFR).*
>
> ***Rule 4102 – Nuisance.*** *The purpose of this rule is to protect the health and safety of the public and applies to any source operation that emits or may emit air contaminants or other materials.*
>
> ***Rule 4601 – Architectural Coatings.*** *The purpose of this rule is to limit VOC emissions from architectural coatings. This rule specifies architectural coatings storage, cleanup, and labeling requirements.*

Rule 4641 – Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations. *The purpose of this rule is to limit VOC emissions from asphalt paving and maintenance operations. This rule applies to the manufacture and use of cutback asphalt, slow cure asphalt and emulsified asphalt for paving and maintenance operations.*

Regulation VIII – Fugitive PM10 Prohibitions. *The purpose of Regulation VIII (Fugitive PM10 Prohibitions) is to reduce ambient concentrations of fine particulate matter (PM10) by requiring actions to prevent, reduce or mitigate anthropogenic fugitive dust emissions.*

Rule 9510 – Indirect Source Review. *The purposes of this rule are to:*

1. Fulfill the District's emission reduction commitments in the PM10 and Ozone Attainment Plans.

2. Achieve emission reductions from the construction and use of development projects through design features and on-site measures.

3. Provide a mechanism for reducing emissions from the construction of and use of development projects through off-site measures.

Thresholds of Significance

To assist local jurisdictions in the evaluation of air quality impacts, the SJVAPCD has published the *Guide for Assessing and Mitigating Air Quality Impacts* (GAMAQI). SJVAPCD recommends a three (3)-tiered approach to air quality analysis based on project size to allow quick screening for CEQA impacts:

1. Small Project Analysis Level (SPAL): based on the District's New Source Review, the District pre-quantified emissions and determined values as thresholds of significance for criteria pollutants. Residential, commercial, retail, industrial, educational, and recreational land uses are eligible to use this for screening. The SPAL was published on November 13, 2020, by the SJVAPCD to determine potential impacts in GAMAQI.[6] SPAL is based on a CalEEMod version 2016.3.2.
2. Cursory Analysis Level (CAL): CAL is used to determine significance on projects that exceed the SPAL criteria. Analysis includes using CalEEMod to estimate emissions and air pollutants.
3. Full Analysis Level (FAL): this level of analysis is usually required for an EIR. It requires a full air quality report that describes impacts on the public.

GAMAQI also includes recommended thresholds of significance to be used for the evaluation of short-term construction, long-term operational, odor, toxic air contaminant, and cumulative air quality impacts. Accordingly, the SJVAPCD-recommended thresholds of significance are used to determine whether implementation of the proposed Project would result in a significant air quality impact. Projects that exceed these recommended thresholds would be considered to have a potentially significant impact on human health and welfare. The thresholds of significance are summarized, as follows:

[6] San Joaquin Valley Air Pollution Control District. (2020). "Small Project Analysis Levels (SPAL)". Accessed on January 14, 2025, https://www.valleyair.org/transportation/CEQA%20Rules/GAMAQI-SPAL.PDF

Criteria Air Pollutants

SJVAPCD adopted thresholds of significance for criteria air pollutants, as shown in Table 4-1. [7] The thresholds of significance are based on a calendar year basis. For construction emissions, the annual emissions are evaluated on a rolling 12-month period. The following summarizes these thresholds:

Short-Term Emissions of Particulate Matter (PM_{10}): Construction impacts associated with the proposed Project would be considered significant if the feasible control measures for construction in compliance with Regulation VIII as listed in the SJVAPCD guidelines are not incorporated or implemented, or if project-generated emissions would exceed 15 tons per year (TPY).

Short-Term Emissions of Ozone Precursors (ROG and NOX): Construction impacts associated with the proposed Project would be considered significant if the project generates emissions of Reactive Organic Gases (ROG) or NO_X that exceeds 10 TPY.

Long-Term Emissions of Particulate Matter (PM_{10}): Operational impacts associated with the proposed Project would be considered significant if the project generates emissions of PM_{10} that exceed 15 TPY.

Long-Term Emissions of Ozone Precursors (ROG and NOX): Operational impacts associated with the proposed Project would be considered significant if the project generates emissions of ROG or NOX that exceeds 10 TPY.

Table 4-1 SJVAPCD Recommended Air Quality Thresholds of Significance.

Pollutant	Significance Threshold	
	Construction Emissions (tons/year)	Operational Emission (tons/year)
CO	100	100
NO_X	10	10
ROG	10	10
SO_X	27	27
PM_{10}	15	15
$PM_{2.5}$	15	15

Conflict with or Obstruct Implementation of Applicable Air Quality Plan

Air Quality Plans (AQPs) are plans for reaching the attainment of air quality standards. The applicable AQP for the SJVAB is the GAMAQI. Due to the region's nonattainment status for ozone, $PM_{2.5}$, and PM_{10}, if the Project-generated emissions of either of the ozone precursor pollutants (i.e., ROG and NO_x) or PM_{10} would exceed the SJVAPCD's significance thresholds, then the Project would be considered to be conflicting with the AQP. In addition, if the Project would result in a change in land use and corresponding increases in vehicle miles traveled, the Project may result in an increase in vehicle miles traveled that is unaccounted for in regional emissions inventories contained in regional air quality control plans. Vehicle Miles Traveled are analyzed in Section 4.17.

[7] SJVAPCD. (2015). Guidance for Assessing and Mitigating Air Quality Impacts. Accessed on September 2, 2025, https://ww2.valleyair.org/media/g4nl3p0g/gamaqi.pdf

Local Mobile-Source CO Concentrations

Local mobile source impacts associated with the proposed Project would be considered significant if the project contributes to CO concentrations at receptor locations in excess of the CAAQS (i.e., 9.0 ppm for 8 hours or 20 ppm for 1 hour).

Toxic Air Contaminants

Exposure to toxic air contaminants (TAC) would be considered significant if the probability of contracting cancer for the Maximally Exposed Individual (i.e., maximum individual risk) would exceed 10 in 1 million or would result in a Hazard Index greater than one (1).

As recommended by the SJVAPCD, the latest approved California Air Pollution Control Officer's Association (CAPCOA) methodology was utilized as the TAC screening methodology. According to the CAPCOA Guidance Document titled "Health Risk Assessments for Proposed Land Use Projects," there are two types of land use project that have the potential to cause long-term public health risk impacts. These project types are as follows:

- Type A: Land use projects with toxic emissions that impact receptors, and
- Type B: Land use project that will place receptors in the vicinity of existing toxics sources.

In this Guidance document, Type A projects examples are (project impacts receptors):

- combustion related power plants,
- gasoline dispensing facilities,
- asphalt batch plants,
- warehouse distribution centers,
- quarry operations, and
- other stationary sources that emit toxic substances.

Odor

The intensity of an odor source's operations and its proximity to sensitive receptors influences the potential significance of odor emissions. Specific land uses that are considered sources of undesirable odors include landfills, transfer stations, composting facilities, sewage treatment plants, wastewater pump stations, asphalt batch plants and rendering plants. The SJVAPCD has identified these common types of facilities that have been known to produce odors in the SJVAB and has prepared screening levels for potential odor sources ranging from one to two miles of distance from the odor-producing facility to sensitive receptors. Odor impacts would be considered significant if the project has the potential to frequently expose members of the public to objectionable odors.

Ambient Air Quality

The SJVAPCD applies the following guidance in determining whether an ambient air quality analysis should be performed: when assessing the significance of project-related impacts on air quality, it should be noted that the impacts may be significant when on-site emission increases from construction activities or operational activities exceed the 100 pounds per day screening level of any criteria pollutant after implementation of all enforceable mitigation measures. Under such circumstances, the SJVAPCD recommends that an ambient air quality analysis be performed.

Methodology

SJVACPD's Guidelines recommend using the CalEEMod software program to calculate project emissions. CalEEMod is a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions from land use projects. The model quantifies direct emissions from construction and operation (including vehicle use), as well as indirect emissions, such as emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. The model also identifies mitigation measures to reduce criteria pollutant and GHG emissions.

5.3.2 Impact Assessment

Would the Project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant Impact. According to the GAMAQI, projects with emissions below the thresholds of significance for criteria pollutants would be determined to *"not conflict or obstruct implementation of the District's air quality plan."* The following analysis estimates criteria pollutants for buildout under the proposed Project using CalEEMod™ (Version 2022.1.1.29) that was modeled on September 8, 2025. Output files are in Appendix A.

Construction Emissions

Construction activities associated with the Project would include site preparation, grading, building construction, paving, and architectural coating. Table 4-2 provides the estimated construction criteria pollutant emissions of the Project. As shown, all estimated emissions are below significance thresholds. As a result, it can be anticipated that construction emissions as a result of the implementation of the Project would be less than significant.

Table 4-2 Construction Emissions of Criteria Air Pollutants, Unmitigated

Emissions Source (Tons Per Year)	CO	NO_x	ROG	PM_{10}	$PM_{2.5}$
Construction Year 2026	1.71	1.39	0.21	0.11	0.06
Maximum Year of Emissions	**1.71**	**1.39**	**0.21**	**0.11**	**0.06**
Significance Threshold	100	10	10	15	15
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**

Source: *CalEEMod, Version 2022.1.1.29, ran on September 8, 2025. See Appendix A.*

Operational Emissions

Pollutants of concern include ROG, NO_X, CO, PM_{10}, and $PM_{2.5}$. Table 4-3 provides the estimated operational criteria pollutant emissions of the Project. As shown, all estimated emissions are below significance thresholds. Therefore, the operational emissions would be less than significant.

Table 4-3 Operational Emissions of Criteria Air Pollutants, Unmitigated

Emissions Source (Tons Per Year)	CO	NO_x	ROG	PM_{10}	$PM_{2.5}$
Mobile	0.00	0.00	0.00	0.00	0.00
Area	0.34	<0.005	0.42	<0.005	<0.005
Energy	0.11	0.01	0.01	0.01	0.01
Total Operational Emissions	**0.45**	**< 0.015**	**0.43**	**< 0.015**	**<0.015**
Significance Threshold	100	10	10	15	15
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**

Source: *CalEEMod, Version 2022.1.1.29, ran on September 8, 2025. See Appendix A.*

Mitigation Measures

None required.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?

Less than Significant Impact. The SJVAB is in non-attainment for ozone, PM_{10}, and $PM_{2.5}$, which means that certain pollutants' exposure levels are often higher than the normal air quality requirements. The requirements have been set to protect public health, particularly the health of vulnerable populations. Therefore, if the concentration of those contaminants exceeds the norm, some susceptible individuals in the population are likely to experience health effects. As discussed under criterion a) and shown in Table 4-2 and Table 4-3 , the Project would generate criteria pollutant emissions below thresholds of significance established by the SJVAPCD. Projects that do not exceed these thresholds are not considered to contribute substantially to a cumulative air quality impact. Furthermore, the SJVAPCD does not require quantification of emissions for projects that fall below screening levels, as such projects are presumed to have a less than significant cumulative impact. Therefore, the Project's contribution to cumulative criteria pollutant emissions would not be cumulatively considerable, and impacts would be less than significant.

Mitigation Measures

None required.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact. Sensitive receptors are defined as people that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptors include schools, parks and playgrounds, day care centers, nursing homes, hospitals, and residential dwelling units. The nearest sensitive receptors to the Project site are single-family residences approximately 285 feet south of the site (measured from the Project's property line to existing structures of the sensitive receptors).

The SJVAPCD's GAMAQI provides screening criteria for determining the need for detailed localized air quality analyses. According to GAMAQI, projects that do not exceed screening thresholds for criteria pollutants, particularly PM_{10}, $PM_{2.5}$, NO_x, and CO, are presumed not to result in significant localized air quality impacts. As discussed under criterion a) and shown in Table 4-2 and Table 4-3, the Project's estimated emissions fall below these thresholds for both construction and operational phases. As such, pollutant concentrations generated by the Project are not anticipated to approach or exceed ambient air quality standards or levels considered to pose a substantial risk to sensitive receptors.

Project construction would involve the use of diesel-fueled vehicles and equipment that emit diesel particulate matter (DPM), which is considered a TAC. DPM includes exhaust PM_{10} and $PM_{2.5}$. Health risks from TACs are a function of both concentration and duration of exposure. Although DPM would be emitted during construction, emissions would last only during construction activities.

Facilities that area classified as "High" priority by the SJVAPCD are required to perform a Health Risk Assessment (HRA) to determine whether their toxic emissions pose a significant risk to nearby residents and workers. Facilities are subject to quantifying and reporting their toxic emissions if one or more of the criteria below is met: emit 10 or more tons per year of criteria pollutants (particulate matter, oxides of nitrogen, oxides of sulfur, or organic gasses;

or emit less than 10 tons per year of criteria pollutants, but meet one or more of the classes listed in Appendix E of the CARB's Emission Inventory Criteria and Guidelines Regulation (EICGR). The Project would emit less than 10 tons per year of criteria pollutants and does not meet one or more of the classes listed in Appendix E of the EICGR. Therefore, per SJVAPD's guidance, a health risk assessment is not required.

In addition, construction activities would be required to comply with all rules and regulations administered by the SJVAPCD including but not limited to Rule 9510 (Indirect Source Review), Regulation VIII (Fugitive PM_{10} Prohibitions), Rule 2010 (Permits Required), Rule 2201 (New and Modified Stationary Source Review), Rule 4402 (Nuisance), Rule 4601 (Architectural Coatings), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). As a result, impacts would be less than significant.

Mitigation Measures

None required.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than Significant Impact. Specific uses and operations that are considered sources of undesirable odors include landfills, transfer stations, composting facilities, sewage treatment plants, wastewater pump stations, asphalt batch plants and rendering plants. The SJVAPCD GAMAQI has identified these common types of facilities that have been known to produce odors in the SJVAB and has prepared screening levels for potential odor sources ranging from one to two miles of distance from the odor-producing facility to sensitive receptors. The Project would not consist of such land uses; rather, implementation of the proposed Project would facilitate the development of commercial/office, warehouse/mini-storage, and light manufacturing uses, and thus is unlikely to produce odors that would be considered to adversely affect a substantial number of people. Therefore, a less than significant impact would occur.

Mitigation Measures

None required.

5.4 BIOLOGICAL RESOURCES

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				X
c)	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		X		
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f)	Conflict with provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.		X		

5.4.1 Environmental Setting

The Project site is currently developed with open tarmacs, display pads with non-operational aircrafts, paved access roads, and the existing Castle Air Museum. The existing biotic conditions and resources of the site can be defined primarily as ruderal and herbaceous vegetation with heavy alteration due to the development and ongoing museum operations. There are existing trees and shrubs on the western boundary of the site and surrounding the existing buildings and parking lots. No water features are present on the site.

U.S. Fish and Wildlife – Special-Status Species Database

The U.S. Fish and Wildlife Service (USFWS) operates an "Information for Planning and Consultation" (IPaC) database, which is a project planning tool for the environmental review process that provides general information on the location of special-status species that are "known" or "expected" to occur (note: the database does not provide occurrences; refer to the California Department of Fish and Wildlife – Natural Diversity Database below).[8] Specifically, the database identifies 10 endangered species and 8 migratory birds that are potentially affected by activities on the Project site. The list of species is provided in Appendix B.

U.S. Fish and Wildlife – Critical Habitat Report

Once a species is listed under the federal Endangered Species Act, NOAA Fisheries is required to determine whether there are areas that meet the definition of Critical Habitat. Per NOAA Fisheries, Critical Habitat is defined as:

- Specific areas within the geographical area occupied by the species at the time of listing that contain physical or biological features essential to conservation of the species and that may require special management considerations or protection; and
- Specific areas outside the geographical area occupied by the species if the agency determines that the area itself is essential for conservation. [9]

The process of Critical Habitat designation is complex and involves the consideration of scientific data, public and peer review, economic, national security, and other relevant impacts. According to the Critical Habitat for Threatened & Endangered Species Report updated August 29, 2025, the City of Atwater, inclusive of the Project site and its immediate vicinity (0.5-mile radius from the site) are not located within a federally designated Critical Habitat. [10] No critical habitats are identified within the city limits. The closest federally designated Critical Habitat is located approximately 4.5 miles north of the Project site designated for the fleshy owl's-clover (*Castilleja campestris ssp. Succulenta*), conservancy fairy shrimp (*Branchinecta conservatio*), Vernal pool fairy shrimp (*Branchinecta lynchi*), Greene's tuctoria (*Tuctoria greenei*), San Joaquin Valley Orcutt grass (*Orcuttia inaequalis*), and Colusa grass (*Neostapfia colusana).*

[8] U.S. Fish and Wildlife Service. Information and Planning Consultation Online System. Accessed on August 29, 2025, https://ecos.fws.gov/ipac/
[9] National Oceanic and Atmospheric Administration (NOAA). Critical Habitat. Accessed on August 29, 2025, https://www.fisheries.noaa.gov/national/endangered-species-conservation/critical-habitat#definition-of-critical-habitat
[10] U.S. Fish & Wildlife. (2025). ECOS Environmental Conservation Online System - USFWS Threatened & Endangered Species Active Critical Habitat Report (updated May 15, 2025). Accessed June 12, 2025, https://ecos.fws.gov/ecp/report/table/critical-habitat.html

U.S. Fish & Wildlife Service – National Wetlands Inventory

The USFWS provides a National Wetlands Inventory (NWI) with detailed information on the abundance, characteristics, and distribution of U.S. wetlands. A search of the NWI shows no federally protected wetlands (including but not limited to marsh, vernal pool, coastal, etc.) on the Project site. [11] The NWI does not identify any water features within the Project site. The closest water feature is the Water Treatment Plant identified as a 0.39-acre PEM1Ch freshwater emergent wetland. The PEM1Ch indicates Palustrine System (P) that has an emergent bottom (EM), with a subclass of persistent (1), is seasonally flooded (C), and has been modified by a man-made barrier or dam that obstructs the inflow or outflow of water (h). Additionally, the Project site is not within or adjacent to a riparian area nor does the site contain water features.

Environmental Protection Agency – WATERS Geoviewer

The U.S. Environmental Protection Agency (EPA) WATERS GeoViewer provides a GeoPlatform based web mapping application of water features by location. According to the WATERS GeoViewer, there are no surface water features (i.e., streams, canals, pipelines, waterbodies, catchments, hydrologic units) within the Project site. [12]

California Department of Fish and Wildlife – Natural Diversity Database

The California Department of Fish and Wildlife (CDFW) operates the California Natural Diversity Database (CNDDB), which is an inventory of the status and locations of rare plants and animals in California in addition to the reported occurrences of such species. [13] The Project is located within the United States Geological Survey (USGS) Atwater 7.5-minute quadrangle map (Quad). According to the CNDBB, there are 11 special-status species with a total of 24 occurrences that have been observed and reported in the Atwater Quad. A list of occurrences within these Quads is provided in Appendix B.

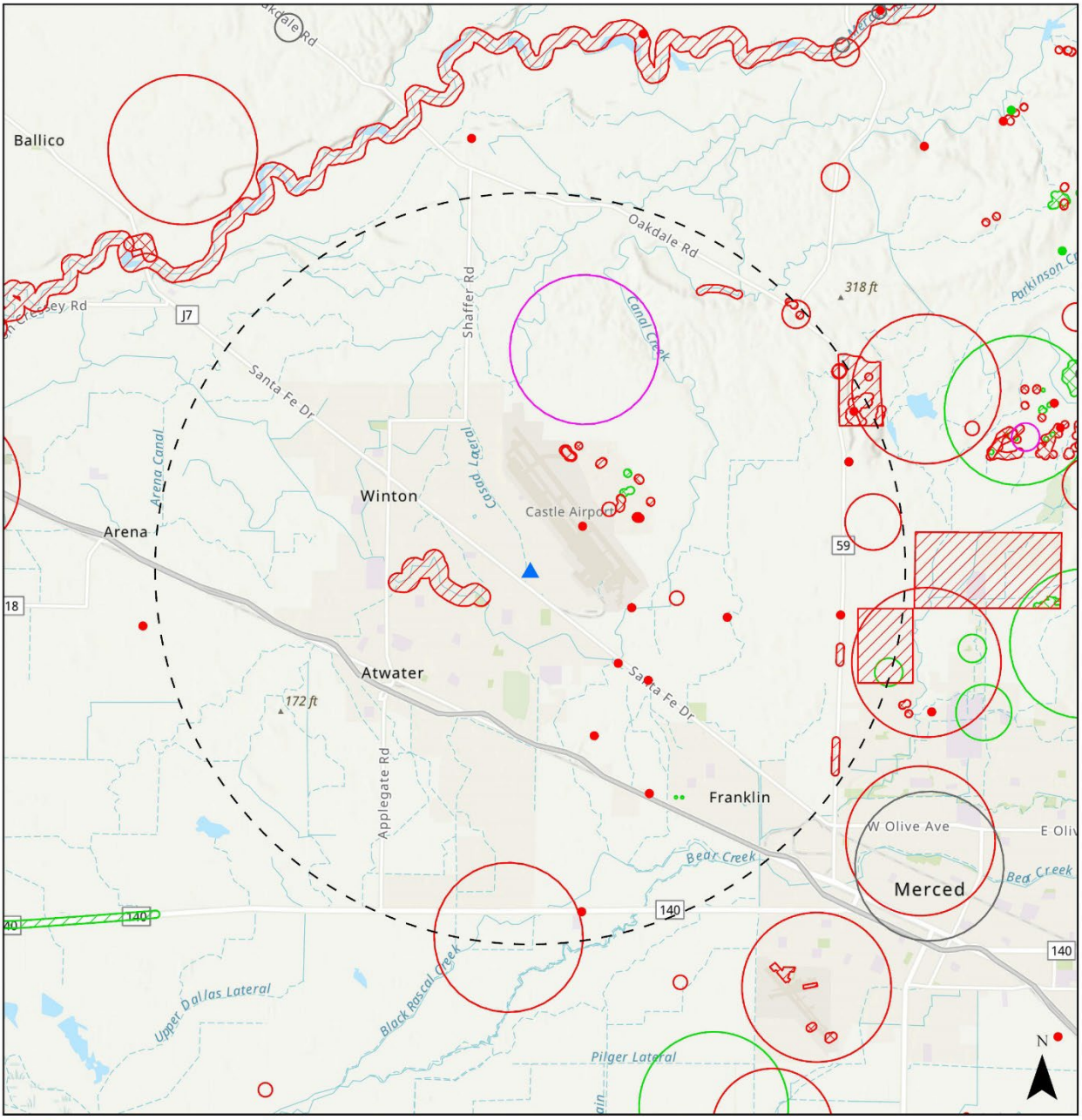
The CNDBB identifies no special status species located within the Project site. Figure 4-2 shows the CNDDB-identified occurrences of animal and plant species within the five (5)-mile radius of the Project site, which are typically historic occurrences based on submitted accounts. Table 4-4 lists all federally or state-listed special-status species CNDDB-known occurrences within the five (5)-mile radius of the Project site, organized by distance to the site. As shown, the nearest occurrence is the San Joaquin kit fox occurrence that is in a non-specific area along the irrigation canal, dated 1999. Other species that are not federally or state-listed that are near the Project site include ferruginous hawk, California linderiella, and Northern Hardpan Vernal Pool. The CNNDB ranks occurrences by the condition of habitat and ability of the species to persist over time. As shown, the occurrences within the five (5)-mile radius of the Project site are ranked as poor, fair, and good. Table 4-5 provides an analysis of essential habitats and the potential for the existence of the special-status species to exist on the Project site.

[11] U.S. Fish & Wildlife Service. National Wetlands Inventory. Accessed August 29, 2025, https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/
[12] U.S. Environmental Protection Agency. WATERS GeoViewer. Accessed August 29, 2025, https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=074cfede236341b6a1e03779c2bd0692
[13] California Department of Fish and Wildlife. California Natural Diversity Database. Accessed August 29, 2025, https://wildlife.ca.gov/Data/CNDDB

Table 4-4 Special-Status Species Occurrences within 5-mile radius of Project site

Species (Common Name)	Date	Federal Status	State Status	Distance to site
San Joaquin kit fox	1999/08/20	Endangered	Threatened	0.74 miles southwest
Burrowing owl	2017/01/26	None	Candidate Endangered	1.03 miles northeast
Northwestern pond turtle	2006/10/13	Proposed Threatened	None	1.32 miles east
Burrowing owl	2009/12/29	None	Candidate Endangered	1.37 miles northeast
Swainson's hawk	2007/06/28	None	Threatened	1.54 miles southeast
California linderiella	2016/02/18	None	None	1.60 miles northeast
Vernal pool fairy shrimp	2016/2/18	Threatened	None	1.60 miles northeast
Succulent owl's clover	1997/04/19	Threatened	Endangered	1.60 miles northeast
California tiger salamander	2016/02/17	Threatened	Threatened	1.78 miles north
California linderiella	2016/02/17	None	None	1.78 miles north
Succulent owl's clover	1997/04/19	Threatened	Endangered	1.79 miles northeast
California linderiella	2016/02/17	None	None	1.84 miles northeast
California lindereilla	2016/02/18	None	None	1.90 miles northeast
Ferruginous hawk	2006/10/04	None	None	1.90 miles northeast
California tiger salamander	2016/02/17	Threatened	Threatened	1.95 miles north
Vernal pool fairy shrimp	1997/02/13	Threatened	None	1.97 miles southeast
Burrowing owl	2006/10/24	None	Candidate Endangered	2.17 miles southeast
Burrowing owl	2006/10/06	None	Candidate Endangered	2.63 miles east
Northern hardpan vernal pool	1980/05/07	None	None	2.66 miles north
Swainson's hawk	2008/05/14	None	Threatened	3.19 miles southeast
Sanford's arrowhead	20190/05/25	None	None	3.44 miles southeast
California linderiella	2000/11/21	None	None	4.11 miles east
Vernal pool fairy shrimp	2002/01/28	Threatened	None	4.20 miles east
Tricolored blackbird	2014/04/19	None	Threatened	4.42 miles northeast
Vernal pool fairy shrimp	2002/01/11	Threatened	None	4.58 miles southeast
Swainson's hawk	2008/05/14	None	Threatened	4.41 miles south
Tricolored blackbird	1971/05/09	None	Threatened	4.41 miles south
California tiger salamander	2011/04/15	Threatened	Threatened	4.49 miles northeast
Tricolored blackbird	1935/05/27	None	Threatened	4.61 miles east
Vernal pool fairy shrimp	2005/10/05	Threatened	None	4.61 miles east
Tricolored blackbird	1935/05/27	None	Threatened	4.61 miles east
Tricolored blackbird	2008/XX/XX	None	Threatened	4.67 miles northeast
California tiger salamander	1995/03/17	Threatened	Threatened	4.73 miles northeast
Vernal pool fairy shrimp	2013/01/11	Threatened	None	4.73 miles northeast
California linderiella	2003/02/14	None	None	4.73 miles northeast
Midvalley Fairy shrimp	2013/01/11	None	None	4.73 miles northeast
California tiger salamander	1999/11/XX	Threatened	Threatened	4.89 miles northeast

Extirpated or possible extirpated occurrences are not shown on the table



Plant (80m)
Plant (specific)
Plant (non-specific)
Plant (circular)
Animal (80m)
Animal (specific)
Animal (non-specific)
Animal (circular)
Terrestrial Comm. (circular)
Multiple (specific)
Multiple (circular)
Project Site
5 Mile Radius

Note: Data Accuracy
Accuracy represents spatial uncertainty in a relative way on a scale of one to ten (from most accurate to least accurate).

- Specific -specific bounded area (Level 1)
- Non-specific-non-specific bounded area (Level 3)
- 80m-specific bounded area with an 80-meter radius (Level 1)

Note: Extirpated or possible extirpated occurrences are not labeled in the figure.

Source: California Natural Diversity Database (CNDDB) Commercial (ds85)
Accessed Date: 9/4/2025

Figure 4-2 CNDDB Occurrences within 5-miles of the Project Site

Table 4-5 Essential Habitats and Potential Existence of Special-Status Species on Site

Common Name/Type	Habitat	Potential Occurrence in the Project Site
San Joaquin kit fox	Annual grasslands or grassy open stages with scattered shrubby vegetation.	**Potentially Present.** The Project site consists of loamy sand and sand, and is covered by ruderal vegetation, which could be suitable habitat for San Joaquin kit fox.
Succulent owl's-clover	Vernal pools.	**Likely Absent.** The Project site does not contain water features. As such, the site does not provide suitable habitat.
California tiger salamander	Lives in vacant or mammal-occupied burrows throughout most of the year; in grassland, savanna, or open woodland habitats.	**Likely Absent.** Based on the absence of aquatic breeding habitat and regular disking of the site, California tiger salamander is unlikely to occur on the site.
Vernal pool fairy shrimp	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools.	**Likely Absent.** The Project site does not contain grassland or waterbodies. As such, the site does not provide suitable habitat.
Swainson's hawk	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees.	**Likely Absent.** While the regularly disked site may provide low-quality foraging habitat, it does not provide suitable nesting habitat. As such, Swainson's hawk is unlikely to occur on the site.
Northwestern pond turtle	Aquatic environments, including ponds, lakes, streams, rivers, and marshes.	**Likely Absent.** The Project site does not contain water features. As such, the site does not provide suitable habitat.
Ferruginous hawk	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats.	**Likely Absent.** The Project site is developed with existing structures, and may not provide a suitable nesting habitat. As such, Ferruginous hawk is unlikely to occur on the site.
Burrowing owl	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation.	**Potentially Present.** Burrowing owls can occupy disturbed sites if ground burrowing mammal burrows are present for nesting. As such, the site could provide suitable habitat.
California linderiella	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions.	**Likely Absent.** The Project site does not contain unplowed grassland or waterbodies. As such, the site does not provide suitable habitat.
Tricolored blackbird	Highly colonial species, most numerous in central valley and vicinity. Largely endemic to California.	**Likely Absent.** The Project site does not contain any open water. As such, the site does not provide suitable habitat.

California Fish and Game Code

Sections 3503, *3503.5*, and *3513* of the California Fish and Game Code specifically protect native birds and raptors. Mitigation for avoidance of impacts to nesting birds is typically necessary to comply with these Sections of the Fish and Game Code in CEQA. [14]

Section 3503: *It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.*

Section 3503.5: *It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.*

Section 3513: *It is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Treaty Act.*

Atwater General Plan

According to the Atwater General Plan, the City identified 21 special-status species that have the potential to occur and five (5) species that have been observed in or near the Atwater Planning Area. The General Plan established goals and policies related to biological resources in the Open Space and Conservation Element, as listed below. [15]

GOAL CO-6. *Minimize impacts of development on wildlife and wildlife habitat, particularly special status species.*

Policy CO-6.1. *Consider opportunities for habitat preservation and enhancement in conjunction with public facility projects, particularly parks and storm drainage facilities.*

Policy CO-6.2. *Encourage the preservation of corridors between natural habitat areas to allow for the movement of wildlife and to prevent the creation of "biological islands."*

Implementation Program CO-6.a. *When new development or redevelopment activities are proposed in locations with the potential for special status species to occur, require the project applicant to submit a report by a qualified biologist addressing the presence or absence of any special status species on the development site. The report shall include recommendations for avoiding or minimizing impacts on any special status species or habitat found to be present.*

The City Code of Atwater, California

The Atwater Municipal Code (AMC) establishes regulations for the removal of trees, plants, and shrubs, as described below.

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[14] The California Biologist's Handbook. California Fish and Game Code. Accessed on September 4, 2025, https://biologistshandbook.com/regulations/state-regulations/state-fish-and-game-code/#:~:text=Section%203503,any%20regulation%20made%20pursuant%20thereto.%E2%80%9D

[15] City of Atwater, California. (2000). City of Atwater 2000 General Plan Open Space and Conservation Element. Accessed on September 4, 2025, https://www.atwater.org/docs/generalplan/CHAPTER_4__OPEN_SPACE_AND_C.PDF

12.32.110 – Street tree protection.

A. It shall be unlawful for any person to break, injure, deface, mutilate, kill, or destroy any tree in any public place in the City; to knowingly cause or permit any wire charged with electricity to come into contact with any tree in any public place, and to place, apply, attach, or keep attached to any such tree or to any guard or stake in a manner that will be injurious to the tree, or install any wire, rope, sign, paint, or other substance, structure, or device of any kind or nature whatsoever; and to place or maintain any stone, cement, or other substance so that it shall substantially impede the free access of water or air to the roots of any street tree. Temporary exceptions can be made between Thanksgiving and January 15th for the mounting of seasonal holiday lights. These lights must be mounted so that the bark and cambium layer of the tree is not breached (no nails, lights must be mounted with adequate slack). Owners of property are hereby granted the right to place and maintain plants in the planting area of streets adjacent to their property unless otherwise prohibited by this chapter.

B. During the erection, repair, alteration, removal or moving of any building, house, or structure, sufficient tree protection measures shall be placed to prevent injury, damage, or defacement to any park or street tree in the vicinity of such operation.

12.32.120 – Tree removals and abatement.

No City-owned tree or street tree shall be trimmed or removed, except in conformance with the terms of this chapter.

A. The director shall be responsible for inspection, maintenance, removal, and replacement of those specific street trees planted within rights-of-way or easements which are maintained by the City as stated in the master plan, Section IV and as follows. The property owner will be given five working days to appeal the designated action. The appeal will be considered at the next regularly scheduled Commission meeting. The Commission's decision may be appealed to the City Council.

B. If a homeowner would like to expedite the removal of the City-owned tree in front of their house that meets the removal criteria, they may notify the City. When the owner receives the City's approval, the tree may be removed at the owner's expense. No reimbursement will be provided by the City.

C. The stump for any removed tree will be ground within one month of removal in order to allow for future tree planting.

5.4.2 Impact Assessment

Would the Project:

a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?*

Less than Significant with Mitigation Incorporated. To assess the potential presence of special-status species, queries were conducted using the CDFW CNDDB and the USFWS IPaC databases. These databases provide information on the status and locations of rare plants and animals. As identified in the Environmental Setting, the queries identified potential special-status species within or near the Project site. No critical habitat exists within or

directly adjacent to the site, as designated by federal agencies. The CNDDB Bios mapping (Figure 4-2), along with Table 4-4, summarize the query results and characterize the site's habitat.

The analysis in Table 4-5 identified the San Joaquin Kit Fox and Burrowing Owl as a species with a moderate potential to occur. In addition, existing trees on the site could provide suitable nesting habitat for bird and raptor species protected under California Fish and Game Code (CFGC) Sections 3503 and 3503.5. To ensure that the Project does not have a substantial adverse effect on these species, either directly or through habitat modifications, the Project shall incorporate ***Mitigation Measure BIO-1*** through ***Mitigation Measure BIO-8.*** These measures require pre-construction surveys, avoidance, and minimization actions to prevent take of special-status species and nesting birds. Through incorporation of mitigation measures, potential impacts would be reduced to less than significant with mitigation incorporated and the Project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. As a result, impact would be less than significant with mitigation incorporated.

