Initial Study / Mitigated Negative Declaration
Air Traffic Control Tower Construction
French Valley Airport (F70)

March 2025

PREPARED BY:
Mead & Hunt, Inc.
3110 E Guasti Rd, Suite 330
Ontario, CA 91761

ON BEHALF OF:
Riverside County
TLMA-Aviation
4080 Lemon Street, 14th Floor
Riverside, CA 92501

TABLE OF CONTENTS

LIST FIGURES

APPENDICES

APPENDIX G:
ENVIRONMENTAL CHECKLIST FORM

NOTE: The following is a sample form that may be tailored to satisfy individual agencies' needs and project circumstances. It may be used to meet the requirements for an initial study when the criteria set forth in CEQA Guidelines have been met. Substantial evidence of potential impacts that are not listed on this form must also be considered. The sample questions in this form are intended to encourage thoughtful assessment of impacts, and do not necessarily represent thresholds of significance.

---

1. **Project title:** Air Traffic Control Tower Construction at the French Valley Airport (F70)

2. **Lead agency name and address:** Riverside County
TMLA-Aviation
4080 Lemon Street, 14th Floor
Riverside, CA 92501

3. **Contact person and phone number:** Angela Jamison, Director of Airports
(951) 955-9418

4. **Project location:** French Valley Airport
37600 Sky Canyon Dr.
Murrieta, CA 92563

5. **Project sponsor's name and address** Riverside County
TMLA-Aviation
4080 Lemon Street, 14th Floor
Riverside, CA 92563

6. **General plan designation:** Public Facilities (PF)

7. **Zoning:** Manufacturing-Service (M-SC)

8. **Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)**

The French Valley Airport (F70 or "Airport") is a public-use Airport that is owned and operated by the County of Riverside, Transportation and Land Management Agency, Division of Airports (County). F70 is located adjacent to Highway 79 and the City of Murrieta (**Figure 1**). The Airport is 41 nautical miles (nm) southwest of Palm Springs International Airport (PSP). The Temecula Valley is a popular year-round tourist destination.

The Federal Aviation Administration's (FAA's) National Plan of Integrated Airport Systems (NPIAS) categorizes F70 as a General Aviation (GA) Airport that serves a Regional Role (FAA, 2024). Aircraft that operate at F70 include single and multi-engine propeller aircraft (fixed-wing and rotor) and jets. Approach and Departure Control services are provided by the Los Angeles Air Route Traffic Control Center (ARTCC). In 2024, F70 supported approximately 120,000 annual operations, or an average of 329 daily operations. Approximately 2 percent of the operations were air taxi operations, and 98 percent

were GA operations (1200 Aero, 2024). The number of operations provided serves as an estimate, as approximately 10 to 15 percent of the aircraft using F70 are not equipped with Automatic Dependent Surveillance-Broadcast (ADS-B) equipment and are not reflected in the operations count. The County offers hangar rentals, tie-downs, fueling, and aircraft maintenance. The Fixed-Base Operator (FBO) and tenants provide air-charter services (Riverside County, 2024).

The 311-acre Airport includes Runway 18/36, a paved asphalt runway that is 6,000 feet long and 75 feet wide. To facilitate landing operations, Runway 36 is equipped with a Precision Approach Path Indicator (PAPI), Medium Intensity Runway Edge Lights (MIRLs), and Runway End Identifier Lights (REILs). Approximately 88 percent of all aircraft takeoffs are toward the south using Runway 18. Approximately 93 percent of aircraft landings occur on Runway 18. Approximately 90 percent of aircraft operations occur using Visual Flight Rules (VFR). Training activity accounts for 20 percent of total operations (Riverside County, 2024).

Project Purpose

F70 was accepted into the FAA's Federal Contract Tower (FCT) Program as documented in FAA's acceptance letter of July 25, 2022. Pilots in the vicinity of F70 use the Common Traffic Advisory Frequency (CTAF) to communicate. Riverside County, as the Airport Operator / Project Sponsor, proposes to construct an Air Traffic Control Tower (ATCT) to enhance aviation safety by improving air traffic communication, providing improved aircraft separation, and reducing the risk of mid-air collisions and other accidents, runway incursions, and other hazards. Moreover, the addition of an ATCT will support the Airport's role in the regional aviation system and community. The proposed project will not affect air traffic patterns, increase Airport capacity, or affect the fleet mix. The proposed ATCT will be constructed entirely within Airport boundaries, and no property acquisition will be required.

Project Site and Components

To identify a proposed tower site, the County undertook comprehensive airfield analysis and identified three proposed ATCT site locations (Site Nos. 1 through 3) west of Runway 18/36 in accordance with FAA's visibility siting requirements (see **Figure 2**). The 4-acre area that included the three proposed sites is a vacant, previously graded area that includes some low-growing vegetation. The area is surrounded by hangars to the north, a parking lot and the Riverside County Fire Station to the south, aircraft parking aprons and Runway 18/36 to the east, and Sky Canyon Drive to the west.

The FAA evaluated the three sites proposed by the County using the Airport Facilities Terminal Integration Laboratory (ATFIL)-on-the-Road site selection process in May 2024. Following virtual reality modeling and simulations of the views offered by each site, the FAA selected Site No. 1 as the most suitable site (see **Appendix A**). Site No. 1 is located near the midpoint between Runway 18 and Runway 36, approximately 600 feet west of the runway centerline, and provides unobscured views of both runway ends and all movement areas. No potential hazards were identified.

Site No. 1 will be constructed to include an approximately 448-square-foot octagonal cab. The cab will face eastward and include a column-design with two glass panels per side. The ATCT will include a cab floor elevation of 58 feet above ground level (AGL) or 1390 feet above mean sea level (MSL), an observer eye height elevation of 63 feet AGL (1,395 MSL), and a top-of-tower height of 93 feet AGL (1425 MSL) (see **Figures 3 and 4**).

The proposed ATCT tower would include the following components:

- **Cab**: A 448-square-foot cab will be constructed that extends 93 feet AGL.
- **Security Fence**: A chain-link security fence surrounding the tower site.
- **Emergency generator**: An emergency diesel generator with a sub-base tank will be provided to provide power in an emergency only. A designated parking area will be provided for a fuel truck.
- **Clear area**: A 40-foot clear area will be provided between the tower and the fence.
- **Lighting**: Overhead parking lighting at each tower corner.
- **Parking**: Ten parking spaces, including two spaces that comply with the Americans with Disabilities Act.
- **Dedicated Access Road**: A dedicated paved access road will be provided inside Airport boundaries. The access road will be equipped with a motorized security gate to enable secure access to the tower facility. The access road will be designed as a one-way path.

F70 is currently equipped with all utilities needed to construct and operate the ATCT. The proposed project will include utility connections to the ATCT, including:

- **Sanitation pipe**: Approximately 580 linear feet of sanitation pipe will be installed in a trench that will be 5 feet wide by 6 feet deep to provide connection to the ATCT.
- **Electrical connection**: Approximately 520 linear feet of electrical duct bank will be installed to provide electricity to the site. A 4-foot-wide, 3-foot-deep trench will be excavated to install the duct bank. Three-phased electrical power is located near the Airport terminal parking lot.
- **Communication**: Approximately 90 linear feet of FAA communication line will be installed. A 4-foot-wide by 3-foot-deep trench will be excavated to install the communication line.
- **Water line**: A 150-foot water line will be installed to connect to the ATCT. A 5-foot-wide by 6-foot-deep trench will be excavated to install the water line.
- **Site paving and earthwork**: Approximately 450 tons of hot mix asphalt will be required to pave the tower site and associated components. The base course will consist of 400 cubic yards of crushed aggregate. Approximately 1.26 acres of earthwork (55,000 square feet) will be required to a depth of 6 inches.

As shown on **Figure 5**, a 200-foot by 200-foot on-site construction staging area will be established to support project construction. Site workers will travel to the Airport using State Highway 79.

Limits of Disturbance

The overall project area, which includes the tower site and all limits of disturbance, encompasses 3.9 acres. The project site encompasses only 0.5 acre, which includes the tower, associated parking, generator, and fence (0.24 acre or 10,404 square feet), as well as the interior roadway area leading from the public road to the tower encompasses (0.26 acre or 11,135 square feet). The project limits of disturbance are shown on **Figure 6.**

Construction Sequence

Construction of the F70 ATCT is planned to commence in 2026 and requires approximately six months. Maximum staffing needs are anticipated to be 35 construction workers at peak utilization, with an average utilization of 15 construction workers. Anticipated construction equipment includes: a front loader, scraper (613), grader (14M), asphalt paver, haul trucks, striping cart, crane (approximately 120 feet high), compaction roller, pile driver (if required), concrete trucks, water trucks, pickup trucks, compaction jacks, forklifts, and human lifts.

Additional environmental clearances, consultations or permits

- NEPA compliance for FAA approval and inclusion on the Airport Layout Plan
- Underground utilities verification (811)
- Permit to construct the Emergency Backup Generator from the Air Quality Management District (AQMD)

Agencies to use environmental document for CEQA compliance:

Riverside County Board of Supervisors

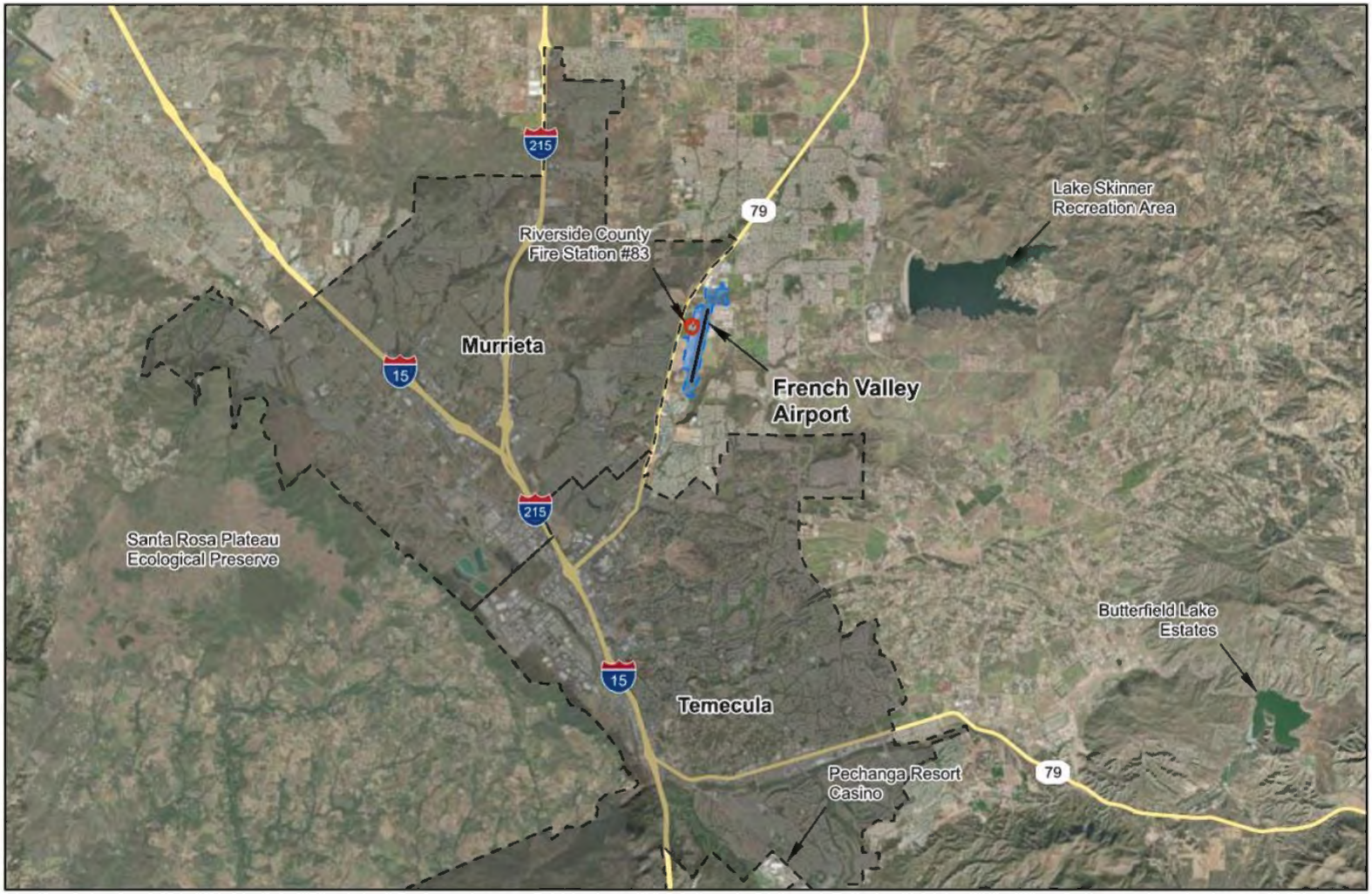


Figure 1
French Valley Airport (F70)
Site Location

Mead & Hunt

RIVERSIDE COUNTY AVIATION

Figure 2
Proposed ATCT Locations

0 1000 2000

FIGURE 2

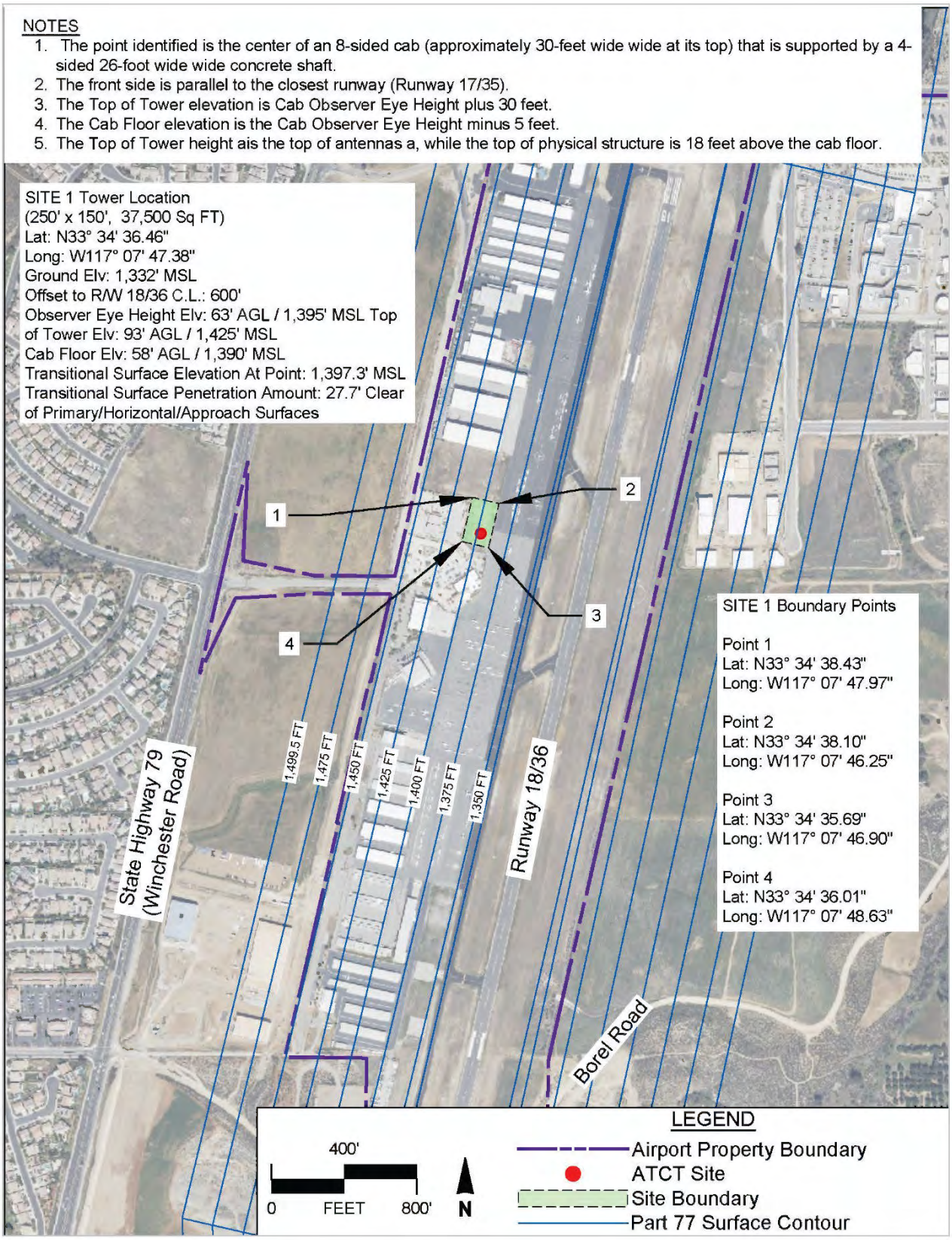


Figure 3
Tower Elevation and Navigable Air Space

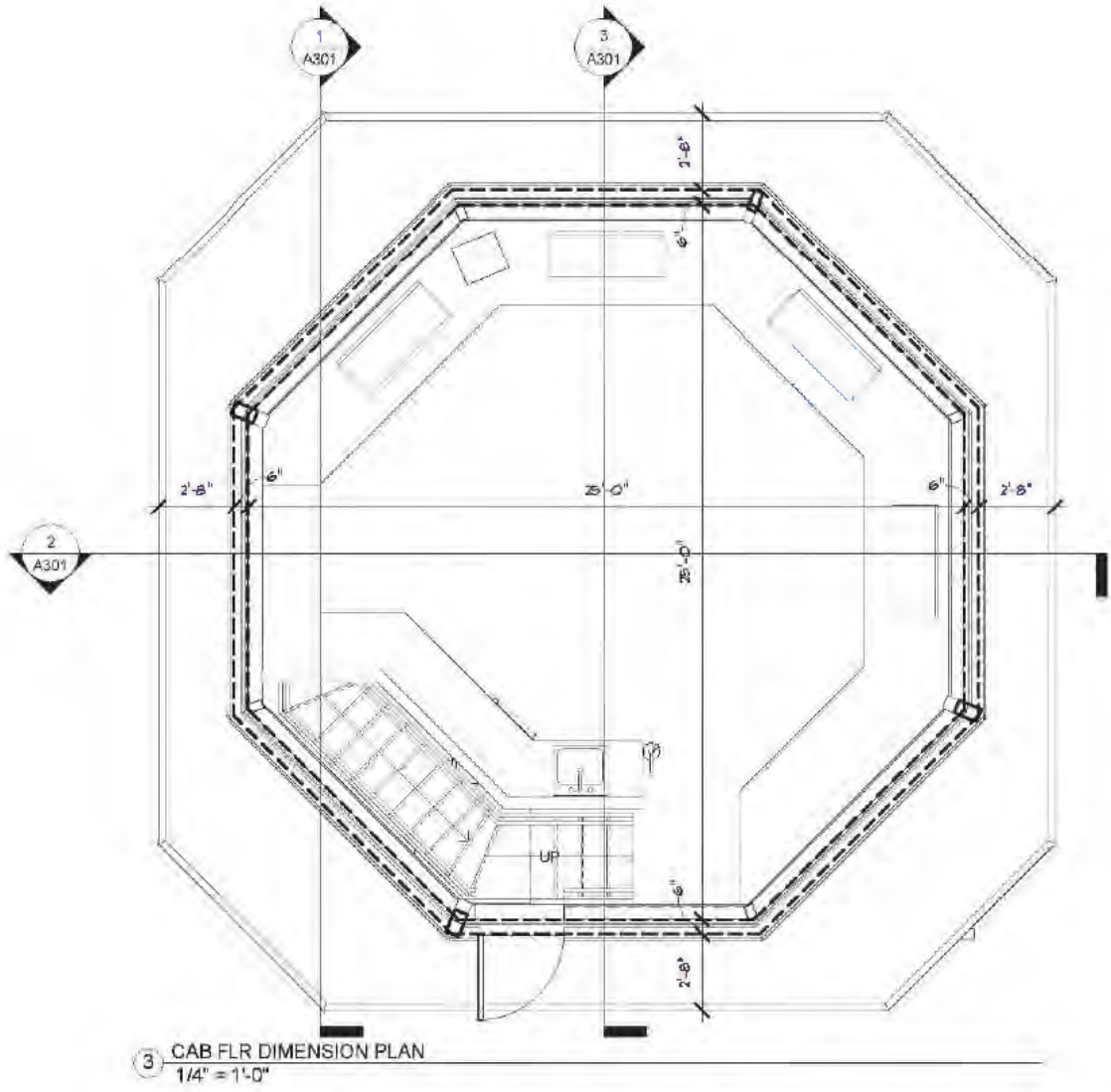


Figure 4
Overhead View of Proposed ATCT
French Valley Airport, Riverside County, CA

Source: CTBX Aviation, 2024

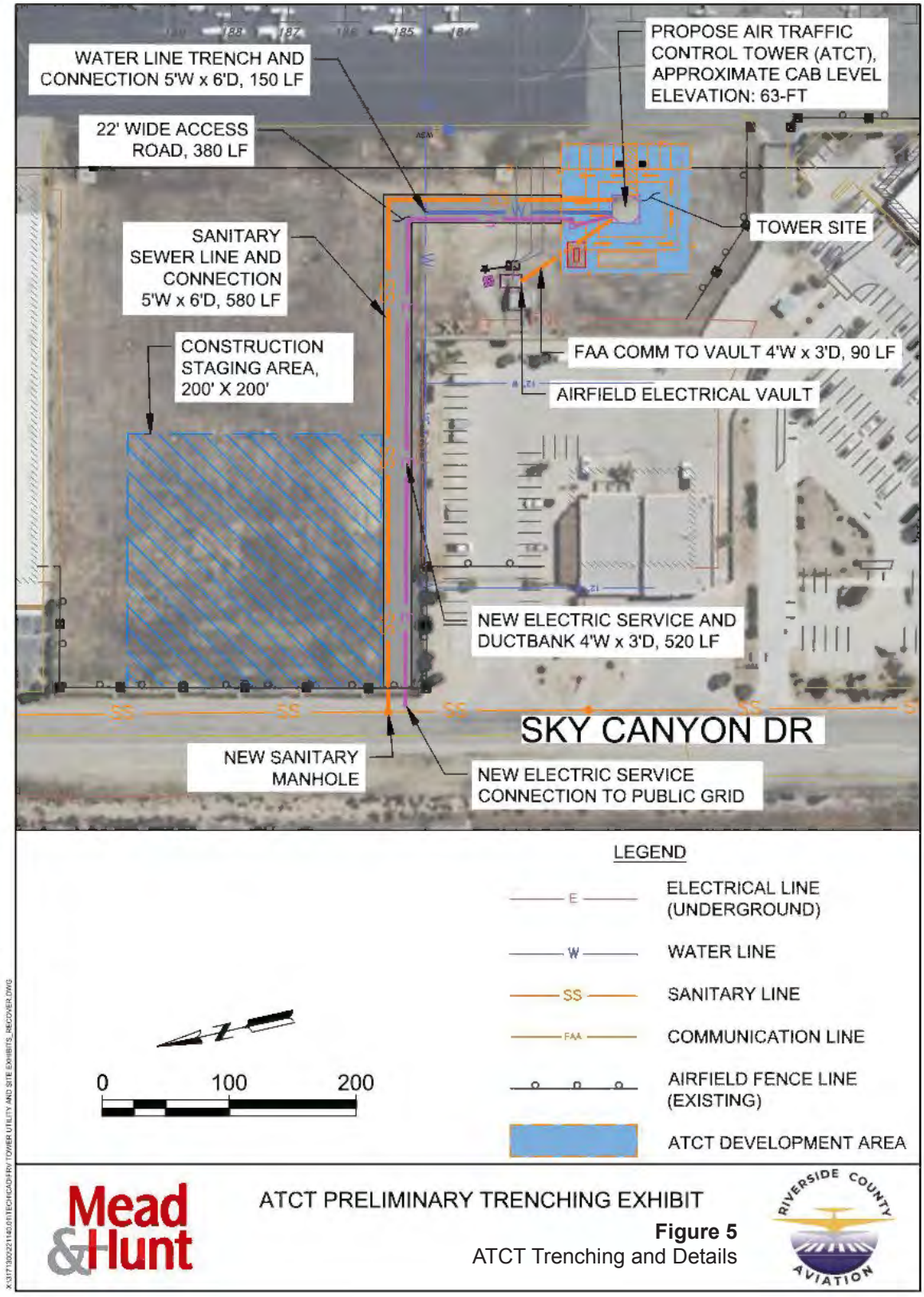


Figure 5
ATCT Trenching and Details

Figure 6
ATCT Area of Disturbance

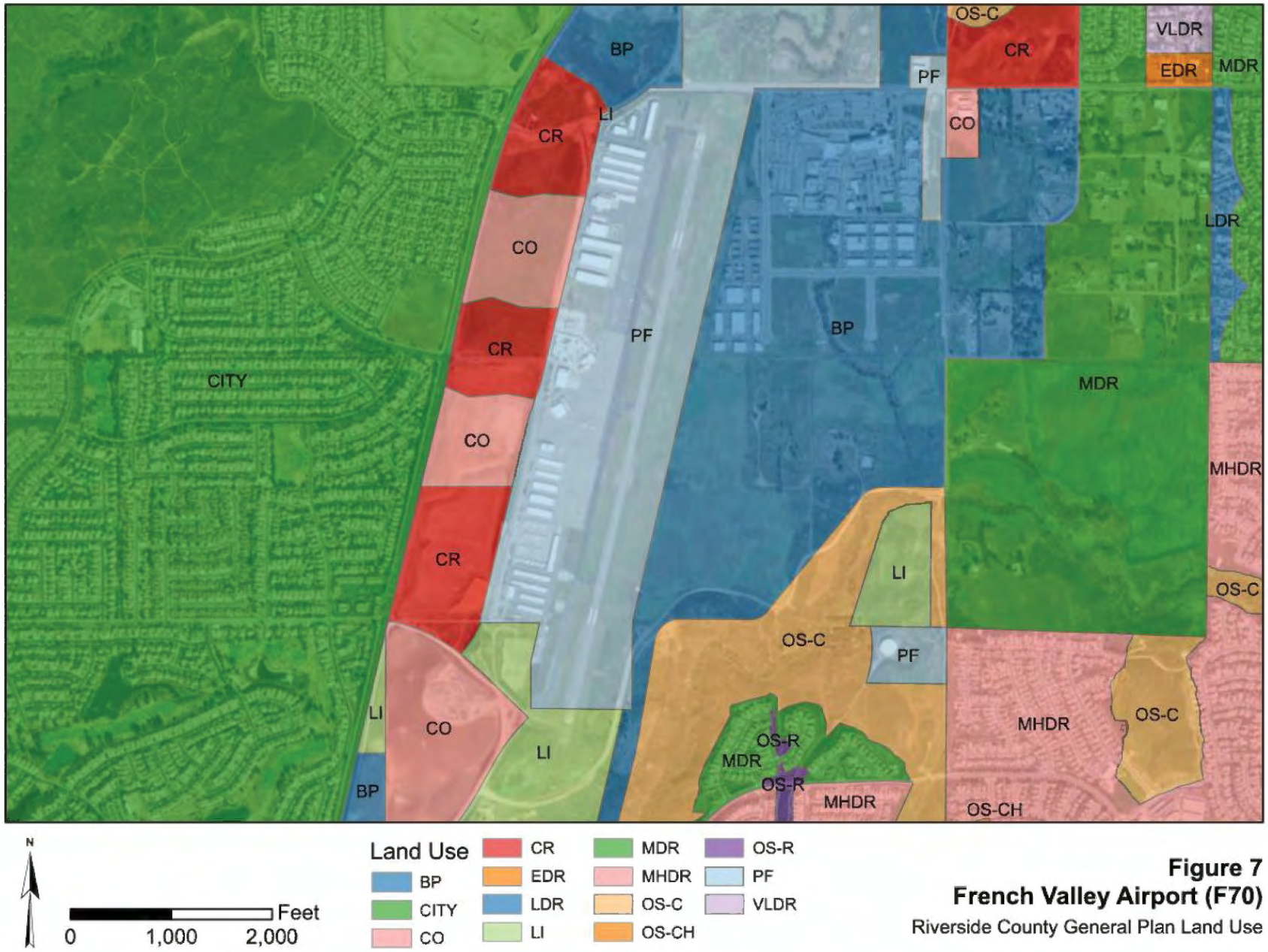


Figure 7
French Valley Airport (F70)
Riverside County General Plan Land Use

9. Surrounding land uses and setting: Briefly describe the project's surroundings:

French Valley Airport is located in southwestern Riverside County, near the cities of Murrieta and Temecula. The site area is generally flat, with sparse vegetation due to the semi-arid climate. The regional climate is typically warm and dry throughout the year, with average winter temperatures ranging from 50 to 70 degrees Fahrenheit and average summer temperatures of 70 to 100 degrees Fahrenheit. The average annual precipitation is about 12 inches.

Adjacent land usage includes a mix of business park, commercial, undeveloped scrub lands, and residential development. The proposed project area will occur entirely within paved or previously disturbed areas. Surrounding land uses include (see **Figure 7**):

- North: Business Park (BP), Public Facilities (PF), Commercial Retail (CR), Open Space-Conservation (OS-C), Estate Density Residential (EDR), Very Low Density Residential (VLDR), Commercial Office (CO)
- East: BP, Medium Density Residential (MDR), Medium High Density Residential (MHDR), Light Industrial (LI), OS-C, Open Space-Cultural / Historical (OS-CH), Open Space-Recreation (OS-R)
- South: LI, CO
- West: BP, CO, CR, LI

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.):

- South Coast Air Quality Management District Permit to Construct a Generator
- Federal Aviation Administration

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1?

If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

☐ NO ☒ YES

Consultation Plan (if YES).

The County reached out to the Native American Heritage Commission (NAHC) to conduct a Sacred Lands Search and to obtain a list of Native American Tribes who might have interest in the project. The County reached out to the tribes on the list provided by NAHC. Three tribes requested consultation during the 30-day response period (the Pala Band of Mission Indians, the Pechanga Band of Indians, and the Rincon Band of Luiseno Indians), one tribe requested additional information to determine whether consultation would be required, and four tribes responded that no consultation was needed. The County responded to all tribes who requested formal consultation (see **Appendix D**).

The County worked with a tribal representative from the Pala Band of Mission Indians to develop project-specific mitigation measures (see **Measure CUL-1 Conduct Cultural Resource Monitoring During Initial Ground Disturbing Activities)**. Approximately 60 days prior to construction, the Project Archaeologist, in consultation with the Monitoring Tribe(s), shall develop a Cultural Resources Monitoring Plan (CRMP) to address the details, timing, and responsibility of archaeological and cultural activities that will occur on the project site such as: project grading and development scheduling.

The CRMP will include the coordination of a monitoring schedule as agreed upon by the Monitoring Tribe(s), the Project Archaeologist, and the County. The CRMP shall identify the protocols and stipulations that the County, Monitoring Tribe(s), and Project Archaeologist shall follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resources. They shall have the authority to stop and redirect excavation in order to evaluate the significance of any archaeological resources discovered within 60 feet of the find.

NOTE: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

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 / Forestry Resources	☐ Air Quality
☐ Biological Resources	☒ Cultural Resources	☒ Energy
☒ Geology / Soils	☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials
☐ Hydrology / Water Quality	☐ Land Use / Planning	☐ Mineral Resources
☐ Noise	☐ Population / Housing	☐ Public Services
☐ Recreation	☐ Transportation	☒ Tribal Cultural Resources
☐ Utilities / Service Systems	☐ Wildfire	☒ Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

☐ 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 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 ENVIRONMENTAL IMPACT REPORT 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.

Signature *Date*

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors, as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on- site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
   a) Earlier Analyses Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
   a) the significance criteria or threshold, if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significance.

I. AESTHETICS				
Issues Except as provided in Public Resources Code Section 21099, would the project:	**Potentially Significant Impact**	**Less Than Significant W/ 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 outcroppings, and historic buildings within a state scenic highway?**				**X**
c) **In nonurbanized 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?**				**X**
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			**X**	

a) The Caltrans Vistas GIS Database was reviewed to determine whether the proposed project would have a substantial adverse effect on a scenic vista. The nearest scenic vista is the Indian Hill Road Vista Point, which is located more than 25 miles northeast of the Airport (Caltrans 2025a). The data indicate that the proposed project would not affect a scenic vista, and no impact would occur. (Caltrans, 2025a).

b) The California State Scenic Highways System Map was reviewed to determine if the proposed project would have an effect on scenic resources. The nearest state scenic highway is a portion of Route 15 located more than 3 miles southwest of the Airport (Caltrans, 2025b). In addition, the Riverside County Circulation Element identifies State- and County-designated and eligible scenic highways. The portion of Highway 79 adjacent to F70 is not designated as a scenic highway (Riverside County, 2015). The proposed project is located within the boundaries of a previously developed Airport, which is surrounded by commercial, industrial, and residential development. No scenic resources were identified in the project area. The proposed project would not have an adverse effect on scenic resources. No impact would occur.

c) The proposed project site is located at an airport located adjacent to Highway 79 and the communities of Murrieta and Temecula. The ATCT is designed to have a cab-level at 93 feet above ground level (AGL) which may be visible from Highway 79 and other public roads, none of which are considered a scenic highway or within a scenic vista (Caltrans 2025a, 2025b). The proposed ATCT would not conflict with applicable General Plan policies regarding scenic resources or other regulations governing scenic quality set forth by Riverside County (Riverside County, 2012). No impact would occur.

d) The ATCT and parking area will include outdoor, downward facing lights for safety and security and to reduce visibility by off-site receptors. The ATCT will include lights to identify the tower location in accordance with FAA regulations at 14 CFR Part 77, Safe, Efficient Use, and Preservation of the Navigable Airspace. The nearest sensitive receptors are residents located approximately 0.25 mile west of the ATCT site. The proposed project will be visible to passersby on adjacent roads. A less-than-significant effect would occur. (Google Earth, 2025).

II. AGRICULTURE AND FORESTRY RESOURCES				
Issues In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:	**Potentially Significant Impact**	**Less Than Significant W/ 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**

a) The California Important Farmland Finder was reviewed to identify important farmland. The data indicates that Airport property is designated as Urban and Built-up Land, and it does not include any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (CA Department of Conservation, 2024a). No cultivation occurs at the Airport, and the proposed project would not convert any farmland to non-agricultural use. No impact would occur.

b) The Riverside County Map My County (MMC) tool was used to determine whether the proposed project would conflict with existing zoning for agricultural use. The MMC tool designates the Airport as Commercial Office (C-O) and Manufacturing-Service Commercial Zone (M-SC) (Riverside County, 2024d). The proposed project does not include or conflict with existing agricultural use or zoning. The California Williamson Act Enrollment Finder was reviewed to confirm that the Airport does not include property enrolled in a Williamson Act contract (CA Department of Conservation, 2024b). No impact would occur.

c) The MMC tool was reviewed to determine whether the proposed project would conflict with existing zoning or cause the rezoning of forest land or timberland zoned for timberland production. The MMC tool did not identify the Airport property as forest land, timberland, or timberland production, and none was identified during field studies (Riverside County 2024d). The proposed project will not conflict with existing zoning or cause the rezoning of forest land or timberland zoned for timberland production (Riverside County, 2024d). No impact would occur.

d) The MMC tool was used to identify the presence of forest land that could be converted as a result of the project. No forest land was identified on Airport property by the MMC tool or during field investigations (Riverside County, 2024d). No impact would occur.

e) The MMC tool was used to determine whether the proposed project would involve other changes in the existing environment that could result in the conversion of farmland to non-agricultural use or the conversion of forest land to non-forest use. No on-site cultivation exists at the Airport, and the MMC confirms that the Airport does include forest or agricultural land (Riverside County 2024d). No conversion of farmland would occur.

III. AIR QUALITY **Issues** Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:	**Potentially Significant Impact**	**Less Than Significant W/ 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	

a-c) The proposed project must comply with the Federal Clean Air Act (CAA). To comply with the CAA, the proposed impacts to air quality must conform to the conditions of the applicable State implementation Plan (SIP), also known as General Conformity. The CEQA thresholds and requirements act as an equivalent to the EPA's *de minimis* thresholds for California projects. If a project's net emissions are less than the thresholds, then the project is considered to be too small to adversely affect the air quality status of the area and is automatically considered to conform with the applicable SIP.

The Airport is located within the South Coast Air Quality Management District (District). The area is in non-attainment for 8-hour ozone and PM2.5 (annual and 24-hour). The County is in maintenance for Particulate Matter (PM) 10, Carbon Monoxide, and Nitrogen Dioxide. The District has adopted Air Quality Plans for 8-hour ozone, PM2.5, PM10, Carbon and Monoxide (South Coast Air Quality Management District, 2025).

An Air Quality Analysis was performed in November 2024 to identify the potential air quality effects associated with ATCT construction and operation (see **Appendix B**). The analysis was conducted using the California Emissions Estimator Model (CalEEMod), which calculates construction and operations emissions from land use development projects and construction emissions from linear projects. The model was used to calculate the short-term construction emissions from the vertical (aerial) and linear project components associated with site preparation, grading, building construction, paving, and architectural coating as well as emissions associated with ATCT operations.

Project-related Construction

Short-term construction emissions were calculated based on emissions from the following sources:

- Exhaust emissions from off-road construction equipment.
- Exhaust emissions from on-road mobile vehicles (workers, vendors, hauling, and on-site trucks).
- Fugitive dust emissions from grading, bulldozing, truck loading, demolition, and on-road vehicles traveling along paved and unpaved roads.
- Evaporative volatile organic compound (VOC) emissions from architectural coating and paving activities.
- Indirect greenhouse gas emissions from electricity consumption.

Project Operation

Emissions associated with project operations were calculated based on the following:

- Daily travel to and from the project site by workers and visitors.

The projected emissions associated with project-related construction and operation were evaluated using the CEQA thresholds for criteria pollutants established by SCAQMD, which provide a minimum threshold for air pollutants by type to assess localized air quality impacts. The analysis concluded that project-level emissions associated with ATCT construction and operation are below *de minimis* thresholds established by SCAQMD (**Appendix B**, **Tables 5 and 6**); The proposed project would not significantly affect air quality, because no criteria pollutant would exceed its respective threshold, and the proposed project would not cause a cumulatively considerable net increase in emissions.

The project will not conflict or obstruct implementation of any of these air quality plans or any others adopted by the District in the future. The proposed project will not cause a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment (8-hour ozone or PM2.5). The proposed project will not conflict or obstruct the implementation of the applicable air quality management plan (Mead & Hunt, 2024a).

Project-level emissions for all criteria pollutants are below regulatory thresholds, therefore, sensitive receptors will not be exposed to substantial pollutant concentrations. The impact is less than significant.

To further reduce potential impacts, Mitigation Measure AQ-1 will be implemented during construction.

- **Mitigation Measure AQ-1. Incorporate County Provisions for Fugitive Dust Control in County Ordinance 742.1 in Construction Documents.** The provisions set forth in Ordinance 742.1 of the County of Riverside to control the fugitive dust and PM10 in Coachella Valley will be incorporated into construction documents to minimize the volume of particulates generated during construction activities (Riverside County, 2024f).

c) Construction activities may result in temporary odors associated with the use of fossil fuels, paints, or finishes; however, the nearest sensitive receptors are associated with residents located approximately 0.25 mile from the Airport. These temporary short-term emissions will not affect sensitive receptors. The impact is less than significant.

IV. BIOLOGICAL RESOURCES **Issues** Would the project:	Potentially Significant Impact	Less Than Significant W/ 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 Wildlife 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 Wildlife or U.S. 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 the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				**X**

a) The County undertook a Biological Resource Assessment (BRA) and Jurisdictional Delineation (JD) in association with the proposed project to identify and document the existing conditions and to evaluate the potential for project-related impacts on sensitive biological resources (see **Appendix C**).

The biological resource investigation included a database search that included the US Fish and Wildlife Service (USFWS) Information for Planning and Consultation system (IPaC; USFWS 2024), the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CDFW 2024), and the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants (CNPS, 2024). The records search identified 12 special-status plant species that have the potential to occur within 3 miles of the Study Area:

- Smooth tarplant (*Centromadia pungens* ssp. *laevis*)
- California Orcutt grass (*Orcuttia californica*)
- San Diego Amborisa (*Amborisa pumlia*)
- Slender-horned spineflower (*Dodecahema leptoceras*)
- Thread-leaved brodiaea (*Brodiaea filifolia*)
- Spreading navarretia (*Navarretia fossalis*)

- Parry's spineflower (*Chorizanthe parryi* var. *parryi*)
- Long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*)
- Wiggins' cryptantha (*Cryptantha wigginsii*)
- Intermediate mariposa-lily (*Calochortus weedii* var. *intermedius*)
- Munz's onion (*Allium munzii*)
- San Diego button celery (*Eryngium aristulatum* var. *parishii*)

A site visit was conducted to confirm the presence or absence of the plant species identified. Based on the results of the site visit, the study area does not provide suitable habitat for any of the special-status plant species, and no special-status plant species was observed during the site visit (**Appendix C**; Caskey 2024).