Mitigation Measures

Mitigation Measure BIO-1 (Pre-Construction Survey): *Within 14 days of the start of Project activities on-site and in adjacent habitat, a pre-activity survey shall be conducted by a qualified biologist knowledgeable in the identification of this species, including San Joaquin Kit Fox, Burrowing Owl, and protected birds. The surveys shall cover the canal plus surrounding upland habitat within 50 feet of the canal. Pedestrian surveys achieving 100 percent visual coverage will be conducted. Multiple surveys are anticipated to be needed, which would be phased with the construction of the Project. If no evidence of these species is detected, no further action is required.*

Mitigation Measure BIO-2 (Avoidance Buffers): *If dens/burrows that could support any of these species are discovered during the pre-activity surveys conducted under Mitigation Measure BIO-1, the avoidance buffers outlined below shall be established. No work would occur within these buffers unless the biologist approves and monitors the activity.*

San Joaquin Kit Fox

- *Potential Den - 50 feet*
- *Atypical Den - 50 feet (includes pipes and other manmade structures)*
- *Known Den - 100 feet*
- *Natal/Pupping Den - 500 feet*

Burrowing Owl (active burrows)

- *April 1-October 15 - 500 feet*
- *October 16-March 31- 100 feet*

Mitigation Measure BIO-3 (Avoidance and Minimization): *The following avoidance and minimization measures shall be implemented during all phases of the Project to reduce the potential for impact from the Project. They are modified from the US Fish and Wildlife Service Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance (USFWS 2011) and apply to all three species.*

- *Project-related vehicles shall observe a daytime speed limit of 20 mph throughout the site in all Project areas, except on county roads and state and federal highways. Nighttime construction speed limits shall be 10 mph.*
- *Off-road traffic outside of designated Project areas shall be prohibited.*
- *All Project activities shall occur during daylight hours.*
- *To prevent inadvertent entrapment of kit foxes or other animals during the construction of the Project, all excavated, steep-walled holes or trenches more than two-feet deep shall be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed.*
- *Before holes or trenches are filled, they shall be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the USFWS and the CDFW shall be contacted before proceeding with the work.*
- *In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape, or the USFWS shall be contacted for guidance.*
- *All construction pipes, culverts, or similar structures with a diameter of four inches or greater that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for kit foxes and burrowing owls before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox or burrowing owl is discovered inside a pipe, that section of pipe shall not be moved until the USFWS has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity until the fox or owl has escaped.*
- *All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once a week from a construction or Project site.*
- *No firearms shall be allowed on the Project site, except by authorized law enforcement personnel.*
- *No pets, such as dogs or cats, shall be permitted on the Project site.*
- *Use ofrodenticides and herbicides in Project areas shall be restricted.*
- *A representative shall be appointed by the Project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or burrowing owl or who finds a dead, injured, or entrapped kit fox, or burrowing owl. The representative shall be identified during the employee education program and their name and telephone number shall be provided to the US Fish and Wildlife Service and California Department of Fish and Wildlife.*
- *An employee education program shall be developed and presented to Project personnel. The program shall consist of a brief presentation by persons knowledgeable in kit fox, and burrowing owl, biology, and the legislative protections in place. The program shall include the following: a description of each species' natural history and habitat needs; a report of the occurrence of each species in the Project area; an explanation of the status of each species and its protections under federal and state laws; and a list of measures being taken to reduce impacts to each species during Project construction and implementation. A fact sheet conveying this information shall be prepared for distribution to the previously referenced people and anyone else who may enter the Project site.*
- *Upon completion of the Project, all areas subject to temporary ground disturbances (including storage and staging areas, temporary roads, pipeline corridors, etc.) shall be recontoured if necessary and revegetated to promote restoration of the area to pre-project conditions. An area subject to temporary disturbance*

means any area that is disturbed during the Project, but after project completion, will not be subject to further disturbance and has the potential to be revegetated.

- *Any Project personnel who are responsible for inadvertently killing or injuring one of these species should immediately report the incident to their representative. This representative shall contact the CDFW and USFWS immediately in the case of a dead, injured, or entrapped listed animal.*
- *The Sacramento Fish and Wildlife Office and CDFW shall be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox during Project related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information.*
- *New sightings of kit fox shall be reported to the California Natural Diversity Database (CNDDB). A copy of the reporting form and a topographic map clearly marked with the location of where the kit fox was observed should also be provided to the USFWS.*

Mitigation Measure BIO-4 (Swainson's Hawk): If Project activities must occur during the nesting season (February 15 to August 31), pre-activity nesting bird surveys shall be conducted within seven days prior to the start of construction at the construction site plus a 250-foot buffer for songbirds and a 500-foot buffer for raptors (other than Swainson's hawk). The surveys shall be phased with the construction of the Project. If no active nests are found, no further action is required, however, nests may become active at any time throughout the summer, including when construction activities are occurring. If active nests are found during the survey or at any time during the construction of the Project, an avoidance buffer ranging from SO feet to 350 feet may be required, as determined by a qualified biologist. The avoidance buffer will remain in place until the biologist has determined that the young are no longer reliant on the nest Work may occur within the avoidance buffer under the approval and guidance of the biologist. The biologist shall have the ability to stop construction if nesting adults show sign of distress.

Mitigation Measure BIO-5 (Pre-Construction Survey for Swainson's Hawk): If Project activities must occur during the nesting season (February 15 to August 31), pre-activity surveys shall be conducted for Swainson's hawk nests in accordance with the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley, Swainson's Hawk Technical Advisory Committee (CDFW 2000). The surveys would be conducted on the Project site plus a half-mile buffer. To meet the minimum level of protection for the species, surveys shall be conducted during at least two survey periods. The survey will be conducted in accordance with the methodology outlined in existing protocols and shall be phased with the construction of the Project. If no Swainson's hawk nests are found, no further action is required.

Mitigation Measure BIO-6 (Avoidance and Monitoring for Swainson's Hawk): If an active Swainson's hawk nest is discovered at any time within one-half mile of active construction, a qualified biologist will complete an assessment of the potential for current construction activities to impact the nest. The assessment will consider the type of construction activities, the location of construction relative to the nest, the visibility of construction activities from the nest location, and other existing disturbances in the area that are not related to the construction activities of this Project. Based on this assessment, the biologist will determine if construction activities can proceed and the level of nest monitoring required. Minimally, construction activities should not occur within 100 feet of an active nest and may require monitoring if within 500 feet of an active nest. The qualified biologist should have the authority to stop work if it is determined that Project construction is disturbing the nest. These buffers may need

to increase depending on the sensitivity of the nest location, the sensitivity of the nesting Swainson's hawk to disturbances, and the discretion of the qualified biologist.

Mitigation Measure BIO-7 (Burrowing Owls): The Project shall implement the following measures to avoid any potential impacts of nesting habitat of the Project in compliance with the federal Migratory Bird Treaty Act and relevant Fish and Game Codes:

- *Avoidance. Initiate grading/ground disturbance from Sept 1 – February 1 during the non-breeding period.*
- *Preconstruction Surveys. If construction is initiated during the nesting period (Feb 1 – Aug 30), conduct a preconstruction survey to confirm that no burrowing owl has taken up residence in any parcels with ground burrowing mammals. If burrowing owl occupation is found, consult with the California Department of Fish and Wildlife to determine the appropriate avoidance and minimization measures.*

Mitigation Measure BIO-8 (Protected Birds): If Project activities must occur during the nesting season (February 1 to September 15), pre-activity nesting bird surveys shall be conducted within seven (7) days prior to the start of construction on the construction site and a 500-foot buffer for raptors (other than Swainson's hawk).

- *If no active nests are found, no further action is required. However, existing nests may become active, and new nests may be built at any time prior to and throughout the nesting season, including when construction activities are in progress.*
- *If active nests are found during the survey or at any time during construction of the Project, an avoidance buffer ranging from 50 feet to 500 feet may be required, with the avoidance buffer from any specific nest being determined by a qualified biologist. The avoidance buffer will remain in place until the biologist has determined that the young are no longer reliant on the adults or the nest. Work may occur within the avoidance buffer under the approval and guidance of the biologist, but full-time monitoring may be required. The biologist shall have the ability to stop construction if nesting adults show any sign of distress*

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

No Impact. According to the General Plan, California Department of Fish and Wildlife, and U.S. Fish and Wildlife Service, there are no known riparian habitats or other sensitive natural communities formally identified on the Project site or within the immediate vicinity (i.e., within a 0.5-mile radius) of the Project. In addition, the site does not contain any water features that would provide habitat for riparian species. For these reasons, it can be determined that the Project site does not provide any riparian or sensitive natural community habitat and thus, no impact would occur because of the Project.

Mitigation Measures

None required.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. A search of the NWI indicates no wetland features on the Project site. [16] As a result, it can be determined that the Project site would not result in any impact on state or federally protected wetlands and no impact would occur because of the Project.

Mitigation Measures

None required.

d) Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less than Significant with Mitigation Incorporated. Wildlife movement corridors are linear habitats that function to connect two (2) or more areas of significant wildlife habitat. These corridors may function on a local level as links between small habitat patches (e.g., streams in urban settings) or may provide critical connections between regionally significant habitats (e.g., deer movement corridors). Wildlife corridors typically include vegetation and topography that facilitate the movements of wild animals from one area of suitable habitat to another, to fulfill foraging, breeding, and territorial needs. These corridors often provide cover and protection from predators that may be lacking in surrounding habitats. Wildlife corridors generally include riparian zones and similar linear expanses of contiguous habitat.

The Project site is developed as part of the Castle Air Museum and characterized primarily by ruderal and herbaceous vegetation with heavy alteration due to the development and ongoing museum operations. This offers limited habitat value for large-scale wildlife movement. The site and surrounding area are characterized by disturbed lands, paved surfaces, and developed uses. Given the existing disturbance and urban development, the site does not serve as a movement corridor for native resident or migratory wildlife species. Additionally, there are no riparian zones or regionally important connectivity corridors on or adjacent to the site.

The existing mature trees on-site and adjacent to the site, as well as ruderal areas, could provide suitable nesting habitat for native birds protected under the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code. Migratory birds common to the region could establish nests on or near the Project site during their breeding season (typically February 1 through August 31 in the San Joaquin Valley). Construction activities, including vegetation removal, grading, excavation, and heavy equipment operation, occurring during this sensitive period could result in the incidental loss of fertile eggs or nestlings, direct nest destruction, or disturbance leading to nest abandonment. Such actions constitute a 'take' under both the Migratory Bird Treaty Act and the California Fish and Game Code.

With incorporation of ***Mitigation Measure BIO-1*** through ***Mitigation Measure BIO-8,*** these potential impacts would be reduced to less than significant levels. ***Mitigation Measure BIO-1*** addresses potential impacts to burrowing owls. ***Mitigation Measure BIO-2*** provides measures for avoidance of impacts during the nesting and breeding seasons, pre-construction surveys, and the establishment of protective buffers or consultation with wildlife agencies for protected birds. Therefore, with these mitigation measures incorporated, the Project would not substantially

[16] U.S. Fish & Wildlife Service. National Wetlands Inventory. Accessed July 18, 2025, https://www.fws.gov/wetlands/data/Mapper.html

interfere with wildlife movement or result in significant impacts to sensitive natural communities or nesting birds. Impacts would be less than significant with mitigation incorporated.

Mitigation Measures

Implementation of *MM BIO-1* through *MM BIO-8.*

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The General Plan Open Space and Conservation Element outlines policies related to the conservation of biological resources, as detailed in the Environmental Setting. The Atwater Municipal Code (AMC) sets forth provisions regarding the removal of trees, which constitute a local ordinance protecting biological resources. The Project would be subject to these standards, requiring adherence to any applicable permitting, replacement, or protection requirements for trees. While there are trees existing on the Project site, the Project does not propose their removal. Therefore, the Project would not conflict with any local policies or ordinances protecting biological resources, and no impact would occur.

Mitigation Measures

None required.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Less than Significant with Mitigation Incorporated. The City of Atwater is located within the geographic scope of certain habitat conservation plans and recovery efforts, including the Recovery Plan for Upland Species of the San Joaquin Valley and the PG&E San Joaquin Valley Operations and Maintenance Habitat Conversation Plan (HCP).

While the Project site is not identified within a specific conservation area or preserve designated for the long-term conservation of habitats or special-status species under these plans, or the previous analysis above identified the potential for special-status species and their habitats to occur on or near the Project site, including species covered by these plans (e.g., Burrowing Owls).

To ensure the Project's consistency with the provisions and conservation goals of these adopted plans and recovery efforts, the Project shall incorporate *Mitigation Measures BIO-1* through *MM BIO-8*. By incorporation this mitigation measure, the Project would avoid substantial adverse effects on species and habitats that are the focus of these conservation plans. Therefore, the Project would not conflict or interfere with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Impacts would be less than significant with mitigation incorporated.

Mitigation Measures]

Implementation of *MM BIO-1* through *MM BIO-8.*

5.5 CULTURAL RESOURCES

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Cause a substantial adverse change in the significance of a historical resource as defined in *Section 15064.5*?		X		
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to *Section 15064.5*?		X		
c)	Disturb any human remains, including those interred outside of formal cemeteries?		X		

5.5.1 Environmental Setting

Generally, the term 'cultural resources' describes property types such as prehistoric and historical archaeological sites, buildings, bridges, roadways, and tribal cultural resources. As defined by CEQA, cultural resources are considered "historical resources" that meet criteria in Section 15064.5(a) of the CEQA Guidelines. If a Lead Agency determines that a Project may have a significant effect on a historical resource, then the Project is determined to have a significant impact on the environment. No further environmental review is required if a cultural resource is not found to be a historical resource.

Atwater General Plan

The General Plan Open Space and Conservation Element identifies places of contemporary historical significance in the city including the Bloss Manson, Bloss Library, and Castle Air Museum. Applicable goals and policies within the Open Space and Conservation Element are as follows.

GOAL CO-9 *Protect and enhance historical and culturally significant resources within the Planning Area.*

Policy CO-9.1 *Ensure consideration and proper handling of prehistoric, cultural, and archaeological resources during the development process.*

Policy CO-9.2 *Preserve and maintain structures and features identified as historically significant by the City, including but not limited to, the Bloss Mansion and Bloss Library.*

Policy CO-0.3 *Encourage public and private efforts to identify, preserve, protect, and/or restore historic buildings, structures, landmarks, and important cultural resources. Implementation*

Program CO-9.a *Attach the following standard condition to all discretionary development projects: "If a previously unknown archaeological site is uncovered during in the course of development, all development activity in the vicinity of the site shall cease until a qualified archaeologist completes an investigation. The archaeologist shall submit a report to the City that includes a determination of the significance of the site and recommendations on its disposition."*

California Historical Resource Information System Record Search

The Central California Information Center (CCIC) was requested to conduct a California Historical Resources Information System (CHRIS) Record Search for the Project site and surrounding "Project Area" (0.5-mile radius from perimeter of Project site). Results of the CHRIS Record Search were provided on July 25, 2025 (Record Search File Number 13435I). Full results are provided in Appendix C.

The CHRIS Record Searches generally review file information based on results of Class III pedestrian reconnaissance surveys of project sites conducted by qualified individuals or consultant firms which are required to be submitted, along with official state forms properly completed for each identified resource, to the Regional Archaeological Information Center. Guidelines for the format and content of all types of archaeological reports have been developed by the California Office of Historic Preservation, and reports will be reviewed by the regional information centers to determine whether they meet those requirements.

The results of the CCIC CHRIS Record Search indicate:

(1) There are no formally recorded prehistoric or historic archaeological resources or historic buildings or structures within the project area.
(2) The project area is within the overall boundary of the proposed "Merced Irrigation District" (P-24-001909), but there are no contributing water conveyance features formally recorded within the project.
(3) Three buildings associated with the former Castle Air Force Base are within the project area but there are no resources formally recorded within the project.
(4) The 1916 and 1948 editions of the Atwater USGS quadrangle show a former building in the southwest corner of the project area, but no other information regarding this building is currently on file.

Further, the CCIC provided the following comments and recommendations:

(1) Since the project area has not been subject to previous investigations, there may be unidentified features involved in your project that are 45 years or older and considered as historical resources requiring further study and evaluation by a qualified professional of the appropriate discipline.
(2) If ground disturbance is considered a part of the current project, we recommend further review for the possibility of identifying prehistoric or historic-era archaeological resources.
(3) Mitigate archaeological resources that could potentially be encountered during construction.

California Native American Heritage Commission (NAHC)

A consultation list of tribes with traditional lands or cultural places located within Merced County was requested and received from the California Native American Heritage Commission (NAHC) on July 29, 2025. The listed tribes include Amah Mutsun Tribal Band, Northern Valley Yokut/ Ohlone Tribe, Southern Sierra Miwuk Nation, Tule River Indian Tribe, and Wuksachi Indian Tribe/ Eshom Valley Band. The NAHC also conducted a Sacred Lands File (SFL) check which received negative results. Correspondence is provided in Appendix D.

AB 52 Tribal Consultation

The City of Atwater sent formal tribal consultation notices pursuant to AB 52 (Chapter 532, Statutes 2014) on August 21, 2025 to the aforementioned tribes. No responses were received within the 30-day comment period.

5.5.2 Impact Assessment

Would the Project:

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Less than Significant with Mitigation Incorporated. Under CEQA Guidelines Section 15064.5, a historical resource is any building, structure, object, prehistoric or historic archaeological site, or district that is listed in, or eligible for listing in, the California Register of Historical Resources or listed in a local historical resources inventory. It can also be any other resource that the lead agency determines to be historically significant.

A review of the California Historical Resources Information System (CHRIS) records was conducted by the CCIC for the Project site and its immediate vicinity. The search, which included a review of Class III pedestrian reconnaissance surveys, archival data, and other records, did not identify formally recorded prehistoric or historic archaeological resources or historic buildings or structures within the Project area. Additionally, the search did not identify any recorded cultural resources within the Project site or radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks.

Tribal consultation notices pursuant to AB 52 were mailed to tribes identified by the City and by NAHC as having traditional lands or cultural places within Merced County, including Amah Mutsun Tribal Band, Northern Valley Yokut/ Ohlone Tribe, Southern Sierra Miwuk Nation, Tule River Indian Tribe, and Wuksachi Indian Tribe/ Eshom Valley Band. Notices to the listed tribes were sent on August 21, 2025. No responses were received in the 30-day comment period. In addition, the NAHC Sacred Lands File check was negative. A negative SLF check means that the NAHC did not find any records of Native American cultural resources, such as sacred sites, traditional cultural properties, or burial grounds, within the area requested for the search. While there are no records of Native American cultural resources on the Project site, it is possible that sites exist that have not been formally documented or reported to the NAHC.

The Project site contains the Castle Air Museum, which the General Plan identifies as a place of contemporary historical significance and applies policies, CO-9.1, CO-9.2, and CO-9.3, intended to ensure consideration and proper handling of cultural and archeological resources, preserve and maintain historically significant structures and features, and encourage efforts to identify, preserve, protect, and/or restore historic buildings, structures landmarks, and resources. The Project is part of the Castle Air Museum, and the development of the Castle Air Museum Pavilion Project would be subject to compliance with these applicable policies and through compliance would not adversely affect the campus. The proposed project is in compliance with these policies by protecting resources (historic planes) on the site. The proposed hangers will allow for the viability of the museum for years to come.

As a development involving ground-disturbing activities, there is potential for encountering unanticipated cultural resources, which may cause an adverse change in the significance of a historical resource pursuant to Section 15064.5 of the CEQA Guidelines. Therefore, the Project shall incorporate ***Mitigation Measure CUL-1*** and ***Mitigation Measure CUL-2***. These measures, which are designed to protect potential, unanticipated cultural resources, directly address the concerns raised in Section 15064.5 of the CEQA Guidelines regarding impacts to archaeological resources, including tribal cultural resources and human remains. Thus, if such resources were discovered,

implementation of the required mitigation measures would reduce the impact to less than significant. As a result, the Project would have a less than significant impact with mitigation incorporated.

Mitigation Measures

Mitigation Measure CUL-1: *In order to avoid the potential for impacts to historic and prehistoric archaeological resources, the following measures shall be implemented in conjunction with the construction of each phase of the Project:*

If previously unknown historical, archeological, cultural, or paleontological resources are encountered before or during grading activities, construction shall stop in the immediate vicinity of the find and a qualified archeologist, historical resources specialist, or paleontologist, shall be consulted to determine whether the resource requires further study. Notification of discovery shall be provided to the City Community Development Department.

The qualified archeologist, historical resources specialist, or paleontologist shall make recommendations to the project proponent on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines and City's policies and procedures related to historical, cultural, and paleontological resources. Notification of the measures shall be provided to the City Community Development Department.

Mitigation Measure CUL-2: *If the resources are determined to be unique historical resources as defined under Section 15064.5 of the CEQA Guidelines, measures shall be identified by the monitor and recommended to the project proponent, who shall notify the City Community Development Department. Appropriate measures for significant resources could include avoidance or capping, preservation in-place, recordation, additional archeological resting, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds.*

No further grading shall occur in the area of the discovery until the City Community Development Department approves the measures to protect these resources. Any historical, archeological, cultural, or paleontological artifacts recovered as a result of mitigation shall be provided to a City-approved institution or person who is capable of providing long-term preservation to allow future scientific study.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less than Significant Impact with Mitigation Incorporated. Under the CEQA Guidelines, specifically Section 15064.5, an archaeological resource is defined as any material evidence of past human life or activities. This encompasses a broad range of physical remains including prehistoric archeological sites, historic archeological sites, and traditional cultural properties. A "substantial adverse change" generally means that the project would destroy, damage, or alter the resource in a way that diminishes its historical, cultural, or scientific value.

As discussed under criterion a), a CHRIS record search, tribal consultation, and a Sacred Lands File check were conducted for the Project site and surrounding area. The possibility of encountering previously unknown archaeological resources, as defined by CEQA Guidelines Section 15064.5, during ground-disturbing activities cannot be entirely discounted.

To address this possibility, the Project shall incorporate ***Mitigation Measure CUL-1***. This measure, which is designed to protect potential, unanticipated cultural resources, directly addresses the concerns raised in Section 15064.5 of the CEQA Guidelines regarding impacts to archaeological resources, including tribal cultural resources and human

remains. Thus, if such resources were discovered, implementation of the required mitigation measures would reduce the impact to less than significant. As a result, the Project would have a less than significant impact with mitigation incorporated.

Mitigation Measures

Implementation of ***MM CUL-1.***

c) Disturb any human remains, including those interred outside of formal cemeteries?

Less than Significant Impact. While no evidence suggests the presence of human remains on the Project site, the possibility of encountering previously unknown burials during ground-disturbing activities cannot be entirely discounted. Should human remains be discovered during construction, all work in the immediate vicinity would be required to cease, and the County Coroner would be notified immediately, as required by California Health and Safety Code Section 7050.5. If the Coroner determines the remains are of Native American origin, the NAHC would be contacted pursuant to Public Resources Code Section 5097.98. In accordance with CCR Section 15064.5(e), consultation with the NAHC and any Most Likely Descendant (MLD) would be conducted to determine the appropriate treatment and disposition of the remains. Adherence to these regulations and ***Mitigation Measure CUL-3***, which are designed to protect human remains, including those interred outside formal cemeteries, would ensure that any potential impacts are less than significant.

Mitigation Measures

Mitigation Measure CUL-3: *If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by the Native American Heritage Commission, in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987), shall be followed. Section 7050.5(c) shall guide the potential Native American involvement in the event of discovery of human remains at the direction of the county coroner.*

5.6 ENERGY

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?			X	
b)	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

5.6.1 Environmental Setting

Appendix F of the CEQA Guidelines requires consideration of energy implications in project decisions, focusing on avoiding or reducing inefficient, wasteful, and unnecessary energy consumption (Public Resources Code Section 21100(b)(3)). A project is deemed inefficient, wasteful, or unnecessary if it:

- Violates existing energy standards.
- Negatively impacts local and regional energy supplies, requiring additional capacity.
- Negatively affects peak and base period electricity and other energy demands.
- Adversely affects energy resources.

To assess a project's energy impacts and determine significance, Appendix F outlines the following criteria:

1. **Energy Requirements and Efficiency:** Quantify the project's energy requirements and use efficiencies by amount and fuel type for each stage (construction, operation, maintenance, and removal). Consider the energy intensiveness of materials, where relevant.
2. **Impact on Energy Supplies and Capacity:** Analyze the project's effects on local and regional energy supplies and the need for additional capacity.
3. **Impact on Peak and Base Period Demands:** Evaluate the project's influence on peak and base period demands for electricity and other energy forms.
4. **Compliance with Energy Standards:** Determine the project's compliance with existing energy efficiency standards.
5. **Impact on Energy Resources:** Assess the project's effects on overall energy resources.
6. **Transportation Energy Use:** Analyze the project's projected transportation energy use requirements and its incorporation of efficient transportation alternatives.

Building Energy Efficiency Standards – Title 24

The California Energy Commission updates the Building Energy Efficiency Standards (Title 24, Parts 6 and 11) every three years as part of the California Code of Regulations. The standards were established in 1978 in an effort to reduce the state's energy consumption. They apply for new construction of, and additions and alterations to, residential and nonresidential buildings and relate to various energy efficiencies including but not limited to ventilation, air conditioning, and lighting. The California Green Building Standards Code (CALGreen), Part 11, Title 24, California Code of Regulations, was developed in 2007 to meet the state goals for reducing Greenhouse Gas emissions pursuant to AB32. CALGreen covers five (5) categories: planning and design, energy efficiency, water efficiency and conservation, material and resource efficiency, and indoor environmental quality. [17] The 2022 Building Energy Efficiency Standards went into effect on January 1, 2023. Additionally, the California Air Resources Board (CARB) oversees air pollution control efforts, regulations, and programs that contribute to reduction of energy consumption. Compliance with these energy efficiency regulations and programs ensures that development will not result in wasteful, inefficient, or unnecessary consumption of energy sources.

California Energy Action Plan

The Energy Action Plan (EAP) for California was approved in 2003 and updated in 2008. The California Public Utilities Commission (PUC) approved the Energy Action Plan (EAP) for California in 2003, with an update in 2008. The 2008 EAP established goals and next steps to integrate and coordinate energy efficiency demand and response programs and actions. [18]

Methodology

CalEEMod is a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions from land use projects. The model quantifies direct emissions from construction and operation (including vehicle use), as well as indirect emissions, such as emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. The model also identifies mitigation measures to reduce criteria pollutant and GHG emissions.

5.6.2 Impact Assessment

Would the Project:

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?

Less than Significant Impact. The Project proposes a multi-phased development within the existing Castle Air Museum campus consisting of new construction buildings, relocation of an existing pre-engineered metal building from Beale Air Force Base, and site improvements including new concrete curb, concrete flatwork, and asphalt fire lane. Energy would be consumed through Project construction and operations. Energy outputs for short-term

[17] California Department of General Services. (2020). 2019 California Green Building Standards Code. Accessed on September 3, 2025, https://codes.iccsafe.org/content/CGBC2019P3
[18] State of California. (2008). Energy Action Plan 2008 Update. Accessed on September 3, 2025, https://docs.cpuc.ca.gov/word_pdf/REPORT/28715.pdf

construction and long-term operations were estimated using CalEEMod (Appendix A). Traffic impacts related to vehicle trips were considered through a Vehicle Miles Traveled (VMT) analysis contained in Section 4.17. Results are summarized in Table 4-6. Based on the data, the energy demand associated with the proposed Project would be less than one (1) percent of Merced County's total demand (*Criterion 1*).

Table 4-6 Project Energy Consumption

Energy Type[1]	Project Annual Energy Consumption	Merced County Annual Energy Consumption	Project Percentage of County Consumption
Electricity[2]	1.76 GWh	3,185.454578 GWh	0.0005%
Natural Gas[2]	2,788.12 MMBTu	13,122,052.000 MMBTu	0.0002%

Notes:

1. Southern California Edison (SCE) would serve the site for both electricity and natural gas.

2. Energy consumption data for Merced County is provided by the California Energy Commission, "Electricity Consumption by County" accessed on September 4, 2025, http://ecdms.energy.ca.gov/elecbycounty.aspx and "Gas Consumption by County" accessed on September 4, 2025, https://ecdms.energy.ca.gov/gasbycounty.aspx

Construction

The Project would be constructed in three (3) phases. Phase 1 would include the construction of one (1) pavilion building one, roof-covered display area, and the relocation of the SR-71 hanger from the Beale Air Force Base. Phase 2 would include the construction of a one (1) pavilion building two, café/gift shop building, an additional roof-covered display area, and associated parking improvements. Phase 3 would include the construction of one (1) pavilion building three. There are no unusual project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities. Construction vehicles and equipment would be used during construction activities including typical site preparation, grading, paving, architectural coating, and trenching. Fuel energy consumed during construction would be temporary and would not represent a significant demand on energy resources. Energy conservation would occur through compliance with current emissions standards and fuel efficiencies including CARB regulations (Airborne Toxic Control Measure) and CCR Title 13, Motor Vehicles. Regulations limit idling and require efficient combustion systems that reduce unnecessary fuel consumption. Compliance with existing regulations would ensure that the short-term, temporary construction activities would not result in wasteful, inefficient, or unnecessary consumption of energy resources consistent with *Criterion 4*.

Operations

Operations would involve heating, cooling, equipment, and vehicle trips. Energy consumption related to operations would be associated with natural gas, electricity, and fuel. As for new construction, the Project would also be required to meet all mandatory requirements for residential buildings as outlined in the 2022 Energy Code. Mandatory requirements apply to building envelopes, ventilation and indoor air quality, space conditioning systems, water heating systems, outdoor and indoor lighting, electric power distribution, covered process for pools, solar ready buildings, and electric ready buildings. Compliance would be verified through the building permit process. Therefore, the Project would meet mandatory state building energy codes, which are designed to reduce wasteful, inefficient, or unnecessary consumption of energy sources, consistent with *Criterion 4*.

Energy consumption and peak demand for the state are forecasted in *Volume IV – California Energy Demand Forecast* of the CEC's Integrated Energy Policy Report. As shown in Figure 10 and Figure 4 of the Volume IV Report,

the CEC forecasts a 1.3 to 2.3 percent annual average growth rate for electricity and a 0.1 to 0.9 percent annual average growth rate for natural gas between 2021 and 2030. The Project's anticipated operational energy consumption for electricity and natural gas are shown in Table 4-6. The anticipated consumption of electricity and natural gas would represent less than one percent based on Countywide usage, which would be significantly below CEC's forecast. Therefore, the Project would not require additional energy capacity or supplies in accordance with *Criterion 2*. In addition, as a residential development, energy consumption can be expected to peak in the day similar to other residential developments. Through compliance with energy conservation requirements under the 2022 Energy Code, the Project would not result in unique or more intensive peak or base period electricity demand in accordance with *Criterion 3*.

Furthermore, PG&E, the city's electricity provider, is subject to the state's Renewable Portfolio Standard (RPS) which requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable resources to 33 percent of total procurement by 2020 to 60 percent of total procurement by 2030. The increase in reliance of renewable resources further ensures that the Project would not result in wasteful, inefficient, or unnecessary consumption of energy sources, consistent with *Criterion 5*.

Development of the Project site would also result in fuel consumption through vehicle trips. The Project would generate an estimated 30.38 average daily trips, which is below significance thresholds for VMT. Therefore, energy usage associated with vehicle trips for the proposed Project would be minimal in comparison to the gasoline and diesel fuel consumption for the County. In addition, the Project does not propose any unusual features that would result in excessive long-term operational fuel consumption (*Criterion 2*). Further, annual energy use related to vehicles is expected to decrease over time as a result of vehicle fuel efficiency standards.

Therefore, the Project would not cause wasteful, inefficient, and unnecessary consumption of building energy during Project operation, or preempt future energy development or future energy conservation. A less than significant impact would occur.

Mitigation Measures

None required.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less than Significant Impact. As discussed under criterion a), the construction and operations of the Project would be subject to compliance with applicable energy efficiency regulations including CALGreen, Title 24, and CARB. Additionally, the General Plan Open Space and Conservation Element established policies to reduce and conserve energy use in existing and new development, including adopting incentives for green building standards and ensuring City code allow for green building techniques. Since the General Plan energy conservation policies are implemented at the city level, the Project would not conflict with said policies. In addition, state law ensures construction vehicle idling will be limited. Therefore, through compliance, the Project would not conflict with or obstruct any state or local plan for energy efficiency and a less than significant impact would occur as a result of the Project.

Mitigation Measures

None required.

5.7 GEOLOGY AND SOILS

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Directly or Indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				X
	ii. Strong seismic ground shaking?			X	
	iii. Seismic-related ground failure, including liquefaction?			X	
	iv. Landslides?			X	
b)	Result in substantial soil erosion or the loss of topsoil?			X	
c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X	
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?				X
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		

5.7.1 Environmental Setting

The City of Atwater is located within the San Joaquin Valley which is part of the Great Valley Geomorphic Providence that is bounded to the east by the Sierra Nevada Mountain range, to the west by the Coastal Range, and to the south by the Tehachapi mountains. Geographically, the city, inclusive of the Project site, has stable geological formation and is in a seismically inactive region. A brief discussion of the likelihood of seismic activities occurring in the City's Planning Area, inclusive of the Project site, is provided below. The discussion is based on the 2021 Merced County Multi-Jurisdictional Local Hazard Mitigation Plan (HMP).[19]

Faulting

There are no known active faults in the City's Planning Area. The City is not located within an Alquist-Priolo Earthquake Fault Zone, and no faults with evidence of Holocene activity (i.e., movement within the past 11,000 years) have been identified within City's Planning Area.[20] [21] The nearest mapped fault is the Bear Mountain Fault, located approximately 20 miles to the northeast in the Sierra Nevada Range. Additional regional faults, including the San Joaquin, O'Neill, and Ortigalita Faults, are located approximately 30 miles to the southwest in the Diablo/Coastal Range. Of these, the Ortigalita Fault is the closest Alquist-Priolo earthquake fault zone; however, it has not been historically active.

Ground Shaking

The City of Atwater is located within Seismic Risk Zone III, an area expected to experience moderate effects from regional earthquakes. Major historical earthquakes that affected Merced County occurred in 1872, 1906, 1952, 1966, 1984, and 1989; however, the City of Atwater did not sustain significant damage during these events. While Merced County is situated within a broader seismically active region, nearby faults have no recorded history of producing significant damaging earthquakes within the Planning Area. According to the HMP's hazards ranking, ground shaking is of medium significance in the City.

Liquefaction

Liquefaction primarily occurs in areas of recently deposited sands and silts and in areas of high groundwater levels (where the water table is 30 feet below the surface). Susceptible areas include sloughs and marshes that have been filled in and developed over. In addition to necessary soil conditions, liquefaction is induced by intense and prolonged ground shaking, usually above a ground acceleration of 0.3g before liquefaction occurs within sandy soil with relative densities typical of the San Joaquin alluvial deposits. Based on historic aerial imagery and search of the National Wetlands Inventory (Section 4.4), the Project site does not include former or current waters (streams, drainages, wetlands) that have been drained, filled, and developed. Additionally, the City is far from faults and consists of stable geologic formation. As such, the City is in an area with low susceptibility to liquefaction.

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[19] Merced County Office of Emergency Services. (2021). Merced County Multi-Jurisdictional Hazard Mitigation Plan. Accessed August 29, 2025, https://web2.co.merced.ca.us/pdfs/oes/Merced_MJHMP_2021_Draft.pdf

[20] According to the California Department of Conservation, *"An active fault, for the purposes of the Alquist-Priolo Act, is one that has ruptured in the last 11,000 years."*

[21] California Department of Conservation. "CGS Seismic Hazard Program: Alquist-Priolo Fault Hazard Zones." Accessed on August 29, 2025, Earthquake Zones of Required Investigation

Erosion

Wind and flowing water are the primary agents of erosion in the San Joaquin Valley. According to the HMP, the main type of erosion concern in Merced County is internal erosion, which can occur when embankments or foundations of dams experience leakage, piping, or rodent activity. Dams in the County that could be susceptible to these conditions include the following (distance to Project site): Lake Yosemite (7.5 miles east), Castle (2.8 miles northeast), Merced Falls (17 miles northeast), Burns (16.5 miles east), Los Banos Creek Detention (32 miles southwest), O'Neill Forebay (31 miles southwest), B.F. Sisk Dike (33 miles southwest), B.F. Sisk (33 miles southwest), Mustang Creek (10 miles northwest), and Kelsey (17 miles northeast).

Ground Subsidence

Ground subsidence is the settling or sinking of surface soil deposits with little or no horizontal motion. Soils with high silt or clay content are subject to subsidence. According to the Atwater General Plan, the City is located above a groundwater basin and could be subject to subsidence if groundwater withdrawals exceed natural recharge and replacement rates.

Subsurface Soils

A search of the Web Soil Survey by the USDA Natural Resources Conservation Service indicates that the Project Site comprises of the two (2) following soil types. Figure 4-3 shows the location of these soils. [22]

> ***AgA:*** *Atwater* loamy sand, deep over hardpan, 0-3 percent slopes. The depth to water table is more than 80 inches, with no flooding or ponding. The AgA soils account for 95% of the Project site.
>
> ***AnA:*** Atwater sand, 0-3 percent slopes. The depth to water table is more than 80 inches, with no flooding or ponding. The AnA soils account for 5% of the Project site.