U.S. Fish and Wildlife Services (USFWS) and California Natural Diversity Database (CDFW, 2024) records were reviewed to identify the potential presence of special status wildlife species. Eighteen special-status wildlife species were identified as having the potential to occur within 3 miles of the Study Area:

- Quino checkerspot butterfly (*Euphydryas editha quino*)
- Monarch butterfly (*Danaus plexippus*)
- Coastal California gnatcatcher (*Polioptila californica californica*)
- Least Bell's vireo (*Vireo belli pusillus*)
- White-tailed kite (*Elanus leucurus*)
- Loggerhead shrike (*Lanius ludovicianus*)
- Burrowing owl (*Athene cunicularia*)
- Tricolored blackbird (*Agelaius tricolor*)
- Northern harrier (*Circus cyaneus*)
- Western spadefoot (*Spea hammondii*)
- Stephen's kangaroo rat (*Dipodomys stephensi*)
- Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)
- Vernal pool fairy shrimp (*Branchinecta lynchi*)
- Riverside fairy shrimp (*Streptocephalus woottoni*)
- Southwestern pond turtle (*Actinemys pallida*)
- Southern California legless lizard (*Anniella stebbinsi*)
- Red-diamond rattlesnake (*Crotalus ruber*)
- Coast horned lizard (*Phrynosoma blainvillii*)

Of the species reviewed, five special-status wildlife species – the monarch butterfly, white-tailed kite, loggerhead shrike, northern harrier, and the coast horned lizard – have the potential to occur within the Study Area. However, no special-status wildlife species or their habitats were observed during the BRA field investigation. The results of the field investigation indicate that no special-status wildlife species are likely to occur in the project area based upon known ranges, habitat preferences, and species occurrence records.

Based on the results of the BRA and JD, the proposed project would not have a substantial adverse effect on any candidate, sensitive, or special-status species. The impact would be less than significant.

b) As documented in the BRA, no riparian habitat occurs within the project area. No impact would occur.

c) Neither the National Wetland Inventory nor the National Hydrography Database identified presence of potential wetlands or waterways within the project area, and none were identified during the field investigation (Caskey, 2024; **Appendix C**). The proposed project will not affect wetlands through direct removal, filling, hydrological interruption, or other means. No impact will occur.

d) Neither wetlands or waters are present in the project area, and the Airport is currently enclosed by a chain-link security fence. The proposed project would be constructed within Airport property. and it would not introduce new barriers to interfere with the movement of any native resident or migratory fish or wildlife species or interfere with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. No impact would occur.

e) No biological resources were identified in the project area (see **Appendix C**). The project site consists of low-lying vegetation and there will be no tree removal as a part of the project. The project will not conflict with any local policies or ordinances that protect biological resources. No impact would occur.

f) The Airport is located within the established boundaries of the Western Riverside County Multiple Species Habitat Conservation Plan (WR-MSHCP), which focuses on the conservation of species and their associated habitats

The WR-MSHCP designates the Airport property in Cell Groups V and W. Cells V and W are covered by the Southwest Area Plan (SAP) under Subunit 5: French Valley / Lower Sedco Hills. The SAP identifies species and biological issues within the planning area. The following biological issues and considerations have been established in the SAP for the area that includes F70:

- Conserve a large block of habitat generally east of I-215 and south of Scott Road for narrow endemic species (i.e., Munz's onion).
- Conserve clay soils supporting long-spined spine flower, Munz's onion and Palmer's grappling hook.
- Maintain Core and Linkage Habitat for Quino checkerspot butterfly.

Although portions of the Airport are located in subunits within the MSHCP, the proposed project site is within an area that the MSHCP designates as zone "0", indicating that it is not identified for conservation. The proposed project will not affect an area designated for conservation. The proposed project will not conflict with the WR-MSHCP (Riverside County, 2024b). No impact would occur.

V. CULTURAL RESOURCES **Issues** Would the project:	Potentially Significant Impact	Less Than Significant W/ Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?				**X**
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		**X**		
c) Disturb any human remains, including those interred outside of dedicated cemeteries?		**X**		

a) The County undertook a cultural resources assessment and evaluation of historical resources in 2024, (Applied Earthworks, 2024; Mead & Hunt, 2024b; **Appendices D and E**). To identify potential historical resources, a Built-Environment Area of Potential Effects (Built Environment APE) was identified and previously recorded historical resources identified on either the National Register of Historic Places (NRHP) or the California Register of Historic Resources were identified within 0.25 mile of the Built Environment APE. This area was reviewed to account for any visual effects that the proposed ATCT would have on historic properties.

A review of previously identified resources, available reports, historic aerial photographs indicates that no extant built-environment resources are present within the APE that exceed 45 years of age; therefore, no built-environment resources are within the Built-Environment APE that would qualify as Historic Properties. No impacts to historic properties would occur as result of the proposed project (Mead & Hunt 2024b; **Appendix E**). No impact would occur.

b) The County established an APE for cultural and archaeological resources and undertook a cultural resources assessment that included the area within 1 mile of the cultural resources APE. The Cultural Resources Assessment included:

- A literature review and records search. A total of 42 cultural resource investigations had been conducted within 1 mile of the APE previously.
- A review of historical maps, and aerial photographs.
- Outreach to the Native American Heritage Commission (NAHC) to conduct a Sacred Lands File Search and obtain a list of tribal contacts. The County subsequently reached out to tribal contacts to alert them to the proposed project and solicit input regarding known resources.
- A pedestrian field survey of the APE, which included the 4-acre project area.

No designated tribal lands are located within Airport boundaries (Applied Earthworks, 2024).

The results of the NAHC Sacred Lands provided with negative results; no Native American cultural properties were identified. The results of the records search and field survey indicated that there is a low likelihood that archaeological deposits or features would be identified during construction, and no future cultural resource management was recommended (Applied Earthworks, 2024; see **Appendix D**).

The NAHC provided a list of Tribal Historic Preservation Officers (THPOs) that might have interest in the proposed project. The County reached out to the Tribal Historic Preservation Officers (THPOs) identified by the NAHC. The County sent letters to representatives on December 19 and 20, 2024, and representatives were asked to respond within 30 days to identify whether formal consultation was requested. (Responses are provided in **Appendix D**.) As shown, representatives from three tribes requested consultation: Another tribe requested additional information but did not

request consultation. Two tribes did not respond to invitations for engagement after additional information was provided.

One tribe engaged in consultation. In response to tribal concerns, the County proposed the following mitigation measures for implementation prior to and during project initial construction.

- **Mitigation Measure CUL-1: Conduct Cultural Resources Monitoring During Initial Ground Disturbing Activities**. The Project Archaeologist and Tribal Representatives shall monitor initial ground disturbing activities. (Ongoing disturbance of the same area will not require ongoing monitoring.) Approximately 60 days prior to construction, the Project Archaeologist, in consultation with the Monitoring Tribe(s), shall develop a Cultural Resources Monitoring Plan (CRMP) to address the details, timing, and responsibility of archaeological and cultural activities that will occur on the project site such as: project grading and development scheduling.

  The CRMP will include measures for the coordination of a monitoring schedule as agreed upon by the Monitoring Tribe(s), the Project Archaeologist, and the County. The CRMP shall identify the protocols and stipulations that the County, Monitoring Tribe(s), and Project Archaeologist shall follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resources. They shall have the authority to stop and redirect excavation in order to evaluate the significance of any archaeological resources discovered within 60 feet of the find (see **Mitigation Measure CUL-2**). A decision regarding the find and its effect on construction activities must be determined within 48 hours.

- **Mitigation Measure CUL-2: Inadvertent Discovery of Native American Cultural Resources.** If during ground disturbance activities unanticipated Native American cultural resources are discovered during the course of grading or ground disturbance for this project, all ground disturbance activities within 60 feet of the resource shall be halted, and a meeting shall be convened among the Project Archaeologist and Native American Tribal Monitor to discuss the significance of the find. At that meeting, a decision will need to be made, with the concurrence of the Airports Division, as to the appropriate treatment of the resource (documentation, recovery, avoidance). Resource evaluations shall be limited to non-destructive analysis. Further ground disturbance shall not resume within the area of discovery until the appropriate treatment has been accomplished. The following procedures shall be carried out for the treatment and disposition, which shall be further described in the project-related CRMP:

  - **Temporary On-Site Curation and Storage:** During the course of construction, all discovered resources shall be temporarily curated in a secure location on site with Native American Tribal Monitor oversight of the process.
  - **Curation:** The County shall relinquish ownership of all cultural resources. The Project Archaeologist, following consultation with the Monitoring Tribe(s), shall deliver the materials to a qualified repository in Riverside County that meets or exceeds federal standards per Code of Federal Regulations (CFR) Title 36, Part 79, and that shall be made available to all qualified researchers and tribal representatives.
  - **Treatment and Final Disposition**: The County shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all cultural materials and nonhuman remains, as part of the required mitigation for impacts to cultural resources.

- **Reporting.** The Project Archaeologist shall prepare a final archaeological report within 60 days of project completion. The report shall follow Cultural Resources Management Plan (CRMP).

The disturbance and destruction of previously unknown cultural resources would result in significant impact. The implementation of **Mitigation Measures CUL-1 and CUL-2** will reduce the potential impact to less than significant with mitigation incorporated.

c) No cultural remains were observed within the project area during field activities associated with the Cultural Resources Assessment, as the area was disturbed by grading and clearing, during Airport development. The Cultural Resources Assessment concluded that it is unlikely that any human remains would be disturbed as part of the project (Applied Earthworks, 2024).

Although the potential to encounter human remains is low, the County developed **Mitigation Measure CUL-3** during tribal consultation:

- **CUL-3: Discovery of Human Remains.** In the event that human remains (or remains that may be human) are discovered within the construction areas, all activity within 60 feet of the find shall be immediately halted. Any discovery of human remains shall be immediately reported by the Project Archaeologist and Native American monitor(s) to the County Coroner. If the human remains are determined to be Native American, the County Coroner shall notify the Native American Heritage Commission (NAHC) within 24 hours. The NAHC shall appoint a Most Likely Descendant (MLD). The MLD shall make recommendation and engage in consultation with the County Airports Division and Project Archaeologist concerning the treatment of the remains as provided in California Public Resources Code 5097.98.
  - The discovery of any Native American human remains and / or funerary objects shall be kept confidential and secure to prevent any further disturbance. In the case where discovered human remains cannot be fully documented and recovered on the same day, the remains and associated funerary objects, sacred objects and / or objects of cultural patrimony shall be covered with an opaque material or placed in opaque cloth bags. A physical barrier (e.g., metal plate, concrete slab that can be moved by heavy equipment) shall be placed over the excavation opening to protect the remains until examination by the MLD. If this type of protective barrier is not available, a 24-hour guard shall be posted outside of working hours.
  - The MLD shall complete the inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The MLD shall identify and direct the most appropriate means of treating the human remains and any associated funerary object(s). As determined through consultation with the County, the MLD shall make recommendations that allow the burial to remain in situ and protected.
  - Once complete, a final report of all activities associated with or resulting from the discovery of human remains shall be submitted to the NAHC.

All discovered human remains shall be treated with respect and dignity. California state law (California Health & Safety Code § 7050.5) and federal law and regulations ([Archaeological Resources Protection Act (ARPA) 16 USC 470 & 43 CFR 7], [Native American Graves Protection & Repatriation Act (NAGPRA) 25 USC 3001 & 43 CFR 10] and [Public Lands, Interior 43 CFR 8365.1-7]) require a defined protocol if human remains are discovered in the State of California regardless if the remains are modern or archaeological.

The disturbance of unknown human remains would be a significant impact. The implementation of **Mitigation Measure CUL-3** would reduce this potential impact to less than significant with mitigation incorporated.

VI. ENERGY **Issues** Would the project:	Potentially Significant Impact	Less Than Significant W/ 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

a) Construction vehicles and equipment will consume petroleum-based products such as gasoline and diesel; however, the use of these energy resources will not result in significant environmental impact. Operations of the proposed project area will include the use of electricity, which is available at the Airport.

The proposed ATCT will be equipped with an emergency generator to enable ATCT operations to continue during power interruptions, and it is anticipated that the generator would require the use of diesel fuel. The South Coast AQMD defines an emergency backup generator as a standby internal combustion engine that does not operate more than 200 hours per year and only operated in the event of an emergency or for routine testing. A permit to construct is required from the South Coast AQMD prior to the installation of internal combustion engines, including emergency generators (South Coast AQMD, 2025).

The installation and operation of a backup generator in the absence of a permit from the South Coast AQMD would be considered a significant impact. The implementation of Mitigation Measure Energy – 1 would reduce this potential impact to less than significant:

- **Mitigation Measure Energy-1. Obtain Permit to Construct from the South Coast AQMD.** Prior to selection and installation of an emergency backup generator, the County shall consult with the South Coast AQMD regarding the proposed emergency generator and obtain a permit to Construct the emergency generator.

b) As described previously, an Air Quality Analysis was conducted for the proposed project. The proposed project will not obstruct any state or local plans for renewable energy. The project will follow energy measures established by the County's Climate Action Plan, the General Plan, and California Building Code Title 24 (County of Riverside, 2019). No impact would occur.

VII. GEOLOGY AND SOILS **Issues** Would the project:	Potentially Significant Impact	Less Than Significant W/ 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 direct or indirect risks to life or property?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water 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		

a) The project will cause either no impact or a less-than significant impact associated with potential substantial adverse effects, including the risk of loss, injury, or death involving.

i) **Earthquake Fault Zones.** F70 is located within the Temecula Quadrangle and the Elsinore Earthquake Fault Zone (CA Department of Conservation, 2024c). There are no active fault traces that pass through the Airport that have the potential for rupture.

The nearest portion of the Elsinore Earthquake Fault Zone is the Wildomar Fault, located approximately 4 miles southwest of the Airport (CA Department of Conservation, 2024c). ATCT construction will comply with state and local laws including, but not limited to, the Alquist-Priolo Earthquake Fault Zoning Act, the Seismic Hazards Mapping Act, California Building Standards Code, and the County of Riverside Building Code.

ii) **Strong seismic ground shaking.** The seismic ground shaking in the area is identified as Moderate based on a Magnitude 7.0 Scenario Earthquake projected by the USGS Earthquake Hazards Program (USGS, 2024). ATCT design and construction will conform to appropriate state laws and codes including: the Alquist-Priolo Earthquake Fault Zoning Act, the Seismic

Hazards Mapping Act, California Building Standards Code, and the County of Riverside Building Code. The potential effect of the proposed project would be less than significant.

iii) **Seismic-related ground failure, including liquefaction.** The Airport is not located within a liquefaction zone (CA Department of Conservation, 2024c). No impact would occur.

iv) **Landslides.** The Airport is not located in a landslide or liquefaction / landslide overlap zone (CA Department of Conservation, 2024c). No impact would occur.

b) The proposed project will not result in substantial soil erosion or the loss of topsoil. The proposed project was previously graded. To prevent substantial erosion or the loss of topsoil, the construction contractor will be required to develop and implement a Sediment and Erosion Control Plan during construction activities. The impact is less than significant.

c) The proposed project is not located on an unstable geologic unit or soil. The proposed project will not cause the area to become unstable or result in landslide, lateral spreading, subsidence, liquefaction, or collapse (CA Department of Conservation, 2024c). No impact would occur.

d) The Airport is not located on or near expansive soil and will not create substantial direct or indirect risks to life or property:

- The Airport is located on very old alluvial channel deposits (Qvoa), which consist of moderately to well-indurated, reddish-brown, mostly very dissected gravel, sand, silt, and clay-bearing alluvium (USGS, 2024a).
- Underlying soils include Bosanko clay, 2 to 9 percents, Buchenau silt loam, 2 to 8 percent slopes, eroded, and Ramona sandy loam, 5 to 8 percent slopes, eroded.
- The frost-free period for the soils ranges from 230 to 362 days, with a mean annual air temperature between 61 to 65 degrees Fahrenheit, which limits the amount of expansion and shrinking of the soil.

The proposed project would not be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994) to create a substantial direct or indirect risk to life or property cause an area to become unstable. No impact would occur.

e) The proposed ATCT will include a connection to the existing sewer facilities at the Airport. No septic tanks or alternative wastewater disposal systems will be required. No impact would occur.

f) The County considered the presence of paleontological resources in the study area. A consulting Paleontologist reviewed available geologic maps, paleontological literature and museum records search to identify the potential for encountering paleontological resource during project construction (see **Appendix F**).

Riverside County has assigned various paleontological sensitivity rankings to the various geologic units exposed within its boundaries—Low, Undetermined, High A (Ha), and High B (Hb) Potential (County of Riverside, 2015). According to the Riverside County Planning Department (2015) paleontological sensitivity map, the entire project area is mapped as Low; however, the surficial geology of the project area is mapped as early to middle Pleistocene2 old axial-channel deposits (Qvoaa). Unit Qvoaa includes well consolidated and moderately indurated deposits dominated by sand with some gravel and pebble layers as well as silt and clay-rich alluvium (Applied Earthworks, 2024). The presence of Qvoa sediments at the surface within the project area are conducive to the preservation of fossils, and multiple paleontological resources have been recovered from similar geologic units in the Airport vicinity; therefore, the paleontological evaluation indicated that the sensitivity ranking should be considered High A or B ranking based on the records of fossil occurrence at the surface or at depths below 4 BGS.

Paleontological resources are protected under CEQA, and the Riverside County's General Plan, Multipurpose Open Space (OS) element, includes several policies governing the potential presence of paleontological resources. Policy OS 16.6 states, "Whenever existing information indicates that a site for development has a high paleontological sensitivity…a Paleontological Resource Impact Mitigation Program (PRIMP) with the Riverside County Geologist prior to site grading." As a result of the demonstrated high sensitivity of sedimentary beds within the Project area, the County's archaeological consultant recommended that a qualified paleontologist prepare a PRIMP prior to the start of project-related, ground-disturbing activities,

The proposed project has the potential to directly or indirectly destroy a unique paleontological resource, which would be considered a significant impact. However, this impact can be reduced to less than significant with the application of Mitigation Measure PALEO-1:

- **Mitigation Measure PALEO-1**. **Discovery of Previously Unknown Paleontological Resources.** The County shall establish monitoring procedures and discovery protocols, based on industry-wide best practices for paleontological resources that may be encountered during earth-disturbing activities in a PRIMP. The Project Paleontologist shall prepare a PRIMP to identify where construction monitoring will be required during project activities and the frequency of monitoring required (i.e., full-time, spot checks, etc.); address the collection and processing of sediment samples to analyze for the presence or absence of micro vertebrates and other small fossils; provide details about fossil collection, analysis, and curation at an approved repository; and describes the different reporting standards for monitoring, and worker environmental awareness training.

The direct or indirect destruction of a unique paleontological resource or site or unique geologic feature would be a significant impact. The implementation of Mitigation Measure Paleo-1 will reduce the potential effect to less than significant.

VIII. GREENHOUSE GAS EMISSIONS **Issues** Would the project:	**Potentially Significant Impact**	**Less Than Significant W/ 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**

a) The County undertook an air quality analysis in association with the proposed project (see **Appendix B**). The results of the air quality analysis indicated that emissions for all criteria pollutant are below regulatory thresholds (Mead & Hunt, 2024a). The project will have a less than significant effect associated with the emission of greenhouse gas emissions during construction and operation.

b) The proposed project will comply with energy measures established by the November 2019 County of Riverside Climate Action Plan Update (CAP). The energy measures outlined in the CAP correspond to the Implementation Measures included in the General Plan and measures identified by the State of California (i.e., California Building Code Title 24) (County of Riverside, 2019).

The proposed project will not conflict with any plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. No impact will occur.

IX. HAZARDS AND HAZARDOUS MATERIALS **Issues** Would the project:	**Potentially Significant Impact**	**Less Than Significant W/ 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?				
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 § 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 or excessive noise 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**

a-b) Construction of the proposed project will include the use of petroleum-based fuels and lubricants. Following construction, the proposed project will include the operation of a diesel-fueled generator to maintain operations during emergencies that result in power outages.

Contractor vehicles and construction equipment contain petroleum-based fuels and lubricants that are classified as hazardous materials. Standard construction management techniques and Best Management Practices (BMP), such as the implementation of the Airport's Spill Prevention Control and Countermeasures (SPCC) Plan during construction activities will prevent an accidental release of these materials. The proposed project will not create a significant hazard to the public or the environment. As identified in the project description, the generator will rest on a concrete pad adjacent to the ATCT and equipped to contain diesel fuels in the event of an accidental release. The proposed project would cause a less-than-significant risk to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials.

c) The nearest school is the Monte Vista Elementary School located 0.85 mile west of the project site. The project will not emit hazardous emissions or handle hazardous or acutely hazardous materials within 0.25 mile of a school. No impact would occur.

d) The County reviewed available databases to identify the presence of hazardous materials sites compiled pursuant to Government Code § 65962.5. The proposed project is not located on a hazardous material site (CA Department of Toxic Substances Control, 2024). No impact would occur.

e) Riverside County prepared and adopted an Airport Land Use Compatibility Plan (ALUCP) for the French Valley Airport in 2012. The proposed project is located on the Airport and within the Airport Influence Area identified in the ALUCP. The proposed project will not require plan revision.