California Building Code

The California Code of Regulations (CCR) Title 24 is assigned to the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. The California Building Code incorporates by reference the International Building Code with necessary California amendments. About one-third of the text within the California Building Standards Code has been tailored for California earthquake conditions. These standards are applicable to all new buildings and are required to provide the necessary safety from earthquake related effects emanating from fault activity.

Atwater General Plan

The Atwater General Plan includes policies relevant to natural hazards in the Seismic and Public Safety Element minimizing risks from geologic and seismic hazards, as listed below.

GOAL SF-1 *Minimize the threat of personal injury and property damage due to seismic activity.*

Policy SF-1.1 *Require all new development and rehabilitation of existing development to be in compliance with all Seismic Zone 3 requirements of the uniform building code.*

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[22] United States Department of Agriculture Natural Resources Conservation Service. "Web Soil Survey." Accessed on August 29, 2025, https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx

GOAL SF-2 *Reduce the potential for property damage and injury resulting from liquefaction.*

Figure 4-3 Soils Map

5.7.2 Impact Assessment

Would the Project:

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

No Impact. The Project site is not located within an Alquist-Priolo Earthquake Fault Zone, nor is there any other evidence of a known fault on or adjacent to the site. Therefore, the risk of fault rupture is considered negligible, and no impact would occur.

Mitigation Measures

None required.

ii. *Strong seismic ground shaking?*

Less than Significant Impact. The Project Site within Seismic Risk Zone III, which is a zone expected to experience moderate effects from earthquakes. The Project would be required to comply with the current seismic design and construction standards of the California Building Code (CBC). These standards incorporate numerous provisions specifically designed to mitigate the effects of strong ground shaking, including requirements for reinforced foundations, shear walls, and ductile connections, for example. In addition, according to the General Plan ***Policy SF-1.1,*** the Project would be reviewed to ensure compliance with the requirements of the Uniform Building Code to avoid and/or reduce risks associated with geologic constraints and to ensure that all new construction is designed to meet current safety regulations. Compliance with the CBC and General Plan would significantly reduce the potential for structural damage and collapse, thereby minimizing the risk of loss, injury, or death associated with ground shaking. Therefore, while the potential for strong ground shaking exists in the region, adherence to the CBC's stringent seismic standards and General Plan policies would reduce the risk of substantial adverse effects, including loss, injury, or death, to a less than significant level. Impacts would be less than significant.

Mitigation Measures

None required.

iii. *Seismic-related ground failure, including liquefaction?*

Less than Significant Impact. The City of Atwater is characterized by low potential for seismic-related ground failure. There are no known active earthquake faults within the city, and no Alquist-Priolo Earthquake Fault Zones have been established for the area. The nearest mapped fault is the Bear Mountain Fault, approximately 20 miles northeast of the Project site. Regional faults, including the Ortigalita Fault, are located approximately 30 miles to the southwest. As a result, the potential for fault rupture at the Project site is considered low. Further, the city is in Seismic Risk Zone III which anticipates moderate seismic effects, historical seismic events have not caused significant damage in the City, and the overall hazard ranking for ground shaking is considered low.

Regarding liquefaction, liquefaction primarily occurs in loose, saturated granular soils like sands and silty sands with a high groundwater table and sufficient seismic shaking. While the Project site contains Atwater loamy sand (95%)

and Atwater sand (5%), both soils have a deep water table, extending more than 80 inches below the surface.[23] This deep water table significantly reduces their susceptibility to liquefaction. Furthermore, the Project site is not located in areas of former or current wetlands that have been drained, filled, and developed, which are typically more prone to liquefaction.

All future development on the Project site would be required to comply with provisions of the CBC which incorporate specific amendments for California's earthquake conditions. Additionally, the Project would adhere to the City's grading and drainage standards, and any specific requirements addressing liquefaction or other seismic hazards as determined during the design and permitting phases. Therefore, compliance with the CBC's seismic design standards and adherence to the City's grading and drainage requirements would reduce the risk of seismic-related ground failure, including liquefaction, to a less than significant level. For these reasons, a less than significant impact would occur.

Mitigation Measures

None required.

iv. *Landslides?*

Less than Significant Impact. Landslides, encompassing rockfalls, slope failures, and mud/debris flows, are primarily triggered by a combination of factors, including steep slopes, unstable geological formations, inadequate drainage, and sometimes vegetation removal. The Project site's flat topography eliminates the most significant of these risk factors. In addition, the site consists of stable, native soils and is not located near any rivers, creeks, or other features that would increase the risk of landslides. Therefore, the potential for landslides at the Project site is considered negligible. For these reasons, a less than significant impact would occur.

Mitigation Measures

None required.

b) Result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact. Soil erosion and topsoil loss could occur due to both natural processes (wind, water) and human activities, such as construction. The Project would involve typical site preparation activities like grading and trenching, which have the potential to cause short-term soil disturbance and erosion during construction. Water use during construction could also contribute to this potential. Because the Project site is larger than one (1) acre, a Storm Water Pollution Prevention Plan (SWPPP) is required to be developed and implemented by a certified Qualified SWPPP Developer (QSD). The SWPPP would include a detailed assessment of potential erosion risks associated with construction activities and would specify a range of Best Management Practices (BMPs) to control erosion and sediment runoff. BMPs would be implemented throughout the construction process to minimize soil erosion and topsoil loss. In addition to short-term construction-related erosion, the Project's design would also incorporate measures to prevent ongoing erosion after construction is complete. These measures include permanent landscaping and engineered drainage systems. Therefore, through the implementation of a comprehensive SWPPP with appropriate BMPs during construction, and the incorporation of long-term erosion

[23] United States Department of Agriculture Natural Resources Conservation Service. "Web Soil Survey." Accessed on August 29, 2025, https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx

control measures in the Project design, the potential for substantial soil erosion or topsoil loss will be minimized to a less than significant level. For these reasons, a less than significant impact would occur.

Mitigation Measures

None required.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less than Significant Impact. Due to the site's flat topography, stable, native soils and distance to rivers, creeks, or other features that would increase the risk of landslide, the potential for landslides is considered negligible.

Lateral spreading is typically associated with liquefaction in loose, saturated sands. While the site contains sandy soils, the soil is well-drained, which minimizes the potential for prolonged saturation, a key factor in liquefaction. Additionally, coarse sands generally have a low fines content (silt and clay), which further reduces susceptibility. The depth to the water table is also relatively deep (more than 80 inches), which lessens the likelihood of saturation necessary for liquefaction. Historical aerial imagery and the National Wetlands Inventory also indicate no evidence of filled former or current water bodies (streams, drainages, wetlands) on the Project site, which are often associated with increased liquefaction risk. Therefore, the potential for lateral spreading is considered low.

Subsidence is often associated with areas of groundwater withdrawal or oil/gas extraction. The City of Atwater has potential concerns due to its location atop a groundwater basin and could be subject to subsidence if groundwater withdrawals exceed natural recharge and replacement rates. However, the Project is an infill development on previously disturbed land and would not involve significant groundwater withdrawal. The soil types lacks the high silt or clay content that makes soils susceptible to significant subsidence. The risk of subsidence is therefore considered low.

As discussed previously, the potential for liquefaction is considered low due to the well-drained soils, relatively deep (more than 80 inches) depth to water table, and lack of evidence of filled former or current water bodies (streams, drainage, wetlands) which are often associated with increased liquefaction risk. In addition, the Project would be required to comply with the CBC, which includes stringent seismic design and construction standards to mitigate the effects of ground shaking and potential liquefaction, such as requirements for foundation design in liquefiable soils and soil stabilization techniques. Further, the Project would be required to adhere to the City of Atwater's grading and drainage standards, which would further minimize the risk of saturation and instability. Therefore, compliance with the CBC's seismic design standards and adherence to the City's grading and drainage requirements would reduce the risk of seismic-related ground failure, including liquefaction, to a less than significant level.

Soil collapse can occur in areas with expansive clays or highly compressible. The soils on the Project site are not expansive clays and have been shown to have adequate bearing capacity. The risk of collapse is therefore considered low.

Therefore, considering the site's soil characteristics, flat topography, and compliance with the CBC and grading and drainage requirements, the potential for unstable soil conditions or geologic hazards is less than significant. For these reasons, a less than significant impact would occur.

Mitigation Measures

None required.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?

Less than Significant Impact. Table 18-1-B of the Uniform Building Code (UBC) classifies soils based on their expansion potential, typically using parameters such as the plasticity index or expansion index. Soils with a high clay content and a high plasticity index are classified as expansive, as they exhibit significant shrink-swell behavior. The Project site is primarily comprised of Atwater loamy sand and Atwater sand soils. Both soil types are well-drained, with a low potential for water retention that would lead to significant swelling. Therefore, based on its general characteristics, these soils are not expected to be expansive. Impacts would be less than significant.

Mitigation Measures

None required.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. The Project would be required to connect to the municipal sewer system for wastewater disposal. Therefore, no permanent septic tanks or alternative wastewater disposal systems would be installed, and no impact would occur.

Mitigation Measures

None required.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant with Mitigation Incorporated. There are no known paleontological resources or unique geological features known to the City on the Project site or in the Project Area. Nevertheless, there is some possibility that a non-visible, buried site may exist and may be uncovered during ground disturbing construction activities which would constitute a significant impact. However, ***Mitigation Measure GEO-1*** requires the applicant to incorporate a provision related to paleontological resources into the construction contract(s). With implementation of ***Mitigation Measure GEO-1***, the Project would have a less-than-significant impact.

Mitigation Measures

Mitigation Measure GEO-1: *The Applicant will incorporate into the construction contract(s) a provision that in the event a fossil or fossil formations are discovered during any subsurface construction activities for the proposed Project (i.e., trenching, grading), all excavations within 50 feet of the find shall be temporarily halted until the find is examined by a qualified paleontologist, in accordance with Society of Vertebrate Paleontology standards. The paleontologist shall notify the Applicant, who shall coordinate with the paleontologist as to any necessary investigation of the find. If the find is determined to be significant under CEQA, the Applicant shall implement those measures, which may include avoidance, preservation in place, or other appropriate measures, as outlined in Public Resources Code Section 21083.2.*

5.8 GREENHOUSE GAS EMISSIONS

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b)	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

5.8.1 Environmental Setting

In assessing the significance of impacts from GHG emissions, *Section 15064.4(b)* of the CEQA Guidelines states that a lead agency may consider the following:

- The extent to which the project may increase or reduce GHG emissions as compared to the environmental setting;
- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;
- The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.

The California Air Resources Board (CARB) 2022 Climate Change Scoping Plan, guidance from the SJVAPCD, and City of Atwater General Plan are discussed below and are utilized as thresholds of significance.

2022 Climate Change Scoping Plan

The CARB 2022 Climate Change Scoping Plan is the adopted statewide plan for reduction and mitigation of GHGs to implement Assembly Bill (AB) 1279. AB 1279 was issued on August 12, 2022 to require California to achieve "net zero greenhouse gas emissions" as soon as possible and to further reduce anthropogenic GHG emissions thereafter. It sets a statewide goal to reduce emissions 85% below 1990 levels no later than 2045.

Consequently, the Scoping Plan involves several measures for cost-effective reduction of GHG emissions, including continuing existing programs such as Renewable Portfolio Standard, Advanced Clean Cars, Low Carbon Fuel Standard, etc., and achieving new mandates to decarbonize several sectors. Along with reducing emissions, environmental justice policies are included to address the ongoing air quality disparities.

Appendix D of the 2022 Scoping Plan include recommendations to build momentum for local government actions to align with State goals, including through CEQA review. The Appendix outlines the priority GHG reduction

strategies for local governments, including transportation electrification, VMT reduction, and building decarbonization. [24]

SJVAPCD CEQA Air Quality Guidelines

The SJVAPCD's Guidance for Valley Land Use Agencies in Addressing GHG Impacts for New Projects Under CEQA (2009) provides screening criteria for climate change analyses, as well as draft guidance for the determination of significance. [25, 26] These criteria are used to evaluate whether a project would result in a significant climate change impact (see below). Projects that meet one of these criteria would have less than significant impact on the global climate.

- Does the project comply with an adopted statewide, regional, or local plan for reduction or mitigation of GHG emissions? If no, then:
- Does the project achieve 29% GHG reductions by using approved Best Performance Standards (BPS)? If no, then
- Does the project achieve AB 32 targeted 29% GHG emission reductions compared with Business As Usual (BAU)?

Assembly Bill (AB) 32 was enacted by the California State legislature in 2006 with the aim to reduce GHG emissions to levels of 1990 by 2020. Recommended actions to achieve these aims were adopted by the California Air Resources Board (CARB) in 2008 (i.e., the Climate Change Scoping Plan). However, the 29% GHG emission reductions compared to BAU threshold are outdated since it is aimed to meet AB 32's 2020 goals, thus this threshold would not be used for analysis.

The City of Atwater does not have an adopted Climate Action Plan or GHG Reduction Plan. Because BPS have not yet been adopted and identified for specific development projects, and because the City of Atwater has not yet adopted a plan for reduction of GHG with which the Project can demonstrate compliance, the California Air Resources Board (CARB) 2022 Climate Change Scoping Plan and guidance from the San Joaquin Valley Air Pollution Control District (SJVAPCD) will be used as the threshold of significance.

San Joaquin Valley Air Pollution Control District

SJVAPCD adopted *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA* and the policy *District Policy—Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency* in 2009. It recognized that project-specific emissions are cumulative and could be considered cumulatively considerable without mitigation. SJVAPCD suggested that the requirement to reduce GHG emissions for all projects is the best method to address this cumulative impact.

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[24] California Air Resources Board. (2022). 2022 Scoping Plan Appendix D. Accessed on September 2, 2025, https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf

[25] San Joaquin Valley Air Pollution Control District. (2009). Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA. Accessed September 2, 2025, https://www.valleyair.org/media/dnsnicdv/3-ccap-final-lu-guidance-dec-17-2009.pdf

[26] San Joaquin Valley Air Pollution Control District. (2000). Environmental Review Guidelines: Procedures for Implementing the California Environmental Quality Act. Accessed September 2, 2025, https://ww2.valleyair.org/media/k2yhjmuk/erg-adopted- august-2000 .pdf

The SJVAPCD requires quantification of GHG emissions for all projects which the lead agency has determined that an EIR is required. Although an EIR is not required for the Project, the GHG emissions are quantified below. Short-term construction and long-term operational GHG emissions for project buildout were estimated using CalEEMod™ (version 2022.1.1.29). CalEEMod is a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify GHG emissions from land use projects. The model quantifies direct GHG emissions from construction and operation (including vehicle use), as well as indirect GHG emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. Emissions are expressed in annual metric tons of CO_2 equivalent units of measure (i.e., $MTCO_2e$), based on the global warming potential of the individual pollutants.

5.8.2 Impact Assessment

Would the Project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant Impact. The 2025 CEQA Guidelines do not establish a quantitative threshold of significance for GHG impacts, leaving lead agencies the discretion to establish such thresholds for their respective jurisdictions. The City of Atwater does not have an adopted climate action plan (CAP) that establishes thresholds for GHG emissions. Since the SJVAPCD and the City of Atwater do not have established GHG significance emissions thresholds, the Project is assessed based on its consistency with the CARB's latest adopted Scoping Plan, including the Project's compliance with relevant Scoping Plan measures, in addition to the latest RTP/SCS for the region.

Of note, the Scoping Plan is consistent with AB 1276 GHG reduction targets toward achieving carbon neutrality by 2045 and reducing anthropogenic emissions to 85% below 1990 levels by 2045. Therefore, consistency with CARB's Scoping Plan would also demonstrate consistency with carbon neutrality requirements of AB 1279. This analysis provides a qualitative assessment of the Project's compliance with the applicable plans, policies, and regulations for the purpose of reducing GHGs to determine whether the project would have a significant impact on the environment relative to GHGs.

Short-term construction and long-term operational GHG emissions for project buildout were estimated using CalEEMod™ (version 2022.1.1.28). See Appendix A for output files. The Project's estimated construction and operation-related GHG emissions are provided for the purposes of disclosure.

Construction Emissions

In regard to construction, the SJVAPCD does not recommend assessing pollution associated with construction, as pollution-related construction will be temporary. These construction GHG emissions are a one-time release. As such, it can be anticipated that these construction emissions would not generate a significant contribution to global climate change over the lifetime of the Project. The overall annual unmitigated construction GHG emissions associated with buildout of the Project is 320 MT CO2e based on the CalEEMod run.

Operational Emissions

Regarding the long-term operational related GHG emissions, the estimated operational emissions for buildout of the Project incorporate the potential area source and vehicle emissions, and emissions associated with utility and

water usage, and wastewater and solid waste generation. The annual unmitigated operational GHG emissions associated with buildout of the Project is 709 MT CO2e based on the CalEEMod run.

Further, the Project would not exceed the thresholds of significance for construction or operational air pollutant emissions as discussed in Section 4.3. Additionally, as discussed in more detail below, the Project would be generally consistent with the applicable goals and policies related to GHG reduction measures, including CARB's 2022 Scoping Plan and SJVAPCD guidelines, and the Porterville 2030 General Plan goals and policies that aim to reduce air emissions and improve air quality, which reduces GHG emissions as a result. Cumulatively, these emissions would not generate a significant contribution to global climate change over the lifetime of the proposed Project. As such, it can be determined that the Project would not occur at a scale or scope with potential to contribute substantially or cumulatively to the generation of GHG emissions and therefore the impact would be less than significant.

Mitigation Measures

None required.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than Significant Impact. The compatibility of the Project with the 2022 Scoping Plan and the Porterville 2030 General Plan.

Consistency with the 2022 Climate Change Scoping Plan

Based on the evaluation shown in Table 4-7, the Project is consistent with the reduction measures identified in the 2022 Scoping Plan. The reduction measures are derived from the 2022 Scoping Plan *Table 1 – Priority GHG Reduction Strategies*, which provides three (3) priority areas to assist jurisdictions with developing local climate action plans.

Table 4-7 Scoping Plan Priority GHG Reduction Strategies Consistency Analysis

Priority Areas	Priority GHG Reduction Strategies	Consistency/Applicability Determination
Transportation Electrification	Convert local government fleets to ZEVs and provide EV charging at public sites.	**Consistent.** The Project does not include usage of local government fleets. The Project is required by CalGreen to provide 10% of the total number of parking spaces to provide electric (EV) charging spaces.
	Create a jurisdiction-specific ZEV ecosystem to support deployment of ZEVs statewide (such as building standards that exceed state building codes, permit streamlining, infrastructure siting, consumer education, preferential parking policies, and ZEV readiness plans).	**Not Applicable.** This is a city-wide strategy thus is not applicable to the Project.
VMT Reduction	Reduce or eliminate minimum parking standards.	**Not Applicable.** This is a city-wide strategy thus is not applicable to the Project.
	Implement Complete Streets policies and investments, consistent with General Glan Circulation Element requirements.	**Not Applicable.** The Project does not propose the construction of roads. The Project will be

		accessed via the existing driveways along Santa Fe Road and Buhach Road via Airdrome Entry.
	Increase access to public transit by increasing density of development near transit, improving transit service by increasing service frequency, creating bus priority lanes, reducing or eliminating fares, microtransit, etc.	**Not Applicable.** The nearest public transit stop is approximately 509 feet (Stop #308). However, the Project does not increase density of development due to the nature of the development.
	Increase public access to clean mobility options by planning for and investing in electric shuttles, bike share, car share, and walking.	**Consistent.** The Project proposes pedestrian facilities (i.e., sidewalks) within the site and connecting them to adjacent uses.
	Implement parking pricing or transportation demand management pricing strategies.	**Not Applicable.** The Project proposes commercial development; thus, parking spaces are provided at no additional cost for employees and visitors.
	Amend zoning or development codes to enable mixed-use, walkable, transit-oriented, and compact infill development (such as increasing the allowable density of a neighborhood)	**Not Applicable.** This is a city-wide strategy thus is not applicable to the Project.
	Preserve natural and working lands by implementing land use policies that guide development toward infill areas and do not convert "greenfield" land to urban uses (e.g., green belts, strategic conservation easements)	**Consistent.** The Project site is an existing developed facility within an area surrounded by urban and built-up land)and is planned for urbanized uses. Additionally, the General Plan contains policies intended to provide safeguards for agricultural lands and encourage the retention of agriculture and open space areas around the City. The Project would not convert "greenfield" land to urban uses; the site is an infill site.
Building Decarbonization	Adopt all-electric new construction reach codes for residential and commercial uses.	**Not Applicable.** This is a city-wide strategy thus is not applicable to the Project.
	Adopt policies and incentive programs to implement energy efficiency retrofits for existing buildings, such as weatherization, lighting upgrades, and replacing energy-intensive appliances and equipment with more efficient systems (such as Energy Star-rated equipment and equipment controllers).	**Not Applicable.** This is a city-wide strategy thus is not applicable to the Project. In addition, the Project does not include retrofits for existing buildings.
	Adopt policies and incentive programs to electrify all appliances and equipment in existing buildings such as appliance rebates, existing building reach codes, or time of sale electrification ordinances	**Not Applicable.** This is a city-wide strategy thus is not applicable to the Project. In addition, the Project does not include retrofits for existing buildings.

	Facilitate deployment of renewable energy production and distribution and energy storage on privately owned land uses (e.g., permit streamlining, information sharing)	**Not Applicable.** This is a city-wide strategy thus is not applicable to the Project.
	Deploy renewable energy production and energy storage directly in new public projects and on existing public facilities (e.g., solar photovoltaic systems on rooftops of municipal buildings and on canopies in public parking lots, battery storage systems in municipal buildings)	**Consistent.** The Project will be subject to the installation of solar photovoltaic systems on rooftops pursuant California's 2022 Energy Code.

Consistency with the Porterville 2030 General Plan

The Atwater General Plan established several policies to reduce air emissions, as listed below. These policies are mostly implemented at the city level. The Project would be subject to energy efficient regulations including CalGreen, Title 24, and CARB, as discussed in Section 4.6. As such, the Project would be generally consistent with the policies identified in the General Plan.

GOAL CO-3. *Strive to reduce air emissions and obtain goals set in local and regional air quality attainment plans.*

Policy CO-3.1. *Cooperate with the San Joaquin Valley Unified Air Pollution Control District (APCD) in implementing air quality improvement plans prepared by the District.*

Policy CO-3.2. *Encourage land use development projects that would result in fewer adverse air quality impacts, such as mixed use and pedestrian-oriented projects.*

Policy CO-3.3. *Encourage the use of modes of transportation other than automobiles.*

GOAL SF-7. *Prevent activities that contribute to increased wind erosion.*

Policy SF-7.1. *Require all projects that involve grading or other earth moving activities to implement dust control measures to reduce dust emissions.*

In conclusion, the Project contains features that would reduce GHG emissions in compliance with CARB 2022 Climate Change Scoping Plan and the Atwater General Plan. As such, the Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and therefore the impact would be less than significant.

Mitigation Measures

None required.

5.9 HAZARDS AND HAZARDOUS MATERIAL

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			X	
e)	For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the Project area?			X	
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	

5.9.1 Environmental Setting

For the purposes of this section, the term “hazardous materials” refers to "injurious substances," which include flammable liquids and gases, poisons, corrosives, explosives, oxidizers, radioactive materials, and medical supplies and waste. These materials are either generated or used in various commercial and industrial activities. Hazardous

wastes are injurious substances that have been or will be disposed of. Potential hazards arise from the transport of hazardous materials, including leakage and accidents involving transporting vehicles. There also are hazards associated with the use and storage of these materials and waste. Hazardous materials are grouped into the following four categories based on their properties:

- Toxic: causes human health effect
- Ignitable: has the ability to burn
- Corrosive: causes severe burns or damage to materials
- Reactive: causes explosions or generates toxic gases

"Hazardous wastes" are defined in California Health and Safety Code *Section 25141(b)* as wastes that: "…because of their quantity, concentration, or physical, chemical, or infectious characteristics, [may either] cause or significantly contribute to an increase in mortality or an increase in serious illness or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed." Hazardous waste is any hazardous material that is discarded, abandoned, or slated to be recycled. If improperly handled, hazardous materials and hazardous waste can result in public health hazards if released into the soil or groundwater or through airborne releases in vapors, fumes, or dust. Soil and groundwater having concentrations of hazardous constituents higher than specific regulatory levels must be handled and disposed of as hazardous waste when excavated or pumped from an aquifer. The California Code of Regulations, Title 22, *Sections 66261.20-24* contains technical descriptions of toxic characteristics that could cause soil or groundwater to be classified as hazardous waste.

Hazardous waste generators may include industries, businesses, public and private institutions, and households. Federal, state, and local agencies maintain comprehensive databases that identify the location of facilities using large quantities of hazardous materials, as well as facilities generating hazardous waste. Some of these facilities use certain classes of hazardous materials that require risk management plans to protect surrounding land uses. The release of hazardous materials would be subject to existing federal, state, and local regulations and is similar to the transport, use, and disposal of hazard materials.

Regulatory Setting

The California Environmental Protection Agency (CalEPA) was established in 1991 to protect the environment. CalEPA oversees the Unified Program through Certified Unified Program Agencies (CUPAs), which consolidates six (6) environmental programs to ensure the handling of hazardous waste and materials in California. The local CUPA in Merced County, Department of Public Health, Division of Environmental Health (MCDEH), is responsible for administering the following six (6) CUPA programs: [27]

- Hazardous Materials Business Plan (HMBP)
- California Accidental Release Program (CalARP)
- Underground Storage Tank Program (UST)
- Aboveground Storage Tank Program (APSA)

[27] San Joaquin County Environmental Health Department. Certified Unified Program Agency (CUPA). Accessed on August 29, 2025, https://www.sjgov.org/department/envhealth/programs/certified-unified-program-agency-(cupa)

- Hazardous Waste Generator Program
- Tiered Permitting Program

The Department of Toxic Substances Control (DTSC) is a key California agency responsible for regulating hazardous waste, conducting inspections, providing emergency response for hazardous materials incidents, protecting water resources from contamination, and overseeing waste removal. The DTSC operates under the authority of the federal Resource Conservation and Recovery Act (RCRA) and the California Health and Safety Code, implementing regulations found in California Code of Regulations (CCR) Title 22, Division 4.5.

Government Code Section 65962.5 mandates that the DTSC compile and annually update a comprehensive list of hazardous waste sites in California. This list, known as the Cortese List, includes:

1. Hazardous waste facilities subject to corrective action (HSC Section 25187.5).
2. Land designated as hazardous waste property or border zone property (HSC Division 20, Chapter 6.5, Article 11, commencing with Section 25220).
3. Information on hazardous waste disposals on public land (HSC Section 25242).
4. Sites listed pursuant to HSC Section 25356.
5. Sites included in the Abandoned Site Assessment Program.

The DTSC distributes the Cortese List to all cities and counties in California. CCR Title 22 stipulates that soils excavated from a site containing hazardous materials are considered hazardous waste and must be handled accordingly. Cleanup requirements for contaminated soil are determined on a case-by-case basis by the relevant jurisdiction.

Record Search

The United States Environmental Protection Agency (EPA) Superfund National Priorities List (NPL) [28], California Department of Toxic Substance Control's EnviroStor database [29] , and the State Water Resources Control Board's GeoTracker database [30] include hazardous release and contamination sites. A search of each database was conducted on August 28, 2025. The searches identified three (3) military underground storage tank (UST) sites and two (2) military cleanup sites located on or adjacent to the Project site. All three UST sites have been closed, indicating that cleanup and regulatory closure requirements have been met. Of the two cleanup sites, one remains open, located at 4500 Hospital Avenue, approximately 0.1-mile northeast of the Project site. Additionally, the former Castle Air Force Base, located east of the Project site along Hardstand Avenue, is listed on the EPA's NPL and remains under active cleanup and remediation oversight.

[28] United States Environmental Protection Agency. Superfund National Priorities List. Accessed August 28, 2025, https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=33cebcdfdd1b4c3a8b51d416956c41f1

[29] California Department of Toxic Substances Control. Envirostor. Accessed August 28, 2025, https://www.envirostor.dtsc.ca.gov/public/

[30] California State Water Resources Control Board. GeoTracker. Accessed August 28, 2025, https://geotracker.waterboards.ca.gov/

Atwater General Plan

The Atwater General Plan Seismic and Public Safety Element includes policies to protect soils, surface water, and groundwater from contamination from hazardous materials, as listed below.

GOAL SF-9 Prevent potential contamination and hazards resulting from the inappropriate storage, transport, and handling of hazardous materials.

Policy SF-9.1 Require new development projects which produce, store, utilize, or dispose of significant amounts of hazardous materials or waste to incorporate appropriate state-of-the-art project designs and building materials to protect employees and adjacent land uses.

Policy SF-9.2 Promote the routing of vehicles carrying potentially hazardous materials along transportation corridors that reduce the risk of exposure to the public and sensitive environmental areas.

Policy SF-9.3 Encourage continued monitoring of hazardous material cleanup at the CAADC site, and monitoring of hazardous material use or storage at the site.

Implementation Program SF-9.a Require that applications for projects that will generate hazardous wastes or utilize hazardous materials include detailed information regarding the types and volumes of hazardous materials that will be involved and plans for hazardous waste reduction, recycling, and storage.

Implementation Program SF-9.b Forward all proposed development projects which involve the manufacture, use, and/or storage of hazardous materials to the Merced County Environmental Health Department, to ensure that all appropriate business and emergency plans are required and any other special requirements or mitigation measures are incorporated into conditions of approval for the project.

The General Plan also includes policies to reduce the potential impact on adopted emergency response plans and emergency evacuation plans, as listed below.

GOAL SF-10 Ensure that adequate emergency vehicle access is provided to developed areas.

Policy SF-10.1 Require each residential subdivision over 50 units in size to have at least two points of access.

Policy SF-10.2 Continue to require all cul-de-sacs to have a length no greater than 600 feet and to have a sufficient turnaround area for emergency response equipment.

5.9.2 Impact Assessment

Would the Project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant Impact. The hazardous materials associated with Project operation would be typical of commercial uses, such as cleaning supplies, paints, and landscaping chemicals. While these materials are potentially hazardous, the quantities involved are generally small and do not pose a significant risk to the public or the environment under normal conditions of use and storage.

Some appliances and electronics may contain hazardous components (e.g., refrigerants, oils, etc.). However, the handling and disposal of these components are strictly regulated by the EPA under the Toxic Substances Control

Act (TSCA) and Clean Air Act (CAA), the U.S. Department of Transportation, Office of Hazardous Materials Safety, for transport regulations, as implemented in California by Title 13 of the California Code of Regulations (CCR), and the California Building Code and Uniform Fire Code, as adopted by the City of Porterville. Compliance with these regulations would ensure that the use, storage, and disposal of such items within the residences do not create a significant hazard.

During Project construction, the use of fuels, lubricants, and other potentially hazardous materials associated with construction equipment is anticipated. These potential impacts will be short-term and temporary and would be reduced through compliance with a comprehensive set of regulations, including EPA's oil spill prevention and preparedness regulations (e.g., Spill Prevention, Control, and Countermeasure plans), California Office of Emergency Services regulations related to hazardous materials accident prevention, California Department of Toxic Substances Control permitting and regulations for hazardous waste generation and handling, Merced County's environmental health regulations related to hazardous materials, and standard equipment operating practices and best management practices (BMPs) as specified in operator manuals and construction management plans.

Therefore, because the hazardous materials associated with the Project's operation are subject to extensive federal and state regulations, and because construction-related hazardous materials would be managed according to a comprehensive regulatory framework, the Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. For these reasons, a less than significant impact would occur.

Mitigation Measures

None required.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than Significant Impact. The Project's operational activities would involve small quantities of hazardous materials typical of commercial uses (e.g., cleaning supplies, landscaping chemicals). Given the limited quantities and nature of these materials, the risk of a significant hazard to the public or the environment from reasonably foreseeable upset and accident conditions is considered low. Construction activities would involve the temporary use of limited quantities of potentially hazardous materials, such as fuels, lubricants, and cleaning solvents. Standard construction safety practices and BMPs would be implemented through compliance with local, state, and federal regulations to prevent spills and releases.

A database search identified one (1) closed underground storage tank (UST) site on the Project site, as well as two (2) additional closed UST sites and two (2) military cleanup sites adjacent to the Project site, one of which remains active. In addition, the former Castle Air Force Base, located east of the Project site, is listed on the U.S. EPA's NPL and remains under remediation. The closed UST on-site has been remediated to regulatory standards and no longer poses a hazard. Ongoing cleanup activities and regulatory oversight at adjacent sites substantially reduce the potential risk of exposure to hazardous substances. If excavation or grading activities encounter contaminated soil or groundwater, management and disposal would be conducted in accordance with Department of Toxic Substances Control (DTSC) and Certified Unified Program Agency (CUPA) requirements.

With adherence to existing regulatory requirements, local oversight, and implementation of standard construction and operational practices, the Project would not be expected to result in a significant hazard to the public or the environment from reasonably foreseeable upset or accident conditions involving the release of hazardous materials. For these reasons, a less than significant impact would occur.

Mitigation Measures

None required.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less than Significant Impact. There are no schools within one-quarter mile of the Project site. The nearest school to the Project site is Bellevue Elementary and Middle School, located approximately 0.5 miles southeast of the site. As described under criteria a) and b) above, the Project is not anticipated to emit hazard emissions or handle hazardous materials, substances, or waste that would pose a risk or threat to the schools or surrounding area. For these reasons, a less than significant impact would occur.

Mitigation Measures

None required.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less than Significant Impact. The Project site has been checked against the hazardous materials site lists complied pursuant to Government Code Section 65962.5, commonly known as the Cortese List. This check included a review of the following databases: National Priorities List (NPL), EnviroStor (DTSC's database of hazardous waste sites), and GeoTracker (SWRCB's database of leaking underground storage tanks and other sites). The search identified one (1) closed underground storage tank (UST) site on the Project site, as well as two (2) additional closed UST sites and two (2) military cleanup sites adjacent to the Project site, one of which remains active. In addition, the former Castle Air Force Base, located east of the Project site, is listed on the U.S. EPA's NPL and remains under remediation.

Because the closed UST on the Project site has been remediated to regulatory standards, it does not represent an ongoing hazard. The adjacent active cleanup site and regional remediation activities are under the jurisdiction and oversight of the DTSC, SWRCB, and U.S. EPA, which ensures ongoing monitoring and protection of public health. Should excavation or grading encounter contaminated soil or groundwater, the Project would be required to comply with DTSC and Certified Unified Program Agency (CUPA) requirements for investigation, management, and disposal.

Therefore, the Project site's prior contamination does not constitute a significant hazard, and the Project would not create a significant hazard to the public or the environment due to its proximity to listed hazardous materials sites. For these reasons, a less than significant impact would occur.

Mitigation Measures

None required.

e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the Project area?

Less than Significant Impact. The Project site is within the airport influence area and Zone D- Other Overhead Flights as identified in the applicable airport land use plan (ALUP), the Merced County Airport Land Use Compatibility Plan.[31] According to the Castle Airport Master Plan Initial Study, commercial uses are identified as compatible within this zone.[32] While the Project site is within the airport influence area and subject to routine overhead flights, the Project would not introduce sensitive uses and would be consistent with the ALUP; specifically, there are no requirements or limits within Zone D,. Therefore, the Project is consistent with the ALUP and would not pose a safety hazard for people residing or working in the Project area. For these reasons, a less than significant impact would occur.

Mitigation Measures

None required.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact. The Project would not involve any new or altered infrastructure associated with evacuation, emergency response, and emergency access routes within the City of Atwater or Merced County, including procedures identified in the County Hazard Mitigation Plan. Construction may require lane closure; however, these activities would be short-term and access would be maintained through standard traffic control. Following construction, these roadways would continue to provide access to the site. Furthermore, the Project would be subject to compliance with applicable standards for on-site emergency access including turn radii and fire access. Therefore, through compliance, the Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan resulting in a less than significant impact.

Mitigation Measures

None required.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

Less than Significant. The Project site is located on a relatively flat, highly disturbed property with minimal slope. The site is not situated in a wildland or a Cal Fire-designated Fire Hazard Severity Zone (FHSZ).[33] Furthermore, the site is within an "area of local responsibility." The flat terrain, lack of wildland vegetation, absence of prevailing winds that would exacerbate fire risk, and location outside a FHSZ reduces wildfire risk and the potential to expose

[31] County of Merced. (2012). Merced County Airport Land Use Compatibility Plan. Accessed September 2, 2025, https://web2.co.merced.ca.us/pdfs/planning/aluc/alucp_july2012/2012_mer_alucp_entire_document.pdf
[32] County of Merced (2011). Castle Airport Master Plan Initial Study. Accessed September 2, 2025, https://web2.co.merced.ca.us/pdfs/planning/castle_afb_draft_is_stacked.pdf
[33] California Department of Forestry and Fire Protection. Fire Hazard Severity Zone Viewer. Accessed on August 14, 2025, https://experience.arcgis.com/experience/03beab8511814e79a0e4eabf0d3e7247/

people or structures to wildland fires. In addition, the development itself would be constructed in compliance with the CBC and local fire safety regulations, including the Wildland Urban Interface Codes and Standards of the CBC Chapter 7A, which include measures to minimize fire risk. The site is currently developed as part of the Castle Air Museum and is surrounded by urban development and infrastructure with impervious surfaces (e.g., pavement and rooftops), which further limit the potential for wildfire to spread. Therefore, a less than significant impact would occur.

Mitigation Measures

None required.

5.10 HYDROLOGY AND WATER QUALITY

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?			X	
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:				
	i. Result in a substantial erosion or siltation on- or off-site;			X	
	ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site:			X	
	iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or			X	
	iv. Impede or redirect flood flows?			X	
d)	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?			X	
e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

5.10.1 Environmental Setting

The Project site was previously developed and is within City limits and thus, is connected to water and stormwater services. The City's water and stormwater services are described as follows.

Water

The City of Atwater Public Works Department provides water service for residences, commercial establishments, manufacturing plans, institutional facilities, and parks within the city limits. The City operates nine (9) wells to provide water to its customers. All wells are located within the City except for Well #21, which is located at the northeast corner of the Castle Airport facility adjacent to the U.S. Federal prison. [34] In 2016, the City produced an average of eight million gallons per day (mgd). The system has a capacity to pump 15,388 gallons per minute (gpm) and two (2) million gallons of storage. As of 2016, the system serves approximately 6,800 residential connections, 520 commercial connections, six (6) industrial connections, and 45 irrigation connections. [35] The water is distributed through a grid system of pipelines ranging from four (4) to 14 inches in diameter. The system supplies the City with drinking water and provides water for fire protection through fire hydrants.

The City has an overall Supervisory Control and Data Acquisition (SCADA) system that allows for remote monitoring and control of the water system via radio control. This system enhances quick response times to problem situations and fathers real-time, accurate data. The system can accurately determine water production quantities. To protect groundwater resources and minimize the future need to import water from other sources, the City and MID are engaged in efforts to reduce water consumption. New Atwater connections are metered, and per State law, un-metered connections will be metered in 2025. [36]

The City's water supply is obtained from the Merced Subbasin, which is part of the larger San Joaquin River Groundwater Basin and is regulated under the Sustainable Groundwater Management Act by the Merced Irrigation-Urban Groundwater Sustainability Agency GSA). The Merced Groundwater Subbasin Groundwater Sustainability Plan (GSP), adopted in December 2019, was developed to address the subbasin's critical overdraft and bring it into balance by 2040. The Subbasin is heavily reliant on groundwater. Of note, the City and MID are working to reduce water consumption. The City has met Assembly Bill No. 2572 requirements for water meter installation in all residences built in/after 1992; such requirements seek to reduce consumption. Implementation of the Merced Groundwater Subbasin GSP will ensure that groundwater supply is sustainability managed.

In an effort to ensure future growth on the eastern side of the City , in 2016 the City negotiated a settlement with the private Meadowbrook Water Company to relocate their "service area" from the area east of Buhach Road, north of (SR) 99 located within the City Sphere of Influence, to an area north of Santa Fe Drive and south of Cardella Road further to the northeast (the Meadowbrook Water Company was sold to Cal American Water Company in late 2016).

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[34] City of Atwater. (2018). Drinking Water Quality Report. Accessed June 12, 2025, https://www.atwater.org/wp-content/uploads/2019/12/2017-CCR.pdf
[35] City of Atwater; EMC Planning Group, Inc. (2017). 2014-2043 5th Cycle Housing Element Update. Accessed June 12, 2025, https://www.atwater.org/city-of-atwater-2014-2023-5th-cycle-housing-element/
[36] City of Atwater. (July 2018). Drinking Water Quality Report. Accessed June 12, 2025, https://www.atwater.org/wp-content/uploads/2019/12/2017-CCR.pdf

The Atwater General Plan established goals and policies related to groundwater use that would potentially influence implementation of the GSP, as listed below. The GSP anticipates that implementation of the GSP will reinforce Atwater's General Plan goals in addition to the groundwater quality monitoring and remediation described therein.

GOAL CO-1. Support efforts to monitor and remediate existing groundwater contamination within the planning area.

Policy CO-1.1. Encourage responsible agencies to continue monitoring and remediation of contamination of the aquifer underneath the CAADC site.

Policy CO-1.2. Encourage the County of Merced to pursue remediation of groundwater contamination in the unincorporated portions of the Planning Area.

GOAL CO-2. Prevent the creation of new groundwater contamination or the spread of existing contamination.

Policy CO-2.1. Work with the Regional Water Quality Control Board (RWQCB) to protect, improve, and enhance groundwater quality in the region.

Policy CO-2.2. Educate the public on the proper handling and disposal of hazardous materials and household hazardous waste.

According to the Atwater General Plan, most of the city of Atwater lies outside the 100-year floodplain designated by the Federal Emergency Management Agency (FEMA). The Seismic and Public Safety Element addresses flood hazards and dam inundation areas through several goals and policies, as listed below.

GOAL SF-4. Avoid damage to persons and property resulting from flooding.

Policy SF-4.1. Restrict development within the 100-year floodplain in a manner that effectively prevents damage to persons and property.

GOAL SF-5. Reduce potential flood impacts resulting from dam failures.

Policy SF-5.1. Ensure that the City's Emergency Plan is updated to include dam failure inundation as a potential emergency and procedures for the efficient and orderly notification and evacuation of potential dam inundation areas.

Policy SF-5.2. Request that the U.S. Army Corps of Engineers provide information relative to the potential dam inundation area associated with Castle Reservoir.

Stormwater

The City of Atwater Public Works Department manages the drainage system using retention basins and detention basins with a discharge to a natural drain or Merced Irrigation District (MID) canal. There are 13 detention basins and 16 storm water lift stations in the city, with pumping capacities ranging from 75 gpm to 8,000 gpm. The City has an agreement with MID for storm water discharge that includes a fee for maintenance of the canal system. MID sets a maximum rate of discharge for each development. In some situations, where service is not available, the City requires private basins to be constructed on Project sites.

5.10.2 Impact Assessment

Would the Project:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less than Significant Impact. The Project's construction activities, including grading, excavation, and loading, could temporarily increase runoff, erosion, and sedimentation. Potential stormwater pollutants may originate from construction materials, equipment maintenance, and earthmoving. Project operations could also generate potential pollutants, such as fertilizers and pesticides from landscaping, vehicle fluids from driveways and parking areas, and household chemicals. However, a required SWPPP, compliant with the Construction General Permit, and City approved grading/drainage plans would significantly minimize these risks. The SWPPP will assess sediment risk and incorporate BMPs for erosion, sediment, tracking, and waste management. Implementing the SWPPP would minimize soil erosion and topsoil loss, preventing violations of waste discharge requirements and substantial degradation of surface or groundwater quality. Furthermore, Project runoff would be managed by the City, complying with the Storm Drainage Master Plan and approved grading/drainage plans. Therefore, adherence to existing regulations, including the Construction General Permit, BMPs, and the Storm Drainage Master Plan, ensures that potential water quality and waste discharge would result in a less than significant impact.

Mitigation Measures

None required.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?

Less than Significant Impact. The City's long-term water resource planning for existing and future demand is addressed in the City's 2020 Urban Water Management Plan (UWMP). [37] This plan is intended to serve as a tool for planning and phasing the construction of future domestic water supply infrastructure for the projected buildout of the City of Atwater, in accordance with the General Plan.

According to the UWMP, the City uses groundwater wells as the sole source of supply; the City does not use any other water sources including surface water, storm water, recycled water, or desalinated water. As such, groundwater should be viewed as a sustainable resource. The Merced Subbasin Groundwater Sustainability Plan (GSP), adopted in 2019 and revised in 2022, has a goal to achieve sustainable groundwater management on a long-term average basis by increasing recharge and/or reducing groundwater pumping, while avoiding undesirable results. [38] The implementation of the GSP is expected to improve the long-term water supply reliability for the City. Along with the adoption of the UWMP and GSP, the City adopted its Water Shortage Contingency Plan, which consists of four (4) stages to allow the City to reduce its water demand in addition to several restrictions and prohibitions on end users.

[37] City of Atwater (2022). 2020 Urban Water Management Plan. Accessed August 28, 2025, https://www.atwater.org/wp-content/uploads/2022/04/Final-2020-Urban-Water-Management-Plan.pdf
[38] Merced SGMA. (2022). Resources. Accessed August 28, 2025, https://mercedsgma.org/resources#documents

The City's existing and projected potable water demands by sector are shown in Table 4-8 per the 2020 UWMP. Commercial users account for approximately 25% of potable water use citywide in 2020. According to the UWMP, the projected water demand for the City, based on a population of 41,611 and a per capita water demand of 254 gallons per capita per day, would be 11,838 acre-feet (AF) in 2040. The 2020 UWMP anticipates, assuming groundwater remains the sole supply source, a total water supply of approximately 9,642 AF in 2025 and 11,838 AF in 2040. [39] As such, it is expected that there would be sufficient groundwater supplies throughout 2040. The Project would not result in changes to the General Plan land use designations and development resulting from Project implementation would be like that included in the General Plan. Therefore, impacts on groundwater supplies would not be beyond those analyzed in the General Plan EIR.

Table 4-8 Projected Potable Water Demand by Sector, 2025 – 2040

Use Type	Water Use by Volume (AF)			
	2025	2030	2035	2040
Single-Family	4,582	4,907	5,254	5,626
Multi-Family	951	1,018	1,090	1,167
Commercial	2,449	2,622	2,808	3,007
Other	1,660	1,777	1,903	2,038
Total	**9,642**	**10,324**	**11,056**	**11,838**

Source: *City of Atwater, 2020 Urban Water Management Plan, 2022*

Project water use was estimated using CalEEMod methodology (Appendix A). Based on default land use factors, the Project would require approximately 17,243,661 gallons of potable water annually, equivalent to 52.91 AFY. This estimate reflects operational (post-construction) demand only and represents a conservative scenario. Given that actual Project activities are limited to aircraft display areas, pavilions, and a small café/gift shop, long-term water consumption is expected to be lower. The Project's projected annual demand of 52.91 AFY represents less than one percent of the City's projected 2040 supply and would be well within the available groundwater capacity under normal, single-dry, and multiple-dry year conditions. Therefore, Project operations would not cause or contribute to groundwater depletion.

Temporary water use during construction—for dust control, soil compaction, and worker needs—would be short-term and minor relative to the City's annual supply and existing demand. Construction water would be obtained under standard City permitting processes and would not affect groundwater availability for municipal or other users.

In terms of groundwater recharge, Project development would increase impervious surface area, which could locally alter infiltration capacity. However, stormwater runoff would be directed to onsite drainage facilities designed in compliance with City standards and the National Pollutant Discharge Elimination System (NPDES) requirements. These systems are intended to treat, detain, and infiltrate stormwater onsite to the extent feasible, ensuring no measurable increase in offsite runoff or reduction in groundwater recharge. Therefore, the Project would not substantially interfere with recharge processes or sustainable groundwater management of the basin.

[39] According to the UWMP, *"Because groundwater is the sole source of water supply, projected water supply is equal to the projected water use."*

The Project will comply with the California Green Building Standards Code (Title 24, Part 11, Section 4.304 – Outdoor Water Use) and the Model Water Efficient Landscape Ordinance (MWELO; Title 23, CCR §2.7), both enforced through the City's permitting and plan-check process. Compliance will ensure installation of efficient fixtures, irrigation systems, and drought-tolerant plantings.

Based on consistency with City water planning documents and implementation of applicable conservation measures, the proposed Project would not substantially deplete groundwater supplies, interfere with groundwater recharge, or conflict with sustainable groundwater management objectives. Thus, the impact would be less than significant.

To determine the estimated water use for the Project, the CalEEMod calculation methods were used (Appendix A). According to CalEEMod, the Project would require approximately 17,243,661 gallons of potable water per year or 52.91 acre/feet per year (AFY) (17,243,661 gallons per year / 325,851 gallons = 52.91 acre/feet). It is important to note that the CalEEMod estimates are derived from default land use percentages, which may represent a conservative, worst-case scenario. However, the Project primarily consists of aircraft display areas and covered pavilions, with minimal consumption primarily confined to the new café/gift shop and restrooms. This suggests that the actual long-term operational water use will likely be less than the calculated 52.91 AFY. The Project's total operational demand of 52.91 AFY falls well within the City's projected supplies for all normal and dry water years as discussed in the main analysis (Section 4.10). Therefore, the Project's impacts related to water supplies would be less than significant.

In addition to operational demand, water will be temporarily required for construction activities, including dust suppression, soil compaction, and minor worker use. This temporary demand, while not calculated in the operational model, will be minimal and short-term when compared to the City's overall annual supply capacity. Construction water will be sourced and supplied under standard City permitting, and its demand will not substantially impact the City's long-term water supply reliability. Therefore, the Project's impacts related to water supplies would be less than significant.

Mitigation Measures

None required.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:

i. Result in substantial erosion or siltation on- or off-site?

Less than Significant Impact. While construction activities on the primarily undeveloped site could temporarily increase runoff, erosion, and sedimentation, the Project would implement erosion controls and BMPs as required by the SWPPP. These BMPs, such as covering/binding soil surfaces and using barriers like straw bales and sandbags, would minimize soil detachment and transportation. Post-construction, the increase in impervious surfaces could increase the runoff volume. However, this is balanced by a significant reduction in exposed soil, which minimizes long-term erosion and siltation potential. Furthermore, the Project will maintain the existing site drainage pattern in accordance with an approved grading and drainage plan. Therefore, compliance with these requirements will prevent substantial alteration of the drainage pattern that could lead to substantial erosion or siltation, resulting in a less than significant impact.

In addition, development of the Project Site would increase impervious surfaces that could increase stormwater runoff and reduce groundwater recharge. However, stormwater drainage would be managed through storm drain infrastructure. The infrastructure would be designed to comply with City of Atwater stormwater management standards and would ensure no increase in off-site runoff. Therefore, the potential for the Project to interfere substantially with groundwater recharge such that the Project would impede sustainable groundwater management of the basin is limited and impacts would be less than significant

Mitigation Measures

None required.

ii. Substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?

Less than Significant Impact. Construction activities would disturb vegetation and soil, potentially altering the Project site's natural hydrology and increasing runoff volume and velocity, which could increase the risk of flooding. However, compliance with the SWPPP, approved grading and drainage plan, and implementation of BMPs would control and direct runoff. Further, through the SWPPP, approved grading and drainage plan, and implementation of BMPs, runoff associated with operations would be controlled and directed as to prevent on- or off-site flooding. These measures would reduce potential for increased runoff leading to on- or off-site flooding during construction or operations, resulting in a less than significant impact.

Mitigation Measures

None required.

iii. Create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less than Significant Impact. Construction activities would temporarily disturb vegetation and soil, altering the Project site's natural hydrology. However, compliance with the SWPPP, approved grading and drainage plan, and BMP implementation would control and direct runoff, reducing construction-related impacts on runoff volume and pollution, and preventing exceedance of existing or planned stormwater drainage systems. Post-construction, the increase in impervious surfaces would increase runoff. However, compliance with approved grading and drainage plans would reduce the potential for substantial additional polluted runoff or runoff exceeding the capacity of existing or planned drainage systems. Therefore, both construction and operational impacts are considered less than significant.

Mitigation Measures

None required.

iv. Impede or redirect flood flows?

Less than Significant Impact. While the Project would increase impervious surfaces, it would be required to maintain the existing site drainage pattern through City-reviewed and approved project-specific grading and drainage plans. This compliance would minimize or eliminate the potential to impede or redirect flood flows, resulting in a less than significant impact.

Mitigation Measures

None required.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?

Less than Significant Impact. The Project site faces minimal risk of inundation and subsequent pollutant release from tsunamis, seiches, and standard riverine floods. While multiple dams exist in the County, the Project site's location is generally considered outside the worst-case inundation areas for the largest facilities. here is no risk of tsunami as the site is located in the Central Valley, hundreds of miles from the Pacific Ocean. Seiches (standing waves in an enclosed body of water) are unlikely because the area is subject to historically low-to-moderate ground shaking, and there are no large, immediately adjacent water bodies of a size or shape conducive to seiche formation. The Project site is within FEMA Flood Zone X (Figure 4-4), which is designated as a minimal flood hazard area. This zone has a 0.2% annual chance of flooding (the 500-year floodplain) and includes areas of the 1% annual chance flood (100-year floodplain) that have shallow depths or small drainage areas. The risk of significant inundation from standard flood events is low. There is potential for inundation from a catastrophic dam failure, but the risk to the Project site is assessed as low due to its elevation and location relative to potential flood pathways (Table 4-9). Since the Project site is located in a minimal flood zone (FEMA Zone X) and is anticipated to be outside the primary inundation areas of the largest nearby dams (per the General Plan), the potential for inundation is minimal. As the Project would not introduce significant new flood-susceptible sources of pollution, and the hazard risk is minimal, the risk of pollutant release due to Project inundation is less than significant. The Project would not affect the City's ongoing requirement to update its emergency plan to address dam failure. Impacts would be less than significant.

Table 4-9 Assessment of Dam Failure Inundation Risk

Dam Name	Distance to Project Site	Inundation Risk to Project Site
Castle	2.8 miles northeast	The City's General Plan indicates the City's emergency plan needs updating to address failure of this closest dam.
Lake Yosemite	7.5 miles east	The City's General Plan states the Castle Airport area (which includes the Project site) and the far northern periphery of the city are expected to be outside this inundation area.
Mustang Creek	10 miles northwest	Distance mitigates direct, high-velocity risk, but the path of water is relevant.
Merced Falls	17 miles northeast	Distant risk; potential flood path would follow major river corridors.
Burns	16.5 miles east	Distant risk; potential flood path would follow major river corridors.

Kelsey	17 miles northeast	Distant risk; potential flood path would follow major river corridors.
Los Banos Creek Detention	32 miles southwest	Significant distance mitigates risk.
O'Neill Forebay	31 miles southwest	Significant distance mitigates risk.
B.F. Sisk Dike/B.F. Sisk	33 miles southwest	Significant distance mitigates risk.

Mitigation Measures

None required.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant Impact. A revised groundwater sustainability plan was adopted for the Merced Groundwater Sub-basin in January 2025 by the Merced Irrigation-Urban Groundwater Sustainability Agency (MIUGSA), Merced Subbasin Groundwater Sustainability Agency (MSGSA), and Turner Island Water District Groundwater Sustainability Agency #1 (TIWD GSA-1), collectively referred to as "GSAs". The City of Atwater is part of the MIUGSA. [40] The goal of the Merced Subbasin and GSAs is to achieve sustainable groundwater management in the Merced Subbasin by the year 2040 through a combination of increased recharge and reduced groundwater pumping, while avoiding undesirable results. The proposed Project is required to comply with the adopted plan to meet the 2040 sustainability deadline for the basin. The Atwater General Plan includes goals and policies related to groundwater use that influence implementation of the GSP. The Merced County Groundwater Sustainability Plan (GSP) anticipates that the Atwater General Plan Update 2024 will further strengthen this alignment by ensuring that all land use and resource management policies remain in full compliance with the GSAs adopted GSP. As such, compliance with the Atwater General Plan would ensure that the Project does not conflict or obstruct the implementation of the GSAs plan. As mentioned above, impacts to groundwater supplies from the proposed Project will not be beyond those analyzed in the General Plan, PEIR, or UWMP. For these reasons, a less than significant impact would occur because of the Project.

Mitigation Measures

None required.

[40] Merced Subbasin Groundwater Sustainability Agency (2025). Merced Groundwater Subbasin Groundwater Sustainability Plan. Accessed August 28, 2025,https://www.mercedsgma.org/resources

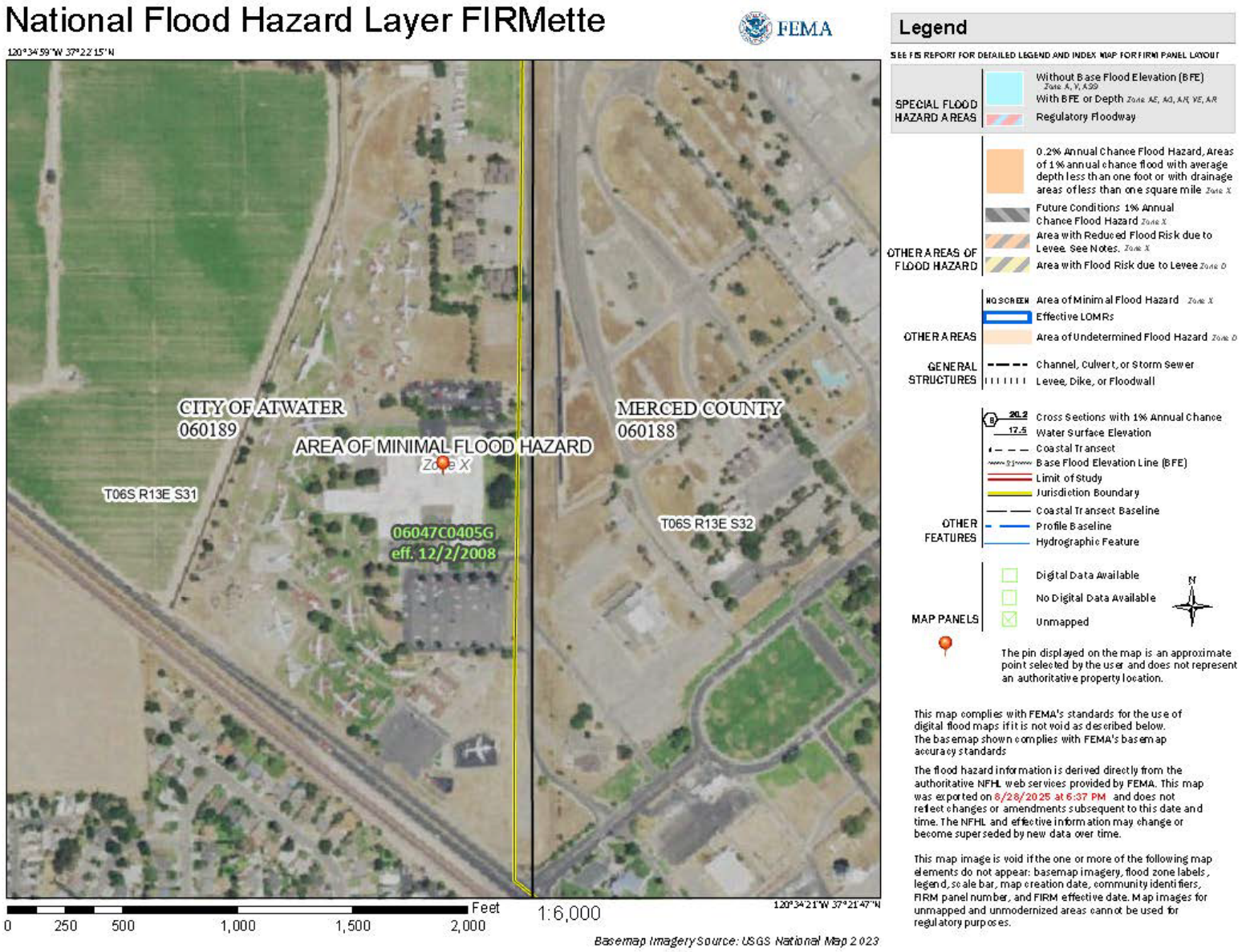


Figure 4-4 Flood Zone Map

5.11 LAND USE PLANNING

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Physically divide an established community?			X	
b)	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?			X	

5.11.1 Environmental Setting

The Project site is in the jurisdiction of the City of Atwater, County of Merced, California. The site is located on the northwest corner of Santa Fe Drive and Buhach Road at 5050 Santa Fe Drive, Atwater, CA 95301. The Project site has historically been used for military purposes as part of the former Castle Air Force Base and is now operated by the Castle Air Museum Foundation. The Project site is currently developed with open tarmacs, display pads with non-operational aircrafts, paved access roads, and the existing Castle Air Museum building.

The Project site has a City of Atwater General Plan land use designation of Commercial. According to the General Plan, the Commercial land use designation "To provide a location for the retail, wholesale, and heavy commercial uses and services necessary within the City but not suited to other commercial districts and too small for the M-1 area." The Commercial land use designation is compatible with the General Commercial zoning districts. Typical uses of this land use designation include retail centers, restaurants, automotive services, and professional offices. The Project site is within the General Commercial zoning district. The zoning district is consistent with the General Plan land use designation. The use of the site as a museum is permitted in the zoning district as a use for public assembly, and as previously permitted by the City.

As referenced in Table 2-1, to the north of the Project site, the existing land use is primarily agriculture and vacant land. The planned land use and zoning district in this area is designated as General Agricultural by the County of Merced. To the south, the existing land use includes single-family residences and a mobile home park. The planned land use for these properties is High-Density Residential and the current zoning is Low Density Residential / Mobile Home Park. To the east, the existing land use is an RV park, health center, and multi-family residences. The planned land use for this property is Institutional and Commercial and the current zoning is General Commercial. To the west, the existing land use is agriculture and vacant land. The planned land use and zoning district for these properties is Business Park.

5.11.2 Impact Assessment

Would the Project:

a) Physically divide an established community?

Less than Significant Impact. The physical division of an established community typically involves the construction of a barrier, such as a highway or railroad tracks, or the removal of a crucial access point, thereby impairing

community connectivity. This Project is an existing facility that has been operating as a museum. It will not construct a dividing feature, nor will it remove an essential access route. Instead, the Project would be designed in accordance with the General Plan, AMC, and other applicable standards to ensure a cohesive site and circulation plan that integrates with the surrounding community. Therefore, this Project would not physically divide an established community, and the impact is less than significant.

Mitigation Measures

None required.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less than Significant Impact. The Project proposes the multi-phased development consisting of new construction buildings, relocation of an existing pre-engineered metal building from Beale Air Force Base, and site improvements, consistent with the existing Commercial land use designation for the site. No land use or zoning changes are required. Generally, policy conflicts are environmental impacts when they would result in direct physical impacts or where those conflicts relate to avoiding or mitigating environmental impacts. As such, associated physical environmental impacts are discussed in this document under specific topical sections, such as Biological Resources, Cultural Resources, and Tribal Cultural Resources. A discussion of land use policies that are applicable to the project are included in Table 4-10. As discussed below, the Project is generally consistent with the proposed Commercial land use designation. Impacts would be less than significant.

Table 4-10 Discussion on Land Use Policies in the General Plan for Commercial Development

General Plan Policy	Project Consistency
Policy LU-2.1. *Develop guidelines for commercial, industrial and business park development that present an attractive public view and are integrated with the surrounding area.*	**Consistent.** Through the entitlement process, the Project would be required to comply with all relevant design guidelines. As such, the Project will be appropriately designed to present an attractive public view and integration with the surrounding area.

Mitigation Measures

None required.

5.12 MINERAL RESOURCES

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b)	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

5.12.1 Environmental Setting

Mineral resources include commercially viable oil and gas deposits, and nonfuel mineral resources deposits. Nonfuel mineral resources include metals such as gold, silver, iron, and copper; industrial metals such as boron compounds, rare-earth elements, clays, limestone, gypsum, salt, and dimension stone; and construction aggregate, including sand, gravel, and crushed stone. California is the largest producer of sand and gravel in the nation.

The California Geological Survey (CGS) classifies and designates areas within California that contain or potentially contain significant mineral resources. Lands are classified into Aggregate and Mineral Resource Zones (MRZs), which identify known or inferred significant mineral resources. According to the California Department of Conservation, CGS's Surface Mining and Reclamation Act (SMARA) Mineral Lands Classification (MLC) data portal, the *Mineral Land Classification Map* in 1997 shows that the Project is not within a mineral resource zone. [41]

The Geologic Energy Management Division's (CalGEM) online mapping application, Well Finder, presents California's oil and gas industry information, including the location of oil/gas wells, geothermal wells, gas/oil facilities (i.e., tank, vessel, sump), underground gas storage, as well as the boundaries of CalGEM-recognized oil/gas fields. According to Well Finder, the Project Site is not within a CalGEM-recognized oil/gas field. [42]

Atwater General Plan

According to the Atwater General Plan, Merced County is located in the center of a productive agricultural belt underlain primarily by unconsolidated sedimentary rocks and alluvial sediments deposited by river tributaries draining into the San Joaquin River. Within the City's Planning Area, there are two active mining sites located near SR 140. However, mineralogical occurrences within Merced County are less numerous compared to other regions of the San Joaquin Valley, the General Plan does not establish any policies to protect mineral resources in the City's Planning Area.

[41] California Department of Conservation. (1997). Mineral Lands Classification. Accessed on August 27, 2025, https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=mlc
[42] California Department of Conservation Geologic Energy Management Division. Well Finder. Accessed on August 27, 2025, https://maps.conservation.ca.gov/doggr/wellfinder/

5.12.2 Impact Assessment

Would the Project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. There are no identified mineral deposits of significance or active mine operations on the Project site. Therefore, the Project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. Therefore, no impact would occur.

Mitigation Measures

None required.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. There are no identified mineral deposits of significance or active mine operations on the project site. As a result, the Project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. Further, the site is not delineated in the General Plan, a Specific Plan, or other land use plan as a locally important mineral resource recovery site, thus it would not result in the loss of availability of a locally important mineral resource. Therefore, no impact would occur.

Mitigation Measures

None required.

5.13 NOISE

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b)	Generation of excessive groundborne vibration or groundborne noise levels?			X	
c)	For a Project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?				X

5.13.1 Environmental Setting

In general, there are two (2) types of noise sources: 1) mobile sources and 2) stationary sources. Mobile source noises are typically associated with transportation including automobiles, trucks, trains, and aircraft. Stationary sounds are sources that do not move such as machinery or construction sites. Stationary sources can also include events, recreational uses, amplified systems, automotive repair facilities, building mechanical systems, and landscape maintenance. These sources can vary based on factors such as site conditions, equipment operated, and specific activities conducted. Noises generated are also directional but can vary based on site and operational characteristics.

Nosie-related impacts typically affect sensitive receptors, and land uses such as residential, schools, churches, nursing homes, hospitals, and open space/recreation areas. Commercial, farmland, and industrial areas are not considered noise sensitive and generally have higher tolerances for exterior and interior noise levels. Noise levels for noise-sensitive receptors will vary depending on location, distance from the source, shielding by terrain and structures, and ground attenuation rates.

Atwater General Plan

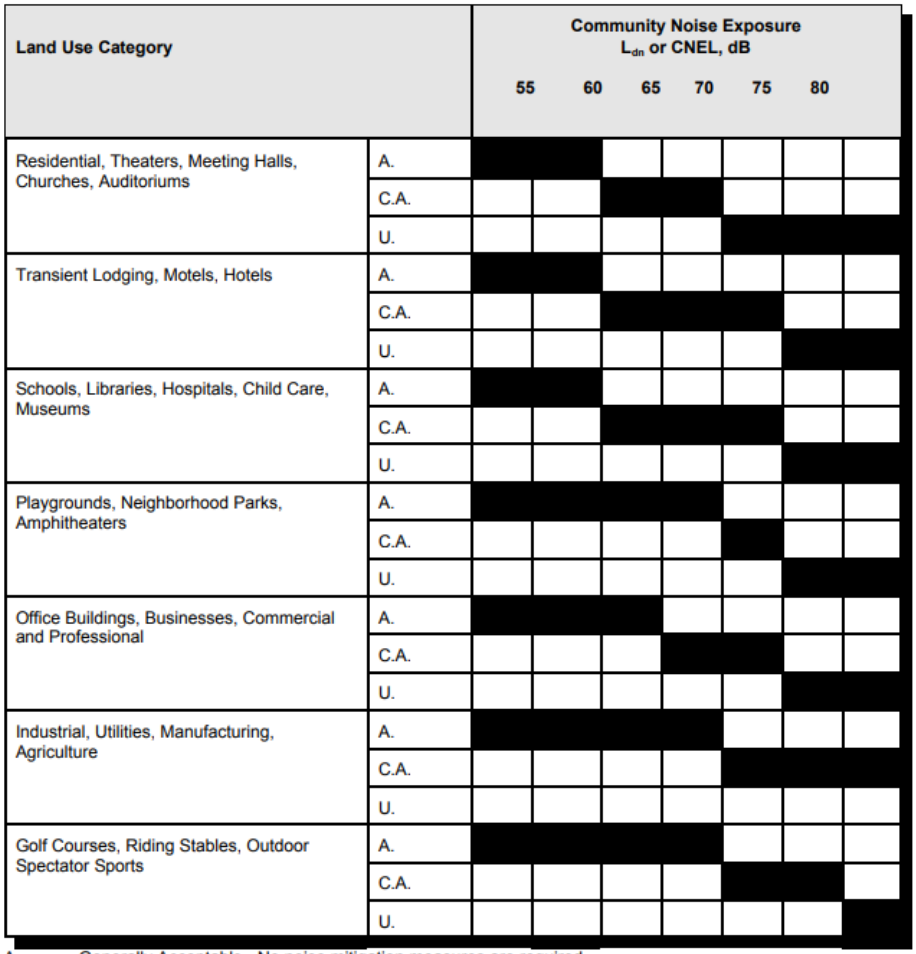
The Atwater General Plan Noise Element sets noise compatibility standards for transportation noise sources in terms of Community Noise Equivalent Level (CNEL) metric. The CNEL is the time-weighted energy average noise level for a 24-hour day, with a 3 dB penalty added to noise levels occurring during the evening hours (7:00 p.m.10:00 p.m.) and a 10 dB penalty added to noise levels occurring during the nighttime hours (10:00 p.m.-7:00 a.m.). The

CNEL represents cumulative exposure to noise over an extended period of time and is therefore calculated based upon annual average conditions.

The Noise Element establishes a land use compatibility criterion of 60 dB for exterior noise levels in outdoor activity areas of museums. Outdoor activity areas generally include outdoor common use areas, porches, patios or balconies of museums. The intent of the exterior noise level requirement is to provide an acceptable noise environment for outdoor activities and recreation.

The Noise Element also provides land use compatibility guidelines for community noise exposure levels. Figure 4-5 (Table 6-5 in the General Plan Nosie Element) summarizes land use compatibility guidelines for various noise exposure levels within the community. An exterior noise level up to 60 dB is considered "Normally Acceptable" and an exterior noise level between 60 dB and 75 dB is considered "Conditionally Acceptable" for museum land uses within the City of Atwater. Exterior noise levels above 75 dB are generally considered unacceptable for museum land uses.

Figure 4-5 Land Use Compatibility Guidelines for Development



A. Generally Acceptable - No noise mitigation measures are required.
C.A. Conditionally Acceptable - Use should be permitted only after careful study and inclusion of mitigation measures as needed to satisfy the policies of the Noise Element.
U. Generally Unacceptable - Development is usually not acceptable.
Source: 1990 California General Plan Guidelines (Appendix A)

The City Code of Atwater, California

The AMC, Title 8, Chapter 8.44, provides standards for noise levels, as discussed below.