The proposed ATCT is a safety improvement project that will enhance communication among aviators and improve safety for aviators and people living and working on or near the Airport. The proposed ATCT will not increase Airport capacity, affect the type of aircraft that operate at F70, or affect flight paths; therefore, the proposed ATCT will not affect aircraft noise exposure to create excessive noise for people working in the project area. No impact would occur.

f) The project will be located within Airport boundaries, and proposed neither temporary nor permanent impacts to nearby road way systems will occur to affect community connectivity. The proposed project will not impair the implementation or physically interfere with any adopted emergency response plan or emergency evacuation plan. No impact would occur.

g) The proposed project will be located within Airport property boundaries. It will not create or expose people or structures to a risk of loss, injury, or death involving wildland fires. No impact would occur.

X. HYDROLOGY AND WATER QUALITY **Issues** Would the project:	**Potentially Significant Impact**	**Less Than Significant W/ 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:				**X**
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 offsite;			**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**

a) F70 is equipped with a stormwater drainage system, water supply system, and water facilities that serve the Airport as a whole. The proposed ATCT will include connections to the existing stormwater drainage system, and a storm drain is present in the project area. Operation of the proposed project will include connections to the waste and sanitary systems, and the proposed

project will not violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality.

Construction of the proposed project will include the development of and implement a project-specific stormwater pollution prevention plan (SWPPP) by the project contractor in accordance with local codes and regulations, The SWPPP will include the implementation of Best Management Practices (BMPs), such as the implementation of a sediment and erosion control plan and other measures to prevent potential construction-related erosion both on site and off site. Construction-related runoff associated with project construction would be directed to the existing Airport drainage system.

A National Pollutant Discharge Elimination System (NPDES) permit will be required for construction, the permit will include implementation of standard water quality control measures. The Riverside Water Quality Control Board (RWQCB) has established water quality standards required by the Clean Water Act and regulates discharges to ensure compliance with water quality standards. The proposed project will comply with local regulations and construction codes, and it will not violate any water quality standards or waste discharge requirements. No impact would occur.

National Pollutant Discharge Elimination System (NPDES) permit will be required for construction, the permit will include implementation of standard water quality control measures. The RWQCB has established water quality standards required by the Clean Water Act and regulates discharges to ensure compliance with water quality standards.

The proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. No impact would occur.

b) The proposed project would not substantially decrease groundwater supplies or substantially interfere with groundwater recharge to impede sustainable groundwater management of the basin.

F70 is located in the Temecula Valley Groundwater Basin. The proposed project does not include a connection to groundwater source. Neither project construction nor operation will require the use of groundwater, and project related runoff associated with the additional 0.5 acre of impervious surface will be directed to existing stormwater management facilities at the Airport, which include water quality management measures. The proposed project will not interfere with groundwater recharge or impede sustainable groundwater management. No impact would occur.

c) The proposed project would not substantially alter the existing drainage pattern of the site or area, and it would not alter the course of a stream or river or through the addition of impervious surfaces.

   i) Operation of the proposed project will not result in substantial erosion or siltation on- or off-site. As previously mentioned, the construction contractor will be required to develop and implement a SWPPP and Sediment and Erosion Control Plan in accordance with RWQCB requirements. The project-specific SWPPP will include applicable BMPs to prevent substantial erosion or siltation. All project related runoff would be directed to existing on-site stormwater management facilities. A less-than-significant impact would occur.

   ii) The proposed project is located in a previously distributed and graded portion of the Airport property. Approximately 0.5 acre of new impervious surface will be created in this previously disturbed area. On-site site runoff will be directed or connected to existing drainage facilities serving the Airport, which include sufficient capacity to address development within Airport

boundaries. The proposed project will not result in on-site or off-site flooding. A less-than-significant impact would occur.

iii) Drainage from the new pavement and project area will be directed into an existing drainage ditch and directed to the Airport's existing stormwater drainage system, which has the capacity to accept the slight increase in stormwater runoff. The proposed project will not 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. A less than significant impact would occur.

iv) The Airport includes sufficient stormwater management and drainage infrastructure to accommodate the proposed project, and the proposed project would include connections to these facilities. The proposed project would not impede or redirect flood flows. No impact will occur.

d) The Airport is not located within a flood, tsunami, or seiche zone (CalOES, 2024). The French Valley Airport is included within the bounds of Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map No. 06065C2710H and 06065C2730H dated September 12, 2024. The project area is not located within the 500-year or 100-year flood hazard areas (FEMA, 2024). The Airport is approximately 28 miles east of the Pacific Ocean. No impact would occur.

e) The proposed project will not conflict with or obstruct the implementation of a water quality control plan or sustainable groundwater management plan. The Airport is located in the Santa Margarita Watershed. The Temecula Valley and the watershed are within the jurisdiction of the San Diego Regional Water Quality Control Board (RWQCB). The region developed the *Water Quality Control Plan (WQCP)* has been established for the San Diego Region to preserve and enhance the quality of water resources for the San Diego Region (California Water Board, 2024). The project will not conflict with or obstruct the implementation of any other WQCP or the applicable sustainable groundwater management plan. No impact would occur.

XI. LAND USE AND PLANNING **Issues** Would the project:	**Potentially Significant Impact**	**Less Than Significant W/ 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**

a) The proposed project is located entirely on Airport property. It will not involve the construction of new facilities or interrupt access to divide an established community. No impact will occur.

b) The proposed project is subject to the Western Riverside County MSHCP and the Riverside County ALUCP.

- As previously described the proposed project is within the area associated with the Western Riverside County MSHCP, but the proposed project is not located in an area designated for habitat conservation.

- The proposed project is consistent with the Riverside County ALUCP. The proposed Airport project will not affect the runway length, aircraft operations, or fleet mix; therefore, it will not necessitate changes to the ALUCP.

The proposed plan will not conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect. No impact will occur.

XII. MINERAL RESOURCES **Issues** Would the project:	**Potentially Significant Impact**	**Less Than Significant W/ Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Result in the loss of availability of a known mineral resource that would be a 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**

a) California Department of Conservation records were reviewed to identify the location of known mineral resources, and none were identified in the project vicinity. The nearest known mineral resource is a stone site (Rosemary's Mountain Quarry), which is more than 15 miles south of the project site (California Department of Conservation, 2024d).The project site is not located within an area of known mineral resources; therefore, the proposed project would not result in a loss of known mineral resources that would be valuable to the region or state. No impact would occur.

b) The Riverside County General Plan designates the project site as a public facility (Riverside County Planning Department, 2015). The proposed project is not located within an area of known mineral resources; therefore, the proposed project will not result in the loss of a locally important mineral resource recovery site. No impact would occur.

XIII. NOISE **Issues** Would the project:	Potentially Significant Impact	Less Than Significant W/ 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	

a) The Riverside County's General Plan, Noise Ordinance, and the Riverside County Airport Land Use Compatibility Plan for the French Valley Airport (Riverside County Planning Department, 2015) were reviewed to determine whether the proposed project would result in substantial temporary or permanent increases in noise levels that would excess of the general plan policies.

Construction of the proposed project will result in temporary construction-related noise associated with the use of construction vehicles and equipment. The Riverside County Noise Ordinance exempts capital improvement projects of a governmental agency. The Riverside County General Plan's Noise Element provides policies pertaining to temporary construction noise. Policies N13.1, N.13.2, and N13.4 would apply to the proposed project.

- Policy N 13.1. Minimize the impacts of construction noise on adjacent uses within acceptable practices.
- Policy N 13.2. Ensure that construction activities are regulated to establish hours of operation in order to prevent and / or mitigate the generation of excessive or adverse noise impacts on surrounding areas.
- Policy N.13.4. Require that all construction equipment utilizes noise reduction features (e.g. mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.
- Policy N 7.1 New land use development within Airport Influence Areas shall comply with Airport land use noise compatibility criteria contained in the corresponding Airport land use compatibility plan for the area. Each Area Plan affected by a public-use Airport includes one or more Airport Influence Areas, one for each Airport. The applicable noise compatibility criteria are fully set forth in Appendix I-1 and summarized in the Policy Area section of the affected Area Plan.
- N 7.2 Adhere to applicable noise compatibility criteria when making decisions regarding land uses adjacent to Airports. Refer to the Airports section of the Land Use Element (Page LU-32) and the Airport Influence Area sections of the corresponding Area Plans.
- N 7.4 Check each development proposal to determine if it is located within an Airport noise impact area as depicted in the applicable Area Plan's Policy Area section regarding Airport Influence Areas. Development proposals within a noise impact area shall comply with applicable Airport land use noise compatibility criteria.

ATCT Construction

The proposed project does not include nighttime construction. Construction activities will be limited to the hours of 7 AM to 7 PM to prevent potential impacts to sensitive receptors, such as the residential areas located approximately 0.25 mile west of the Airport. In addition, project-related construction documents will identify County noise policies related to the hours of construction and the use of noise-reduction features on construction equipment that are at least equal to those features originally installed by the manufacturer.

The Riverside County Noise Ordinance (Ordinance No. 847 as amended) identifies acceptable noise levels at public facilities to be within 65 Decibels between 7 AM and 10 PM and at 45 decibels overnight (10 pm to 7 am). Construction-related noise will be limited to between the hours of 7 AM and 7 PM and will not exceed 65 decibels at the location of the nearest sensitive receptors, which are residents living approximately 0.25 mile from the project site (Riverside County, 2024e).

The proposed ATCT is located on within the Airport Influence Area for the French Valley Airport; the project is compatible with aviation, and its location is fixed by function.

ATCT Operation

Noise associated with proposed ATCT operations will be limited to indoor noise associated with air traffic control and the emergency use of a diesel generator during power outages. This noise will not be perceptible to sensitive receptors located approximately 0.25 mile from the proposed ATCT.

The proposed project will not result in temporary or permanent increases that will exceeds the standards established in the local general plan or conflict with the County's noise ordinance. Although the proposed noise impacts are less than significant, implementation of Mitigation Measures Noise-1 and Noise-2 mitigation measures will further reduce the potential for noise impacts:

- **Mitigation Measure Noise-1.** Construction documents will specify that all project-related construction activities will occur between the hours of 7AM and 7 PM.
- **Mitigation Measure Noise-2**. Construction documents will require that all construction equipment be equipped with noise reduction features (e.g. mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

General Plan and Land Use Compatibility

b) The proposed projects will result in temporary increases in groundborne vibration and noise. Potential impacts will be reduced to less than significant and further reduced with the application of **Mitigation Measures Noise-1 and Noise-2**. A less than significant impact would occur.

c) The proposed project is located at a public use Airport and in a location that is fixed by function. The project site is within the 65 to 70 and 70 to 75 California Noise Exposure Level (CNEL) noise contours identified in the adopted Riverside County ALUCP. The proposed project is located at a public use Airport, and the Airport vicinity is governed by the Riverside County Airport Land Use Compatibility Plan and the specific policies associated with F70 (Riverside County, 2012). The project will not cause a change in aircraft patterns or the fleet mix. There will be no permanent increase in aircraft noise exposure to those residing or working in the area.

Construction workers will be exposed to aircraft noise throughout the construction period at levels exceeding 65 CNEL, which would result in a significant impact. **Mitigation Measure Noise-3** will be implemented to reduce noise exposure at elevated levels during construction activities:

- **Mitigation Measure Noise 3. Identify the need for personal protective equipment for hearing protection by construction personnel in contract documents.** Construction documents will identify that the proposed project is located on an Airport and within an area that will include aircraft noise exposure at levels exceeding 65 CNEL and require the use of hearing protection by Construction workers to the extent practicable.

The implementation of **Mitigation Measure Noise-3** will reduce noise exposure at excessive levels by people working in the project area to less than significant.

XIV. POPULATION AND HOUSING **Issues** Would the project:	**Potentially Significant Impact**	**Less Than Significant W/ 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**

a) During the estimated 6-month construction period, a maximum of 35 construction workers per day would be required. The proposed project will not create the need for temporary construction workers to relocate to the project area. Operation of the proposed project would require an average of three air traffic controllers per day (one per 8-hour shift) and a maximum of six full-time air traffic controllers (two per 8-hour shift). Department of Housing City / County Population and Housing Estimates identified a total of 1,267 vacant housing units in the City of Murrieta in 2024, and a total of 1,323 vacant housing units in the City of Temecula in 2024 (CDF, 2025). Available housing is sufficient to accommodate temporary construction workers and a maximum of six full-time ATCT workers.

Neither construction nor operation of the proposed project would induce population growth to create direct or indirect housing or infrastructure needs. No impact would occur.

b) The project is located on Airport property and will not displace people or housing to necessitate the need for replacement housing elsewhere. In addition, the cities of Murrieta and Temecula have a sufficient number of vacant housing units to accommodate temporary construction workers and up to six full-time controllers. Neither construction nor operation of the proposed project would displace people or housing to necessitate the need for replacement housing elsewhere. No impact would occur.

XV. PUBLIC SERVICES **Issues** Would the project:	Potentially Significant Impact	Less Than Significant W/ 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:				X
i) Fire protection?			X	
ii) Police protection?			X	
iii) Schools?			X	
iv) Parks?			X	
v) Other public facilities?				X

a) The proposed ATCT will not induce population growth or require additional government services. The project will be served by the existing emergency response providers and will not create a need for additional fire, sheriff, or other services to maintain response times. No impact would occur.

i) The project site is located adjacent to Riverside County Fire Station 83; however, and ATCT construction will not affect operations of the station. The project includes the use of a temporary haul route (Sky Canyon Drive) during construction that would direct traffic west of the fire station, which avoids entrances and exits to and from the station. The Fire Station would serve the ATCT following construction. A less-than-significant impact is anticipated.

ii) The Airport is served by the Riverside County Sheriff's Department. The project will not create a significant increase in population to create an increased need for police protection. A less-than-significant impact would occur.

iii) The nearest school is the Monte Vista Elementary School located 0.85 mile west of the Project Area. The proposed project would require a maximum of six full-time employees. The proposed project will not induce population growth to create the need for new or modified school use facilities. A less-than-significant impact would occur.

iv) The nearest park is the Shady Maple Park, located approximately 0.5 mile west of the Airport. The proposed project will not create the need for additional park facilities. A less-than-significant impact would occur.

v) The project site is entirely within Airport property boundaries and will not affect or create the need for additional public facilities. No impact would occur.

XVI. RECREATION Issues	Potentially Significant Impact	Less Than Significant W/ Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project 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

a) The project is located entirely on Airport property. While it is possible that up to six full-time controllers would use parks and recreational facilities during time off, this incremental increase in use would not result in the physical deterioration in these facilities. The potential effect is less than significant.

b) The proposed project does not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. No impact would occur.

XVII. TRANSPORTATION Issues Would the project:	Potentially Significant Impact	Less Than Significant W/ 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

a) The Circulation Element of the County's General Plan was reviewed to determine if the proposed project would conflict with any program, plan, ordinance, or policy addressing the circulation system. Construction of the proposed project will temporarily create traffic near the Airport, specifically on Sky Canyon Drive and Winchester Road. During the 6-month construction period, a maximum of 35 construction workers are anticipated at peak utilization, with an average of 15 construction workers on-site per day. During operation, an average of three and a maximum six air traffic controllers would be present daily. The proposed project does not conflict with any program, plan, ordinance, or policy addressing the circulation system of the County. The addition of up to 70 trips per day during construction and up to 12 trips per day during operation would not reduce the level of service on adjacent roads. A less-than-significant impact would occur.

b) To determine if the proposed project would conflict or be inconsistent with Section 15064.3, subdivision (b), the SunLine Transit Agency's System Map was reviewed (SunLine Transit Agency, 2024). The System Map showed that the project is not within ½-mile of an existing major transit stop or a stop along an existing high quality transit corridor; therefore, the project will not

significantly affect transportation. The project will not conflict or be inconsistent with Section 15064.3, subdivision (b). No impact would occur.

c) The proposed project will be constructed within Airport boundaries, and it will not require the alteration public roads to increase hazards due to geometric designs or incompatible uses. No impact would occur.

d) The proposed project will be located within Airport boundaries and include the construction of an internal access road to the ATCT. The internal access road will be separate and apart from the road associated with Riverside County Fire Station No. 83 to prevent conflicts. Neither tower construction nor operation will interrupt access to the adjacent Fire Station. No impact would occur.

XVIII. TRIBAL CULTURAL RESOURCES Issues	Potentially Significant Impact	Less Than Significant W/ Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 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:				
i) 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				**X**
ii) 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 § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		**X**		

i) According to the Cultural Resources Assessment, no listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources were identified within the APE. The Cultural Resource Assessment included a Sacred Lands File search with the Native American Heritage Commission (NAHC). The NAHC stated in a letter dated July 9, 2024, that the Sacred Lands File search was completed with negative results (Applied EarthWorks, 2024). No impact would occur.

ii) The cultural resources investigation conducted in support of the proposed project included a literature review and outreach to the NAHC, and consultation with identified tribal representatives, and an intensive pedestrian survey. The site was identified to have a low potential for containing resources of significance to a California Native American tribe.

The County reached out to Tribes identified by the NAHC as having a potential interest in the site. The County reached out to tribal representatives, who expressed interest in the site and the inadvertent discovery of previously unknown resources. Working with a tribal representative, the County developed **Mitigation Measures CUL-1 and CUL-2**, which would

reduce the potential impact associated with the inadvertent discovery of previously unknown resources to less than significant.

One tribe engaged in consultation. In response to tribal concerns, the County proposed the following mitigation measures for implementation prior to and during project initial construction.

- **Mitigation Measure CUL-1: Conduct Cultural Resources Monitoring During Initial Ground Disturbing Activities.** The Project Archaeologist and Tribal Representatives shall monitor initial ground disturbing activities. (Ongoing disturbance of the same area will not require ongoing monitoring.) Approximately 60 days prior to construction, the Project Archaeologist, in consultation with the Monitoring Tribe(s), shall develop a Cultural Resources Monitoring Plan (CRMP) to address the details, timing, and responsibility of archaeological and cultural activities that will occur on the project site such as: project grading and development scheduling.

  The CRMP will include measures for the coordination of a monitoring schedule as agreed upon by the Monitoring Tribe(s), the Project Archaeologist, and the County. The CRMP shall identify the protocols and stipulations that the County, Monitoring Tribe(s), and Project Archaeologist shall follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resources. They shall have the authority to stop and redirect excavation in order to evaluate the significance of any archaeological resources discovered within 60 feet of the find(see Mitigation Measure CUL-2). A decision regarding the find and its effect on construction activities must be determined with 48 hours.

- **Mitigation Measure CUL-2: Inadvertent Discovery of Native American Cultural Resources.** If during ground disturbance activities unanticipated previously unknown Native American cultural resources are discovered during the course of grading or ground disturbance for this project, all ground disturbance activities within 60 feet of the resource shall be halted, and a meeting shall be convened among the Project Archaeologist and Native American Tribal Monitor to discuss the significance of the find. At that meeting, a decision is to be made, with the concurrence of the Aviation Division, as to the appropriate treatment of the resource (documentation, recovery, avoidance). Resource evaluations shall be limited to non-destructive analysis. Further ground disturbance shall not resume within the area of discovery until the appropriate treatment has been accomplished. The following procedures shall be carried out for the treatment and disposition, which shall be further described in the project-related CRMP:
  - **Temporary On-Site Curation and Storage:** During the course of construction, all discovered resources shall be temporarily curated in a secure location on site with Native American Tribal Monitor oversight of the process.
  - **Curation:** The County shall relinquish ownership of all cultural resources. The Project Archaeologist, following consultation with the Monitoring Tribe(s), shall deliver the materials to a qualified repository in Riverside County that meets or exceeds federal standards per Code of Federal Regulations (CFR) Title 36, Part 79, and that shall be made available to all qualified researchers and tribal representatives.
  - **Treatment and Final Disposition:** The County shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all cultural materials

and nonhuman remains, as part of the required mitigation for impacts to cultural resources.

- **Reporting.** The Project Archaeologist shall prepare a final archaeological report within 60 days of project completion. The report shall follow Cultural Resources Management Plan (CRMP).

The disturbance and destruction of previously unknown cultural resources would result in a significant impact. The implementation of **Mitigation Measures CUL-1 and CUL-2** will reduce the potential impact to less than significant with mitigation incorporated.

XIX. UTILITIES AND SERVICE SYSTEMS **Issues** Would the project:	Potentially Significant Impact	Less Than Significant W/ 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 effects?			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 waste water 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

a) The proposed project includes the installation of utility connections including a stormwater pipe, an electrical duct bank, sewer line connection, and a waterline. The installation of these utilities includes trenching of up to a 6-feet depth. The Airport includes services for each utility and sufficient compacity to accommodate the proposed ATCT, and all utility trenching will occur within Airport boundaries. Construction BMPs will be implemented during the project. A DigAlert ticket will be submitted before the start of construction to mark or locate facilities at the project site.