Section 8.44.040 – Specific prohibited noises. Notwithstanding any other provisions of this chapter, the following acts and the causing or permitting thereof, are declared and deemed to be in violation of this chapter:

A. *Placement of Stereo Speakers. The amplification of music or any other sound on private property, through speakers located either (1) outdoors, or (2) in one or more windows or doorways, when such speakers are directed towards and such music is plainly audible on an immediately adjacent public right-of-way.*
B. *Band or Orchestral Rehearsals. The conducting of or carrying on, or allowing the conducting or carrying on of band or orchestral concerts or rehearsals or practices between the hours of 10:00 p.m. and 8:00 a.m. sufficiently loud as to be plainly audible at the property line of the property from which the sound is emanating.*
C. *Engines, Motors and Mechanical Devices Near Residential District. The sustained, continuous or repeated operation or use between the hours of 10:00 p.m. and 8:00 a.m. of any motor or engine or the repair, modification, reconstruction, testing or operation of any automobile, motorcycle, machine, contrivance, or mechanical device or other contrivance or facility unless such motor, engine, automobile, motorcycle, machine or mechanical device is enclosed within a sound insulated structure so as to prevent noise and sound from being plainly audible at the property line of the property from which the sound is emanating.*
D. *Motor Vehicles. Racing the engine of any motor vehicle or needlessly bringing a motor vehicle to a sudden start or stop.*
E. *Loading and Unloading. Loading, unloading, opening, closing or other handling of boxes, crates, containers, building materials, garbage cans or similar objects between the hours of 10:00 p.m. and 7:00 a.m. in such a manner as to cause noise disturbance, except for solid waste collection by a franchised collector.*
F. *Non-Emergency Signaling Devices. Sounding or permitting the sounding of any electronically amplified signal from any bell, chime, siren, whistle or similar device, intended primarily for non-emergency purposes, from any place between the hours of 10:00 p.m. and 8:00 a.m., and in no event for more than ten consecutive seconds in any hourly period outside those hours.*
G. *Emergency Signaling Devices.*
    1. *The intentional sounding, or permitting the sounding, outdoors, of any emergency signaling device including fire, burglar, civil defense alarm, siren, whistle or similar emergency signaling device, provided, however that testing of an emergency signaling device is permitted between the hours of 10:00 a.m. and 8:00 p.m. Any such testing shall use only the minimum cycle test time. In no case shall such test time exceed 60 seconds. Testing of the emergency signaling system shall not occur more than once in each calendar month.*
    2. *Sounding or permitting the sounding of any exterior burglar or fire alarm unless such alarm is terminated within 15 minutes of activation.*
    3. *Sounding or permitting the sounding of any motor vehicle alarm unless such alarm is terminated within five minutes of activation.*
    4. *Sounding or permitting the sounding of any motor vehicle alarm more than three times of any duration in any 24-hour period.*

H. Commercial Establishments Adjacent to Residential Property. Notwithstanding any provision of this Code to the contrary, continuous, repeated or sustained noise from the premises of any commercial establishment which is adjacent to one or more residential dwelling units, including any outdoor area part of or under the control of the establishment, between the hours of 10:00 p.m. and 7:00 a.m. that is plainly audible from the residential dwelling unit's property line.

Section 8.44.050 – Construction.

A. Permissible Hours of Construction. All construction for which a grading or building permit is required shall be conducted between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, and 9:00 a.m. and 5:00 p.m. Saturdays and Sundays. For purposes of this section, "construction" or "construction activity" shall include site preparation, demolition, grading, excavation, and the erection, improvement, remodeling or repair of structures, including operation of equipment or machinery and the delivery of materials associated with those activities.

B. Special Circumstances. The building official may grant an exception to the provisions of this section in accordance with the procedures set forth below. Upon receipt of an application in writing therefore stating the reasons for the request and the facts upon which such reasons are based, the building official may grant such permission if he or she finds that:

1. The work proposed to be done is in the public interest; or

2. Unusual hardship, injustice or unreasonable delay would result from adherence to the hours and days specified above.

Any person dissatisfied with the decision of the building official may forthwith appeal to the City Council.

C. Utilities Exemption. The provisions of this section do not apply to construction, repair or excavation by a public utility which is subject to the jurisdiction of the Public Utilities Commission and where such work is necessary for the immediate preservation of the public health, safety, or welfare and where such necessity makes it necessary to construct, repair or excavate during the prohibited hours.

D. City Exemption. The provisions of this section do not apply to public works which are authorized by the City.

Existing Ambient Noise Environment

The Project site's existing noise environment is impacted by various noise sources. According to the General plan Noise Element, the Project site is located near 60 db Ldn noise contour created by State Route 99. Additionally, as previously discussed, the Project site is largely surrounded by commercial, residential and agricultural uses. Associated noises include vehicles and typical neighborhood noise (i.e. talking, car doors shutting, dogs barking, etc.), trucks, tractors, other farm-machinery equipment, and general employee activity. While the Project site is located within the Airport Influence Area (AIA) of the Castle Airport, it is not within the Airport's community noise equivalent level (CNEL) noise contour.

Caltrans Transportation and Construction Vibration Guidance Manual

Some additional vibration guidance is provided by the Caltrans Transportation and Construction Vibration Guidance Manual. The Manual provides guidance for determining annoyance potential criteria and damage potential threshold criteria. These criteria are provided below in Table 4-11 (Acoustical Analysis Table III) and Table 4-12

(Acoustical Analysis Table IV), and are presented in terms of peak particle velocity (PPV) in inches per second (in/sec).

Table 4-11 Guideline Vibration Annoyance Potential Criteria (Acoustical Analysis Table III)

Human Response	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely Perceptible	0.04	0.01
Distinctly Perceptible	0.25	0.04
Strongly Perceptible	0.90	0.10
Severe	2.0	0.4

Source: *Caltrans*

Table 4-12 Guideline Vibration Damage Potential Threshold Criteria (Acoustical Analysis Table IV)

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile, historic buildings, ancient monuments	0.12	0.08
Fragile buildings	0.20	0.10
Historic and some old buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.0	0.50
Modern industrial/commercial buildings	2.0	0.50

Source: *Caltrans*

5.13.2 Impact Assessment

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?

Less than Significant Impact. Noise generating activities of the Project would include traffic noise and stationery-source noise, such as operations and construction as described below. It is not anticipated that the Project would generate substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards, given the type of development proposed (i.e., commercial).

Traffic Noise Exposure

Mobile source noises are typically associated with transportation including automobiles, trains, and aircraft. Sensitive land uses include residential, schools, churches, nursing homes, hospitals, and open space-recreation areas. Commercial, farmland, and industrial areas are not considered noise sensitive and generally have higher tolerances for exterior and interior noise levels. The nearest sensitive land uses are single-family residences to the south of the Project site. The primary source of exterior, on-going noise from buildout of the Project would be from vehicles traveling to and from the site. Future buildout of the Project site would generate an increase in traffic on roadways in the Project vicinity. However, the number of new trips (i.e., 30.38 ADTs) as associated with buildout of the Project site is not likely to increase the ambient noise levels by a significant amount as the area is active with vehicles. Additionally, increased traffic noise levels on adjacent roadways due to buildout of the Project is expected to be minimal since the trips generated by operations (i.e., a museum) do not include heavy duty trucks. While

Project operations may include delivery vehicles (e.g., FedEx, UPS, USPS, etc.), Project operations would not require any unusual or atypical amount of deliveries. Further, while Project construction would require use of heavy duty trucks and construction equipment, construction would be limited and temporary and truck trips would cease upon construction completion. Accordingly, it is expected that the traffic noise levels will increase minimally and will not have a significant impact. Impacts would be less than significant.

Operational Noise Exposure

The proposed commercial use is expected to generate typical commercial noise (i.e., talking, car doors shutting, etc.). These noises are expected to be minimal due to the type of noise and intervening trees and landscaping and will not introduce a new significant source of noise that isn't already occurring in the area. In addition, commercial machinery sounds (e.g., HVAC systems, generators, etc.) will be confined within the interior of the buildings. . As such, it is expected that the operational noise generated by the Project will be minimal and most likely not cause significant impact to existing uses. Impacts would be less than significant.

Construction Noise Exposure

Construction noise will result from construction activities through the use of construction equipment for grading the site and building the proposed structures. Construction phases would include demolition, site preparation, grading, building construction, architectural coating, and paving. Of all construction phases, it is anticipated that grading would produce the loudest noise. Short-term construction noises include traffic noise generated from transporting construction equipment and materials and construction worker commuting. These activities would raise noise levels near the site. Ambient noise from construction activities would cease upon completion of construction.

Although the nearby residential uses would experience elevated noise levels from construction, these activities would be temporary and would generally take place in accordance with AMC Section 8.44.050, which regulates permissible hours of construction between the hours of 7:00 am and 7:00 pm on weekdays and 9:00 am and 5:00 pm on weekends. According to the FHWA Highway Construction Noise Handbook, noise exceeding 90 Lmax in the daytime (7 am to 6 pm) and 85 Lmax in the evening (6 pm to 10 pm) is considered significant. It is not expected that the construction of the Project would exceed the construction noise thresholds of the FHWA since 1) not all construction equipment is expected to be used at the same time and 2) trees between the site and nearby residences, as well as windows and walls of the residences would provide noise reduction.

Overall, Project construction is not expected to result in a significant impact because the noise would be regulated by the AMC. Noise would thereby be generated during daylight hours and not during evening or more noise-sensitive time periods; and the increase in noise would cease upon complete build-out of the Project. For these reasons, a less than significant impact would occur.

Although the Project would result in increased ambient noise levels at the Project site, compliance with the General Plan policies and AMC requirements would result in the Project's compliance with applicable standards. Overall, the Project would result in a less than significant impact in regard to noise.

Mitigation Measures

None required.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant Impact. Ground borne vibration may result from operations and/or construction, depending on the use of equipment (e.g., pile drivers, bulldozers, jackhammers, etc.), distance to affected structures, and soil type. Depending on the method, equipment-generated vibrations could spread through the ground and affect nearby buildings. The dominant sources of man-made vibration are sonic booms, blasting, pile driving, pavement breaking, demolition, diesel locomotives, and rail-car coupling. None of these activities are anticipated to occur with construction or operation of the proposed Project.

The existing single-family residences are located more than 500 feet south of the Project site. Typical vibration levels at distances of 300 feet are summarized by Table 4-13. Most of these levels are barley perceptible at 300 feet according to the vibration annoyance potential thresholds shown in Table 4-11 and Table 4-12. At 500 feet, the vibration levels would attenuate further and would not be expected to cause perceptible disturbance at the nearest residences, according to the damage potential thresholds shown in Table 4-12.

Table 4-13 Typical Vibration Levels During Construction

Equipment	PPV (in/sec)			
	At 25 feet	At 50 feet	At 100 feet	At 300 feet
Bulldozer (Large)	0.089	0.0415	0.011	0.006
Bulldozer (Small)	0.003	0.0014	0.0004	0.00019
Loaded Truck	0.076	0.0355	0.01	0.005
Jackhammer	0.035	0.0163	0.005	0.002
Vibratory Roller	0.210	0.098	0.03	0.013
Caisson Drilling	0.089	0.0415	0.01	0.006

Source: California Department of Transportation

As a result, it is not expected that construction activities would exceed any significant threshold levels for annoyance or damage. Additionally, operational activities related to commercial uses are non-perceptible (i.e., vibration from HVAC, generators, etc.) thus would not create any vibration impacts. As such, the Project would have a less than significant impact.

Mitigation Measures

None required.

c) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?

No Impact. The Project site is within the airport influence area. Per the General Plan Noise Element, the Project site is not within the airport noise contour. Therefore, the Project would not expose people residing or working in the Project area to excessive noise levels. No impact would occur.

Mitigation Measures

None required.

5.14 POPULATION AND HOUSING

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			X	
b)	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

5.14.1 Environmental Setting

CEQA Guidelines *Section 15126.2(d)* requires that a CEQA document discuss the ways in which the proposed Project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. The CEQA Guidelines provide an example of a major expansion of a wastewater treatment plant that may allow for more construction within the service area. The CEQA Guidelines also note that the evaluation of growth inducement should consider the characteristics of a Project that may encourage or facilitate other activities that could significantly affect the environment. Direct and Indirect Growth Inducement consists of activities that directly facilitate population growth, such as construction of new dwelling units. A key consideration in evaluating growth inducement is whether the activity in question constitutes "planned growth."

City of Atwater General Plan

The City of Atwater General Plan estimates the capacity of existing residential uses to hold a total of 64,172 people and non-residential land uses to hold a total of 44,956 employees at full buildout of the city's Planning Area.

U.S. Census Bureau

According to the U.S. Census Bureau, the population of Atwater is 32,248 in 2024 with an average household size of 3.09 in 2023. [43]

[43] U.S. Census Bureau. (2024). QuickFacts: Atwater city, California. Accessed on August 21, 2025, https://www.census.gov/quickfacts/fact/table/atwatercitycalifornia/PST120222

5.14.2 Impact Assessment

Would the Project:

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less than Significant Impact. The Project proposes multi-phased development consisting of new construction buildings, relocation of an existing pre-engineered metal building from Beale Air Force Base, and site improvements. No residential development is proposed that would induce population growth. The café/gift shop and expanded museum facilities may draw additional visitors, these uses are recreational/tourism related and do not establish permanent residences or employment centers that would indirectly induce substantial population growth. The Project does not require extension of roads or utilities beyond the site, except for roadway improvements along the site's frontage (i.e., curb, gutter, and sidewalk) and utility connections to existing pipelines. Therefore, the Project would not induce substantial unplanned population growth and a less than significant impact would occur.

Mitigation Measures

None required.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The Project site does not contain any existing residents as the site is currently developed with Castle Air Museum facilities, including open aircraft exhibits and paved access roads. Therefore, the Project would not result in the physical displacement of existing people or housing and would not necessitate the construction of replacement housing. No impact would occur because of the Project.

Mitigation Measures

None required.

5.15 PUBLIC SERVICES

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire protection?			X	
ii. Police protection?			X	
iii. Schools?			X	
iv. Parks?			X	
v. Other public facilities?			X	

5.15.1 Environmental Setting

The Project is located within Atwater city limits and thus, would receive public services provided by the City of Atwater and will be subject to fees to provide such services, as applicable. Services provided are described as follows.

Fire Protection Services

Fire protection services in the city are provided by CAL FIRE; the City also has a mutual aid agreement with the City of Merced that was established in 1993. The City of Atwater operates two (2) fire stations: Station 41 at 699 Broadway Avenue and Station 42 at 2006 Avenue Two. Fire Station 42 is located approximately 1.42 miles southeast of the Project site. According to the General Plan, the total staffing for CAL FIRE includes 17 full-time firefighters, 1 administrative employee, and 25 volunteer individuals. In 2017, the City updated the Municipal Service Review and cited a response time of less than seven (7) minutes for 90 percent of responses. In 2024, CAL FIRE responded to 4,465 calls for service and 172 calls for fires.

Atwater General Plan

The General Plan Seismic and Public Safety Element includes the following goals and policies to ensure reductions for the potential of fire hazards.

Goal SF-6 *Reduce the potential for both urban and wildland fires to occur.*

Policy SF-6.1. *Maintain, and if feasible improve, the City's ISO rating of 5.*

Policy SF-6.2. *Ensure that all new development and redevelopment of older projects conform to the fire safety provisions of the Uniform Building Code.*

Policy SF-6.3. *Maintain and augment mutual and automatic aid agreements with the Merced County Fire Department.*

Policy SF-6.4. *Support the relocation of Merced County Fire Department's Station 82 to the proposed Applegate Road location to provide better fire protection service to the McSwain-South Atwater area.*

> ***Implementation Program SF-6.a.*** *Enforce the requirements of Public Resources Code Sections 4290 and 4291 on all development projects, the provisions of which include, but are not limited to, the following:*
>
> - *Maintain structural roofs free of vegetative growth and debris.*
> - *Remove any portion of trees growing within 10 feet of chimney/stovepipe outlets.*
> - *Maintain screens over chimney/stovepipe outlets or other devices that burn any solid liquid or fuel.*
>
> ***Implementation Program SF-6b.*** *Develop a comprehensive vegetation and weed abatement program for open space areas, including those located in existing subdivisions.*

Further, projects are subject to review by CAL FIRE and to regulations and standards such as the California Uniform Fire Code (UFC), which includes regulations on construction, maintenance and building use. The UFC addresses fire department access, fire hydrants, sprinklers, fire alarm system, etc., for new buildings.

Police Protection Services

Police protection services in the City are provided by the Atwater Police Department. The Police Department currently operates from the main police station located at 750 Bellevue Road, Atwater, CA 95301, which is approximately 1.7 miles northeast of the Project site. According to the General Plan, there are 39 employees, 29 which are sworn officers, and 17 which are patrol officers. The City maintains a ratio of 1.2 police officers per thousand residents would support adequate law enforcement efforts at buildout of the General Plan.

Schools

Educational services within the City of Atwater are provided by the Atwater School District, Merced Union High School District, McSwain School District, Merced City School District and Winton School District. The six (6) school districts operate 13 public schools within the City's Planning Area. The Project site is located within the Atwater Elementary School District, which includes 8 elementary schools, 1 middle school, and a community day school. The nearest school is Bellevue Elementary & Middle School and Merced Union High School District located approximately 0.5 miles to the southeast/south of the site.

Funding for schools and school facilities impacts is outlined in Education Code Section 17620 and Government Code Section 65995 *et. seq.* (State statutes) which govern the amount of fees that can be levied against new development. These fees are used to construct new or expanded school facilities. Payment of fees authorized by the statute is deemed "full and complete mitigation." A School District Developer Fee would be assessed for development based on the rates in place at the time payment is due.

Parks and Recreation

Park and recreational facilities are overseen by the City of Atwater Public Works Department. According to the General Plan, there are 18 parks within the City, totaling 77.62 acres of parkland, which provides a parkland to population ratio of 3.37 parks per thousand people. This meets the 1975 Quimby Act and the City's park standard, which requires a minimum of three (3) acres per thousand residents.

Atwater General Plan

The General Plan Land Use, Public Facilities and Community Infrastructure Element includes the following objectives and policies related to park and recreational facilities and services:

Goal LU-23. *Develop a comprehensive strategy for parkland acquisition, construction, and maintenance which meets the community's adopted standards for recreation facilities.*

Policy LU-23.1. *Strive to maintain or exceed a minimum standard of 3.0 acres of public park land per 1,000 population.*

Policy LU-23.2. *Ensure that park and recreation facilities are distributed equitably throughout the community.*

Policy LU-23.3. *Identify areas of the City that are deficient in park and recreational facilities and assign top priority for future park construction to these areas.*

Policy LU-23.4. *Incorporate park and recreation facilities within the CAADC into the City's park system, as appropriate.*

Policy LU-23.5. *Encourage private ownership and operation of park and recreation facilities located within the CAADC that are not incorporated into the City's system.*

5.15.2 Impact Assessment

Would the Project:

a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

i. Fire protection?

Less than Significant Impact. The Project site is currently served by CAL FIRE. Station 42 is located approximately 1.6 miles southeast of the Project site. The Project's proximity to the existing fire station would support adequate service ratios, response times, and other performance objectives for fire protection services. Additionally, through the entitlement and building permit process, the Project would be required to comply with the CBC and Uniform Fire Code to ensure fire safety elements are incorporated into Project design. Proposed interior streets would be required to provide appropriate widths and turning radii to safely accommodate emergency response and the transport of emergency/public safety vehicles. The Project would also be designed to meet City requirements regarding water flow, water storage requirements, hydrant spacing, infrastructure sizing and emergency access. Through compliance, impacts would be less than significant.

Mitigation Measures

None required.

ii. Police protection?

Less than Significant Impact. The Project site would be served by the Atwater Police Department. The Police Department currently operates from the main police station located at 750 Bellevue Road, Atwater, CA 95301, which is approximately 1.7 miles southwest of the Project site. The Project's proximity to the police station would support adequate service ratios, response times, and other performance objectives for police protection services. For these reasons, it can be determined that the Project would not result in the need for new or altered facilities that could have an environmental impact and a less than significant impact would occur.

Mitigation Measures

None required.

iii. Schools?

Less than Significant Impact. The Project site is within the Atwater Elementary School District. The nearest school is Bellevue Elementary & Middle School located approximately one mile to the southwest of the site. The Project does not include residential development and would not directly generate new students or result in the need for new or expanded school facilities. To offset potential impacts of the development, a School District Developer Fee would be assessed for the Project based on the rates in place at the time payment is due. As stated in Government Code Section 65995 *et seq*., payment of a school impact fee is deemed full and complete mitigation for potential impacts to schools caused by development. Therefore, payment of the assessed School District Developer Fee would reduce impacts related to new school facilities resulting from implementation of the Project and impacts would be less than significant.

Mitigation Measures

None required.

iv. Parks?

Less than Significant Impact. Park and recreational facilities are typically impacted by an increase in use from residential development. The Project proposes a multi-phased development consisting of new construction buildings, relocation of an existing pre-engineered metal building from Beale Air Force Base, and site improvements. Because the Project does not include residential development, it would not introduce residents to the area and therefore would not increase the demand for and use of existing public parks or other recreational facilities. For these reasons, the Project would have a less than significant impact.

Mitigation Measures

None required.

v. Other public facilities?

Less than Significant Impact. The Project would not result in new housing or employment centers that would significantly increase demand for other public facilities such as libraries or community centers. Visitor-serving uses (e.g., café/gift shop and expanded museum facilities) would represent an intensification of an existing facility but

would not generate population growth that requires new or expanded facilities. Therefore, impacts on other public facilities would be less than significant.

Mitigation Measures

None required.

5.16 RECREATION

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b)	Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

5.16.1 Environmental Setting

See Section 4.15. Public Services.

5.16.2 Impact Assessment

Would the Project:

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. Park and recreational facilities are typically impacted by an increase in use from proposed residential development. The Project proposes multi-phased development consisting of new construction buildings, relocation of an existing pre-engineered metal building from Beale Air Force Base, and site improvements and would not result in a net increase in the area population. Thus, because of the nature of the Project and the characteristics of the area, there would be no increased demand for existing neighborhood and regional parks, or other recreational facilities associated with the Project and the Project would thereby not result in physical deterioration of recreational facilities. Therefore, the Project would have no impact.

Mitigation Measures

None required.

b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

No Impact. The Project proposes a commercial use that does not include recreational facilities or require the construction or expansion of recreational facilities. Therefore, no impact would occur as a result of the Project.

Mitigation Measures

None required.

5.17 TRANSPORTATION

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			X	
b)	Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?			X	
c)	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
d)	Result in inadequate emergency access?			X	

5.17.1 Environmental Setting

The Project site is currently developed with open tarmacs, display pads with non-operational aircrafts, paved access roads, and the existing Castle Air Museum building. The Project site has street frontage along Santa Fe Drive on the southern edge, along Airdrome Entry and Hospital Ave on the eastern edge, and along Wallace Road on the northern edge.

2022 Regional Transportation Plan / Sustainable Community Strategy for Merced County

The 2022 Regional Transportation Plan (RTP)/ Sustainable Community Strategy (SCS) for the Merced County Region, approved in August 2022, was prepared to ensure that all planned additions and modifications to the regional transportation network address both existing and future mobility needs. The objective of the RTP/SCS is to provide a strategic and financially constrained roadmap for investments in roads, freeways, public transit, bikeways, and other modes of travel across Merced County over the next 25 years. The RTP/SCS identifies transportation system needs and projects throughout the county as well as within incorporated cities, including the City of Atwater. [44]

According to the RTP/SCS, 77 percent of workers in Merced County drove to their jobs, and traffic collisions in 2019 resulted in approximately 2,270 injuries or fatalities. With continued population growth anticipated in the County, improvements to the transportation system are necessary to enhance safety, reduce congestion, and better serve community needs. Planned projects in the City of Atwater include:

- Bellevue Road and Broadway Avenue Reconstruction
- Citywide Traffic Signal Synchronization

[44] Merced County Association of Governments. (2022). 2022 Regional Transportation Plan Sustainable Communities Strategy for Merced County. Accessed August 27,2025, MCAG-2022-RTP-SCS

  - Shaffer Rd/Channel Ave
- Downtown Pedestrian Improvement Project along multiple corridors
  - Grove Ave, Fir Ave, Elm Ave, Drakeley Ave, Cedar Ave, Broadway Ave, Seventh St, Sixth St, Fifth St, alley between Winton Way and Fifth St
  - Fourth St, Third St, Second St, First St
  - Oak Ave, Mulberry Ave, Laurel Ave, Kadota Ave, Juniper Ave, Third St, Linden St, First St
  - Holly Ave, Hemlock Ave, Groce Ave, Fir Ave, Elm Ave, Eucalyptus St, Packers St, High St.
- Fruitland Avenue Reconstruction
  - Winton Way to Shaffer Road

Atwater General Plan

The Circulation Element of the Atwater General Plan established policies to maintain the operations of existing roadway systems as new development occurs. These policies aim to ensure that adequate transportation system is provided. The following goals and policies are generally applicable to the proposed Project.

GOAL CIRC-1. *Maintain adopted Level of Service (LOS) for City streets and intersections.*

Policy CIRC-1.1 *Establish and maintain a minimum LOS of D for all arterial and collector streets within the City.*

Policy CIRC-1.2. *Establish intersection LOS standards when more specific intersection traffic data becomes available.*

Policy CIRC-1.3. *Design roadway improvements and evaluate development projects using established LOS standards.*

Policy CIRC-1.4. *Develop the City's roadway system in conformance with the planned roadway system shown on the Circulation Plan and the City's adopted cross section standards.*

Policy CIRC-1.5. *Access for land uses adjacent to Castle Parkway will be provided by frontage roads which parallel the Parkway. Direct access to the Parkway will be limited to the primary east-west corridors in the area.*

GOAL CIRC-5 *Provide sufficient parking for all commercial, industrial, residential, and other uses, either off-street or on-street as appropriate.*

Policy CIRC-5.1 *Require that all new development provides sufficient on- or off-street parking to meet the standards of the City's Zoning Code or any other applicable planning document (such as the Downtown Specific Plan).*

GOAL CIRC-8 *Provide a safe and efficient pedestrian circulation system which connects residential areas, schools, and commercial areas with parking lots and public transportation.*

Policy CIRC-8.1 *Require new public and private development and infrastructure projects to include sidewalks or on-site pedestrian features.*

Policy CIRC-8.2 *Ensure that pedestrian circulation within commercial development projects is considered and that safe walkways are separated from parking stalls and drive aisles are provided.*

The Circulation Element designates Santa Fe Drive and Buhach Road as Urban Major Arterials. Per the General Plan, these are roads within the Sphere of Influence that carry large volumes of traffic relatively long distances within or through an urban area. They also serve considerable local traffic traveling short distances. Along these roadways, priority is placed on through traffic mobility rather than access to fronting property, and direct access to individual fronting parcels is discouraged. A major arterial with fully controlled frontage access is also considered an

expressway. Major urban arterials should be continuous through the urban community they serve and link to arterial routes in adjacent communities or the rural areas.*SB 743 Technical Advisory*

In April 2018, the Governor's Office of Planning and Research (OPR) issued the Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory) (revised December 2018) to provide technical recommendations regarding VMT, thresholds of significance, and mitigation measures for a variety of land use project types.

The Technical Advisory includes screening thresholds for agencies to use in order to identify when a project should be expected to cause a less-than-significant impact without conducting a detailed study.

- *Screening Thresholds for Small Project.* Absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a Sustainable Communities Strategy (SCS) or general plan, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than significant transportation impact. This threshold is based on a CEQA categorical exemption for existing facilities, including additions to existing structures of up to 10,00 square feet, so long as the project is in an area where public infrastructure is available to allow for maximum planned development and the project is not in an environmentally sensitive area.
- *Map-Based Screening Threshold for Residential and Office Projects.* Residential and office projects that locate in areas with low VMT, and that incorporate similar features (i.e., density, mix of uses, transit accessibility), will tend to exhibit similarly low VMT. Maps created with VMT data, for example from a travel survey or a travel demand model, can illustrate areas that are currently below threshold VMT. Because new development in such locations would likely result in a similar level of VMT, such maps can be used to screen out residential and office projects from needing to prepare a detailed VMT analysis.
- *Presumption of Less Than Significant Impact Near Transit Thresholds.* Proposed CEQA Guideline Section 15064.3, subdivision (b)(1), states that lead agencies generally should presume that certain projects (including residential, retail, and office projects, as well as projects that are a mix of these uses) proposed within ½ mile of an existing major transit stop or an existing stop along a high quality transit corridor will have a less-than-significant impact on VMT. This presumption would not apply, however, if project-specific or location-specific information indicates that the project will still generate significant levels of VMT.
- *Presumption of Less Than Significant Impact for Affordable Residential Development*. Adding affordable housing to infill locations generally improves jobs-housing match, in turn shortening commutes and reducing VMT. Therefore, a project consisting of a high percentage of affordable housing may be a basis for the lead agency to find a less-than-significant impact on VMT.

According to the Technical Advisory, lead agencies, using more location-specific information, may develop their own more specific thresholds, which may include other land use types. The City of Atwater has not developed their own specific thresholds; however, the City does use Merced County's Guidelines.

MCAG VMT Thresholds and Guidelines

In 2022, Merced County Association of Governments (MCAG) adopted VMT Thresholds and Implementation Guidelines for the seven (7) jurisdictions: City of Atwater, City of Dos Palos, City of Gustine, City of Livingston, City of Los Banos, City of Merced, and the County of Merced. The Guidelines include project screening criteria,

methodologies for estimating project specific VMT, regional and local thresholds, and VMT mitigation strategies. [45] The project screening criteria listed in the Guidelines are similar to those identified in the TA, including:

- Project is within a Transit Priority Area/High Quality Transit Corridor: within 0.5 miles of a transit stop, consistent with RTP/SCS, FAR >0.75, limited parking, does not reduce the number of affordable housing units.
- Project is a Local-Serving Retail less than 50,000 sf.
- Project is a Low Trip Generator: less than 1,000 ADT for projects consistent with the General Plan and less than 500 ADT for projects inconsistent with the General Plan.
- Project is 100% Affordable Housing Units.
- Project is Institutional or Government and Public Service Uses.
- Project is located in Low VMT Zones.

If the project does not meet any of the screening criteria listed above, the project is subject to further analysis using the MCAG Travel Demand Model (TDM).

5.17.2 Impact Assessment

Would the Project:

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less than Significant Impact. The Project would be required to comply with all project-level requirements implemented by a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle. And pedestrian facilities. Compliance is further discussed below. Overall, the Project would not conflict with a program plan, ordinance, or policy addressing the circulation systems and a less than significant impact would occur.

Roadway Facilities

Project construction and operations would generate vehicular trips to and from the Project site. The Project would be accessible via existing driveways along Santa Fe Drive and Buhach Road via Airdrome Entry, providing ingress and egress to the main museum campus and the proposed improvements. An internal circulation system consisting of walkways and fire lanes would connect all phases of development. The Project does not propose any modifications to the existing roadway network. In addition, trips generated by construction and operations would be minimal. Construction-related trips would be limited in duration as the site is prepared for construction, and the proposed structures are built. Operations would generate limited trips, approximately 30 average daily trips as identified in criterion b). Therefore, the Project would be consistent with the goals, objectives, and policies of the General Plan as shown on the Existing Roadway Network described in the Circulation Element.

[45] Merced County Association of Governments. (2022). VMT Thresholds and Implementation Guidelines. Accessed August 27, 2025, https://www.mcagov.org/DocumentCenter/View/3872/MCAG-SB-743-VMT-Thresholds-and-Implementation-Guidelines_11-10-2022?bidId=

Pedestrian and Bicycle Facilities

There are no existing pedestrian or bicycle facilities along Santa Fe Drive. However, pedestrian facilities are present along Airdrome Entry and Hospital Avenue in proximity to the Project site. The General Plan Circulation Element does not identify any future bicycle or pedestrian facilities in this area. Because the Project does not include or require public street improvements, it would be consistent with the General Plan and would not conflict with any program, plan, ordinance, or policy related to bicycle or pedestrian facilities.

Transit Facilities

The City of Atwater is served by Merced County Transit, which provides public transportation throughout the County. A bus route operates along Santa Fe Drive and Hospital Avenue with a bus stop located at the Castle Clinic within the Castle Air Museum campus. The Project does not propose public street improvements and would not alter or obstruct the existing bus stop or route. Therefore, the Project would not conflict with any program, plan, ordinance, or policy addressing transit facilities, and a less than significant impact would occur.

Mitigation Measures

None required.

b) Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less than Significant Impact. The Project proposes multi-phased development within the existing Castle Air Museum campus, including new pavilion buildings and relocation of an existing pre-engineered metal building from Beale Air Force Base to expand the museum. Using the 11th Edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual and the ITE museum rate (0.35 trips per 1,000 square feet GFA), the Project's approximately 86,800 square feet of exhibition space yields an estimated 30.38 average daily trips (ADT) (0.35 × 86.8 = 30.38 ADT). Per the MCAG VMT Thresholds and Guidelines, projects that generate less than 1,000 ADT (consistent with General Plan) or 500 ADT (if not consistent with General Plan), it can screen out as a Low Trip Generator. Because the Project would generate less than 1,000 ADT, it would not conflict or be inconsistent with CEQA Guidelines section 15064.3(b) and a less than significant impact would occur.

Mitigation Measures

None required.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less than Significant Impact. The Project does not contain any geometric design features that would create roadway hazards. Implementation of the Project would not require improvements or expansions to the roadway network serving the Project site. Access would continue to be provided by the existing driveways on Santa Fe Drive and Buhach Road via Airdrome Entry. The Project proposes an internal circulation network of walkways and fire lanes to serve the new pavilion buildings and display areas; fire lanes would be designed and constructed in accordance with City engineering standards and fire-department requirements, including appropriate turning radii, sight distance, clearances, and emergency vehicle access. Furthermore, the Project proposes commercial development within an area that comprises existing and planned commercial and agricultural uses. Because the Project is consistent with both the site's land use designation and existing development pattern and surrounding land uses,

it would not introduce incompatible uses. Therefore, implementation of the Project would result in a less than significant impact related to hazards associated with roadway design features or incompatible uses.

Mitigation Measures

None required.

d) Result in inadequate emergency access?

Less than Significant Impact. The Project would be accessible via the existing driveways along Santa Fe Drive and Buhach Road via Airdrome Entry, providing ingress/egress to the main museum campus and proposed improvements. The Project would not alter or impede any primary evacuation routes. While temporary lane closures may occur during construction, these would be managed through approved traffic control plans and encroachment permits to maintain emergency vehicle access. Post-construction, the Project would maintain adequate emergency access, including appropriate turning radii for emergency vehicles, clearly marked fire lanes, and sufficient hydrant access. The City's review and approval process would ensure compliance with all applicable codes and regulations related to emergency access and evacuation. Therefore, the Project would not impair emergency response or evacuation plans, and a less than significant impact would occur.

Mitigation Measures

None required.

5.18 TRIBAL CULTURAL RESOURCES

Would the Project: Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC *Section 21074* as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC *Section 5020.1(k)*, or,		X		
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC *section 5024.1*. In applying the criteria set forth in subdivision (c) of PRC *section 5024.1*, the lead agency shall consider the significance of the resource to a California Native American tribe.		X		

5.18.1 Environmental Setting

See Section 4.5. Cultural Resources.

5.18.2 Impact Assessment

Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

Less than Significant Impact with Mitigation Incorporated. Public Resources Code Section 21074 defines a "tribal cultural resource" as a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources or listed in a local register of historical resources. Public Resources Code (PRC) Section 5020.1(k) further clarifies that a local register of historical resources is a list of properties officially designated as historically significant by a city or county through a local ordinance or resolution.

As discussed in Section 4.5 Cultural Resources, a CHRIS record search, consultation notices to Native American tribes, and a Sacred Lands File check were conducted for the Project site and surrounding area. These efforts, which specifically sought to identify known tribal cultural resources, did not identify any such resources within the Project boundaries. Therefore, the Project would not impact any known tribal cultural resources listed or eligible for listing in the California Register or a local register.

However, recognizing the possibility of encountering undiscovered tribal cultural resources during ground-disturbing activities, the Project would incorporate ***Mitigation Measure CUL-1*** *through* ***Mitigation CUL-3***. This measure would protect any inadvertently discovered cultural resources, including tribal cultural resources as defined in PRC Section 21074. Specifically, this measure outlines a stop-work and assess procedure during the construction phases of the project including stop work, expert consultation, City notification, resource evaluation and protection, and long-term preservation to avoid or minimize potential impacts. This measure directly addresses potential impacts to undiscovered tribal cultural resources that might meet the criteria of PRC Section 21074.

Therefore, considering the negative findings of the record search and tribal consultation regarding known resources, and the implementation of ***Mitigation Measure CUL-1*** *through* ***Mitigation CUL-3*** to address potential impacts to undiscovered resources, the Project is not anticipated to cause a substantial adverse change in the significance of a tribal cultural resource. Potential impacts to unknown resources, if any, will be reduced to a less than significant level through the procedures outlined in ***Mitigation Measure CUL-1*** *through* ***Mitigation CUL-3***. Impacts would be less than significant.

Mitigation Measures

Implementation of ***MM CUL-1*** through ***MM CUL-3***.

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less than Significant with Mitigation Incorporated. Public Resources Code (PRC) Section 5024.1 outlines criteria for determining the historical significance of a resource. While the Project site has not been formally designated as a historical resource by the City of Porterville under this section, undiscovered tribal cultural resources, potentially meeting the criteria of PRC 5024.1, could be encountered during ground-disturbing activities.

As discussed previously, a CHRIS record search, formal tribal consultation notices, and a Sacred Lands File check were conducted. These efforts did not identify any known tribal cultural resources on the project site. However, the possibility of encountering undiscovered resources, potentially meeting the significance criteria of PRC Section 5024.1, remains.

To address this possibility, the Project would incorporate ***Mitigation Measure CUL-1*** *through* ***Mitigation CUL-3***. This measure would protect any inadvertently discovered cultural resources, including tribal cultural resources as defined in PRC Section 21074. Specifically, this measure outlines a stop-work and assess procedure during the construction phases of the project including stop work, expert consultation, City notification, resource evaluation and protection, and long-term preservation to avoid or minimize potential impacts.

Therefore, considering the negative findings of the record search and tribal consultation regarding known resources, and the implementation of ***Mitigation Measure CUL-1*** *through* ***Mitigation CUL-3*** to address potential impacts to undiscovered resources that might meet the criteria of PRC Section 5024.1, the Project is not anticipated to cause a substantial adverse change in the significance of a tribal cultural resource. Potential impacts to unknown resources, if any, will be reduced to a less than significant level through incorporation of ***Mitigation Measure CUL-1*** *through* ***Mitigation CUL-3***. Impacts would be less than significant.

Mitigation Measures

Implementation of ***MM CUL-1*** through ***MM CUL-3***.

5.19 UTILITIES AND SERVICE SYSTEMS

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effect?			X	
b)	Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
c)	Result in a determination by the wastewater treatment provider, which serves or may serve the Project that it has adequate capacity to serve the Project's Projected demand in addition to the provider's existing commitments?			X	
d)	Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
e)	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

5.19.1 Environmental Setting

The Project site was previously developed and is within City limits and thus, is connected to water, wastewater, and stormwater services. Natural gas, electricity, telecommunications, and solid waste services are provided by private companies. Each utility system is described below.

Water

Water supply, usage, and services are described in Section 4.10.

Wastewater

The City of Atwater Public Works Department operates and maintains the City's municipal wastewater collection and treatment system, which includes a network of pipelines, pump stations, and a wastewater treatment plant (WWTP) facility. The City's new WWTP, constructed in 2012, is located west of State Route 99 on Bert Crane Road.

The facility has an average permitted treatment capacity of six (6) million gallons per day (mgd). Although the WWTP is owned by the City, it is operated under contract by Veolia Water North America West. In 2020, the facility treated an average daily flow of 3.3 mgd, which represents approximately 54 percent of its permitted capacity. In addition to serving the City of Atwater, the WWTP also receives and treats wastewater flows from the United States Penitentiary Atwater, the Winton Water and Sanitary District (WWSD), and Castle Airport.[46]

Solid Waste

The City of Atwater Public Works Department contracts solid waste to a private contractor, Mid Valley Disposal. Solid waste is then transported and disposed in one (1) of the two (2) Merced County Landfills. The Merced County Association of Governments (MCAG) is responsible for managing and implementing regional solid waste disposal services, known as the Merced County Regional Waste Management Authority (RWA). The RWA owns and operates the two (2) regional landfills within Merced County and administers integrated waste management contracts and grants on behalf of member jurisdictions.

Stormwater

Stormwater services are described in Section 4.10.

Natural Gas and Electricity

According to the Atwater General Plan, MID is the electricity and natural gas provider. Power is provider through major electrical transmission lines running through the northern and southern portions of the city. State Route 99 contains a major natural gas main and crude oil pipeline. The gas main pipeline has an offshoot line running directly north through down, beginning approximately at Atwater Boulevard and First Street.

Telecommunications

Telecommunications providers in the area incrementally expand and update their service systems in response to usage and demand. Upon request, the site would be connected to existing broadband infrastructure and subject to applicable connection and service fees.

5.19.2 Impact Assessment

Would the Project:

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less than Significant Impact. The Project would connect to existing municipal water infrastructure located along Santa Fe Drive. The existing mains would not require upgrading or relocation to facilitate the proposed development. New water mains will be extended internally throughout the site to service each of the buildings. The water system improvements for the Project would be designed and constructed in accordance with City standards and requirements, as verified through the building permit process. As discussed in criterion (b), the Project's

[46] City of Atwater (2022). 2020 Urban Water Management Plan. Accessed August 28, 2025, https://www.atwater.org/wp-content/uploads/2022/04/Final-2020-Urban-Water-Management-Plan.pdf

estimated water demand would fall within the projected supplies for all normal and dry years under the City's Urban Water Management Plan. Further, the Project's adherence to regulatory requirements, implementation of water conservation measures, and payment of capacity and connection fees would ensure its water demand remains within acceptable limits, thus minimizing its impact on groundwater supplies and resulting in a less than significant impact.

The Project would also connect to existing municipal sanitary mains located along Santa Fe Drive. The existing mains would not require upsizing or relocation to facilitate the proposed development. New sewer lines would be extended internally through the site to service each of the proposed buildings. The sewer system improvements for the Project would be designed and constructed in accordance with City standards and requirements, as verified through the building permit process. As discussed in criterion (c), wastewater flows generated by the Project would represent a minimal percentage of the City's wastewater treatment plant capacity, which currently operates well below its permitted treatment limit of 6 mgd. The Project would also be subject to sewer facilities development and connection fees, contributing to the funding of adequate sewer infrastructure. Accordingly, no new or expanded off-site wastewater facilities would be required, and impacts would be less than significant.

The Project would connect to existing storm drain facilities in adjacent roadways. The Project would incorporate storm water drainage infrastructure designed in compliance with all applicable codes and standards to manage stormwater runoff effectively, as ensured through City reviewed and approved grading and drainage plans. As discussed in Section 4.10, the Project's compliance with the SWPPP, approved grading and drainage plan, and implementation of BMPs would control and direct runoff. The existing facilities would not require relocation or expansion of new facilities to facilitate the proposed development. Impacts would be less than significant.

MID would provide natural gas and electricity, and a telecommunications provider would serve the site. The Project would relocate and underground the utilities on the site. The construction and operations of the Project would be subject to compliance with applicable energy efficiency regulations including CALGreen, Title 24, and CARB. No new expanded facilities would be required for electric, gas, or telecommunications facilities. For these reasons, a less than significant impact would occur.

Mitigation Measures

None required.

b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less than Significant Impact. Water supply reliability is assessed in the City's 2020 Urban Water Management Plan (UWMP) based on the City's water supplies during various water year types, including Normal Year, Single Dry Year, and Five-Year Consecutive Drought period. The supply, demand, and surplus for the three hydrologic conditions are shown in Table 4-14. As shown, water supply is assumed to match with demand total because the groundwater pumping will operate to meet the demand through the three (3) hydrologic conditions over the timeframe.

Table 4-14 City of Atwater Water Supply and Demand Comparison, Hydrologic Conditions, 2025 - 2040

	2025	2030	2035	2040
Normal Year				
Total Supply	9,642	10,324	11,056	11,838
Total Demand	9,642	10,324	11,056	11,838

Single Dry Year				
Total Supply	6,749	7,227	7,739	8,287
Total Demand	6,749	7,227	7,739	8,287
Multiple Dry Year				
Year 1				
Total Supply	6,749	7,227	7,739	8,287
Total Demand	6,749	7,227	7,739	8,287
Year 2				
Total Supply	6,749	7,227	7,739	8,287
Total Demand	6,749	7,227	7,739	8,287
Year 3				
Total Supply	6,749	7,227	7,739	8,287
Total Demand	6,749	7,227	7,739	8,287
Year 4				
Total Supply	7,713	8,260	8,844	9,471
Total Demand	7,713	8,260	8,844	9,471
Year 5				
Total Supply	8,677	9,292	9,950	10,655
Total Demand	8,677	9,292	9,950	10,655

Source: *City of Atwater 2020 Urban Water Management Plan*

Project water use was estimated using CalEEMod methodology (Appendix A). Based on default land use factors, the Project would require approximately 17,243,661 gallons of potable water annually, equivalent to 52.91 AFY. This estimate reflects operational (post-construction) demand only and represents a conservative scenario. Given that actual Project activities are limited to aircraft display areas, pavilions, and a small café/gift shop, long-term water consumption is expected to be lower. The Project's projected annual demand of 52.91 AFY represents less than one percent of the City's projected 2040 supply and would be well within the available groundwater capacity under normal, single-dry, and multiple-dry year conditions. Therefore, the City would have sufficient water supplies to serve the Project and planned future demands, and impacts would be less than significant.

Temporary water use during construction—for dust control, soil compaction, and worker needs—would be short-term and minor relative to the City's annual supply and existing demand. Construction water would be obtained under standard City permitting processes and would not affect groundwater availability for municipal or other users. Therefore, the City would have sufficient water supplies to serve the Project and planned future demands, and impacts would be less than significant.

Furthermore, as discussed under Section 4.10, adherence to connection requirements and recommendations pursuant to the City's conservation efforts (e.g., compliance with California Plumbing Code, efficient appliances, efficient landscaping, etc.) should not negatively impact water supply or impede water management. In particular, the proposed Project would be required to be built accordance with all mandatory outdoor water use requirements as outlined in the applicable California Green Building Standards Code, Title 24, Part 11, Section 4.304 – Outdoor Water Use and verified through the building permit process. As a commercial development that would contain landscaping pursuant to AMC regulations, future development shall comply with the updated Model Water Efficient Landscape Ordinance (MWELO) (California Code of Regulations, Title 23, Chapter 2.7, Division 2), as implemented and enforced through the building permit process. Therefore, through compliance, the potential for the Project to substantially decrease groundwater supplies is limited and impacts would be less than significant.

Overall, based on the information collected from the UWMP, the Project would not generate significantly greater water demand that would substantially decrease groundwater supplies. Additionally, adherence to connection requirements and recommendations pursuant to water conservation efforts as well as compliance with applicable California Green Building Standards Code and MWELO would reduce water demand and reduce the potential for the Project to substantially decrease water supply available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. For these reasons, the Project would have a less than significant impact.

Mitigation Measures

None required.

c) Result in a determination by the wastewater treatment provider, which serves or may serve the Project that it has adequate capacity to serve the Project's Projected demand in addition to the provider's existing commitments?

Less than Significant Impact. According to the 2020 UWMP, the City of Atwater owns a citywide wastewater collection and treatment system, which is operated by Veolia Water North America, West. The City's existing sewer collection system consists of pipelines 10 inches or larger in diameter connected to the City's Wastewater Treatment Plant (WWTP), located on Bert Crane Road south of the previous facility on State Route 99. The WWTP has a permitted capacity of 6.0 mgd and currently treats an average of approximately 3.3 mgd.

The Project involves the construction of new museum-related facilities, including pavilion buildings, covered aircraft display areas, a relocated hangar, and a new café/gift shop building with associated restrooms. A conservative, worst-case scenario estimate using the CalEEMod model and default wastewater generation rates for the designated land uses at maximum buildout yields a projected demand of approximately 47,243 gallons per day (0.047 mgd) (Appendix A). This worst-case estimate accounts for less than one percent (approx. 0.8%) of the WWTP's permitted capacity.

While the CalEEMod estimate above provides a conservative ceiling, it utilizes a default percentage of water usage converted to wastewater that may not accurately reflect the actual generation profile of a museum complex. The majority of the Project site consists of aircraft display areas and a parking lot that generate no wastewater. Wastewater generation would be limited almost entirely to the restrooms and food preparation/cleanup facilities within the new café/gift shop building. Given that the actual primary source of wastewater is limited to a small commercial/institutional component (café/gift shop and public restrooms), the actual wastewater generation is expected to be substantially minimal and far less than the conservative 0.047 mgd maximum estimate.

The existing WWTP has a significant available capacity of approximately 2.7 mgd. Even under the extremely conservative, worst-case estimate of 0.047 mgd, the Project's demand represents a negligible fraction of the remaining capacity. Given that the wastewater load will primarily come from a single café/gift shop, the actual load will be even lower. Therefore, the WWTP has sufficient capacity to accommodate the Project's projected demand, and impacts would be less than significant.

Mitigation Measures

None required.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less than Significant Impact. Solid waste services are subject to the California Integrated Waste Management Act of 1989 (AB 939), which requires each jurisdiction in California to divert at least 50% of its waste stream away from landfills either through waste reduction, recycling, or other means. The City contract with Mid Valley Disposal for solid waste, recycling, and composting services. In addition, Mid Valley Disposal complies with SB 1383, which requires a reduction of organic waste disposal by 75% by 2025. [47]

Solid waste generated in the City is disposed of at the SR 59 Landfill (formerly the Merced County Landfill; SWIS No. 24-AA-0001). The facility received 23,570.87 tons of solid waste in 1990 and has since expanded to approximately 200 acres, allowing for additional disposal capacity. Based on available capacity, the SR 59 Landfill is anticipated to be able to accommodate the incremental solid waste generated by the Project. Merced County Landfill is permitted to receive a max of 1,500 tons per day and has a remaining capacity of 28,025,334 cubic yards. [48]

Construction

CALGreen mandates locally permitted new commercial building construction and demolition to recycle and/or salvage for reuse a minimum 65% of the nonhazardous construction and demolition debris generated during the Project. Further, the recycling of construction and demolition materials is required for any City-issued building or demolition permit that generates at least eight cubic yards of material by volume. Therefore, the Project would be required to implement techniques to reduce and recycle waste during construction activities in accordance with mandatory requirements under CALGreen as implemented through the building permit process. Compliance would be ensured through the building permit process. Therefore, through compliance, solid waste generated through construction activities is not anticipated to generate solid waste in excess of state or local standards, in excess of the capacity of the local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Therefore, the Project would have a less than significant impact.

Operations

The Project is anticipated to generate approximately 495 tons of solid waste per year as estimated by CalEEMod (Appendix A). The estimation accounts for compliance with AB 939. Solid waste generated through Project operations would account for less than 0.1 percent of the daily permitted throughput capacity of the landfill. As such, Project operations are not anticipated to generate solid waste in excess of state or local standards, in excess of the capacity of the local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Therefore, the Project would have a less than significant impact.

Mitigation Measures

None required.

[47] Mid Valley Disposal. Compliance Regulation. Accessed September 5, 2025, https://www.midvalleydisposal.com/sustainability/compliance-and-regulation/
[48] California Department of Resources Recycling and Recovery (2023). "SWIS Facility/Site Search." Accessed on September 5, 2025, https://www2.calrecycle.ca.gov/SolidWaste/Site/Search

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less than Significant Impact. As described under criterion d), Project construction and operational activities that generate solid waste would be handled, transported, and disposed of in accordance with AB 939 and CALGreen regulations related to solid waste. Compliance would be ensured through the building permit process. Therefore, through compliance, the Project would comply with laws and regulations that would ensure impacts related to solid waste are reduced to less than significant levels.

Mitigation Measures

None required.

5.20 WILDFIRE

If located in or near state responsibility or lands classified as very high fire hazard severity zones, **Would the Project:**	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			X	
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?			X	
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			X	

5.20.1 Environmental Setting

According to the Atwater General Plan, grass and brush lands are the most likely places for wildlands in Merced County; however, Atwater lies outside of these areas and as a result, the risk of wildland fire is low. [49] Further, the Project site is not identified by the California Department of Forestry and Fire Protection (Cal Fire) or the City of Atwater as a Fire Hazard Severity Zone (FHSZ); rather, the site is within an "area of local responsibility" as defined by Cal Fire and is considered an area of low fire risk. [50] Lastly, the Project would be required to be developed and operated in compliance with all regulations of the current California Building Code and Fire Code.

[49] City of Atwater. (2000). City of Atwater 2000 General Plan. Accessed August 14, 2025, https://atwater.generalplan.org/documents-maps

[50] California Department of Forestry and Fire Protection. Fire Hazard Severity Zone Viewer. Accessed on August 14, 2025, https://experience.arcgis.com/experience/03beab8511814e79a0e4eabf0d3e7247/

5.20.2 Impact Assessment

If located in or near state responsibility or lands classified as very high fire hazard severity zones, Would the Project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact. The Project site would be accessible via the existing roadway network and existing ingress/egress on Santa Fe Drive and Buhach Road via Airdrome Entry. The Project would not alter or impede any primary excavation routes identified by the City's adopted emergency response plan or emergency evacuation plan. While construction activities may require temporary lane closures, these would be short-term and managed through approved traffic control plans and encroachment permits to ensure that emergency vehicle access is always maintained. Post-construction, the Project would maintain emergency access that support emergency response, such as adequate turning radii for emergency vehicles, clearly marked fire lanes, and sufficient hydrant access. The Project has been reviewed and conditioned by the City for compliance with all applicable codes and regulations, including those related to emergency access and evacuation, to ensure that the Project would not conflict with or impair emergency response plans or emergency evacuation plans. Therefore, impacts would be less than significant.

Mitigation Measures

None required.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less than Significant Impact. The Project site is located on a relatively flat, highly disturbed property with minimal slope. The site is not situated in a wildland or a Cal Fire-designated Fire Hazard Severity Zone (FHSZ). Furthermore, the site is within an "area of local responsibility." The flat terrain, lack of wildland vegetation, absence of prevailing winds that would exacerbate fire risk, and location outside a FHSZ reduces wildfire risk and the potential to expose occupants to significant pollutant concentrations from a wildfire or contribute to the uncontrolled spread of a wildfire. In addition, the development itself would be constructed in compliance with the CBC and local fire safety regulations, which may include measures to minimize fire risk, such as sprinkler systems and fire hydrants. Therefore, impacts are less than significant.

Mitigation Measures

None required.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less than Significant Impact. The Project is located within city limits and is served by existing, maintained infrastructure, including roads and utilities. The Project itself would include onsite improvements (e.g., curb, flatwork, fire access) and connections to existing utilities (e.g., water, sewer, power, stormwater drainage). These improvements are limited in scope and would connect to and improve the existing network. The addition of curb, flatwork, and fire access and connection to existing utilities are not anticipated to exacerbate fire risk. These

improvements would not introduce new ignition sources. The design and construction of these improvements would be required to comply with all applicable City codes and regulations, including those related to fire safety, environmental protection, and traffic management. Through compliance, such infrastructure would not exacerbate fire risk or result in temporary or ongoing impacts to the environment and impacts would be less than significant.

Mitigation Measures

None required.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less than Significant Impact. The Project site is located on relatively flat terrain with stable, native soil and is not in or near state responsibility areas or areas classified as Fire Hazard Severity Zones, or rivers or creeks that would be more susceptible to landslides. The Project would incorporate drainage infrastructure designed in compliance with all applicable codes and standards to manage stormwater runoff effectively, as ensured through City reviewed and approved grading and drainage plans. Therefore, the Project is not anticipated to expose people or structures to significant risks, including downslope or downstream flooding or landslides because of runoff, post-fire slop instability, or drainage changes. Impacts would be less than significant.

Mitigation Measures

None required.

5.21 MANDATORY FINDINGS OF SIGNIFICANCE

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Does the Project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		
b)	Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a Project are considerable when viewed in connection with the effects of past Projects, the effects of other current Projects, and the effects of probable future Projects)?		X		
c)	Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		

5.21.1 Impact Assessment

a) Does the Project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?

Less than Significant Impact with Mitigation Incorporated. The analyses of environmental issues contained in this Initial Study indicate that the Project is not expected to have substantial impact on the environment or on any resources identified in the Initial Study. Standard requirements that will be implemented through the entitlement process and the attached mitigation monitoring and reporting program have been incorporated in the project to

reduce all potentially significant impacts to less than significant, including ***Mitigation Measures BIO-1*** *through* ***BIO 8*** *and* ***CUL-1*** *through* ***CUL-3****, and* ***GEO-1***. Therefore, the Project would have a less than significant impact with mitigation incorporated.

b) Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a Project are considerable when viewed in connection with the effects of past Projects, the effects of other current Projects, and the effects of probable future Projects.)

Less than Significant Impact with Mitigation Incorporated. CEQA Guidelines *Section 15064(i)* states that a Lead Agency shall consider whether the cumulative impact of a project is significant and whether the effects of the project are cumulatively considerable. The assessment of the significance of the cumulative effects of a project must, therefore, be conducted in connection with the effects of past projects, other current projects, and probable future projects. Due to the nature of the Project and consistency with environmental policies, incremental contributions to impacts are considered less than cumulatively considerable. Standard requirements that will be implemented through the entitlement process and the attached mitigation monitoring and reporting program have been incorporated in the project to reduce all potentially significant impacts to less than significant, including ***Mitigation Measures BIO-1*** *through* ***BIO 8*** *and* ***CUL-1*** *through* ***CUL-3****, and* ***GEO-1***. The Project would not contribute substantially to adverse cumulative conditions, or create any substantial indirect impacts (i.e., increase in population could lead to an increased need for housing, increase in traffic, air pollutants, etc.). As such, Project impacts are not considered to be cumulatively considerable given the insignificance of project induced impacts. The impact is therefore less than significant with mitigation incorporated.

c) Does the Project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant Impact with Mitigation Incorporated. The analyses of environmental issues contained in this Initial Study indicate that the project is not expected to have substantial impact on human beings, either directly or indirectly. Standard requirements that will be implemented through the entitlement process and the attached mitigation monitoring and reporting program have been incorporated in the project to reduce all potentially significant impacts to less than significant, including ***Mitigation Measures BIO-1*** *through* ***BIO 8*** *and* ***CUL-1*** *through* ***CUL-3****, and* ***GEO-1***. Therefore, the Project would have a less than significant impact with mitigation incorporated.

6 MITIGATION MONITORING AND REPORTING PROGRAM

This mitigation measure monitoring and reporting checklist was prepared pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15097 and Section 21081.6 of the PRC (PRC). The timing of implementing each mitigation measure is identified in the checklist, as well as the entity responsible for verifying that the mitigation measures applied to a Project are performed. Project applicants are responsible for providing evidence that mitigation measures are implemented. As lead agency, the City of Atwater is responsible for verifying that mitigation is performed/completed.

Mitigation Measures	Party Responsible for Implementing Mitigation	Timing of Verification	Responsible for Monitoring Verification	Verification of Completion	
				Date	Initials
Biological Resources					
Mitigation Measure BIO-1 (Pre-Construction Survey): *Within 14 days of the start of Project activities on-site and in adjacent habitat, a pre-activity survey shall be conducted by a qualified biologist knowledgeable in the identification of this species, including San Joaquin Kit Fox, Burrowing Owl, and protected birds. The surveys shall cover the canal plus surrounding upland habitat within 50 feet of the canal. Pedestrian surveys achieving 100 percent visual coverage will be conducted. Multiple surveys are anticipated to be needed, which would be phased with the construction of the Project. If no evidence of these species is detected, no further action is required.*	Project Applicant	Prior to Issuance of Construction Permit	City of Atwater		
Mitigation Measure BIO-2 (Avoidance Buffers): *If dens/burrows that could support any of these species are discovered during the pre-activity surveys conducted under Mitigation Measure BIO-1, the avoidance buffers outlined below shall be established. No work*	Project Applicant	Prior to Issuance of Construction Permit	City of Atwater		

would occur within these buffers unless the biologist approves and monitors the activity. *San Joaquin Kit Fox* • *Potential Den - 50 feet* • *Atypical Den - 50 feet (includes pipes and other manmade structures)* • *Known Den - 100 feet* • *Natal/Pupping Den - 500 feet* *Burrowing Owl (active burrows)* • *April 1-October 15 - 500 feet* • *October 16-March 31- 100 feet* 1. *If no active nests are found, no further action is required. However, existing nests may become active, and new nests may be built at any time prior to and throughout the nesting season, including when construction activities are in progress.* 2. *If active nests are found during the survey or at any time during construction of the Project, an avoidance buffer ranging from 50 feet to 500 feet may be required, with the avoidance buffer from any specific nest being determined by a qualified biologist. The avoidance buffer will remain in place until the biologist has determined that the young are no longer reliant on the adults or the nest. Work may occur within the avoidance buffer under the approval and guidance of the biologist, but full-time monitoring may be required. The biologist shall have the ability to stop construction if nesting adults show any sign of distress.*					

Mitigation Measure BIO-3 (Avoidance and Minimization): *The following avoidance and minimization measures shall be implemented during all phases of the Project to reduce the potential for impact from the Project. They are modified from the US Fish and Wildlife Service Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance (USFWS 2011) and apply to all three species.* • *Project-related vehicles shall observe a daytime speed limit of 20 mph throughout the site in all Project areas, except on county roads and state and federal highways. Nighttime construction speed limits shall be 10 mph.* • *Off-road traffic outside of designated Project areas shall be prohibited.* • *All Project activities shall occur during daylight hours.* • *To prevent inadvertent entrapment of kit foxes or other animals during the construction of the Project, all excavated, steep-walled holes or trenches more than two-feet deep shall be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed.* • *Before holes or trenches are filled, they shall be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the USFWS and the CDFW shall be contacted before proceeding with the work.* • *In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape, or the USFWS shall be contacted for guidance.*	Project Applicant	Prior to Construction	City of Atwater		

• *All construction pipes, culverts, or similar structures with a diameter of four inches or greater that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for kit foxes and burrowing owls before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox or burrowing owl is discovered inside a pipe, that section of pipe shall not be moved until the USFWS has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity until the fox or owl has escaped.* • *All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once a week from a construction or Project site.* • *No firearms shall be allowed on the Project site, except by authorized law enforcement personnel.* • *No pets, such as dogs or cats, shall be permitted on the Project site.* • *Use ofrodenticides and herbicides in Project areas shall be restricted.* • *A representative shall be appointed by the Project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or burrowing owl or who finds a dead, injured, or entrapped kit fox, or burrowing owl. The representative shall be identified during the employee education program and their name and telephone number shall be provided to the US Fish and Wildlife Service and California Department of Fish and Wildlife.*					

• *An employee education program shall be developed and presented to Project personnel. The program shall consist of a brief presentation by persons knowledgeable in kit fox, and burrowing owl, biology, and the legislative protections in place. The program shall include the following: a description of each species' natural history and habitat needs; a report of the occurrence of each species in the Project area; an explanation of the status of each species and its protections under federal and state laws; and a list of measures being taken to reduce impacts to each species during Project construction and implementation. A fact sheet conveying this information shall be prepared for distribution to the previously referenced people and anyone else who may enter the Project site.* • *Upon completion of the Project, all areas subject to temporary ground disturbances (including storage and staging areas, temporary roads, pipeline corridors, etc.) shall be recontoured if necessary and revegetated to promote restoration of the area to pre-project conditions. An area subject to temporary disturbance means any area that is disturbed during the Project, but after project completion, will not be subject to further disturbance and has the potential to be revegetated.* • *Any Project personnel who are responsible for inadvertently killing or injuring one of these species should immediately report the incident to their representative. This representative shall contact the CDFW and USFWS immediately in the case of a dead, injured, or entrapped listed animal.*					

• *The Sacramento Fish and Wildlife Office and CDFW shall be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox during Project related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information.* • *New sightings of kit fox shall be reported to the California Natural Diversity Database (CNDDB). A copy of the reporting form and a topographic map clearly marked with the location of where the kit fox was observed should also be provided to the USFWS.*					
Mitigation Measure BIO-4 (Swainson's Hawk): *If Project activities must occur during the nesting season (February 15 to August 31), pre-activity nesting bird surveys shall be conducted within seven days prior to the start of construction at the construction site plus a 250-foot buffer for songbirds and a 500-foot buffer for raptors (other than Swainson's hawk). The surveys shall be phased with the construction of the Project. If no active nests are found, no further action is required, however, nests may become active at any time throughout the summer, including when construction activities are occurring. If active nests are found during the survey or at any time during the construction of the Project, an avoidance buffer ranging from SO feet to 350 feet may be required, as determined by a qualified biologist. The avoidance buffer will remain in place until the biologist has determined that the young are no longer reliant on the nest Work may occur within the avoidance buffer under the approval and guidance of the biologist. The biologist shall have the ability to stop construction if nesting adults show sign of distress.*	Project Applicant	Prior to Construction	City of Atwater		

Mitigation Measure BIO-5 (Pre-Construction Survey for Swainson's Hawk): *If Project activities must occur during the nesting season (February 15 to August 31), pre-activity surveys shall be conducted for Swainson's hawk nests in accordance with the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley, Swainson's Hawk Technical Advisory Committee (CDFW 2000). The surveys would be conducted on the Project site plus a half-mile buffer. To meet the minimum level of protection for the species, surveys shall be conducted during at least two survey periods. The survey will be conducted in accordance with the methodology outlined in existing protocols and shall be phased with the construction of the Project. If no Swainson's hawk nests are found, no further action is required.*	Project Applicant	Prior to Construction	City of Atwater		
Mitigation Measure BIO-6 (Avoidance and Monitoring for Swainson's Hawk): *If an active Swainson's hawk nest is discovered at any time within one-half mile of active construction, a qualified biologist will complete an assessment of the potential for current construction activities to impact the nest. The assessment will consider the type of construction activities, the location of construction relative to the nest, the visibility of construction activities from the nest location, and other existing disturbances in the area that are not related to the construction activities of this Project. Based on this assessment, the biologist will determine if construction activities can proceed and the level of nest monitoring required. Minimally, construction activities should not occur within 100 feet of an active nest and may require monitoring if within 500 feet of an active nest. The qualified biologist should have the authority to stop work if it is determined that Project construction is disturbing the nest. These buffers may need to increase depending*	Project Applicant	Prior to Construction	City of Atwater		

on the sensitivity of the nest location, the sensitivity of the nesting Swainson's hawk to disturbances, and the discretion of the qualified biologist.					
Mitigation Measure BIO-7 (Burrowing Owls): *The Project shall implement the following measures to avoid any potential impacts of nesting habitat of the Project in compliance with the federal Migratory Bird Treaty Act and relevant Fish and Game Codes:* • *Avoidance. Initiate grading/ground disturbance from Sept 1 – February 1 during the non-breeding period.* • *Preconstruction Surveys. If construction is initiated during the nesting period (Feb 1 – Aug 30), conduct a preconstruction survey to confirm that no burrowing owl has taken up residence in any parcels with ground burrowing mammals. If burrowing owl occupation is found, consult with the California Department of Fish and Wildlife to determine the appropriate avoidance and minimization measures.*	Project Applicant	Prior to Construction	City of Atwater		
Mitigation Measure BIO-8 (Protected Birds)*: If Project activities must occur during the nesting season (February 1 to September 15), pre-activity nesting bird surveys shall be conducted within seven (7) days prior to the start of construction on the construction site and a 500-foot buffer for raptors (other than Swainson's hawk).* • *If no active nests are found, no further action is required. However, existing nests may become active, and new nests may be built at any time prior to and throughout the nesting season, including when construction activities are in progress.*	Project Applicant	Prior to Construction	City of Atwater		

• *If active nests are found during the survey or at any time during construction of the Project, an avoidance buffer ranging from 50 feet to 500 feet may be required, with the avoidance buffer from any specific nest being determined by a qualified biologist. The avoidance buffer will remain in place until the biologist has determined that the young are no longer reliant on the adults or the nest. Work may occur within the avoidance buffer under the approval and guidance of the biologist, but full-time monitoring may be required. The biologist shall have the ability to stop construction if nesting adults show any sign of distress*					
Cultural Resources					
Mitigation Measure CUL-1: *In order to avoid the potential for impacts to historic and prehistoric archaeological resources, the following measures shall be implemented in conjunction with the construction of each phase of the Project:* *If previously unknown historical, archeological, cultural, or paleontological resources are encountered before or during grading activities, construction shall stop in the immediate vicinity of the find and a qualified archeologist, historical resources specialist, or paleontologist, shall be consulted to determine whether the resource requires further study. Notification of discovery shall be provided to the City Community Development Department.* *The qualified archeologist, historical resources specialist, or paleontologist shall make recommendations to the project proponent on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of*	Project Applicant	During construction	City of Atwater		

the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines and City's policies and procedures related to historical, cultural, and paleontological resources. Notification of the measures shall be provided to the City Community Development Department.					
Mitigation Measure CUL-2: *If the resources are determined to be unique historical resources as defined under Section 15064.5 of the CEQA Guidelines, measures shall be identified by the monitor and recommended to the project proponent, who shall notify the City Community Development Department. Appropriate measures for significant resources could include avoidance or capping, preservation in-place, recordation, additional archeological resting, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds.* *No further grading shall occur in the area of the discovery until the City Community Development Department approves the measures to protect these resources. Any historical, archeological, cultural, or paleontological artifacts recovered as a result of mitigation shall be provided to a City-approved institution or person who is capable of providing long-term preservation to allow future scientific study.*	Project Applicant	During construction	City of Atwater		
Mitigation Measure CUL-3*: If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by the Native American Heritage Commission, in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and Senate*	Project Applicant	During construction	City of Atwater		

Bill 447 (Chapter 44, Statutes of 1987), shall be followed. Section 7050.5(c) shall guide the potential Native American involvement in the event of discovery of human remains at the direction of the county coroner.					
Geology and Soils					
Mitigation Measure GEO-1: *The Applicant will incorporate into the construction contract(s) a provision that in the event a fossil or fossil formations are discovered during any subsurface construction activities for the proposed Project (i.e., trenching, grading), all excavations within 50 feet of the find shall be temporarily halted until the find is examined by a qualified paleontologist, in accordance with Society of Vertebrate Paleontology standards. The paleontologist shall notify the Applicant, who shall coordinate with the paleontologist as to any necessary investigation of the find. If the find is determined to be significant under CEQA, the Applicant shall implement those measures, which may include avoidance, preservation in place, or other appropriate measures, as outlined in Public Resources Code Section 21083.2.*	Project Applicant	During construction	City of Atwater		
Tribal Cultural Resources					
See Cultural Resources					

7 REPORT PREPARATION

Names of Persons Who Prepared or Participated in the Initial Study:

Lead Agency		
Lead Agency	City of Atwater 1350 Broadway Avenue Atwater, CA 95301 (209) 357-6201	Chris Hoem, City Manager Scott Ruffalo, Assistant Planner
Initial Study Consultant		
Initial Study	Precision Civil Engineering 1234 O Street Fresno, CA 93721 (559) 449-4500	Bonique Emerson, AICP, VP of Planning Jenna Chilingerian, AICP, Senior Planner Shin Tu, AICP, Senior Planner Sonia Ho, Assistant Planner

8 APPENDICES

8.1 Appendix A: CalEEMod Output Files

Castle Air Museum Pavilion Project Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Castle Air Museum Pavilion Project
Construction Start Date	1/1/2026
Operational Year	2028
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	23.4
Location	5050 Santa Fe Dr, Atwater, CA 95301, USA
County	Merced
City	Atwater
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2324
EDFZ	14
Electric Utility	Merced Irrigation District
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.30

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Government (Civic Center)	86.8	1000sqft	1.99	86,800	0.00	—	—	—

Parking Lot	20.0	1000sqft	0.46	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.59	1.34	10.7	13.5	0.03	0.37	0.31	0.68	0.34	0.08	0.41	—	2,796	2,796	0.11	0.08	1.80	2,823
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	41.0	40.9	13.0	15.2	0.03	0.58	7.16	7.74	0.53	3.44	3.98	—	2,772	2,772	0.11	0.08	0.05	2,797
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.13	1.12	7.60	9.35	0.02	0.27	0.32	0.59	0.25	0.11	0.35	—	1,915	1,915	0.07	0.05	0.49	1,932
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.21	0.21	1.39	1.71	< 0.005	0.05	0.06	0.11	0.04	0.02	0.06	—	317	317	0.01	0.01	0.08	320