The project will not require the construction of new facilities, but new connections to existing utilities and services will be constructed. A less-than-significant impact would occur.

b) The proposed ATCT will include one new lavatory (one toilet and sink) and one break room sink to support an average of one employee per shift and a maximum of two employees per shift. The ATCT will be connected to the existing water supply infrastructure serving the Airport, which is sufficient to serve the project during normal, dry, and multiple dry years. A less-than-significant impact would occur.

c) The project will be connected to the existing wastewater treatment line at the Airport, which has sufficient capacity to serve the project's projected demand. No additional capacity would be required. A less-than-significant impact would occur.

d) Project construction will not generate excessive solid waste. Solid waste that is generated during ATCT operation will include a minimum amount of office / paper trash and trash from the employee break area. Waste from construction and operation will be transported off-site for recycling or disposal. Riverside County Landfills accept construction waste and has adequate capacity for waste generated by the project. (Riverside County Department of Waste Resources, 2024.) A less-than-significant impact would occur.

e) The project will comply with federal, state, and local management and reduction statutes and regulations. Riverside County has implemented a Construction and Demolition (C&D) Waste Diversion Program which complies with the California Integrated Waste Management Act (AB 939) and the CALGreen Building Code, Materials Conservation and Resource Efficiency section.

Riverside County Landfills accept Construction and Demolition waste provided it does not contain asbestos or other hazardous materials (Riverside County Department of Waste Resources, 2024). Construction and operation of the proposed project will not require the use or generation of asbestos.

AB 939 requires each jurisdiction in California to divert at least 50% of its waste stream away from landfills every year (CalRecycle, 2024). The County implements recycling and waste reduction measures at its facilities. No impact would occur.

XX. WILDFIRE **Issues** If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant W/ 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**

a) The project will not impair emergency response or evacuation procedures related to wildfire or other emergencies. The project is located within Airport boundaries, and neither construction nor operation of the ATCT will interrupt an adopted response plan or emergency response plan. The addition of up to 70 vehicle trips per day during construction and up to 12 employee trips per day during operation will not be creating sufficient traffic to degrade service on roads designated for emergency response or evacuation plans. No impact would occur.

b) The Airport is not located in a fire hazard zone (CalFire, 2024) and the proposed project will not exacerbate wildfire risks due to slope, winds, or other factors. Project occupants will not be exposed to pollutant concentrations or uncontrolled spread of a wildfire due to the project. No impact would occur.

c) The proposed ATCT will be constructed on an existing Airport. County Fire Station No. 83 is located on site, and the Airport is equipped with hydrants that would serve as an emergency water source. The proposed project will not require the installation of power lines or other infrastructure that would cause a temporary or permanent increase in fire risk. No impact would occur.

d) As previously stated, the proposed project would be served by the existing stormwater management system and drainage facilities that have sufficient capacity to include the proposed project. The proposed project would not 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. The proposed project would not pose a hazard and will not increase runoff to increase flooding. No impact would occur.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE Issues	Potentially Significant Impact	Less Than Significant W/ Mitigation Incorporated	Less Than Significant Impact	No Impact
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 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	

a) The proposed project would be constructed in a previously disturbed area on an existing Airport and is intended to enhance safety. The project site does not include any critical habitat. Based on the results of a Biological Resources Assessment (Caskey, 2024; **Appendix C**), the proposed project will not have an adverse effect on any listed species or its habitat; therefore, the proposed project cannot substantially degrade the quality of the environment, reduce any habitat, cause a fish or wildlife population to drop, threaten to eliminate any species, reduce the number or restrict the range of a special-status species.

The results of the cultural investigation did not identify the presence of known cultural resources. The project area has a low potential to include cultural resources. Mitigation measures CUL-1 and CUL-2 and CUL-3 will prevent potential effects to unknown cultural resources. Although the project area has a high sensitivity to contain paleontological resources, the project will include the

implementation of project specific PRIMP to prevent potential effects to paleontological resources (mitigation measure PALEO-1). Based on the results of project-specific studies and the implementation of proposed mitigation measures, the proposed project would not reduce or eliminate examples of major periods of California history or prehistory (EarthWorks, 2024). The proposed project would result in a less-than-significant impact with mitigation incorporated.

b) Riverside County considered the potential cumulative effect of the proposed project by considering the effects of projects that were completed within 0.25 mile of the project site during a timeframe includes projects completed during the past 3 years or envisioned during the next five years. The 0.25-mile radius cumulative impact area included only projects identified at the French Valley Airport. Proposed projects within a 0.25-mile radius of the project site include:

- Apron Pavement Rehabilitation (Middle Apron) Design and Construction – 2026. The proposed project includes pavement milling and overlay of the existing apron.
- Apron Pavement Rehabilitation (North Apron) Design and Construction – 2027. The proposed project includes pavement milling, fog seal, and overlay of an existing apron.
- Apron Pavement Rehabilitation (South Apron) Design and Construction – 2028. The proposed project includes pavement milling, fog seal, and overlay of an existing apron.
- Taxiway A Rehabilitation Design and Construction – 2030. The proposed project includes the milling and overlay of Taxiway A. (Riverside County, 2024).

All anticipated projects identified for the next five years are airfield maintenance projects. Unlike reconstruction projects, pavement rehabilitation does not create additional pavement or require excavation below the previous levels of disturbance. All projects will comply with existing federal and state environmental laws, regulations, and applicable polices. The proposed project would not contribute impacts that are individually limited but cumulatively considerable. This impact is less than significant.

c) The proposed project will include only temporary noise and air quality effects. Project construction documents and specifications will identify the need for hearing protection for on-site workers, and construction activities will occur only during designated daytime hours as prescribed by the Riverside County General Plan and Noise Ordinance. The air quality analysis identified that temporary construction-related emissions would not exceed regulatory thresholds. The project will not cause environmental effects that will affect humans either directly or indirectly. The project will provide benefits to humans by enhancing safety for air travelers and those living and working near the Airport. Less than significant impact would occur.

Supporting Information Sources:

1200 Aero. 2024. Aircraft operations counts for the French Valley Airport, 2024. Provided by Airport Manager A. Jamison. Available online at: https://www.1200.aero/

Applied EarthWorks, Inc. (2024). Cultural Resources Assessment.

Applied Earthworks (2024b). Paleontological Technical Letter report of the Air Traffic Control Tower at the French Valley Regional Airport near Murrietta, Riverside County, CA. Letter dated November 11, 2024.

California Air Resources Board (2024). South Coast Air Basin and Coachella Valley Air Quality Plans. https://ww2.arb.ca.gov/our-work/programs/california-state-implementation-plans/nonattainment-area-plans/south-coast-air

California Department of Conservation (2024a). California Important Farmland Finder. https://maps.conservation.ca.gov/DLRP/CIFF/

California Department of Conservation (2024b). Williamson Act Program. https://www.conservation.ca.gov/dlrp/wa

California Department of Conservation (2024c). California Geological Survey. Earthquake Zones of Required Investigation. https://maps.conservation.ca.gov/cgs/EQZApp/app/

California Department of Conservation (2024d). Mineral Resources Program. https://www.conservation.ca.gov/cgs/minerals/storymap?utm_source=minerals+page&utm_medium=referral&utm_campaign=minerals+storymap

California Department of Finance. 2025. Report E-5: Population and Housing Estimates for Cities, Counties, and the State, January 1, 2021-2024, with 2020 Benchmark. Demographics Research Unit. Sacramento California. https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fdof.ca.gov%2Fwp-content%2Fuploads%2Fsites%2F352%2FForecasting%2FDemographics%2FDocuments%2FE-5-2024_Geo_InternetVersion.xlsx&wdOrigin=BROWSELINK

California Department of Fish and Wildlife (2024). California Natural Diversity Database. https://wildlife.ca.gov/Data/CNDDB

California Department of Transportation (2025a). GIS Data – Vistas. https://gisdata-caltrans.opendata.arcgis.com/datasets/56afa8c826fc4bc0af3b6bf1cd7d5c2a_0/about

California Department of Transportation (2025b). GIS Data – CA State Scenic Highway System Map. https://www.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa

California Governor's Office of Emergency Services (CalOES) (2024). MyHazards. https://myhazards.caloes.ca.gov/

California Native Plant Society (2024). Online Inventory of Rare and Endangered Plants. https://rareplants.cnps.org/

California Regional Water Quality Control Board (2006). Water Quality Control Plan. Colorado River Basin – Region 7. https://www.waterboards.ca.gov/coloradoriver/publications_forms/publications/docs/basinplan_2006.pdf

California Water Boards (2022). State Water Resources Control Boards. https://www.waterboards.ca.gov/waterboards_map.html

Caskey Biological Consulting LLC. (2024). Biological Resource Assessment and Jurisdictional Delineation Report.

City of Murrieta (2011). General Plan Update. Geology and Seismic Hazards. https://www.murrietaca.gov/DocumentCenter/View/790/05-08---Geology-and-Seismic-Hazards-PDF

Coachella Valley Conservation Commission (2016 Amendment). Coachella Valley Multiple Species Habitat Conservation Plan. https://cvmshcp.org/plan-documents/

County of Riverside (2015). Multipurpose Open Space Element. Available at: https://planning.rctlma.org/sites/g/files/aldnop416/files/migrated/Portals-14-genplan-general-plan-2016-elements-Ch05-MOSE-120815.pdf

County Riverside (2019). Climate Action Plan Update. https://planning.rctlma.org/sites/g/files/aldnop416/files/migrated/Portals-14-CAP-2019-2019-CAP-Update-Full.pdf

Federal Aviation Administration (2024). National Plan of Integrated Airport Systems. https://www.faa.gov/airports/planning_capacity/npias

Federal Emergency Management Agency (2024). Flood Map Service Center. https://msc.fema.gov/portal/home

Google (2024). Google Earth. https://earth.google.com/web/

Mead & Hunt, Inc. (2024a). Memorandum: F70 Tower Construction Emissions.

Mead & Hunt, Inc. (2024a). Memorandum: F70 National Historic Preservation Act Section 106, Review of Built-Environment Resources.

National Plan of integrated Airport Systems (2024). Appendix A: List of NPIAS Airports.

NPIAS, 2025-2029, Appendix A: List of NPIAS Airports, updated October 2024

Riverside County Airport Land Use Commission. Airport Land Use Compatibility Plan for the French Valley Airport. Riverside, CA https://rcaluc.org/sites/g/files/aldnop421/files/2023-06/french%20valley.pdf

Riverside County (2024b). Planning Department. Western Riverside County Multiple Species Habitat Conservation Plan. https://planning.rctlma.org/epd/wr-mshcp

Riverside County (2024c). Department of Waste Resources (2024). Construction and Demolition (C&D) Waste. https://rcwaste.org/waste-guide-cd

Riverside County (2024d). Map My County. https://gis1.countyofriverside.us/Html5Viewer/?viewer=MMC_Public

Riverside County (2024e). Ordinance No. 847 (As amended through 947.1): An Ordinance of the County of Riverside Amending Ordinance No 847 Regulating Noise. Available at: https://rivcocob.org/sites/g/files/aldnop311/files/migrated/ords-800-847.pdf

Riverside County (2024f). Ordinance No. 742 (As amended through 742.1): An Ordinance of the County of Riverside Amending Ordinance No. 742 Relating to the Control of Fugitive Dust and the Corresponding PM10 Emission in the Coachella Valley, and also Adopting the Coachella Valley Fugitive Dust Control Handbook Produced by Air Quality Management District (AQMD). https://rivcocob.org/sites/g/files/aldnop311/files/migrated/ords-700-742.1.pdf

Riverside Count (2015). General Plan Circulation Element. https://planning.rctlma.org/sites/g/files/aldnop416/files/migrated/Portals-14-genplan-general-plan-2016-elements-Ch04-Circulation-120815.pdf

South Coast Air Quality Management District (2024). https://www.aqmd.gov/

South Coast Air Quality Management District (2025). Emergency Generators: Fact Sheet on Emergency Backup Generators. Available at: https://www.aqmd.gov/home/permits/emergency-generators#Fact11

State of California (2024). CalFire. Fire Hazard Severity Zones. https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones

State of California (2024). CalRecycle. https://calrecycle.ca.gov/lgcentral/enforcement/

State of California (2024). Department of Toxic Substances Control. EnviroStor. https://www.envirostor.dtsc.ca.gov/public/

SunLine Transit Agency (2023). System Map. https://sunline.org/sites/default/files/Final-System-Map-Jan-2023-WEB.pdf

United States Fish and Wildlife Service (2024). Information for Planning and Consultation System. https://ipac.ecosphere.fws.gov/

United States Geological Survey (2008). National Geological Map Database. https://ngmdb.usgs.gov/Prodesc/proddesc_83959.htm

United States Geological Survey (2016). Earthquake Hazards Program. ShakeMap. https://earthquake.usgs.gov/scenarios/eventpage/sclegacyspsanandreascom7p0_se/shakemap/intensity

APPENDICES

APPENDIX A

FAA TOWER SITING MEETING MINUTES

French Valley Airport (F70) New Tower Siting

AFTIL 1 & 2 Meeting Minutes

July 10, 2024

Summary

Representatives from the Federal Aviation Administration (FAA) Western Service Area (WSA), French Valley Airport (F70), and the FAA Airport Facilities Terminal Integration Laboratory (AFTIL) participated in AFTIL 1 and 2 meetings on May 21 and 22, 2024, to evaluate and rank three sites for the first airport traffic control tower (ATCT) to be built at F70.

Site 1 was chosen as the recommended, most preferred site with a cab eye-level height of 63 feet[1] above ground level (AGL), followed by Site 3 (66 feet[2] AGL) and Site 2 (70 feet AGL), in that order of preference. All three sites are in a vacant but previously disturbed four-acre lot west of the runway. No potential safety hazards were identified at any of the sites.

During the AFTIL 1 meeting, optimal tower heights were established for each site. In AFTIL 2, a model tower cab was used to establish cab rotation, control positions, and a column and mullion arrangement for each site. Model ATC equipment was then placed at the control positions.

Panel members attended virtually via Zoom remotely; from the AFTIL lab in the William J. Hughes Technical Center, building 170, in Egg Harbor Township, NJ; and from F70 in Riverside, CA, where a simulated 3D view of the airport from the proposed ATCTs was presented to participants.

The team followed FAA Siting Order 6480.4B (AFTIL 1 & 2) procedures.

Facilitator: Terence Moore

F70 ATC: Joel Ryan, Air Traffic Manager (ATM); Chris Harris, Aviation Safety Inspector (OPS)
Airport Representative: Angela Jamison, Riverside County Airport Manager
AFTIL Engineer: Daniel Delaney
AFTIL ATC Subject Matter Expert (SME): Bryan Grossman
AFTIL Software Engineers: Charlotte Hannon, Ryan Drexel, Nolan Foy
AFTIL Modeler: Alex Wiese
Safety Management System (SMS) Team: Dave Ailes, AFTIL ATC Safety Specialist

Participants: See Attachment 1: Participant List.

[1] The eye-level height assessed during the meetings was 62 feet AGL. Before the AFTIL meetings, the minimum height required to achieve a minimum lookdown angle of 0.80 degrees to the farthest runway approach end was determined using rounded intermediate values. For Sites 1 and 3, this resulted in lookdown angles that were infinitesimally smaller than 0.80 degrees, but which rounded to 0.80 degrees in calculated results. This rounding error was discovered after the AFITL 1 and 2 meetings. The AFTIL Lab increased the final eye-level heights for Sites 1 and 3 by one foot to ensure that they produce minimum lookdown angles of 0.80 degrees without deviating significantly from the established heights.
[2] Assessed eye-level height: 65 feet AGL. See footnote 1.

French Valley Airport (F70) New Tower Siting

AFTIL 1 & 2 Meeting Minutes

July 10, 2024

Purpose of Meeting

These AFTIL 1 and 2 meetings were held to evaluate three possible sites for the first ATCT at F70 and to establish optimal tower height, cab orientation, control positions, and cab column and mullion configuration for each site.

Sites were then ranked by ATC representatives in order of preference. Site 1 was identified by ATC as the recommended, most preferred location, followed by Site 3, and finally Site 2.

Agenda

1. Introductions
2. Airport model and site overview
3. Site and eye-level height assessment (AFTIL 1)
4. Cab orientation and control position assessment (AFTIL 2)
5. Safety Risk Management (SRM) panel assessment
6. Establish recommended site

Introductions

National Coordinator Terence Moore provided the meeting agenda, stated its purpose, briefly explained the AFTIL 1 and 2 processes, and asked participants to introduce themselves.

Airport Model and Site Overview

AFTIL ATC subject matter expert Bryan Grossman presented an overhead view of the airport model used in the site assessments.

In the model, the following colors indicate planned renovation:

- Tan: Planned new movement and non-movement areas, including taxiways (TWYs).
- Yellow: Planned hangars.

The possible future renovations are south of the airport hangars and west of runway (RWY) 36. The southernmost future renovations are on land that is not yet owned by the airport. They were included in the model and assessments to account for all potential sightline obstructions.

Figure 1. Overhead view of the F70 model with proposed future construction. Tan: Planned movement and non-movement areas, including taxiways. Yellow: Planned hangars.

Figure 2. Site location aerial view. Sites 1, 2, and 3 are labeled. Source: Google Earth

Site and Eye-level Height Assessment (AFTIL 1)

The team evaluated each site and established optimal tower heights.

Site 1, at its minimum .80° lookdown eye-level height of 63 feet[3], provides good views of the runway and the possible future taxiway.

Site 2, which is farther west of the runway than Sites 1 and 3, is the least-preferred site. It was raised from its minimum .80° lookdown height of 63 feet to 70 feet to improve views of airplanes moving from non-movement areas to movement areas. Site 2 provides the worst view of proposed future non-movement areas.

Site 3, at its minimum .80° lookdown height of 66 feet[4], provides good views of the entire airport. Compared to Site 1, however, it provides worse views of the approach end of runway 36, as it is farther away.

[3] Assessed eye-level height: 62 feet AGL. See footnote 1.
[4] Assessed eye-level height: 65 feet AGL. See footnote 1.

Cab Orientation and Control Position Assessment (AFTIL 2)

The team used a 3D model of the planned ATCT cab to determine the optimal cab orientation, control position configuration, and cab structural arrangement for each site.

Two structural arrangements were tested: The first includes eight six-inch by nine-inch mullions. The second includes four 12-inch by 14-inch columns. For all three sites, ATC preferred the arrangement of four 12-inch by 14-inch columns.

For all sites, potential line-of-sight issues were identified regarding runway ends at the default rotation. For all sites, the cab was rotated 10 degrees counterclockwise, which resolved these line-of-sight issues regarding runway ends.

Safety Risk Management (SRM) Panel Assessment [5]

No potential hazards were found at any of the three sites.

Recommended Site

Site 1, with an eye-level height of 63 feet[6], is recommended by ATC, followed by Site 3 (66 feet[7]) and Site 2 (70 feet), in that order of preference.

[5] Detailed safety risk information will be included in a separate SRM document.
[6] Assessed eye-level height: 62 feet AGL. See footnote 1.
[7] Assessed eye-level height: 65 feet AGL. See footnote 1.

Attachments

1. Participant List

Last Name	First Name	Organization	Email	Phone
Aguilar	Jovan	AJW-2444	jovan.r-ctr.aguilar@faa.gov	(818) 940-6775
Ailes	Dave	ANG-E18	david.l-ctr.ailes@faa.gov	(609) 839-1232
Arkadie	Devre	AXF-620	devre.arkadie@faa.gov	(424) 405-7135
Baey	Joshua	AWP-AO03	joshua.baey@faa.gov	(424) 405-7267
Bayalis	Tom	ANG-E18	thomas.j-ctr.bayalis@faa.gov	(609) 485-5993
Bourgoin	Bryan	AJW-2444	bryan.ctr.bourgoin@faa.gov	(571) 447-0039
Brown	Harrison	ANG-E18	harrison.c-ctr.brown@faa.gov	(609) 485-5738
Brown	Garry	AJV-W290	garry.f.brown@faa.gov	(206) 231-2317
Chesnutt	William	AJW-2444	william.s-ctr.chesnutt@faa.gov	(760) 583-2289
Delaney	Daniel	ANG-E18	daniel.ctr.delaney@faa.gov	(609) 485-5082
DiGiovacchino	Doug	ANG-E18	douglas.ctr.digiovacchino@faa.gov	(609) 485-4209
English	Colin	AJW-2444	Colin.G-CTR.English@faa.gov	(206) 327-5980
Ferrara	Andrew	ANG-E18	andrew.ctr.ferrara@faa.gov	(609) 485-6655
Foy	Nolan	ANG-E18	nolan.d.foy@faa.gov	(609) 485-5758
Grossman	Bryan	ANG-E18	bryan.d-ctr.grossman@faa.gov	(609) 485-6192
Hannon	Charlotte	ANG-E18	charlotte.hannon@faa.gov	(609) 485-5339
Harmon	Lisa	Mead & Hunt, Inc.	lisa.harmon@meadhunt.com	(916) 993-4650
Harris	Chris	AFS-420	christopher.p.harris@faa.gov	(424) 405-7969
Jagielo	Evan	AJW-W24A	evan.jagielo@faa.gov	(206) 231-2540
Jamison	Angela	Riverside County	ajamison@rivco.org	
Kim	Joseph	AAQ 930	Joseph.b.kim@faa.gov	(206) 231-3406
Lally	Brian	CTBXaviation	blally@ctbxaviation.com	(321) 591-0204
Mares	Steve	AJV-W370	steve.mares@faa.gov	(206) 231-2892
Moore	Terence	ANG-E18	terence.d.moore@faa.gov	(609) 485-6379
Nguyen	Vincent	FAA-ARP	vincent.k.nguyen@faa.gov	(424) 405-7286
Niszczak	Robert	ANG-E18	robert.s-ctr.niszczak@faa.gov	(609) 485-5710
Prout	Russell	AJV-W330	russell.prout@faa.gov	(406) 437-8181
Reid	Tim	Riverside County	treid@rivco.org	
Rodriguez	Anthony	ANG-E18	anthony.rodriguez@faa.gov	(609) 485-5396
Ruiz	Jose	Riverside County	jruiz@rivco.org	(951) 955-5746
Ryan	Joel	TWLA1-MYF	joel.j.ryan@faa.gov	(858) 277-5601
Wiese	Alex	ANG-E18	alexander.w-ctr.wiese@faa.gov	(609) 485-6084
Williams	Darlene	AWP-AO03	darlene.williams@faa.gov	(424) 405-7279
Wood	Steven	AJV-W290	steven.a.wood@faa.gov	(206) 231-2316

2. Sites Assessed

NOTE: During the siting assessment, the cab can be rotated and the controller can take a step back or move their head to look around columns and mullions to achieve the best operational line of sight. Refer to the Safety Risk Management (SRM) document for details.

Site 1

A. Reference location:
   Lat: N33°34'36.46" Long: W117°07'47.38"
B. Airport quadrant: North
C. Acreage: TBD
D. ATCT orientation: East
E. Position locations: (See Attachment 8: Controller Position and Cab Orientation Drawings)
F. Stair location: F70 ATC positioned the stairs and comfort area in an area of least distraction.
G. No-effect height: 243 feet AGL
H. Cab eye-level height: 63 feet AGL
I. Column/mullion structure: Four 12-inch × 14-inch columns
J. Two-point lateral discrimination: No potential hazards were found. (Detailed information to be included in the SRM document.)
K. Console discussion: Slat wall construction was selected for equipment placement by F70 ATC.
L. Utilities: TBD
M. Secure access: Yes. (Detailed information to be included in the SRM document.)
N. Construction issues: No potential hazards were found. (Detailed information to be included in the SRM document.)
O. Weather: No potential hazards were found. (Detailed information to be included in the SRM document.)
P. Cab size evaluation: A 448-square-foot cab was used for the evaluation. (Detailed information to be included in the SRM document.)
Q. Rotating beacon: The rotating beacon is in the field east of the fire station, near Site 1. (Detailed information to be included in the SRM document.)
R. Advantages:
   - Central location.
   - Good visibility of all areas.
   - Close to taxiways.
   - Good access for security parking
S. Disadvantages:
   - None noted
T. Safety risk management panel: A safety analysis was conducted on Site 1. No potential hazards were found. (Detailed information to be included in the SRM document.)

Site 2

A. Reference location:
   Lat: N33°34’39.26” Long: W117°07’49.88”
B. Airport quadrant: North
C. Acreage: TBD
D. ATCT orientation: East-northeast
E. Position locations: (See Attachment 8: Controller Position and Cab Orientation Drawings)
F. Stair location: F70 ATC positioned the stairs and comfort area in an area of least distraction.
G. No-effect height: 234 feet AGL
H. Cab eye-level height: 70 feet AGL
I. Column/mullion structure: Four 12-inch × 14-inch columns
J. Two-point lateral discrimination: No potential hazards were found. (Detailed information to be included in the SRM document.)
K. Console discussion: Slat wall construction was selected for equipment placement by F70 ATC.
L. Utilities: TBD
M. Secure access: Yes. (Detailed information to be included in the SRM document.)
N. Construction issues: No potential hazards were found. (Detailed information to be included in the SRM document.)
O. Weather: No potential hazards were found. (Detailed information to be included in the SRM document.)
P. Cab size evaluation: A 448-square-foot cab was used for the evaluation. (Detailed information to be included in the SRM document.)
Q. Rotating beacon: The rotating beacon is in the field east of the fire station, near Site 1 (Detailed information to be included in the SRM document.)
R. Advantages:
   - Closer to RWY 18 than Site 1
S. Disadvantages:
   - Farther from runway centerline.
   - ATC must strain to see RWY 36.
   - Less visibility of taxiing aircraft in non-movement areas approaching movement areas.
T. Safety risk management panel: A safety analysis was conducted on Site 2. No potential hazards were found. (Detailed information to be included in the SRM document.)

Site 3

A. Reference location:
   Lat: N33°34’39.90” Long: W117°07’46.52”
B. Airport quadrant: North
C. Acreage: TBD
D. ATCT orientation: East-northeast
E. Position locations: (See Attachment 8: Controller Position and Cab Orientation Drawings)
F. Stair location: F70 ATC positioned the stairs and comfort area in an area of least distraction.
G. No-effect height: 230 feet AGL
H. Cab eye-level height: 66 feet AGL
I. Column/mullion structure: Four 12-inch × 14-inch columns
J. Two-point lateral discrimination: No potential hazards were found. (Detailed information to be included in the SRM document.)
K. Console discussion: Slat wall construction was selected for equipment placement by F70 ATC.
L. Utilities: TBD
M. Secure access: Yes. (Detailed information to be included in the SRM document.)
N. Construction issues: No potential hazards were found. (Detailed information to be included in the SRM document.)
O. Weather: No potential hazards were found. (Detailed information to be included in the SRM document.)
P. Cab size evaluation: A 448-square-foot cab was used for the evaluation. (Detailed information to be included in the SRM document.)
Q. Rotating beacon: The rotating beacon is in the field east of the fire station, near Site 1 (Detailed information to be included in the SRM document.)
R. Advantages:
    - Closer to RWY 18, which is where most traffic occurs.
S. Disadvantages:
    - Farther from RWY 36, which provides the only instrument approach.
    - It will be more difficult for the airport to provide secure access.
T. Safety risk management panel: A safety analysis was conducted on Site 3. No potential hazards were found. (Detailed information to be included in the SRM document.)

3. Site Comparison Chart

French Valley Airport (F70) Site Comparison Chart			
Item Description	**Site 1**	**Site 2**	**Site 3**
ATC Site Preference	First choice - Recommended site	Third choice	Second choice
Latitude	N33°34'36.46"	N33°34'39.26"	N33°34'39.90"
Longitude	W117°07'47.38"	W117°07'49.88"	W117°07'46.52"
Estimated Ground Level at tower (ft AMSL)	1,332	1,335	1,334
Cab Floor Level (ft AGL)	58	65	61
Cab Floor Level (ft AMSL)	1,390	1,400	1,395
Eye-Level (ft AGL)	63	70	66
Eye-Level (ft AMSL)	1,395	1,405	1,400
Top of Tower (TOT) (ft AGL; 30 ft above eye-level height)	93	100	96
Top of Tower (TOT) AMSL (30 ft above eye-level)	1,425	1,435	1,430
Key point (KP) (The runway approach end that is farthest from the ATCT.)	RWY 36	RWY 36	RWY 36
Horizontal distance to key point (ft)	3,888	4,164	4,240
Estimated Ground Level (AMSL) at key point (ft)	1,340	1,340	1,340
2-Point Lateral Discrimination (Deg)	Pass	Pass	Pass

Object Discrimination (Pass/Fail) Front View (Dodge Caravan)	Probability (detection) Pass: 99.8% Probability (recognition) Pass: 76.3%	Probability (detection) Pass: 99.8% Probability (recognition) Pass: 71.2%	Probability (detection) Pass: 99.8% Probability (recognition) Pass: 69.8%
Line of Sight Angle of Incidence Pass/Degrees	Pass/0.81	Pass/0.89	Pass/0.81
ATCT Orientation Direction (with respect to LC position)	East	East-northeast	East-northeast
Secure access to ATCT Site (Yes or No)	Yes	Yes	Yes
Cab Size (sq ft)	448	448	448
Columns/Mullions	4 columns, 12" × 14"	4 columns, 12" × 14"	4 columns, 12" × 14"
Console Type (traditional, slat wall)	Slat wall	Slat wall	Slat wall
Land Area	Information Unavailable	Information Unavailable	Information Unavailable
Tech Ops Preliminary Review Issues (TOPR)	See Attachment if available	See Attachment if available	See Attachment if available
TERPS Impacts	See Attachment if available	See Attachment if available	See Attachment if available
14 CFR Part 77 Impacts	See Attachment if available	See Attachment if available	See Attachment if available
ATCT Potential Impacts to Future & Existing Navaids	None noted	None noted	None noted
Environmental Issues	See Attachment if available	See Attachment if available	See Attachment if available
Comparative Cost Estimate ($100K per vertical foot to cab floor height)	$5,800,000.00	$6,500,000.00	$6,100,000.00

Safety Assessment	**L**	**M**	**H**	**L**	**M**	**H**	**L**	**M**	**H**
Initial Risk Ranking	0	0	0	0	0	0	0	0	0
Safety Assessment	**L**	**M**	**H**	**L**	**M**	**H**	**L**	**M**	**H**
Predicted Residual Risk Ranking	0	0	0	0	0	0	0	0	0

4. Site Location Aerial View

Site location aerial view. Sites 1, 2, and 3 are labeled. Source: Google Earth

5. Air Traffic Control Visibility Analysis Tool (ATCVAT)

Site 1

Visibility Siting Requirements Human Factors Analyses

Objective: Two human performance metrics, Object Discrimination Analysis and Object Discrimination and Line of Sight (LOS) Angle of Incidence, were used to assess the impact of tower height on air traffic control tower specialist distance perception.

Technical Approach: the tower visibility analysis tool (http://www.hf.faa.gov/visibility) was used to assess the human performance metrics[1].

Air Traffic Control Tower: **F70 HF SITE 1-KP36 FINAL**
Light Level: **Sunlight Clouds**
Ground Turbulence: **Medium**
Target Object: **Dodge Caravan**, target orientation: **Front View**
Observer Eye Height: **63**
Vertical Elevation Change Between Observer and Key Point (feet): **55**
Ground Elevation at Tower (MSL): **1332**
Ground Elevation at Key Point (MSL): **1340**
Tower to Key Point Distance: **3888** (feet) **1.19** (km)
Visibility Range: **10**(Miles) **16.09** (km)

1. Object Discrimination Analysis Results

Criteria	Threshold	Tower Results	Pass/Fail
probability(detection)	95.5%	99.8%	Pass
probability(recognition)	11.5%	76.3%	Pass

2. Line of Sight (LOS) Angle of Incidence

Threshold	Tower Results	Pass/Fail
0.8 degrees or 48 minutes	0.81degrees	PASS: Change in elevation between observer and key point should be no less than 54 feet.

[1]Krebs, Hewitt, Murrill, and Driggers, 2005. *How High is High Enough? Quantifying the Impact of Air Traffic Control Tower Observation Height on Distance Perception*, International Symposium on Aviation Psychology, 1-5.

Site 2

Visibility Siting Requirements Human Factors Analyses

Objective: Two human performance metrics, Object Discrimination Analysis and Object Discrimination and Line of Sight (LOS) Angle of Incidence, were used to assess the impact of tower height on air traffic control tower specialist distance perception.

Technical Approach: the tower visibility analysis tool (http://www.hf.faa.gov/visibility) was used to assess the human performance metrics[1].

Air Traffic Control Tower: **F70 HF Site 2-KP36 Final**
Light Level: **Sunlight Clouds**
Ground Turbulence: **Medium**
Target Object: **Dodge Caravan**, target orientation: **Front View**
Observer Eye Height: **70**
Vertical Elevation Change Between Observer and Key Point (feet): **65**
Ground Elevation at Tower (MSL): **1335**
Ground Elevation at Key Point (MSL): **1340**
Tower to Key Point Distance: **4164** (feet) **1.27** (km)
Visibility Range: **10**(Miles) **16.09** (km)

1. Object Discrimination Analysis Results

Criteria	Threshold	Tower Results	Pass/Fail
probability(detection)	95.5%	99.8%	Pass
probability(recognition)	11.5%	71.2%	Pass

2. Line of Sight (LOS) Angle of Incidence

Threshold	Tower Results	Pass/Fail
0.8 degrees or 48 minutes	0.89degrees	PASS: Change in elevation between observer and key point should be no less than 58 feet.

[1]Krebs, Hewitt, Murrill, and Driggers, 2005. *How High is High Enough? Quantifying the Impact of Air Traffic Control Tower Observation Height on Distance Perception*, International Symposium on Aviation Psychology, 1-5.

Site 3

Visibility Siting Requirements Human Factors Analyses

Objective: Two human performance metrics, Object Discrimination Analysis and Object Discrimination and Line of Sight (LOS) Angle of Incidence, were used to assess the impact of tower height on air traffic control tower specialist distance perception.

Technical Approach: the tower visibility analysis tool (http://www.hf.faa.gov/visibility) was used to assess the human performance metrics[1].

Air Traffic Control Tower: **F70 HF SITE 3-KP36 FINAL**
Light Level: **Sunlight Clouds**
Ground Turbulence: **Medium**
Target Object: **Dodge Caravan**, target orientation: **Front View**
Observer Eye Height: **66**
Vertical Elevation Change Between Observer and Key Point (feet): **60**
Ground Elevation at Tower (MSL): **1334**
Ground Elevation at Key Point (MSL): **1340**
Tower to Key Point Distance: **4240** (feet) **1.29** (km)
Visibility Range: **10**(Miles) **16.09** (km)

1. Object Discrimination Analysis Results

Criteria	Threshold	Tower Results	Pass/Fail
probability(detection)	95.5%	99.8%	Pass
probability(recognition)	11.5%	69.8%	Pass

2. Line of Sight (LOS) Angle of Incidence

Threshold	Tower Results	Pass/Fail
0.8 degrees or 48 minutes	0.81degrees	PASS: Change in elevation between observer and key point should be no less than 59 feet.

[1]Krebs, Hewitt, Murrill, and Driggers, 2005. *How High is High Enough? Quantifying the Impact of Air Traffic Control Tower Observation Height on Distance Perception*, International Symposium on Aviation Psychology, 1-5.

6. Terminal Instrument Procedures (TERPS) Analysis

F70 Tower Siting TERPS Eval

Tower Site #1 located at N33°34’36.46” W117°07’47.38”

1335’ MSL TERRAIN ELEV

1490’ AMSL/ 155’ AGL TWR ELEV = No Effect

NEH with 2C accuracy = 1578’A MSL/ 243’ AGL

Tower Site #2 located at N33°34’39.26” W117°07’49.88”

1336’ MSL TERRAIN ELEV

1491’ AMSL/ 155’ AGL TWR ELEV = No Effect

NEH with 2C accuracy = 1570’ AMSL/234’ AGL

Tower Site #3 located at N33°34’39.90” W117°07’46.52”

1335’ MSL TERRAIN ELEV

1490’ AMSL/ 155’ AGL TWR ELEV = No Effect

NEH with 2C accuracy = 1565’ AMSL/ 230’ AGL

7. Technical Operations Preliminary Review (TOPR)

Site 1

Federal Aviation Administration

« OE/AAA

You may search about (center point):

Search radius: 5.0 Nautical miles

○ A specific OE Case:				- OE	OE Case Number				
○ A specific NRA Case:				- NRA	NRA Case Number				
○ A specific NR Case:				- NR	NR Case Number				
● A specific location:	Latitude:	33 -	34 -	36.46	N	SE:	1335		
		NAD 83							
	Longitude:	117 -	7 -	47.38	W	AGL:	155		
						AMSL:	1490		

Search

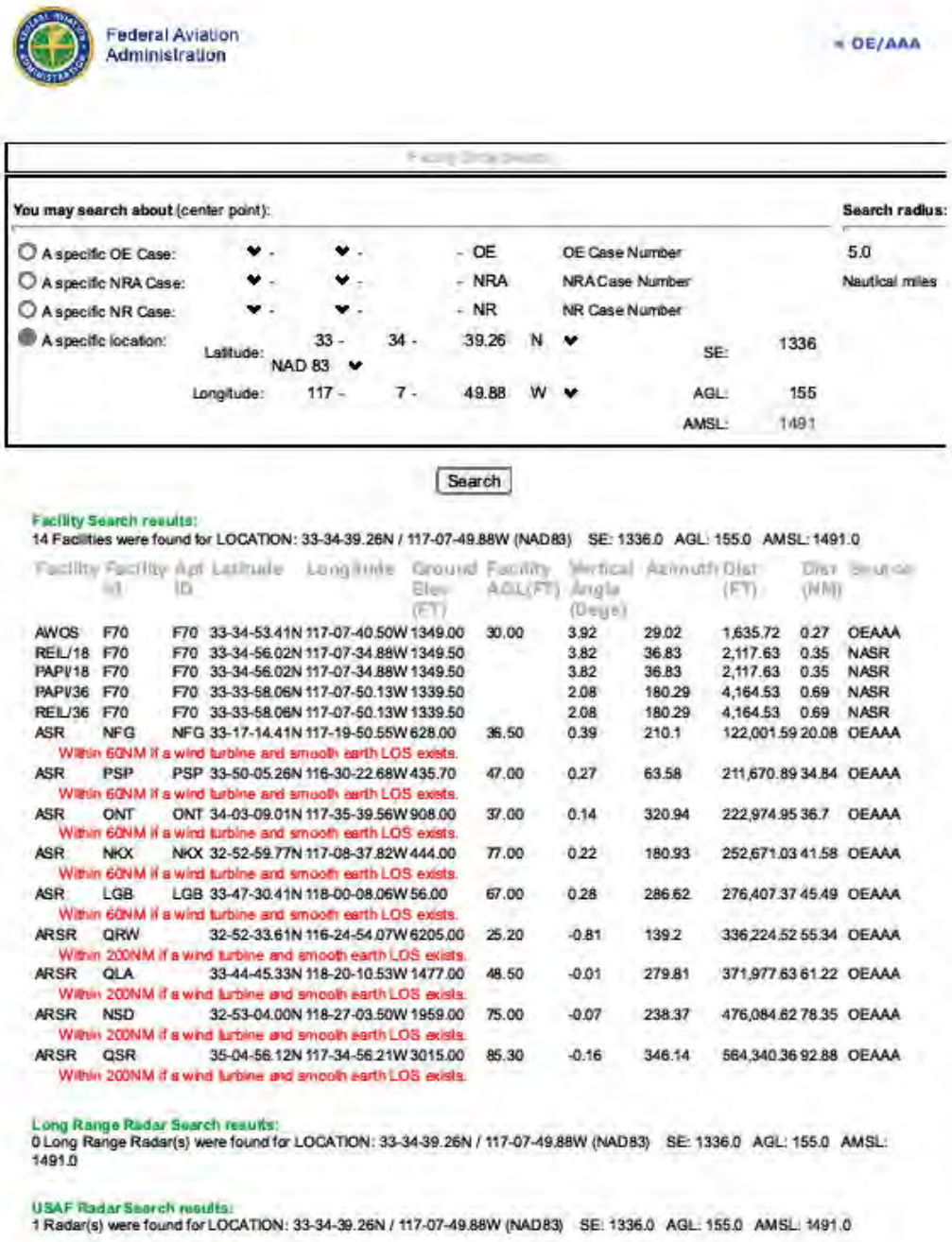
Facility Search results:
14 Facilities were found for LOCATION: 33-34-36.46N / 117-07-47.38W (NAD83) SE: 1335.0 AGL: 155.0 AMSL: 1490.0

Facility	Facility Id	Apt ID	Latitude	Longitude	Ground Elev (FT)	Facility AGL(FT)	Vertical Angle (Degs)	Azimuth	Dist (FT)	Dist (NM)	Source
AWOS	F70	F70	33-34-53.41N	117-07-40.50W	1349.00	30.00	3.51	18.76	1,809.52	0.3	OEAAA
REIL/18	F70	F70	33-34-56.02N	117-07-34.88W	1349.50		3.58	28.14	2,243.14	0.37	NASR
PAPI/18	F70	F70	33-34-56.02N	117-07-34.88W	1349.50		3.58	28.14	2,243.14	0.37	NASR
PAPI/36	F70	F70	33-33-58.06N	117-07-50.13W	1339.50		2.22	183.43	3,888.42	0.64	NASR
REIL/36	F70	F70	33-33-58.06N	117-07-50.13W	1339.50		2.22	183.43	3,888.42	0.64	NASR
ASR	NFG	NFG	33-17-14.41N	117-19-50.55W	628.00	36.50	0.39	210.25	121,863.22	20.06	OEAAA
Within 60NM if a wind turbine and smooth earth LOS exists.											
ASR	PSP	PSP	33-50-05.26N	116-30-22.68W	435.70	47.00	0.27	63.49	211,607.67	34.83	OEAAA
Within 60NM if a wind turbine and smooth earth LOS exists.											
ASR	ONT	ONT	34-03-09.01N	117-35-39.56W	908.00	37.00	0.14	320.95	223,328.01	36.76	OEAAA
Within 60NM if a wind turbine and smooth earth LOS exists.											
ASR	NKX	NKX	32-52-59.77N	117-08-37.82W	444.00	77.00	0.22	180.98	252,391.56	41.54	OEAAA
Within 60NM if a wind turbine and smooth earth LOS exists.											
ASR	LGB	LGB	33-47-30.41N	118-00-08.06W	56.00	67.00	0.28	286.67	276,691.09	45.54	OEAAA
Within 60NM if a wind turbine and smooth earth LOS exists.											
ARSR	QRW		32-52-33.61N	116-24-54.07W	6205.00	25.20	-0.81	139.2	335,872.05	55.28	OEAAA
Within 200NM if a wind turbine and smooth earth LOS exists.											
ARSR	QLA		33-44-45.33N	118-20-10.53W	1477.00	48.50	-0.01	279.85	372,234.38	61.26	OEAAA
Within 200NM if a wind turbine and smooth earth LOS exists.											
ARSR	NSD		32-53-04.00N	118-27-03.50W	1959.00	75.00	-0.07	238.42	476,116.45	78.36	OEAAA
Within 200NM if a wind turbine and smooth earth LOS exists.											
ARSR	QSR		35-04-56.12N	117-34-56.21W	3015.00	85.30	-0.16	346.13	564,665.84	92.93	OEAAA
Within 200NM if a wind turbine and smooth earth LOS exists.											