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2026	1.59	1.34	10.7	13.5	0.03	0.37	0.31	0.68	0.34	0.08	0.41	—	2,796	2,796	0.11	0.08	1.80	2,823
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.74	1.47	13.0	15.2	0.03	0.58	7.16	7.74	0.53	3.44	3.98	—	2,772	2,772	0.11	0.08	0.05	2,797
2027	41.0	40.9	5.80	8.81	0.01	0.23	0.11	0.35	0.21	0.03	0.24	—	1,353	1,353	0.05	0.02	0.01	1,359
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.11	0.93	7.60	9.35	0.02	0.27	0.32	0.59	0.25	0.11	0.35	—	1,915	1,915	0.07	0.05	0.49	1,932
2027	1.13	1.12	0.05	0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.1	10.1	< 0.005	< 0.005	< 0.005	10.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.20	0.17	1.39	1.71	< 0.005	0.05	0.06	0.11	0.04	0.02	0.06	—	317	317	0.01	0.01	0.08	320
2027	0.21	0.21	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.67	1.67	< 0.005	< 0.005	< 0.005	1.68

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.73	2.63	0.78	4.41	< 0.005	0.06	0.00	0.06	0.06	0.00	0.06	300	3,205	3,505	30.3	0.10	0.21	4,293
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.06	2.01	0.75	0.63	< 0.005	0.06	0.00	0.06	0.06	0.00	0.06	300	3,190	3,490	30.3	0.10	0.21	4,277
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.38	2.32	0.76	2.49	< 0.005	0.06	0.00	0.06	0.06	0.00	0.06	300	3,197	3,497	30.3	0.10	0.21	4,285
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.44	0.42	0.14	0.45	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	49.6	529	579	5.01	0.02	0.03	709

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	—	0.16	0.16	< 0.005	< 0.005	0.00	0.17
Area	2.64	2.59	0.03	3.78	< 0.005	0.01	—	0.01	0.01	—	0.01	—	15.5	15.5	< 0.005	< 0.005	—	15.6
Energy	0.08	0.04	0.75	0.63	< 0.005	0.06	—	0.06	0.06	—	0.06	—	3,120	3,120	0.24	0.02	—	3,132
Water	—	—	—	—	—	—	—	—	—	—	—	33.0	69.8	103	3.39	0.08	—	212
Waste	—	—	—	—	—	—	—	—	—	—	—	267	0.00	267	26.7	0.00	—	933
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
Total	2.73	2.63	0.78	4.41	< 0.005	0.06	0.00	0.06	0.06	0.00	0.06	300	3,205	3,505	30.3	0.10	0.21	4,293
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	—	0.16	0.16	< 0.005	< 0.005	0.00	0.18
Area	1.97	1.97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.08	0.04	0.75	0.63	< 0.005	0.06	—	0.06	0.06	—	0.06	—	3,120	3,120	0.24	0.02	—	3,132
Water	—	—	—	—	—	—	—	—	—	—	—	33.0	69.8	103	3.39	0.08	—	212
Waste	—	—	—	—	—	—	—	—	—	—	—	267	0.00	267	26.7	0.00	—	933
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
Total	2.06	2.01	0.75	0.63	< 0.005	0.06	0.00	0.06	0.06	0.00	0.06	300	3,190	3,490	30.3	0.10	0.21	4,277
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	2.30	2.28	0.02	1.86	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.66	7.66	< 0.005	< 0.005	—	7.68
Energy	0.08	0.04	0.75	0.63	< 0.005	0.06	—	0.06	0.06	—	0.06	—	3,120	3,120	0.24	0.02	—	3,132
Water	—	—	—	—	—	—	—	—	—	—	—	33.0	69.8	103	3.39	0.08	—	212
Waste	—	—	—	—	—	—	—	—	—	—	—	267	0.00	267	26.7	0.00	—	933

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
Total	2.38	2.32	0.76	2.49	< 0.005	0.06	0.00	0.06	0.06	0.00	0.06	300	3,197	3,497	30.3	0.10	0.21	4,285
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.42	0.42	< 0.005	0.34	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.27	1.27	< 0.005	< 0.005	—	1.27
Energy	0.02	0.01	0.14	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	517	517	0.04	< 0.005	—	519
Water	—	—	—	—	—	—	—	—	—	—	—	5.47	11.6	17.0	0.56	0.01	—	35.1
Waste	—	—	—	—	—	—	—	—	—	—	—	44.1	0.00	44.1	4.41	0.00	—	154
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	0.44	0.42	0.14	0.45	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	49.6	529	579	5.01	0.02	0.03	709

3. Construction Emissions Details

3.3. Site Preparation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.34	1.13	9.84	10.8	0.03	0.42	—	0.42	0.39	—	0.39	—	2,716	2,716	0.11	0.02	—	2,725
Dust From Material Movement	—	—	—	—	—	—	1.59	1.59	—	0.17	0.17	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.3	22.3	< 0.005	< 0.005	—	22.4
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.70	3.70	< 0.005	< 0.005	—	3.71
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.33	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	55.9	55.9	< 0.005	< 0.005	0.01	56.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.47	0.47	< 0.005	< 0.005	< 0.005	0.48
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.08	0.08	< 0.005	< 0.005	< 0.005	0.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.70	1.42	12.9	14.0	0.02	0.58	—	0.58	0.53	—	0.53	—	2,455	2,455	0.10	0.02	—	2,463
Dust From Material Movement	—	—	—	—	—	—	7.08	7.08	—	3.42	3.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.03	0.02	0.21	0.23	< 0.005	0.01	—	0.01	0.01	—	0.01	—	40.4	40.4	< 0.005	< 0.005	—	40.5
Dust From Material Movement	—	—	—	—	—	—	0.12	0.12	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.68	6.68	< 0.005	< 0.005	—	6.70
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.44	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	74.5	74.5	0.01	< 0.005	0.01	75.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.26	1.26	< 0.005	< 0.005	< 0.005	1.28
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.21	0.21	< 0.005	< 0.005	< 0.005	0.21
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.41	1.18	10.1	11.8	0.02	0.36	—	0.36	0.33	—	0.33	—	2,201	2,201	0.09	0.02	—	2,208
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.41	1.18	10.1	11.8	0.02	0.36	—	0.36	0.33	—	0.33	—	2,201	2,201	0.09	0.02	—	2,208
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.85	0.71	6.09	7.09	0.01	0.22	—	0.22	0.20	—	0.20	—	1,327	1,327	0.05	0.01	—	1,331
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.13	1.11	1.29	< 0.005	0.04	—	0.04	0.04	—	0.04	—	220	220	0.01	< 0.005	—	220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.15	0.10	1.61	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	232	232	0.01	0.01	0.88	236
Vendor	0.02	0.01	0.47	0.17	< 0.005	0.01	0.10	0.10	0.01	0.03	0.03	—	363	363	< 0.005	0.05	0.93	379
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.12	1.23	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	207	207	0.01	0.01	0.02	210
Vendor	0.02	0.01	0.50	0.18	< 0.005	0.01	0.10	0.10	0.01	0.03	0.03	—	363	363	< 0.005	0.05	0.02	379
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.06	0.77	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	129	129	0.01	0.01	0.23	131
Vendor	0.01	0.01	0.29	0.11	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	219	219	< 0.005	0.03	0.24	228
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.14	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.3	21.3	< 0.005	< 0.005	0.04	21.6
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	36.2	36.2	< 0.005	0.01	0.04	37.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79	0.67	5.88	8.19	0.01	0.25	—	0.25	0.23	—	0.23	—	1,244	1,244	0.05	0.01	—	1,248
Paving	0.12	0.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.15	0.21	< 0.005	0.01	—	0.01	0.01	—	0.01	—	31.6	31.6	< 0.005	< 0.005	—	31.7
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.24	5.24	< 0.005	< 0.005	—	5.26
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.06	0.66	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	112	112	0.01	< 0.005	0.01	113
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.93	2.93	< 0.005	< 0.005	0.01	2.98
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.49	0.49	< 0.005	< 0.005	< 0.005	0.49
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.77	0.65	5.74	8.20	0.01	0.23	—	0.23	0.21	—	0.21	—	1,244	1,244	0.05	0.01	—	1,248
Paving	0.12	0.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.87	4.87	< 0.005	< 0.005	—	4.89
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.81	0.81	< 0.005	< 0.005	—	0.81
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	0.61	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	109	109	< 0.005	< 0.005	0.01	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.44	0.44	< 0.005	< 0.005	< 0.005	0.45
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.07	0.07	< 0.005	< 0.005	< 0.005	0.07
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Architectural Coating (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	40.8	40.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.66	3.66	< 0.005	< 0.005	—	3.67
Architectural Coatings	1.12	1.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.61	0.61	< 0.005	< 0.005	—	0.61
Architectural Coatings	0.20	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.23	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	40.3	40.3	< 0.005	< 0.005	< 0.005	40.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.14	1.14	< 0.005	< 0.005	< 0.005	1.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.19	0.19	< 0.005	< 0.005	< 0.005	0.19
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	—	2,205	2,205	0.16	0.02	—	2,214
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	21.8	21.8	< 0.005	< 0.005	—	21.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,226	2,226	0.16	0.02	—	2,236
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	—	2,205	2,205	0.16	0.02	—	2,214

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	21.8	21.8	< 0.005	< 0.005	—	21.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,226	2,226	0.16	0.02	—	2,236
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	—	365	365	0.03	< 0.005	—	367
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	3.60	3.60	< 0.005	< 0.005	—	3.62
Total	—	—	—	—	—	—	—	—	—	—	—	—	369	369	0.03	< 0.005	—	370

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government (Civic Center)	0.08	0.04	0.75	0.63	< 0.005	0.06	—	0.06	0.06	—	0.06	—	894	894	0.08	< 0.005	—	896
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.08	0.04	0.75	0.63	< 0.005	0.06	—	0.06	0.06	—	0.06	—	894	894	0.08	< 0.005	—	896
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government (Civic Center)	0.08	0.04	0.75	0.63	< 0.005	0.06	—	0.06	0.06	—	0.06	—	894	894	0.08	< 0.005	—	896
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Total	0.08	0.04	0.75	0.63	< 0.005	0.06	—	0.06	0.06	—	0.06	—	894	894	0.08	< 0.005	—	896
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government (Civic Center)	0.02	0.01	0.14	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	148	148	0.01	< 0.005	—	148
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.14	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	148	148	0.01	< 0.005	—	148

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.86	1.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.11	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.67	0.62	0.03	3.78	< 0.005	0.01	—	0.01	0.01	—	0.01	—	15.5	15.5	< 0.005	< 0.005	—	15.6
Total	2.64	2.59	0.03	3.78	< 0.005	0.01	—	0.01	0.01	—	0.01	—	15.5	15.5	< 0.005	< 0.005	—	15.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer	1.86	1.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.11	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.97	1.97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.34	0.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.06	0.06	< 0.005	0.34	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.27	1.27	< 0.005	< 0.005	—	1.27
Total	0.42	0.42	< 0.005	0.34	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.27	1.27	< 0.005	< 0.005	—	1.27

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	33.0	69.8	103	3.39	0.08	—	212

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	33.0	69.8	103	3.39	0.08	—	212
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	33.0	69.8	103	3.39	0.08	—	212
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	33.0	69.8	103	3.39	0.08	—	212
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	5.47	11.6	17.0	0.56	0.01	—	35.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	5.47	11.6	17.0	0.56	0.01	—	35.1

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	267	0.00	267	26.7	0.00	—	933

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	267	0.00	267	26.7	0.00	—	933
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	267	0.00	267	26.7	0.00	—	933
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	267	0.00	267	26.7	0.00	—	933
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	44.1	0.00	44.1	4.41	0.00	—	154
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	44.1	0.00	44.1	4.41	0.00	—	154

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2026	1/29/2026	5.00	20.0	—
Site Preparation	Site Preparation	1/30/2026	2/3/2026	5.00	3.00	—
Grading	Grading	2/4/2026	2/12/2026	5.00	6.00	—
Building Construction	Building Construction	2/13/2026	12/18/2026	5.00	220	—
Paving	Paving	12/19/2026	1/2/2027	5.00	10.0	—
Architectural Coating	Architectural Coating	1/3/2027	1/17/2027	5.00	10.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40

Demolition	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Scrapers	Diesel	Average	1.00	8.00	423	0.48
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	7.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—

Demolition	Worker	12.5	10.9	LDA,LDT1,LDT2
Demolition	Vendor	—	8.27	HHDT,MHDT
Demolition	Hauling	0.00	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	10.9	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.27	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	10.9	LDA,LDT1,LDT2
Grading	Vendor	—	8.27	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	27.8	10.9	LDA,LDT1,LDT2
Building Construction	Vendor	14.2	8.27	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	10.9	LDA,LDT1,LDT2
Paving	Vendor	—	8.27	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	5.56	10.9	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.27	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT

Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	—	—
Site Preparation	—	—	4.50	0.00	—
Grading	—	—	6.00	0.00	—
Paving	0.00	0.00	0.00	0.00	0.46

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	0.35	0.66	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	130,200	43,400	1,200

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Government (Civic Center)	1,775,556	453	0.0330	0.0040	2,788,120
Parking Lot	17,520	453	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Government (Civic Center)	17,243,661	0.00
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Government (Civic Center)	495	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Government (Civic Center)	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Government (Civic Center)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	27.7	annual days of extreme heat
Extreme Precipitation	1.50	annual days with precipitation above 20 mm

Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	0	0	0	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3

Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	1	1	1	2
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	74.1
AQ-PM	62.3
AQ-DPM	10.7
Drinking Water	79.0
Lead Risk Housing	73.7
Pesticides	93.7
Toxic Releases	14.7
Traffic	2.34
Effect Indicators	—
CleanUp Sites	83.9

Groundwater	98.4
Haz Waste Facilities/Generators	22.0
Impaired Water Bodies	43.8
Solid Waste	96.9
Sensitive Population	—
Asthma	45.2
Cardio-vascular	43.0
Low Birth Weights	25.4
Socioeconomic Factor Indicators	—
Education	82.9
Housing	34.2
Linguistic	80.2
Poverty	66.3
Unemployment	71.7

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	36.160657
Employed	0.153984345
Median HI	40.38239446
Education	—
Bachelor's or higher	7.827537534
High school enrollment	100
Preschool enrollment	4.670858463
Transportation	—
Auto Access	87.47593995

Active commuting	32.91415373
Social	—
2-parent households	92.1852945
Voting	39.31733607
Neighborhood	—
Alcohol availability	97.0101373
Park access	5.41511613
Retail density	5.00449121
Supermarket access	8.238162453
Tree canopy	30.06544335
Housing	—
Homeownership	45.22006929
Housing habitability	73.48902862
Low-inc homeowner severe housing cost burden	69.38277942
Low-inc renter severe housing cost burden	73.6173489
Uncrowded housing	56.30694213
Health Outcomes	—
Insured adults	16.01437187
Arthritis	0.0
Asthma ER Admissions	47.8
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	23.8
Cognitively Disabled	24.2

Physically Disabled	28.8
Heart Attack ER Admissions	53.4
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	83.2
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	88.7
Elderly	68.4
English Speaking	32.0
Foreign-born	54.1
Outdoor Workers	1.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	97.0
Traffic Density	2.4
Traffic Access	0.0
Other Indices	—
Hardship	61.5
Other Decision Support	—
2016 Voting	78.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	72.0
Healthy Places Index Score for Project Location (b)	8.00
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8.2 Appendix B: Biological Resources Database Results

Multiple Occurrences per Page

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Atwater (3712035))

Buteo swainsoni

Element Code: ABNKC19070

Swainson's hawk

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G5
	State:	Threatened		**State:**	S4
	Other:	BLM_S-Sensitive, IUCN_LC-Least Concern			
Habitat:	**General:**	BREEDS IN GRASSLANDS WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, AND AGRICULTURAL OR RANCH LANDS WITH GROVES OR LINES OF TREES.			
	Micro:	REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.			

Occurrence No.	1690	**Map Index:** 69604	**EO Index:** 70377	**Element Last Seen:**	2007-06-28
Occ. Rank:	Good		**Presence:** Presumed Extant	**Site Last Seen:**	2007-06-28
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	2007-07-02

Quad Summary: Atwater (3712035)

County Summary: Merced

Lat/Long:	37.35010 / -120.55762	**Accuracy:**	80 meters
UTM:	Zone-10 N4136510 E716330	**Elevation (ft):**	170
PLSS:	T07S, R13E, Sec. 04, SW (M)	**Acres:**	0.0

Location: JUST SOUTH OF CANAL CREEK, WHERE IT INTERSECTS WITH SANTA FE ROAD, SOUTH OF CASTLE AIR FORCE BASE AND EAST OF ATWATER.

Detailed Location: NEST TREE IS FOUND WITHIN A GROVE OF MATURE EUCALYPTUS TREES, AT THE EASTERN END. COUNTY AVENUE TWO IS ABOUT 100 YARDS TO THE SOUTH OF THE NEST TREE.

Ecological: NEST TREE IS A EUCALYPTUS; SURROUNDED BY AN IRRIGATION CANAL, SANTA FE RAILROAD, AND SANTA FE DRIVE TO THE NORTH. FALLOW FIELDS TO THE SOUTH AND EAST.

General: SWHA PAIR ACTIVITY AROUND NEST FIRST OBSERVED IN MAY 2007; 1 FLEDGLING OBSERVED IN NEST ON 28 JUN 2007, WITH FEMALE PERCHED ON NEST EDGE AND MALE PERCHED 50' TO THE SW.

Owner/Manager: MERCED IRRIGATION DISTRICT

Occurrence No.	1759	**Map Index:** 83231	**EO Index:** 84236	**Element Last Seen:**	2008-05-14
Occ. Rank:	Fair		**Presence:** Presumed Extant	**Site Last Seen:**	2008-05-14
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	2011-06-29

Quad Summary: Atwater (3712035)

County Summary: Merced

Lat/Long:	37.30219 / -120.56613	**Accuracy:**	80 meters
UTM:	Zone-10 N4131174 E715712	**Elevation (ft):**	145
PLSS:	T07S, R13E, Sec. 29, NE (M)	**Acres:**	0.0

Location: ALONG MCSWAIN ROAD (SR 140) ABOUT 0.3 MI EAST OF N GURR RD, AT MCSWAIN SCHOOL.

Detailed Location: IN EUCALYPTUS GROVE ABOUT 250 FEET EAST OF PERSIMMON WAY. BLACK RASCAL CREEK TO THE NORTH & BEAR CREEK TO THE SOUTH. MAPPED TO PROVIDED COORDINATES & MAPS.

Ecological: NEST IN TALLEST EUCALYPTUS TREE IN GROVE BORDERING ELEMENTARY SCHOOL. SURROUNDING LANDS ARE MOSAIC OF RESIDENTIAL, ROW CROP, SCHOOL, & PASTURE. VISIBLE DISTURBANCES INCLUDE TRAFFIC ON SR 140, AGRICULTURE ACTIVITIES & SCHOOL YARD CHILDREN.

General: ONE ADULT OBSERVED SITTING IN NEST WITH ONE ADULT SOARING CLOSE TO NEST TREE ON 14 MAY 2008. ASSUMED TO BE IN INCUBATION STAGE.

Owner/Manager: UNKNOWN

Occurrence No.	1760	**Map Index:**	83232	**EO Index:**	84238	**Element Last Seen:**	2008-05-14
Occ. Rank:	Fair			**Presence:**	Presumed Extant	**Site Last Seen:**	2008-05-14
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2011-06-29

Quad Summary:	Atwater (3712035)
County Summary:	Merced

Lat/Long:	37.32504 / -120.54987	**Accuracy:**	80 meters
UTM:	Zone-10 N4133746 E717088	**Elevation (ft):**	155
PLSS:	T07S, R13E, Sec. 16 (M)	**Acres:**	0.0

Location:	JUST NORTH OF HWY 99, AT ASHBY RD & TRINIDADE RD INTERSECTION, JUST NW OF FERGUS, 4 MI NW OF MERCED POST OFFICE.
Detailed Location:	CENTER OF SECTION 16. MAPPED TO PROVIDED COORDINATES & MAPS.
Ecological:	NEST TREE IN ROW OF EUCALYPTUS TREES ALONG TRINIDADE ROAD. SURROUNDING LANDS ARE MOSAIC OF ROW CROP, RESIDENTIAL, INDUSTRIAL, ORCHARD, AND PASTURE. VISIBLE DISRBANCES: AGRICULTURE RELATED ACTIVITIES.
General:	1 LIGHT MORPH & 1 DARK MORPH ADULTS OBSERVED IN TREE EATING PREY THAT WAS CAUGHT IN FIELD DIRECTLY SOUTH OF HWY 99 ON 14 MAY 2009. NEST WAS IN INCUBATION STAGE AT TIME OF OBSERVATION.
Owner/Manager:	UNKNOWN

Occurrence No.	2683	**Map Index:**	A0387	**EO Index:**	101947	**Element Last Seen:**	2016-04-13
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2016-04-13
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2016-06-08

Quad Summary:	Atwater (3712035)
County Summary:	Merced

Lat/Long:	37.28872 / -120.54212	**Accuracy:**	1/10 mile
UTM:	Zone-10 N4129734 E717881	**Elevation (ft):**	147
PLSS:	T07S, R13E, Sec. 28, SE (M)	**Acres:**	18.0

Location:	ALONG BAILEY AVE ABOUT 1 MILE EAST OF GURR RD, ABOUT 1.5 MILES W OF MERCED MUNICPAL AIRPORT, WEST OF THE CITY OF MERCED.
Detailed Location:	LOCATION GIVEN AS "TREES AT 3014 BAILEY AVE" AND APPEARS TO BE IN THE VICINITY OF THORNTON LATERAL AT BAILEY AVE.
Ecological:	RESIDENCE WITH "PINE AND EUCALYPTUS TREES AT END OF DRIVEWAY" SURROUNDED BY AGRICULTURE. PHOTOGRAPH SHOWS 2 SWHA PERCHED IN A REDWOOD/SEQUOIA. ADDITIONAL NEST TREES MAY BE ALONG SOUTH SLOUGH & BEAR CREEK. AG LIKELY USED FOR FORAGING.
General:	RESIDENT REPORTS 5 PAIRS SOARING ABOVE FIELDS & "NEST[ING] IN TREES ON PROPERTY" IN APR 2016. ALSO, JUVENILES SEEN WITH ADULTS IN SPRING OF 2015. THOUGH REPORT IS PLAUSIBLE, BIRD NUMBERS & SPECIFIC NEST INFORMATION IS QUESTIONABLE; NIMBY?
Owner/Manager:	PVT

Occurrence No.	812	**Map Index:**	64827	**EO Index:**	64906	**Element Last Seen:**	2006-05-25
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2006-05-25
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2006-06-07

Quad Summary: Atwater (3712035)
County Summary: Merced

Lat/Long:	37.27390 / -120.50677	**Accuracy:**	specific area
UTM:	Zone-10 N4128172 E721057	**Elevation (ft):**	150
PLSS:	T07S, R13E, Sec. 35, SE (M)	**Acres:**	18.4

Location: SE END OF MERCED MUNICIPAL AIRPORT, ON THE SW EDGE OF MERCED.
Detailed Location: BURROWS ARE FOUND IN TWO DISTINCT AREAS, ABOUT 0.2 MILE APART. BOTH ARE LOCATED AT SOUTHERN END OF AIRPORT RUNWAY.
Ecological: HABITAT CONSISTS OF DISTURBED (MOWED) NON-NATIVE GRASSLAND.
General: 6 ACTIVE BURROWS (WITH 6 ADULTS) OBSERVED ON 25 MAY 2006.
Owner/Manager: CITY OF MERCED

Occurrence No.	876	**Map Index:**	67347	**EO Index:**	67514	**Element Last Seen:**	2006-10-06
Occ. Rank:	Fair			**Presence:**	Presumed Extant	**Site Last Seen:**	2006-10-06
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2006-12-11

Quad Summary: Atwater (3712035)
County Summary: Merced

Lat/Long:	37.35908 / -120.53123	**Accuracy:**	80 meters
UTM:	Zone-10 N4137567 E718642	**Elevation (ft):**	175
PLSS:	T07S, R13E, Sec. 03, NE (M)	**Acres:**	0.0

Location: 0.1 MILE SOUTH OF BELLEVUE ROAD AND 0.5 MILE EAST OF FRANKLIN ROAD, EAST OF CASTLE AIR FORCE BASE.
Detailed Location:
Ecological: HABITAT CONSISTS OF LOW-DENSITY AGRICULTURAL PROPERTY CONTAINING NUMEROUS DETENTION BASINS; LAND IS HIGHLY DISTURBED/MAINPULATED.
General: 1 ADULT OBSERVED AT BURROW ON 6 OCT 2006 AND DURING TWO OTHER VISITS TO THE PROPERTY.
Owner/Manager: UNKNOWN

Occurrence No.	877	**Map Index:**	67348	**EO Index:**	67516	**Element Last Seen:**	2006-10-24
Occ. Rank:	Fair			**Presence:**	Presumed Extant	**Site Last Seen:**	2006-10-24
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2006-12-11

Quad Summary: Atwater (3712035)
County Summary: Merced

Lat/Long:	37.33611 / -120.56332	**Accuracy:**	80 meters
UTM:	Zone-10 N4134944 E715864	**Elevation (ft):**	160
PLSS:	T07S, R13E, Sec. 08, SE (M)	**Acres:**	0.0

Location: 0.25 MILE WEST OF GURR ROAD AND 0.4 MILE SOUTH OF AVENUE ONE, SE OF ATWATER.
Detailed Location:
Ecological: HABITAT CONSISTS OF LOW-DENSITY AGRICULTURAL PROPERTY AND RUDERAL FIELD.
General: 1 ADULT OBSERVED ON 24 OCT 2006 AND DURING ONE OTHER VISIT TO THE PROPERTY.
Owner/Manager: UNKNOWN

Occurrence No.	988	**Map Index:**	70100	**EO Index:**	70964	**Element Last Seen:**	2007-07-16
Occ. Rank:	Excellent			**Presence:**	Presumed Extant	**Site Last Seen:**	2007-07-16
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2007-10-03

Quad Summary: Atwater (3712035)

County Summary: Merced

Lat/Long:	37.29057 / -120.51700	**Accuracy:**	non-specific area
UTM:	Zone-10 N4129998 E720101	**Elevation (ft):**	154
PLSS:	T07S, R13E, Sec. 26 (M)	**Acres:**	28.0

Location: MERCED MUNICIPAL AIRPORT, SW OF MERCED.

Detailed Location:

Ecological: HABITAT SURROUNDING BURROW SITES CONSISTS OF DISTURBED ANNUAL GRASSLAND DOMINATED BY PERENNIAL RYEGRASS (LOLIUM PERENNE), YELLOW STAR THISTLE (CENTAUREA SOLSTITIALIS), CURLY DOCK (RUMEX CRISPUS), AND SPRING VETCH (VICIA SATIVA SSP. SATIVA).

General: 9 INDIVIDUALS OBSERVED ON 16 JUL 2007.

Owner/Manager: CITY OF MERCED

Agelaius tricolor

Element Code: ABPBXB0020

tricolored blackbird

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G1G2
	State:	Threatened		**State:**	S2
	Other:	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered, USFWS_BCC-Birds of Conservation Concern			
Habitat:	**General:**	HIGHLY COLONIAL SPECIES, MOST NUMEROUS IN CENTRAL VALLEY AND VICINITY. LARGELY ENDEMIC TO CALIFORNIA.			
	Micro:	REQUIRES OPEN WATER, PROTECTED NESTING SUBSTRATE, AND FORAGING AREA WITH INSECT PREY WITHIN A FEW KM OF THE COLONY.			

Occurrence No.	65	**Map Index:**	13166	**EO Index:**	24755	**Element Last Seen:**	1971-05-09
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1971-05-09
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2016-01-27

Quad Summary: Atwater (3712035)

County Summary: Merced

Lat/Long:	37.29715 / -120.58380	**Accuracy:**	1 mile
UTM:	Zone-10 N4130574 E714161	**Elevation (ft):**	135
PLSS:	T07S, R13E, Sec. 30 (M)	**Acres:**	0.0

Location: ABOUT 1.8 MI ESE OF HWY 140 & APPLEGATE RD INTERSECTION, 2.6 MI S OF HWY 99 & BUHACH RD INTERSECTION, W OF MERCED.

Detailed Location: LOCATION DESCRIBED AS "SOUTH SIDE OF HIGHWAY 140; 4.5 MILES WEST OF MERCED." COLONY DATA STORED IN UC DAVIS TRICOLORED BLACKBIRD PORTAL; SITE NAME "SOUTH BUHACH ROAD AT HIGHWAY 140" & "WEST MERCED." EXACT LOCATION UNKNOWN.

Ecological: BLACKBERRIES IN IRRIGATED PASTURES. COLONY APPROXIMATELY 1/25 ACRE. DOMINANT SURROUNDING LAND USE WAS HALF ALFALFA AND HALF RESIDENTIAL, NO SUITABLE NESTING HABITAT IN 2014. 4.5 MILES MEASURED FROM HWY 99 & HWY 140 INTERSECTION.

General: ABOUT 1500 BIRDS OBSERVED ON 9 MAY 1971 BY DEHAVEN; PRESUMED NESTING, AREA TOO INACCESSIBLE TO REACH. 0 BIRDS OBSERVED ON 18 APR 2014; UNCLEAR IF THIS SURVEY WAS AT THE SAME LOCATION AS THE 1971 LOCATION.

Owner/Manager: UNKNOWN

Occurrence No.	633	**Map Index:**	97347	**EO Index:**	98620	**Element Last Seen:**	1933-04-26
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1933-04-26
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2015-08-27

Quad Summary:	Sandy Mush (3712025), Atwater (3712035)
County Summary:	Merced

Lat/Long:	37.26050 / -120.51959	**Accuracy:**	4/5 mile
UTM:	Zone-10 N4126655 E719959	**Elevation (ft):**	150
PLSS:	T08S, R13E, Sec. 02 (M)	**Acres:**	0.0

Location:	ABOUT 2.6 MI SW OF HWY 59 & CHILDS AVE INTERSECTION, 5.4 MI NNW OF HWY 59 & SANDY MUSH RD, SW OF MERCED.
Detailed Location:	LOCATION DESCRIBED ONLY AS "THREE MILES SOUTHWEST OF MERCED." EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS TO AREA THAT APPEARED TO HISTORICALLY HAVE WATER (HARTLEY SLOUGH) BASED ON A 1918 USGS TOPO MAP FOR ATWATER QUAD.
Ecological:	HABITAT ONLY DESCRIBED AS CATTAIL MARSH. COLONY PRESUMED EXTIRPATED BY BEEDY (1991). FURTHER RESEARCH NEEDED TO DETERMINE STATUS OF COLONY.
General:	A BREEDING COLONY COMPOSED OF ABOUT 100 NESTS OBSERVED ON 26 APR 1933.
Owner/Manager:	UNKNOWN

Occurrence No.	634	**Map Index:**	97352	**EO Index:**	98624	**Element Last Seen:**	1933-05-19
Occ. Rank:	None			**Presence:**	Possibly Extirpated	**Site Last Seen:**	1933-05-19
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2015-08-27

Quad Summary:	Merced (3712034), Atwater (3712035)
County Summary:	Merced

Lat/Long:	37.28790 / -120.50908	**Accuracy:**	1 mile
UTM:	Zone-10 N4129719 E720811	**Elevation (ft):**	150
PLSS:	T07S, R13E, Sec. 35 (M)	**Acres:**	0.0

Location:	ABOUT 2 MI NW OF HWY 59 & VASSAR AVE INTERSECTION, 2.9 MI W OF HWY 99 & CHILDS AVE INTERSECTION, SW EDGE OF MERCED.
Detailed Location:	MAPPED AS BEST GUESS TO CANALS JUST SW OF MERCED CITY PROPER. CANALS IDENTIFIED USING 1917 & 1947-48 USGS TOPO MAPS FOR MERCED & ATWATER QUADS. EL CAPITAN CANAL & MERCED LATERAL WERE POSSIBLE CANALS FOR COLONY LOCATION.
Ecological:	HABITAT DESCRIBED AS CATTAILS ALONG CANAL. COLONY PRESUMED EXTIRPATED BY BEEDY (1991). VERY LITTLE TO NO HABITAT VISIBLE IN AERIAL PHOTOS. COLONY DATA STORED IN UC DAVIS TRICOLORED BLACKBIRD PORTAL; SITE NAME "SOUTHWEST MERCED."
General:	A BREEDING COLONY COMPOSED OF ABOUT 1500 NESTS OBSERVED ON 19 MAY 1933 (NEFF 1937).
Owner/Manager:	UNKNOWN

Occurrence No.	635	**Map Index:**	97354	**EO Index:**	98627	**Element Last Seen:**	1933-04-27
Occ. Rank:	None			**Presence:**	Possibly Extirpated	**Site Last Seen:**	1933-04-27
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2015-08-27

Quad Summary:	Merced (3712034), Atwater (3712035)
County Summary:	Merced

Lat/Long:	37.31620 / -120.48409	**Accuracy:**	1 mile
UTM:	Zone-10 N4132919 E722944	**Elevation (ft):**	175
PLSS:	T07S, R14E, Sec. 19 (M)	**Acres:**	0.0

Location:	ALONG BEAR CREEK, JUST E OF HWY 59 & SANTA FE AVE INTERSECTION, 2.4 MI NW OF HWY 140 & CHILDS AVE INTERSECTION, MERCED.
Detailed Location:	MAPPED AS BEST GUESS BY CNDDB TO PROVIDED LOCATION DESCRIPTION OF "NORTH OF MERCED." FEATURE MAPPED ALONG BEAR CREEK ALONG THE NORTHERN SIDE OF MERCED. CREEK HISTORICALLY BOUNDED THE N SIDE OF MERCED (USGS 1917 & 1948 TOPO, MERCED QUAD).
Ecological:	HABITAT DESCRIBED AS CATTAIL MARSH. COLONY PRESUMED EXTIRPATED BY BEEDY (1991). AREA APPEARS TO HAVE BEEN HEAVILY DEVELOPED SINCE TIME OF DETECTION BASED ON AERIAL IMAGERY. COLONY DATA STORED IN UC DAVIS TRBL PORTAL; SITE "NORTH MERCED."
General:	A BREEDING COLONY COMPOSED OF ABOUT 250 NESTS OBSERVED ON 27 APR 1933 (NEFF 1937).
Owner/Manager:	UNKNOWN

Occurrence No.	639	**Map Index:**	97371	**EO Index:**	98652	**Element Last Seen:**	2014-04-19
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2014-04-19
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2015-08-28

Quad Summary:	Merced (3712034), Atwater (3712035), Yosemite Lake (3712044), Winton (3712045)
County Summary:	Merced

Lat/Long:	37.37760 / -120.49598	**Accuracy:**	2/5 mile
UTM:	Zone-10 N4139704 E721709	**Elevation (ft):**	190
PLSS:	T06S, R13E, Sec. 25, SW (M)	**Acres:**	0.0

Location:	JUST E OF HWY 59 & NEVADA ST INTERSECTION, ABOUT 0.6 MI NNE OF BREEZE RD & UTAH ST INTERSECTION, N OF MERCED.
Detailed Location:	MAPPED ACCORDING TO PROVIDED LOCATION IN PORTAL. ENTRANCE TO MERCED HORSEMEN'S ARENA VISIBLE IN GOOGLE STREET VIEW. COLONY DATA STORED IN THE UC DAVIS TRICOLORED BLACKBIRD PORTAL; SITE NAME "MERCED HORSEMEN'S ARENA."
Ecological:	HABITAT WAS TRITICALE BEFORE BEING HARVESTED ON 22 APR 2014. DISTANCE TO STORED GRAINS WAS "100-500" METERS. DISTANCE TO WATER WAS OVER 100 METERS.
General:	ABOUT 2,000-2,500 BIRDS OBSERVED ON 19 APR 2014; BEHAVIOR CLASSIFIED AS SINGING, BREEDING, AND COLONY QUIET (INCUBATION INFERRED). COLONY WAS DESTROYED DUE TO HARVEST ON 22 APR 2014.
Owner/Manager:	UNKNOWN, PVT

Vulpes macrotis mutica **Element Code:** AMAJA03041

San Joaquin kit fox

Listing Status:	**Federal:**	Endangered	**CNDDB Element Ranks:**	**Global:**	G4T2
	State:	Threatened		**State:**	S3
	Other:				
Habitat:	**General:**	ANNUAL GRASSLANDS OR GRASSY OPEN STAGES WITH SCATTERED SHRUBBY VEGETATION.			
	Micro:	NEED LOOSE-TEXTURED SANDY SOILS FOR BURROWING, AND SUITABLE PREY BASE.			