Long Range Radar Search results:
0 Long Range Radar(s) were found for LOCATION: 33-34-36.46N / 117-07-47.38W (NAD83) SE: 1335.0 AGL: 155.0 AMSL: 1490.0

USAF Radar Search results:
1 Radar(s) were found for LOCATION: 33-34-36.46N / 117-07-47.38W (NAD83) SE: 1335.0 AGL: 155.0 AMSL: 1490.0

Site 2



Federal Aviation Administration

« OE/AAA

You may search about (center point):

Search radius: 5.0 Nautical miles

A specific OE Case:	-	-		-	OE	OE Case Number			
A specific NRA Case:	-	-		-	NRA	NRA Case Number			
A specific NR Case:	-	-		-	NR	NR Case Number			
A specific location:	Latitude:	33 -	34 -	39.26	N		SE:	1336	
	NAD 83								
	Longitude:	117 -	7 -	49.88	W		AGL:	155	
							AMSL:	1491	

Search

Facility Search results:
14 Facilities were found for LOCATION: 33-34-39.26N / 117-07-49.88W (NAD83) SE: 1336.0 AGL: 155.0 AMSL: 1491.0

Facility	Facility Id	Apt ID	Latitude	Longitude	Ground Elev (FT)	Facility AGL(FT)	Vertical Angle (Degs)	Azimuth	Dist (FT)	Dist (NM)	Source
AWOS	F70	F70	33-34-53.41N	117-07-40.50W	1349.00	30.00	3.92	29.02	1,635.72	0.27	OEAAA
REIL/18	F70	F70	33-34-56.02N	117-07-34.88W	1349.50		3.82	36.83	2,117.63	0.35	NASR
PAPI/18	F70	F70	33-34-56.02N	117-07-34.88W	1349.50		3.82	36.83	2,117.63	0.35	NASR
PAPI/36	F70	F70	33-33-58.06N	117-07-50.13W	1339.50		2.08	180.29	4,164.53	0.69	NASR
REIL/36	F70	F70	33-33-58.06N	117-07-50.13W	1339.50		2.08	180.29	4,164.53	0.69	NASR
ASR	NFG	NFG	33-17-14.41N	117-19-50.55W	628.00	36.50	0.39	210.1	122,001.59	20.08	OEAAA
Within 60NM if a wind turbine and smooth earth LOS exists.											
ASR	PSP	PSP	33-50-05.26N	116-30-22.68W	435.70	47.00	0.27	63.58	211,670.89	34.84	OEAAA
Within 60NM if a wind turbine and smooth earth LOS exists.											
ASR	ONT	ONT	34-03-09.01N	117-35-39.56W	908.00	37.00	0.14	320.94	222,974.95	36.7	OEAAA
Within 60NM if a wind turbine and smooth earth LOS exists.											
ASR	NKX	NKX	32-52-59.77N	117-08-37.82W	444.00	77.00	0.22	180.93	252,671.03	41.58	OEAAA
Within 60NM if a wind turbine and smooth earth LOS exists.											
ASR	LGB	LGB	33-47-30.41N	118-00-08.06W	56.00	67.00	0.28	286.62	276,407.37	45.49	OEAAA
Within 60NM if a wind turbine and smooth earth LOS exists.											
ARSR	QRW		32-52-33.61N	116-24-54.07W	6205.00	25.20	-0.81	139.2	336,224.52	55.34	OEAAA
Within 200NM if a wind turbine and smooth earth LOS exists.											
ARSR	QLA		33-44-45.33N	118-20-10.53W	1477.00	48.50	-0.01	279.81	371,977.63	61.22	OEAAA
Within 200NM if a wind turbine and smooth earth LOS exists.											
ARSR	NSD		32-53-04.00N	118-27-03.50W	1959.00	75.00	-0.07	238.37	476,084.62	78.35	OEAAA
Within 200NM if a wind turbine and smooth earth LOS exists.											
ARSR	QSR		35-04-56.12N	117-34-56.21W	3015.00	85.30	-0.16	346.14	564,340.36	92.88	OEAAA
Within 200NM if a wind turbine and smooth earth LOS exists.											

Long Range Radar Search results:
0 Long Range Radar(s) were found for LOCATION: 33-34-39.26N / 117-07-49.88W (NAD83) SE: 1336.0 AGL: 155.0 AMSL: 1491.0

USAF Radar Search results:
1 Radar(s) were found for LOCATION: 33-34-39.26N / 117-07-49.88W (NAD83) SE: 1336.0 AGL: 155.0 AMSL: 1491.0

Site 3

Federal Aviation Administration

« OE/AAA

You may search about (center point):

Search radius: 5.0 Nautical miles

○ A specific OE Case:	❤ -	❤ -		- OE	OE Case Number			
○ A specific NRA Case:	❤ -	❤ -		- NRA	NRA Case Number			
○ A specific NR Case:	❤ -	❤ -		- NR	NR Case Number			
● A specific location:	Latitude:	33 -	34 -	39.9	N ❤	SE:	1335	
	NAD 83 ❤							
	Longitude:	117 -	7 -	46.52	W ❤	AGL:	155	
						AMSL:	1490	

Search

Facility Search results:
14 Facilities were found for LOCATION: 33-34-39.90N / 117-07-46.52W (NAD83) SE: 1335.0 AGL: 155.0 AMSL: 1490.0

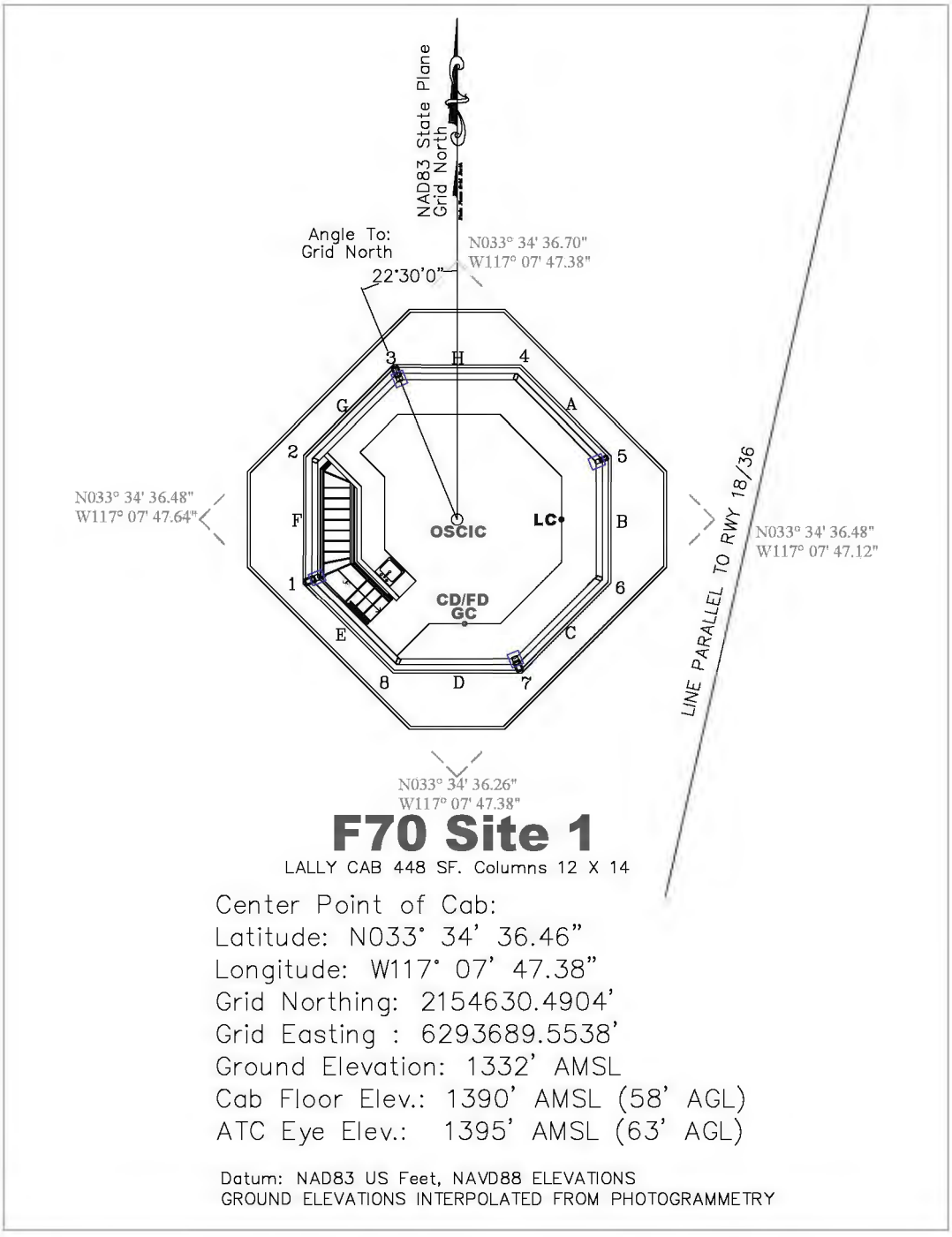
Facility	Facility Id	Apt ID	Latitude	Longitude	Ground Elev (FT)	Facility AGL(FT)	Vertical Angle (Degs)	Azimuth	Dist (FT)	Dist (NM)	Source
AWOS	F70	F70	33-34-53.41N	117-07-40.50W	1349.00	30.00	4.36	20.45	1,457.5	0.24	OEAAA
REIL/18	F70	F70	33-34-56.02N	117-07-34.88W	1349.50		4.22	31.14	1,904.81	0.31	NASR
PAPI/18	F70	F70	33-34-56.02N	117-07-34.88W	1349.50		4.22	31.14	1,904.81	0.31	NASR
PAPI/36	F70	F70	33-33-58.06N	117-07-50.13W	1339.50		2.03	184.13	4,240.19	0.7	NASR
REIL/36	F70	F70	33-33-58.06N	117-07-50.13W	1339.50		2.03	184.13	4,240.19	0.7	NASR
ASR	NFG	NFG	33-17-14.41N	117-19-50.55W	628.00	36.50	0.39	210.2	122,200.3	20.11	OEAAA
Within 60NM if a wind turbine and smooth earth LOS exists.											
ASR	PSP	PSP	33-50-05.26N	116-30-22.68W	435.70	47.00	0.27	63.56	211,387.52	34.79	OEAAA
Within 60NM if a wind turbine and smooth earth LOS exists.											
ASR	ONT	ONT	34-03-09.01N	117-35-39.56W	908.00	37.00	0.14	320.88	223,103.99	36.72	OEAAA
Within 60NM if a wind turbine and smooth earth LOS exists.											
ASR	NKX	NKX	32-52-59.77N	117-08-37.82W	444.00	77.00	0.22	180.99	252,740.48	41.6	OEAAA
Within 60NM if a wind turbine and smooth earth LOS exists.											
ASR	LGB	LGB	33-47-30.41N	118-00-08.06W	56.00	67.00	0.28	286.59	276,661.31	45.53	OEAAA
Within 60NM if a wind turbine and smooth earth LOS exists.											
ARSR	QRW		32-52-33.61N	116-24-54.07W	6205.00	25.20	-0.81	139.25	336,087.84	55.31	OEAAA
Within 200NM if a wind turbine and smooth earth LOS exists.											
ARSR	QLA		33-44-45.33N	118-20-10.53W	1477.00	48.50	-0.01	279.8	372,246.75	61.26	OEAAA
Within 200NM if a wind turbine and smooth earth LOS exists.											
ARSR	NSD		32-53-04.00N	118-27-03.50W	1959.00	75.00	-0.07	238.39	476,360.62	78.4	OEAAA
Within 200NM if a wind turbine and smooth earth LOS exists.											
ARSR	QSR		35-04-56.12N	117-34-56.21W	3015.00	85.30	-0.16	346.11	564,345.73	92.88	OEAAA
Within 200NM if a wind turbine and smooth earth LOS exists.											

Long Range Radar Search results:
0 Long Range Radar(s) were found for LOCATION: 33-34-39.90N / 117-07-46.52W (NAD83) SE: 1335.0 AGL: 155.0 AMSL: 1490.0

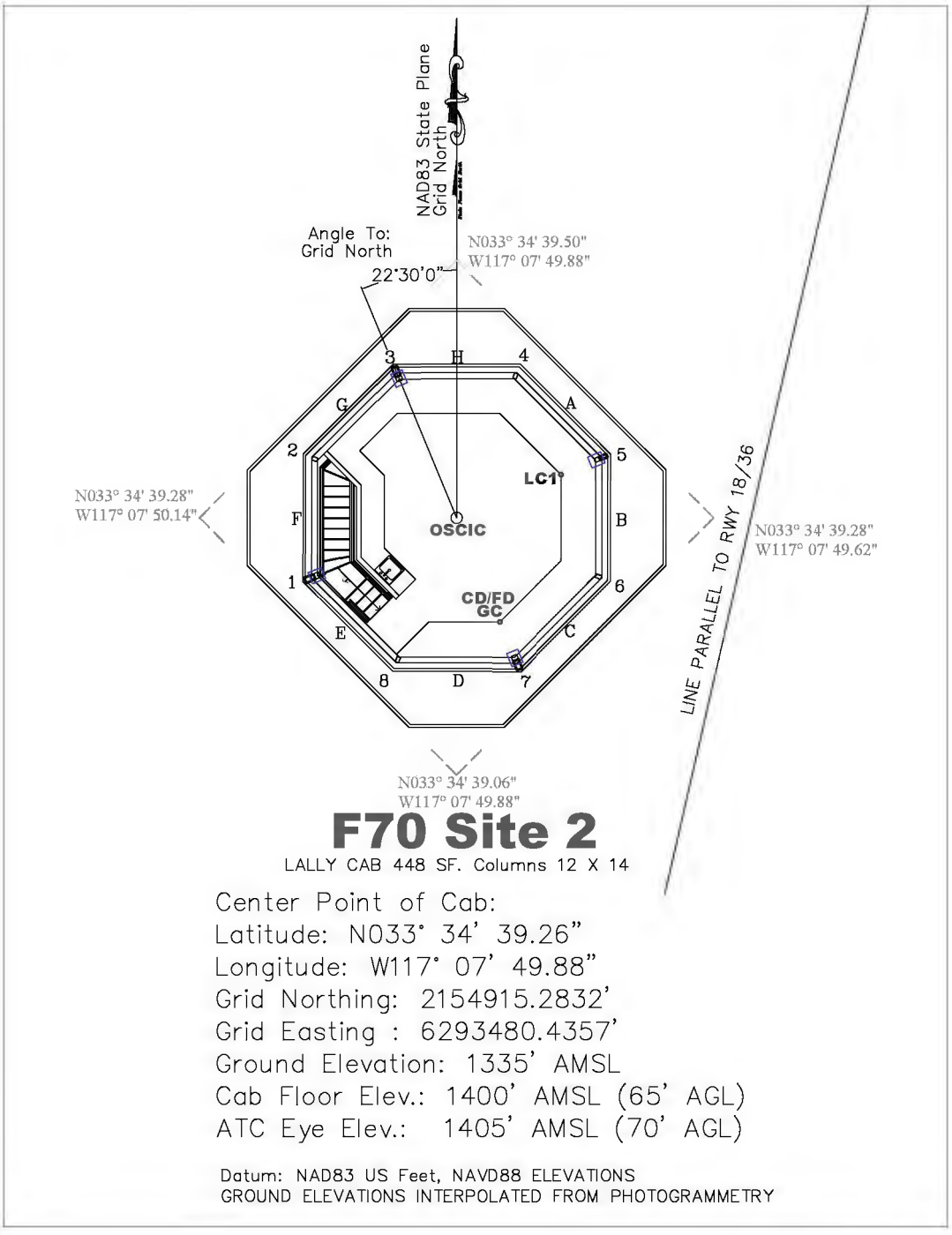
USAF Radar Search results:
1 Radar(s) were found for LOCATION: 33-34-39.90N / 117-07-46.52W (NAD83) SE: 1335.0 AGL: 155.0 AMSL: 1490.0