Occurrence No.	23 **Map Index:** 42082	**EO Index:**	42082	**Element Last Seen:**	1999-08-20
Occ. Rank:	Poor	**Presence:**	Presumed Extant	**Site Last Seen:**	1999-08-20
Occ. Type:	Natural/Native occurrence	**Trend:**	Unknown	**Record Last Updated:**	1999-12-27

Quad Summary: Atwater (3712035)

County Summary: Merced

Lat/Long:	37.36666 / -120.60137	**Accuracy:**	non-specific area
UTM:	Zone-10 N4138247 E712407	**Elevation (ft):**	160
PLSS:	T06S, R12E, Sec. 36 (M)	**Acres:**	286.7

Location: LIVINGSTON CANAL, FROM APROXIMATLY BELLEVUE ROAD TO WINTON WAY, ATWATER.

Detailed Location: ALONG CANAL AREA, MERCED COUNTY WATER DISTRICT.

Ecological: AREA IS FLAT WITH SANDY SOILS.

General: 1 OBSERVED IN BACKYARD, THEN TRAVELED WEST ALONG CANAL, 1999. 1 ADULT, 2 JUVENILES OBSERVED IN THE EARLY 1980'S, OVER A MONTH, FREQUENTING AN EXPOSED CONCRETE PIPE OPENING; AREA PREVIOUSLY BORDERED BY AG AND SOME RESIDENTIAL NOW HOUSING.

Owner/Manager: MER COUNTY

Actinemys marmorata

Element Code: ARAAD02031

northwestern pond turtle

Listing Status:	**Federal:**	Proposed Threatened	**CNDDB Element Ranks:**	**Global:**	G2
	State:	None		**State:**	SNR
	Other:	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable, USFS_S-Sensitive			
Habitat:	**General:**				
	Micro:				

Occurrence No.	721	**Map Index:** 67349	**EO Index:** 67517	**Element Last Seen:**	2006-10-13
Occ. Rank:	Fair		**Presence:** Presumed Extant	**Site Last Seen:**	2006-10-13
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	2006-12-11

Quad Summary: Atwater (3712035)

County Summary: Merced

Lat/Long:	37.36083 / -120.55443	**Accuracy:**	80 meters
UTM:	Zone-10 N4137708 E716581	**Elevation (ft):**	175
PLSS:	T06S, R13E, Sec. 33, SW (M)	**Acres:**	0.0

Location: CANAL CREEK, 0.3 MILE WEST OF FOX ROAD AND 0.3 MILE NORTH OF BRADSHAW ROAD, CASTLE AIR FORCE BASE.

Detailed Location:

Ecological: HABITAT WITHIN CANAL CREEK CONSISTS OF HERBACEOUS VEGETATION. SURROUNDING LAND CONSISTS OF LOW-DENSITY AGRICULTURAL LAND, WHICH IS HIGHLY MANIPULATED FOR AGRICULTURE, DAIRY, AND CASTLE AFB.

General: 1 JUVENILE OBSERVED ON THE BANK OF CANAL CREEK ON 13 OCT 2006.

Owner/Manager: UNKNOWN

Branchinecta lynchi

Element Code: ICBRA03030

vernal pool fairy shrimp

Listing Status:	**Federal:**	Threatened	**CNDDB Element Ranks:**	**Global:**	G3
	State:	None		**State:**	S3
	Other:	IUCN_VU-Vulnerable			
Habitat:	**General:**	ENDEMIC TO THE GRASSLANDS OF THE CENTRAL VALLEY, CENTRAL COAST MOUNTAINS, AND SOUTH COAST MOUNTAINS, IN ASTATIC RAIN-FILLED POOLS.			
	Micro:	INHABIT SMALL, CLEAR-WATER SANDSTONE-DEPRESSION POOLS AND GRASSED SWALE, EARTH SLUMP, OR BASALT-FLOW DEPRESSION POOLS.			

Occurrence No.	181	**Map Index:** 36115	**EO Index:** 31112	**Element Last Seen:**	1997-02-13
Occ. Rank:	Fair		**Presence:** Presumed Extant	**Site Last Seen:**	1997-02-13
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	2014-10-02

Quad Summary: Atwater (3712035)

County Summary: Merced

Lat/Long:	37.34685 / -120.55031	**Accuracy:**	80 meters
UTM:	Zone-10 N4136165 E716987	**Elevation (ft):**	165
PLSS:	T07S, R13E, Sec. 04, SW (M)	**Acres:**	0.0

Location: JUST NW OF THE INTERSECTION OF FOX ROAD AND CARDELLA ROAD, 2 MILES EAST OF ATWATER.

Detailed Location:

Ecological: HABITAT CONSISTED OF A ROADSIDE POOL, ADJACENT TO ATSF RAILROAD TRACKS, SURROUNDED BY AGRICULTURE.

General: 1 ADULT COLLECTED ON 13 FEB 1997 (CASIZ #111133).

Owner/Manager: PVT

Occurrence No.	305	**Map Index:**	46094	**EO Index:**	46094	**Element Last Seen:**	2002-01-28
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2002-01-28
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2014-10-10

Quad Summary:	Atwater (3712035)
County Summary:	Merced

Lat/Long:	37.35203 / -120.50373	**Accuracy:**	non-specific area
UTM:	Zone-10 N4136848 E721098	**Elevation (ft):**	175
PLSS:	T07S, R13E, Sec. 01, SW (M)	**Acres:**	17.8

Location:	ABOUT 5 MILES EAST OF ATWATER, FROM INTERSECTION OF HIGHWAY 59 AND TAHOE STREET TO 0.2 MILE SOUTH ON HIGHWAY 59.
Detailed Location:	CALTRANS RIGHT-OF-WAY ADJACENT TO WEST SHOULDER OF HIGHWAY 59. SAMPLE POOLS 5A, 5B, & 5B1.
Ecological:	VERNAL POOLS IN OPEN GRASSLAND; SURROUNDING LAND USES WERE AGRICULTURE AND GRAZING AT TIME OF SURVEY.
General:	8 COLLECTED IN 2000 (CASIZ #154910). 2 POOLS, EACH WITH 100 ADULTS, AND 1 POOL WITH 10 ADULTS OBSERVED FEB 2001; 16 COLLECTED (CASIZ #154907, 154908). 13 COLLECTED ON 28 JAN 2002 (CASIZ #162474, 162487).
Owner/Manager:	CALTRANS

Occurrence No.	306	**Map Index:**	46095	**EO Index:**	46095	**Element Last Seen:**	2002-01-11
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2002-01-11
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2014-10-10

Quad Summary:	Atwater (3712035)
County Summary:	Merced

Lat/Long:	37.33240 / -120.50482	**Accuracy:**	non-specific area
UTM:	Zone-10 N4134668 E721059	**Elevation (ft):**	165
PLSS:	T07S, R13E, Sec. 11, SE (M)	**Acres:**	31.4

Location:	ABOUT 5 MI EAST OF ATWATER; ALONG HIGHWAY 59, FROM 0.2 TO 0.7 MI SOUTH OF THE INTERSECTION OF HWY 59 AND BELCHER AVE.
Detailed Location:	SURVEYED POOLS WERE IN THE CALTRANS RIGHT-OF-WAY ADJACENT TO THE WEST SHOULDER OF HIGHWAY 59.
Ecological:	VERNAL POOLS IN OPEN GRASSLAND SURROUNDED BY LAND USED FOR AGRICULTURE & GRAZING AT TIME OF 2000-01 SURVEYS. SPEA HAMMONDII, LINDERIELLA OCCIDENTALIS, & INDICATOR PLANTS ALSO FOUND. AIR PHOTOS SHOW DEVELOPMENT IN SE PORTION OF OCCURRENCE.
General:	THOUSANDS OF ADULTS IN 2 POOLS & 10 IN 1 POOL, NOV 2000; 24 COLLECTED (IN CAS). HUNDREDS OF ADULTS IN 2 POOLS, FEB 2001; UP TO 51 COLLECTED FEB & DEC 2001 (IN CAS). 7 COLLECTED ON 11 JAN 2002 (CASIZ #162476).
Owner/Manager:	CALTRANS

Linderiella occidentalis **Element Code:** ICBRA06010

California linderiella

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G2G3
	State:	None		**State:**	S2S3
	Other:	IUCN_NT-Near Threatened			
Habitat:	**General:**	SEASONAL POOLS IN UNPLOWED GRASSLANDS WITH OLD ALLUVIAL SOILS UNDERLAIN BY HARDPAN OR IN SANDSTONE DEPRESSIONS.			
	Micro:	WATER IN THE POOLS HAS VERY LOW ALKALINITY, CONDUCTIVITY, AND TOTAL DISSOLVED SOLIDS.			

Occurrence No.	196	**Map Index:** 47479	**EO Index:** 47479	**Element Last Seen:**	2000-11-21
Occ. Rank:	Fair		**Presence:** Presumed Extant	**Site Last Seen:**	2000-11-21
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	2002-03-25

Quad Summary: Atwater (3712035)

County Summary: Merced

Lat/Long:	37.35963 / -120.50374	**Accuracy:**	80 meters
UTM:	Zone-10 N4137692 E721075	**Elevation (ft):**	175
PLSS:	T07S, R13E, Sec. 02, NE (M)	**Acres:**	0.0

Location: 5 MILES EAST OF ATWATER, 0.1 MILE SOUTH OF INTERSECTION OF WEST BELLEVUE ROAD AND HIGHWAY 59.

Detailed Location: POOL ALONG CULVERT LOCATED ON WEST SHOULDER OF HIGHWAY 59.

Ecological: HABITAT CONSISTS OF A SWALE. SURROUNDING AREA IS RURAL / GRAZING LAND.

General: 21 NOV 2000: 500 ADULTS AND 500 JUVENILES OBSERVED IN SAMPLE POOL 6A.

Owner/Manager: CALTRANS

Atriplex persistens

Element Code: PDCHE042P0

vernal pool smallscale

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G2
	State:	None		**State:**	S2
	Other:	Rare Plant Rank - 1B.2			
Habitat:	**General:**	VERNAL POOLS.			
	Micro:	ALKALINE VERNAL POOLS. 3-115 M.			

Occurrence No.	4	**Map Index:** 36774	**EO Index:** 31771	**Element Last Seen:**	2011-10-15
Occ. Rank:	Excellent		**Presence:** Presumed Extant	**Site Last Seen:**	2011-10-15
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	2013-06-03

Quad Summary: Sandy Mush (3712025), Atwater (3712035)

County Summary: Merced

Lat/Long:	37.24727 / -120.62010	**Accuracy:**	specific area
UTM:	Zone-10 N4124958 E711081	**Elevation (ft):**	110
PLSS:	T08S, R12E, Sec. 11, E (M)	**Acres:**	18.0

Location: NORTHWEST OF WHERE VENTURA ROAD GOES FROM E-W TO N-S, 6 MILES SOUTHWEST OF MERCED.

Detailed Location: RANGE ROAD/VENTURA ROAD ALSO NAMED JOHN SANDERS ROAD. SEVERAL POLYGONS MAPPED ACCORDING TO 2013 WITHAM DIGITAL DATA.

Ecological: ALKALI GRASSLAND WITH SHALLOW VERNAL POOLS. ASSOCIATED WITH HORDEUM MARINUM SSP. GUSSONEANUM, NEOSTAPFIA COLUSANA, AMARANTHUS ALBUS, FRANKENIA GRANDIFOLIA, CRYPSIS SCHOENOIDES, CRESSA TRUXILLENSIS, ERYNGIUM VASEYI, AND DISTICHLIS SPICATA.

General: UNKNOWN NUMBER OF PLANTS SEEN IN 1987. 100'S OF PLANTS SEEN IN 2009. 100,000S OF PLANTS SEEN IN 2011. 1989 TAYLOR COLLECTION AND 1994 & 1995 STUTZ COLLECTIONS ALSO ATTRIBUTED HERE. ONE OF THE MOST OUTSTANDING ATPE OCCURRENCES.

Owner/Manager: PVT

Occurrence No.	7	**Map Index:** 36783	**EO Index:** 31780	**Element Last Seen:**	1926-06-18
Occ. Rank:	None		**Presence:** Possibly Extirpated	**Site Last Seen:**	1926-06-18
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	1998-04-29

Quad Summary: Atwater (3712035)

County Summary: Merced

Lat/Long:	37.26480 / -120.53386	**Accuracy:**	1 mile
UTM:	Zone-10 N4127099 E718682	**Elevation (ft):**	140
PLSS:	T08S, R13E, Sec. 03 (M)	**Acres:**	0.0

Location: 3 MILES SOUTHWEST OF MERCED.

Detailed Location:

Ecological:

General: MAIN SOURCE OF INFORMATION FOR THIS SITE IS 1926 COLLECTION BY HOWELL. OCCURRENCE EXTIRPATED ACCORDING TO D. TAYLOR.

Owner/Manager: UNKNOWN

Sagittaria sanfordii **Element Code:** PMALI040Q0

Sanford's arrowhead

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G3
	State:	None		**State:**	S3
	Other:	Rare Plant Rank - 1B.2, BLM_S-Sensitive			
Habitat:	**General:**	MARSHES AND SWAMPS.			
	Micro:	IN STANDING OR SLOW-MOVING FRESHWATER PONDS, MARSHES, AND DITCHES. 0-605 M.			

Occurrence No.	75	**Map Index:** 83260	**EO Index:** 84280	**Element Last Seen:**	2010-05-25
Occ. Rank:	Good		**Presence:** Presumed Extant	**Site Last Seen:**	2010-05-25
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	2011-06-30

Quad Summary: Atwater (3712035)

County Summary: Merced

Lat/Long:	37.32415 / -120.54171	**Accuracy:**	specific area
UTM:	Zone-10 N4133667 E717814	**Elevation (ft):**	150
PLSS:	T07S, R13E, Sec. 16, E (M)	**Acres:**	1.0

Location: CANAL WEST OF FRANKLIN ROAD ACROSS FROM LOBO AVE, ABOUT 0.2 MILE NORTH OF STATE ROUTE 99, MERCED.

Detailed Location: TWO COLONIES MAPPED ACCORDING TO 2010 COORDINATES PROVIDED BY GRAENING.

Ecological: AGRICULTURAL CANAL; OCCASIONAL INUNDATION. ASSOCIATED WITH POLYGONUM HYDROPIPEROIDES, SORGHUM HALEPENSE, JUNCUS BALTICUS, LYTHRUM HYSSOPIFOLIA, AVENA BARBATA, ERODIUM BOTRYS, PLANTAGO LANCEOLATA, ETC.

General: ABOUT 750 PLANTS OBSERVED IN EASTERN COLONY AND 96 PLANTS OBSERVED IN WESTERN COLONY IN 2010.

Owner/Manager: UNKNOWN

Neostapfia colusana **Element Code:** PMPOA4C010

Colusa grass

Listing Status:	**Federal:**	Threatened	**CNDDB Element Ranks:**	**Global:**	G1
	State:	Endangered		**State:**	S1
	Other:	Rare Plant Rank - 1B.1			
Habitat:	**General:**	VERNAL POOLS.			
	Micro:	USUALLY IN THE BOTTOMS OF LARGE, OR DEEP VERNAL POOLS; ADOBE SOILS. 5-125 M.			

Occurrence No.	40	**Map Index:** 13099	**EO Index:**	6295	**Element Last Seen:** 2011-10-15
Occ. Rank:	Fair		**Presence:**	Presumed Extant	**Site Last Seen:** 2011-10-15
Occ. Type:	Natural/Native occurrence		**Trend:**	Decreasing	**Record Last Updated:** 2013-05-20

Quad Summary: Sandy Mush (3712025), Atwater (3712035)

County Summary: Merced

Lat/Long:	37.24933 / -120.61933	**Accuracy:**	specific area
UTM:	Zone-10 N4125188 E711145	**Elevation (ft):**	110
PLSS:	T08S, R12E, Sec. 11, E (M)	**Acres:**	19.0

Location: NORTHWEST OF JUNCTION OF RANGE ROAD AND VENTURA ROAD, 4.5 MILES NORTH OF THE MERCED NATIONAL WILDLIFE REFUGE.

Detailed Location: SEVERAL POLYGONS MAPPED ACCORDING TO A 1982 MAP WITH AERIAL PHOTO, A 1988 MAP BY BIOSYSTEMS ANALYSIS, AND 2013 WITHAM DIGITAL DATA.

Ecological: VERNAL POOLS APPARENTLY FORMED OVER LEWIS SALINE-ALKALINE SOILS. POOLS SURROUNDED BY VALLEY GRASSLAND. POOL ASSOCIATES INCLUDE AMARANTHUS ALBUS, POLYPOGON, CRYPSIS, ATRIPLEX, FRANKENIA, CRESSA, ERYNGIUM, DISTICHLIS, SIDA, NAVARRETIA, ETC.

General: >10,000 PLANTS IN 1982, 13,000+ IN 1986, 23,000 IN 1987, 1300 IN 1988, NONE IN 2009 & 2010, ~600 PLANTS IN 2011.

Owner/Manager: PVT

IPaC resource list

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

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

Location

Merced County, California

Local office

Sacramento Fish And Wildlife Office

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

Federal Building

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

Endangered species

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

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

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

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

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

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

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

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

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

Mammals

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

Reptiles

NAME	STATUS
Northwestern Pond Turtle Actinemys marmorata Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

Amphibians

NAME	STATUS
California Tiger Salamander Ambystoma californiense There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2076	Threatened
Western Spadefoot Spea hammondii No critical habitat has been designated for this species.	Proposed Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

Valley Elderberry Longhorn Beetle Desmocerus californicus dimorphus — Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/7850

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp Branchinecta conservatio	Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/8246

Vernal Pool Fairy Shrimp Branchinecta lynchi	Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/498

Vernal Pool Tadpole Shrimp Lepidurus packardi	Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/2246

Flowering Plants

NAME	STATUS
Colusa Grass Neostapfia colusana	Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/5690

Critical habitats

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

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act [2] and the Migratory Bird Treaty Act (MBTA) [1]. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their nests, should follow appropriate regulations and implement required avoidance and minimization measures, as described in the various links on this page.

The data in this location indicates that no eagles have been observed in this area. This does not mean eagles are not present in your project area, especially if the area is difficult to survey. Please review the 'Steps to Take When No Results Are Returned' section of the Supplemental Information on Migratory Birds and Eagles document to determine if your project is in a poorly surveyed area. If it is, you may need to rely on other resources to determine if eagles may be present (e.g. your local FWS field office, state surveys, your own surveys).

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

Bald & Golden Eagles FAQs

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are an eagle (Bald and Golden Eagle Protection Act requirements may apply).

Proper interpretation and use of your eagle report

On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort line or no data line (red horizontal) means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide you in knowing when to implement avoidance and minimization measures to eliminate or reduce potential impacts from your project activities or get the appropriate permits should presence be confirmed.

How do I know if eagles are breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the RAIL Tool and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If an eagle on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your “IPaC PROBABILITY OF PRESENCE SUMMARY” at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

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

The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

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

Breeding Season ()

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

Survey Effort ()
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

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

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

Migratory birds

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

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

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

Measures for Proactively Minimizing Migratory Bird Impacts

Your IPaC Migratory Bird list showcases birds of concern, including Birds of Conservation Concern (BCC), in your project location. This is not a comprehensive list of all birds found in your project area. However, you can help proactively minimize significant impacts to all birds at your project location by implementing the measures in the Nationwide avoidance and minimization measures for birds document, and any other project-specific avoidance and minimization measures suggested at the link Measures for avoiding and minimizing impacts to birds for the birds of concern on your list below.

Ensure Your Migratory Bird List is Accurate and Complete

If your project area is in a poorly surveyed area, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles document, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
Belding's Savannah Sparrow Passerculus sandwichensis beldingi This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8	Breeds Apr 1 to Aug 15
Bullock's Oriole Icterus bullockii This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 21 to Jul 25
California Gull Larus californicus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 1 to Jul 31
Lawrence's Goldfinch Spinus lawrencei This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9464	Breeds Mar 20 to Sep 20
Nuttall's Woodpecker Dryobates nuttallii This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9410	Breeds Apr 1 to Jul 20
Oak Titmouse Baeolophus inornatus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9656	Breeds Mar 15 to Jul 15

Santa Barbara Song Sparrow Melospiza melodia graminea This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/5513	Breeds Mar 1 to Sep 5
Yellow-billed Magpie Pica nuttalli This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9726	Breeds Apr 1 to Jul 31

Probability of Presence Summary

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

Probability of Presence (■)

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

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

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

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

Breeding Season (■)

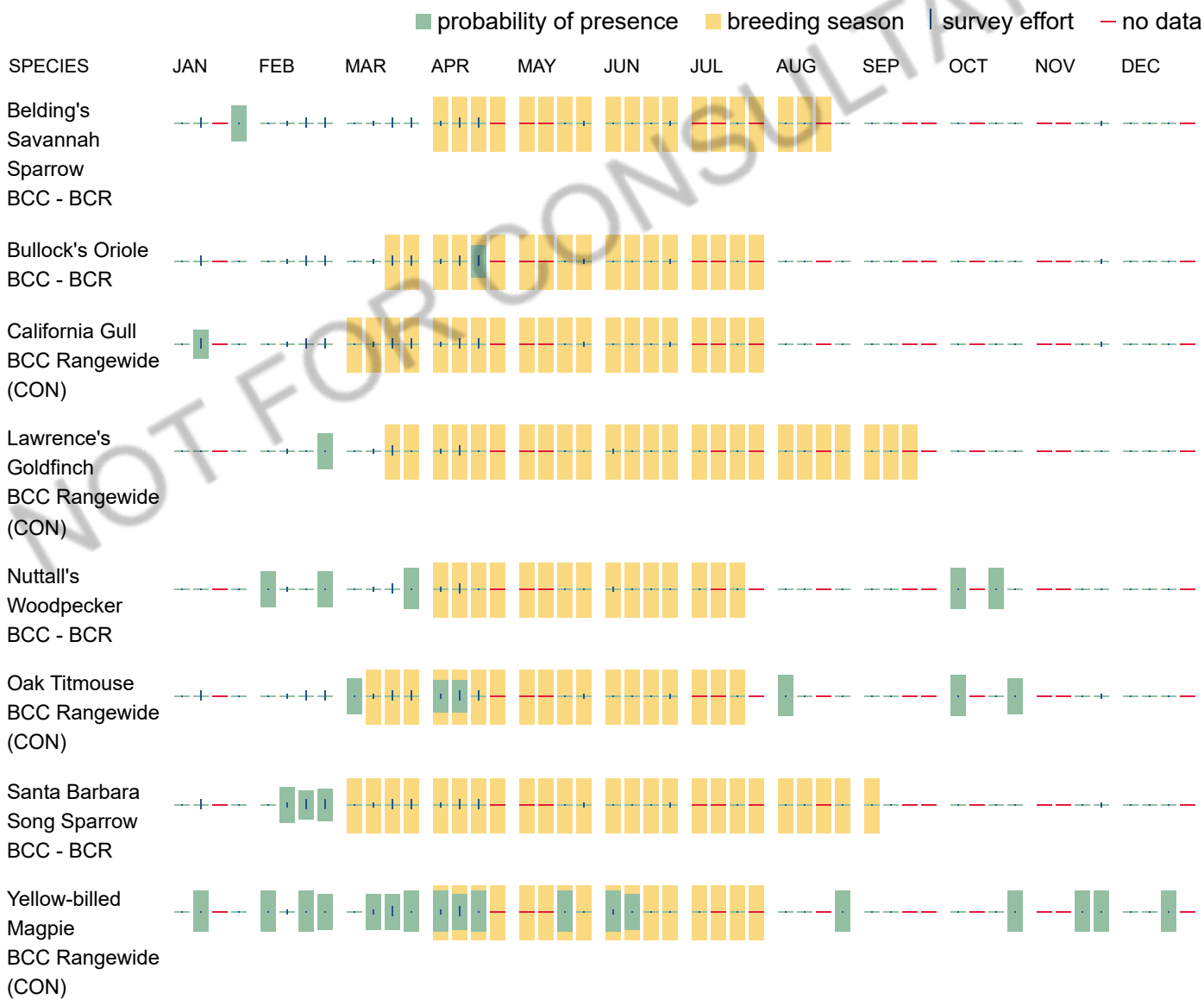
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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

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

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

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



Migratory Bird FAQs

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

Nationwide Avoidance & Minimization Measures for Birds describes measures that can help avoid and minimize impacts to all birds at any location year-round. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is one of the most effective ways to minimize impacts. To see when birds are most likely to occur and breed in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location, such as those listed under the Endangered Species Act or the Bald and Golden Eagle Protection Act and those species marked as “Vulnerable”. See the FAQ “What are the levels of concern for migratory birds?” for more information on the levels of concern covered in the IPaC migratory bird species list.

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

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, and to verify survey effort when no results present, please visit the Rapid Avian Information Locator (RAIL) Tool.

Why are subspecies showing up on my list?

Subspecies profiles are included on the list of species present in your project area because observations in the AKN for **the species** are being detected. If the species are present, that means that the subspecies may also be present. If a subspecies shows up on your list, you may need to rely on other resources to determine if that subspecies may be present (e.g. your local FWS field office, state surveys, your own surveys).

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

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

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

How do I know if a bird is breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the RAIL Tool and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

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

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

Although it is important to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially BCC species. For more information on avoidance and minimization measures you can implement to help avoid and minimize migratory bird impacts, please see the FAQ "Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Details about birds that are potentially affected by offshore projects

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

Proper interpretation and use of your migratory bird report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list does not represent all birds present in your project area. It is simply a starting point for identifying what birds of concern

have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide implementation of avoidance and minimization measures to eliminate or reduce potential impacts from your project activities, should presence be confirmed. To learn more about avoidance and minimization measures, visit the FAQ "Tell me about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Interpreting the Probability of Presence Graphs
Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:
The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

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

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

Survey Effort ()
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

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

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

Facilities

National Wildlife Refuge lands

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

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

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

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

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

R5UBFx

A full description for each wetland code can be found at the National Wetlands Inventory website

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

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

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

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

Data exclusions

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

Data precautions

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

8.3 Appendix C: CHRIS Search Results

Buteo regalis

Element Code: ABNKC19120

ferruginous hawk

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G4
	State:	None		**State:**	S3S4
	Other:	CDFW_WL-Watch List, IUCN_LC-Least Concern			
Habitat:	**General:**	OPEN GRASSLANDS, SAGEBRUSH FLATS, DESERT SCRUB, LOW FOOTHILLS AND FRINGES OF PINYON AND JUNIPER HABITATS.			
	Micro:	EATS MOSTLY LAGOMORPHS, GROUND SQUIRRELS, AND MICE. POPULATION TRENDS MAY FOLLOW LAGOMORPH POPULATION CYCLES.			

Occurrence No.	60	**Map Index:** 67366	**EO Index:** 67534	**Element Last Seen:**	2006-10-04
Occ. Rank:	Fair		**Presence:** Presumed Extant	**Site Last Seen:**	2006-10-04
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	2006-12-12

Quad Summary: Atwater (3712035)

County Summary: Merced

Lat/Long:	37.36272 / -120.54352	**Accuracy:**	1/10 mile
UTM:	Zone-10 N4137942 E717542	**Elevation (ft):**	175
PLSS:	T06S, R13E, Sec. 33, SE (M)	**Acres:**	0.0

Location: NORTH OF W BELLEVUE ROAD AND JUST EAST OF CANAL CREEK, EAST OF CASTLE AIR FORCE BASE.

Detailed Location: LOCATION MAPPED ACCORDING TO UTM COORDINATES AND MAP.

Ecological:

General: 1 ADULT OBSERVED FLYING/FORAGING OVER OPEN HAY FIELD ON 4 OCT 2006. CURRENT/SURROUNDING LAND: LOW DENSITY AGRICULTURAL PROPERTIES WITH HIGHLY DISTURBED LAND. VISIBLE DISTURBANCE: LONG TERM MANIPULATION OF LAND.

Owner/Manager: UNKNOWN

Athene cunicularia

Element Code: ABNSB10010

burrowing owl

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G4
	State:	Candidate Endangered		**State:**	S2
	Other:	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern			
Habitat:	**General:**	OPEN, DRY ANNUAL OR PERENNIAL GRASSLANDS, DESERTS, AND SCRUBLANDS CHARACTERIZED BY LOW-GROWING VEGETATION.			
	Micro:	SUBTERRANEAN NESTER, DEPENDENT UPON BURROWING MAMMALS, MOST NOTABLY, THE CALIFORNIA GROUND SQUIRREL.			

CENTRAL CALIFORNIA INFORMATION CENTER
California Historical Resources Information System
Department of Anthropology – California State University, Stanislaus
One University Circle, Turlock, California 95382
(209) 667-3307

Alpine, Calaveras, Mariposa, Merced, Mono, San Joaquin, Stanislaus & Tuolumne Counties

Date: 7/25/2025

Records Search File #: 13435I
Project: Castle Air Museum Aviation Pavilion Project

Sonia Ho
Precision Civil Engineering, Inc.
1234 O Street
Fresno, CA 93721
559-449-4500 sho@precisioneng.net

We have conducted a non-confidential extended records search as per your request for the above-referenced project area located on the Atwater USGS 7.5-minute quadrangle map in Merced County.

Search of our files includes review of our maps for the specific project area and the immediate vicinity of the project area, and review of the following:

National Register of Historic Places (NRHP)
California Register of Historical Resources (CRHR)
California Inventory of Historic Resources (1976)
California Historical Landmarks
California Points of Historical Interest listing
Office of Historic Preservation Built Environment Resource Directory (BERD) and the Archaeological Resources Directory (ARD)
Survey of Surveys (1989)
Caltrans State and Local Bridges Inventory
General Land Office Plats
Other pertinent historic data available at the CCaIC for each specific county

The following details the results of the records search:

Prehistoric or historic resources within the project area:

- There are no formally recorded prehistoric or historic archaeological resources within the project area.

- The project area is within the overall boundary of the proposed "Merced Irrigation District" (P-24-001909). According to the current Office of Historic Preservation Built Environment Resource Directory (BERD), this resource has been evaluated with a National Register of Historic Places status of "6Y", determined ineligible for the National

Register by consensus through the Section 106 process, not evaluated for the California Register of Historical Resources or for local listing.

- Three buildings associated with the former Castle Air Force Base are within the project area. All are listed in the Office of Historic Preservation Built Environment Resource Directory (BERD) and shown as evaluated with a National Register of Historic Places status of "6Y", determined ineligible for the National Register by consensus through the Section 106 process, not evaluated for the California Register of Historical Resources or for local listing:

  P-24-000484 Building 1041
  P-24-000485 Building 1048/T-308, Barracks
  P-24-000486 Building 1045/T-358

- The General Land Office survey plat for T6S R12E (dated 1853) shows Section 31 divided into parcels of various acreages; no historic features referenced.

- The 1918 and 1948 editions of the Atwater USGS quadrangle show a former building in the southwest corner of the project area, but no other information regarding this building is currently on file at the Information Center.

Prehistoric or historic resources within the immediate vicinity of the project area: Numerous buildings associated with the former Castle Air Force Base facility are shown with the same "6Y" evaluation status as referenced above in the Office of Historic Preservation Built Environment Resource Directory (BERD.
.

Resources that are known to have value to local cultural groups: None has been formally reported to the Information Center.

Previous investigations within the project area: Four investigations have been conducted that reference the project area:

Napton, L. Kyle (CSU Stanislaus, Institute for Archaeological Research for Russell Associates)
1997 *Cultural Resources Investigations of the Proposed Merced Irrigation District, Atwater-Merced 115-kV Loop, Merced County, California.* CCaIC Report ME-02972

Earth Tech (Earth Tech for Air Force Center for Environmental Excellence)
1994 *Archaeological Investigation of Castle Air Force Base, Merced County, California.* CCaIC Report ME-03318

Earth Tech (Earth Tech for Air Forse Center for Environmental Excellence)
1994 *Architectural and Historic Evaluation of World War II-Era Facilities, Castle Air Force Base, Merced County, California.*
CCaIC Report ME-03319

Holman, M. and R. Hellmann (Holman & Associates, for Jerry Haag, Environmental Consultant, Berkeley, CA)
2008 *An Archival Study to Identify Potential Cultural Resources Located in the City of Atwater General Plan and Program EIR Project Area, Merced County, California.*
CCaIC Report ME-06858

Recommendations/Comments:

If the current project does not include ground disturbance, further study for archaeological resources is not recommended at this time. If ground disturbance is considered a part of the current project, we recommend further review for the possibility of identifying prehistoric or historic-era archaeological resources.

If the proposed project contains buildings or structures that meet the minimum age requirement (45 years in age or older) it is recommended that the resource/s be assessed by a professional familiar with architecture and history of the county. Review of the available historic building/structure data has included only those sources listed above and should not be considered comprehensive.

If at any time you might require the services of a qualified professional the Statewide Referral List for Historical Resources Consultants is posted for your use on the internet at http://chrisinfo.org

If archaeological resources are encountered during project-related activities**,** work should be temporarily halted in the vicinity of the discovered materials and workers should avoid altering the materials and their context until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations. Project personnel should not collect cultural resources.

If human remains are discovered, California Health and Safety Code Section 7050.5 requires you to protect the discovery and notify the county coroner, who will determine if the find is Native American. If the remains are recognized as Native American, the coroner shall then notify the Native American Heritage Commission (NAHC). California Public Resources Code Section 5097.98 authorizes the NAHC to appoint a Most Likely Descendant (MLD) who will make recommendations for the treatment of the discovery.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the State Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local

agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

We thank you for contacting this office regarding historical resource preservation. Please let us know when we can be of further service. Thank you for sending the signed **Access Agreement Short Form.**

Note: Billing will be transmitted separately via email from the Financial Services office ($150.00), payable within 60 days of receipt of the invoice.

If you wish to include payment by Credit Card, you must wait to receive the official invoice from Financial Services so that you can reference the CMP # (Invoice Number), and then contact the link below:

https://commerce.cashnet.com/ANTHROPOLOGY

Sincerely,

E. A. Greathouse

E. A. Greathouse, Coordinator
Central California Information Center
California Historical Resources Information System

* Invoice Request sent to: ARBilling@csustan.edu, CSU Stanislaus Financial Services

8.4 Appendix D: NAHC Correspondence

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 HARBOR BOULEVARD
SUITE 100
WEST SACRAMENTO,
CALIFORNIA 95691
(916) 373-3710

July 29, 2025

Sonia Ho
Precision Civil Engineering

Submitted via Electronic
Via Email to: sho@precisioneng.net

Re: Castle Air Museum Aviation Pavillion Project, Merced County

To Whom It May Concern:

Pursuant to your request, attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Additionally, a search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed based on the information submitted for the above referenced project. The results were negative. Be aware that tribes do not always record their sacred sites in the SLF, nor are they required to do so. As such, an SLF search is not a substitute for consultation with all tribes that are traditionally and culturally affiliated with a project's geographic area. Please contact all of the listed tribes as they may have information about sacred sites within the project area that is not listed with the NAHC.

Additionally, the NAHC recommends that agencies include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

- Any report that may contain site forms, site significance, and suggested mitigation measures.

All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of the Sacred Lands File check conducted through the Native American Heritage Commission.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource, which is why consultation is vital.

This information will aid tribes in determining whether to request formal consultation. If consultation is requested, having the information beforehand will help to facilitate the process.

If you receive notification of a change of address or phone number from a tribe, please inform the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions or require additional information, please contact me at: Pricilla.Torres-Fuentes@nahc.ca.gov.

Sincerely,

Pricilla Torres-Fuentes

Pricilla Torres-Fuentes
Cultural Resources Analyst

Attachment