8. Controller Position and Cab Orientation Drawings

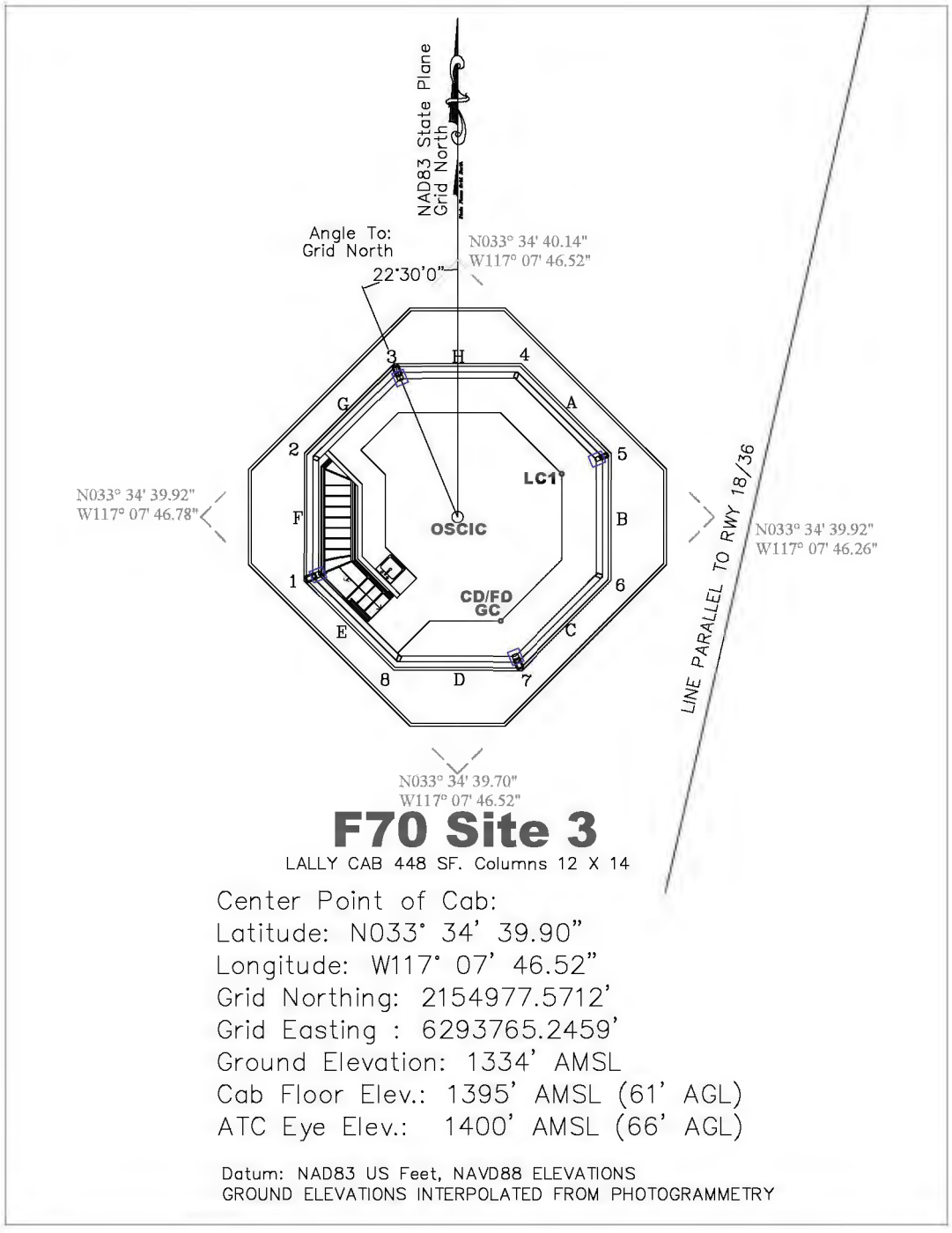
Site 1



Site 2


NAD83 State Plane Grid North
Angle To: Grid North
22°30'0"
N033° 34' 39.50"
W117° 07' 49.88"
N033° 34' 39.28"
W117° 07' 50.14"
N033° 34' 39.28"
W117° 07' 49.62"
N033° 34' 39.06"
W117° 07' 49.88"
LINE PARALLEL TO RWY 18/36
LC1°
OSCIC
CD/FD
GC
F70 Site 2
LALLY CAB 448 SF. Columns 12 X 14
Center Point of Cab:
Latitude: N033° 34' 39.26"
Longitude: W117° 07' 49.88"
Grid Northing: 2154915.2832'
Grid Easting : 6293480.4357'
Ground Elevation: 1335' AMSL
Cab Floor Elev.: 1400' AMSL (65' AGL)
ATC Eye Elev.: 1405' AMSL (70' AGL)
Datum: NAD83 US Feet, NAVD88 ELEVATIONS
GROUND ELEVATIONS INTERPOLATED FROM PHOTOGRAMMETRY

Site 3


NAD83 State Plane Grid North
Angle To: Grid North
22°30'0"
N033° 34' 40.14"
W117° 07' 46.52"
N033° 34' 39.92"
W117° 07' 46.78"
N033° 34' 39.92"
W117° 07' 46.26"
N033° 34' 39.70"
W117° 07' 46.52"
LINE PARALLEL TO RWY 18/36
LC1°
OSCIC
CD/FD
GC
F70 Site 3
LALLY CAB 448 SF. Columns 12 X 14
Center Point of Cab:
Latitude: N033° 34' 39.90"
Longitude: W117° 07' 46.52"
Grid Northing: 2154977.5712'
Grid Easting : 6293765.2459'
Ground Elevation: 1334' AMSL
Cab Floor Elev.: 1395' AMSL (61' AGL)
ATC Eye Elev.: 1400' AMSL (66' AGL)
Datum: NAD83 US Feet, NAVD88 ELEVATIONS
GROUND ELEVATIONS INTERPOLATED FROM PHOTOGRAMMETRY

9. Post-siting Actions

Item	Action	POC	Due Date	Comments
1	**Meeting Minutes**	National Coordinator/ Technical Writer	2 weeks after the Siting Assessment	Develop meeting minutes and distribute to all participants.
2	**Memo of Record for Recommended Site**	National Coordinator/ Technical Writer	Last day of the Siting Assessment	Initiate the Memo of Record on the Recommended Site on the last day of the siting and obtain signatures.
3	**Initiate Safety Assessment**	Safety Facilitator	To meet Siting Report date.	Send initial draft of Safety Assessment to Team.
4	**Initiate Phase I ESA**	Airport Sponsor for FCTs/NFCTs conducted via reimbursable agreement.	Initiate within 2 weeks of completion of the Siting Assessment	Phase I ESA (per the latest version of ASTM International Standard E1527, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process)* is required on each of the preferred sites.
5	**7460s**	Airport Sponsor for sitings conducted via reimbursable agreement.	Submit within 2 weeks of completion of the Siting Assessment	Submit FAA Form 7460's for a feasibility study on all preferred sites via the OE/AAA website.
6	**Initiate Siting Report**	Sponsor – Airport Sponsor	Submit the final draft of the report to the Terminal Facilities Siting Team no later than 5 months after the siting assessment.	Sponsor: The Airport Sponsor is responsible for development of the Siting Report, which includes the SRM Document authored by the ATCT Siting SMS Facilitator. The Airport Sponsor will deliver the draft of the siting report to all participants. After the Airport Sponsor has resolved all comments, the Airport Sponsor should submit the final draft of the report to the Terminal Facilities Siting Team no later than 5 months after the siting assessment.
7	**Service Area Coordination & Issue Resolution**	Terminal Facilities Siting Team	Ongoing	All team members are tasked to resolve issues within their area of expertise identified during the siting. The Terminal Engineering – Lead Project Engineer (if applicable) will provide the follow-up coordination, as needed.
8	**Siting Report Approval**	The Terminal Facilities Siting Team will coordinate Siting Report approval, with the assistance of the PIM, as follows:	6 months after the Siting Assessment	(1) The PIM will brief the siting report to the Service Area Director of Air Traffic Operations and Service Area Director of Technical Operations for their concurrence. (2) The Terminal Facilities Siting Team will brief the siting report to the Director of Facilities & Engineering Services for their concurrence.

Item	Action	POC	Due Date	Comments
9	**Issue Final Siting Report**	Terminal Facilities Technical Writer	After siting report approval	After approval, the Siting Report will be posted on an electronic document management system.
10	**Update Airport Layout Plan**	Airport Manager	Within 60 days after the Siting Assessment	The Airport Sponsor must identify the recommended site on the current ALP to ensure protection of the LOS, and subsequently notify the National Coordinator via e-mail once this action is complete.
11	**Update Aeronautical Study**	Technical Operations – Facilities & Engineering Services Sponsor	As soon as possible.	Technical Operations – Facilities & Engineering Services will resubmit FAA Form 7460-1 to update the aeronautical study to protect the LOS of the recommended site. Sponsor – Sponsor will resubmit FAA Form 7460-1 to update the aeronautical study to protect the LOS of the recommended site.
12	**Siting Hazard Analysis**	Lead Engineer/ National Coordinator Sponsor	TBD by the Lead Engineer	**FAA.** The **Lead Engineer** will notify the National Coordinator to coordinate siting hazard analysis before the design phase, construction phase, and facility commissioning. This is necessary due to the potential delays between ATCT siting and facility commissioning. Siting hazard analyses are conducted to verify that the site has not been compromised and hazard mitigation strategies are in place. **Sponsor.** The Airport Sponsor will coordinate a siting hazard analysis before the design phase, construction phase, and facility commissioning. This is necessary due to the potential delays between ATCT siting and facility commissioning. Siting hazard analyses are conducted to verify that the site has not been compromised and hazard mitigation strategies are in place.
13	**Provide RDWB-Validated Equipment and Positions (if applicable)**	Terminal Facilities Planning	TBD by Terminal Facilities Planning	Terminal Planning shall provide to Terminal Facilities DEI Requirements Document Workbook (RDWB) Lead National Coordinator a list of equipment and cab controller positions that have been validated per the RDWB for the project. This list shall be used for the tower cab model. Send data to the Electronics Engineer

Item	Action	POC	Due Date	Comments
14	**Review/Modify Controller Positions and Equipment Placement During Design Phase**	Lead Engineer/ Electronics Engineer	Design Phase	Provide air traffic controllers the opportunity to review/modify controller positions and equipment placement during the design phase. This can be accomplished using 3-D/VR, as available.
15	**Siting Report Renewal Process**	National Coordinator	18 months after the Siting and Safety Assessment	The National Coordinator will coordinate with the core stakeholders to renew the siting report results. This includes the following: **a.** Determining if there are any changes to the ALP that will impact the tower sites. **b.** Resubmit the FAA Form 7460-1 as appropriate. **c.** Prepare a memo of record to confirm the validation of the siting report. The memo will be uploaded to an electronic document management system.

APPENDIX B

AIR QUALITY ANALYSIS

MEMORANDUM: F70 Tower Construction Emissions

To:	Angela Jamison, Riverside County, Transportation and Land Management Agency (TLMA)
From:	Patricia Song, Air Quality Analyst
Subject:	Air Quality Analysis in support of a proposed Air Traffic Control Tower at the French Valley Airport (F70)
Date:	October 29, 2024

1 Introduction

French Valley Airport (F70) is a public use airport located near the town of Murrieta in Riverside County. California, approximately 90 miles southeast of Los Angeles. The airport serves general aviation, pilot training, and charter operations. Riverside County proposes to construct a new air traffic control tower (ATCT) to enhance safety at F70. The proposed project will not increase airport capacity or operations but provide a means of airfield safety through effective air traffic communication and ground movement.

Construction of the proposed ATCT is anticipated to commence in Spring 2026 with a construction duration period of 6 to 7 months. The maximum number of construction workers is anticipated to be 35 employees/day at peak utilization (1 month during main tower construction), with average of 15 workers per day. The project site is estimated to be 3.9 acres with the tower footprint, including parking space, being 10,404 square feet, an interior roadway area leading from the public street to the tower that is an estimated 11,135 square feet in area. An estimated construction schedule is as follows:

1. Mobilization after Notice-to-Proceed (NTP) – 1 month
2. Rough site grading and main utility installation to stubs – 14 days
3. Final site grading, site paving, foundation placement – 7 days
4. Foundation curing, parking lot electrical and striping – 14 days
5. Main tower structure construction – 1 month
6. Connection of utilities to tower, tower equipment, interior completion – 3 months
7. Fencing and security gate, final closeout items, substantial completion – 14 days

This memorandum documents the air quality analysis and results associated with the construction of the proposed project in support of a forthcoming Initial Study/Mitigated Negative Declaration in accordance with the California Environmental Quality Act (CEQA).

The analysis results show that the estimated construction emissions for each criteria pollutant do not exceed the CEQA thresholds for significant air quality effects used by Riverside County. Riverside County's thresholds are based on the air quality significance thresholds developed by the South Coast Air Quality Management District (SCAQMD).

2 CEQA and the South Coast Air Quality Management District

This memorandum documents the project's adherence to CEQA requirements. Appendix G of the CEQA Guidelines contains the Environmental Checklist Form, which addresses Air Quality and Greenhouse Gas Emissions. The proposed project's air quality emissions were assessed using the California Emissions estimator Model (CalEEMod), a statewide land use emissions model (vertical and linear-roadway land uses to provide a uniform platform for quantifying ozone precursors, criteria pollutants, and greenhouse gas emissions from construction and operations. CalEEMod calculates construction and operations emissions from land use development projects and construction emissions from linear projects. The model results can be used to support preparation of air quality and GHG analyses in CEQA documents or show compliance with local agency rules by local air districts.

The proposed project must comply with the Federal Clean Air Act (CAA). To comply with the CAA, the proposed impacts to air quality must conform to the conditions of the applicable State implementation Plan (SIP), also known as General Conformity. The CEQA thresholds and requirements act as an equivalent to the EPA's *de minimis* thresholds for California projects. If a project's net emissions are less than the thresholds, then the project is considered to be too small to adversely affect the air quality status of the area and is automatically considered to conform with the applicable SIP, thereby complying with general conformity requirements.

When evaluating the emissions associated with a proposed project, Riverside County uses the CEQA thresholds for criteria pollutants established by SCAQMD, which provide a minimum threshold for air pollutants by type to assess localized air quality impacts. **Table 1** presences the threshold for each pollutant by daily and annual thresholds. Thresholds are provided for both project construction and project operations once the project is complete and operational.

Table 1 Tons/Year of Pollutant by Source for CEQA Thresholds

Pollutant	Oxides of Nitrogen (NO_x)	Volatile Organic Compounds (VOCs)	Particulate Matter ,10 microns in diameter (PM_{10})	Particulate Matter ,2.5 microns in diameter ($PM_{2.5}$)	Oxides of Sulfur (SO_x)	Carbon monoxide (CO)	Lead (Pb)	Greenhouse Gases (CO_2e)*
Construction Emissions								
Daily Threshold (lb/day)	100	75	150	55	150	550	3	60,400.55
Annual Threshold (ton/yr)	18.25	13.69	27.38	10.04	27.38	100.38	0.55	11,023.10
Operation Emissions								
Daily Threshold (lb/day)	55	55	150	55	150	550	3	60,400.55
Annual Threshold (ton/yr)	10.04	10.04	27.38	10.04	27.38	100.38	0.55	11,023.10

Source: South Coast Air Quality Management District
*For industrial facilities, converted from 10,000 metric tons/year

3 Methodology

The California Emissions Estimator Model (CalEEMod), version 2022.1.1.28 was used to estimate the construction emissions associated with the proposed project and its elements. CalEEMod was originally developed for the California Air Pollutions Officers Association in collaboration with the SCAQMD as a modeling tool to assist local public agencies with estimating air quality impacts from local projects. CalEEMod calculates construction and operations emissions from land use development projects and construction emissions from linear projects. The model quantifies maximum daily, average daily, average quarterly, and annual emissions. For this project the model was used to calculate the short-term construction emissions from the vertical (areal) and linear project components associated with: demolition, site preparation, grading, building construction, paving, and architectural coating from the following sources:

- Construction
  - Exhaust emissions from off-road construction equipment.
  - Exhaust emissions from on-road mobile vehicles (workers, vendors, hauling, and onsite trucks).
  - Fugitive dust emissions from grading, bulldozing, truck loading, demolition, and on-road vehicles traveling along paved and unpaved roads.
  - Evaporative volatile organic compound (VOC) emissions from architectural coating and paving activities.
  - Indirect GHG emissions from electricity consumption.
- Operations
  - Daily travel to and from the Tower by workers and visitors

CalEEMod incorporates the latest California Emissions Factors from where the project is located (EMFAC 2017). For the linear (Roadway) components (Bridge/Overpass Construction, Road Construction, Road Widening, and User Defined Linear), CalEEMod incorporates the Sacramento Metropolitan Air Quality Management District Road Construction Emissions Model (RCEM), Version 9.0.0 (last updated in 2018).

CalEEMod Land Use types do not include specific subtypes that fully encompass the construction of an airport ATCT so a ‘User Defined Industrial’ subtype was selected to best represent the land use type of an airport ATCT. The CalEEMod a model run was carried out for the project and was determined to consist exclusively of vertical components for emissions analysis. The Vertical Components, phases, schedule, and duration are shown in **Table 2**. Table 2 Vertical Components and Assumptions

Vertical Construction (Land Use Development)

Phase Name	Phase Type	Start Date	End Date	Days/Week	Work Days per Phase
Site Preparation	Site Preparation	5/1/2026	5/5/2026	5 Days/Week	3
Grading	Grading	5/6/2026	6/3/2026	5 Days/Week	21
Construction	Building Construction	6/3/2026	12/7/2026	5 Days/Week	134
Paving	Paving	7/14/2026	7/22/2026	5 Days/Week	7
Architectural Co:	Architectural Coating	5/7/2026	5/27/2026	5 Days/Week	15

The CalEEMod model default assumptions for each activity construction equipment, and characteristics including engine tier, numbers horsepower, and load factors were then reviewed and used for the analysis. For this project, additional equipment was added to the default list to provide a more comprehensive equipment list specific to the construction of an ATCT. The equipment is modeled for each construction phase. The model defaults for fuel type, engine tier, and horsepower were used in conjunction with manually adjusted number/day and hours/day working times for each equipment type. **Table 3** presents a selection of equipment used for the building construction phase of the proposed project.

Table 3 ATCT Building Construction Phase CalEEMod Off-Road Construction Equipment List

Equipment Type	Fuel Type	Engine Tier	Number/Day	Hours/Day	Horsepower	Load Factor
Cranes	Diesel	Average	1	7	367	0.29
Forklifts	Diesel	Average	3	8	82	0.2
Generator Sets	Diesel	Average	1	8	14	0.74
Tractors/Loaders/Backhoes	Diesel	Average	3	7	84	0.37
Welders	Diesel	Average	1	8	46	0.45
Aerial Lifts	Diesel	Average	1	8	46	0.31
Air Compressors	Diesel	Average	1	8	37	0.48
Bore/Drill Rigs	Diesel	Average	1	8	83	0.5
Cement and Mortar Mixers	Diesel	Average	1	8	10	0.56
Concrete/Industrial Saws	Diesel	Average	1	8	33	0.73
Crawler Tractors	Diesel	Average	1	8	87	0.43
Crushing/Proc. Equipment	Gasoline	Average	1	8	12	0.85
Dumpers/Tenders	Diesel	Average	1	8	16	0.38
Excavators	Diesel	Average	1	8	36	0.38
Graders	Diesel	Average	1	8	148	0.41
Other Construction Equipment	Diesel	Average	1	8	82	0.42
Other General Industrial Equipment	Diesel	Average	1	8	35	0.34
Other Material Handling Equipment	Diesel	Average	1	8	93	0.4
Pavers	Diesel	Average	1	8	81	0.42

Paving Equipment	Diesel	Average	1	8	89	0.36
Plate Compactors	Diesel	Average	1	8	8	0.43
Pressure Washers	Diesel	Average	1	8	14	0.3
Pumps	Diesel	Average	1	8	11	0.74
Rollers	Diesel	Average	1	8	36	0.38
Rough Terrain Forklifts	Diesel	Average	1	8	96	0.4
Rubber Tired Dozers	Diesel	Average	1	8	367	0.4
Rubber Tired Loaders	Diesel	Average	1	8	150	0.36
Scrapers	Diesel	Average	1	8	423	0.48
Signal Boards	Diesel	Average	1	8	6	0.82
Skid Steer Loaders	Diesel	Average	1	8	71	0.37
Scrapers	Diesel	Average	1	8	399	0.3
Signal Boards	Diesel	Average	1	8	6	0.82
Skid Steer Loaders	Diesel	Average	1	8	71	0.37
Surfacing Equipment	Diesel	Average	1	8	399	0.3
Sweepers/Scrubbers	Diesel	Average	1	8	36	0.46
Tractors/Loaders/Backhoes	Diesel	Average	1	8	84	0.37

Sources: CalEEMod and Mead & Hunt

For On Road emissions, the number of trips for workers, vendors (water trucks, cement trucks), hauling to/from the site, and on-site vehicle use were then reviewed and updated by engineers familiar with the construction of ATCTs. The assumptions for fugitive dust created by equipment movement for each phase are presented **in Table 4**.

Table 4 Construction On-Road Fugitive Dust Assumptions

	Percent (%) of Travel on Paved Roads				Roadway Characteristics			Vehicle Characteristics	
Phase Name	% Pave Worker	% Pave Vendor	% Pave Hauling	% Pave Onsite Truck	Road Silt Loading (g/m²)	Material Silt Content (%)	Material Moisture Content (%)	Average Vehicle Weight (tons)	Mean Vehicle Speed (mph)
Site Preparation	100	100	100	0	0.1	8.5	0.5	2.4	40
Grading	100	100	100	0	0.1	8.5	0.5	2.4	40
Architectural Coating	100	100	100	0	0.1	8.5	0.5	2.4	40
Construction	100	100	100	0	0.1	8.5	0.5	2.4	40
Paving	100	100	100	0	0.1	8.5	0.5	2.4	40

Once the project is operational the following conservative assumptions were used for the operational emissions analysis.

- Two air traffic controllers on duty at all times/six per day (in most cases, only one controller will be present)
- Three shifts per day
- Twelve daily trips per day (six work-to-home trips and six home to work trips per day (2 trips per worker) with average trip distance of 27.98 miles per trip (from CalEE inputs for Riverside County)
- Six work-to-other trips per day for lunch etc. and 13.77 miles per trip
- Two other-to-other trips per day for visitors and other miscellaneous trips.

- 80 percent of trips made by private vehicles and 20 percent made by light duty trucks

4 Modeling Results and Conclusion

Table 5 provides a comparison of the construction project level emissions for each criteria pollutant alongside the thresholds established by SCAQMD (provided in Table 1). **Table 6** provides the operational emissions for ATCT operations.

As shown, the project level emissions for all the criteria pollutants fall well below the *de minimis* thresholds; therefore, the proposed project is presumed to conform, and a formal General Conformity Determination is not required. In addition, the proposed project would not significantly affect air quality, because no criteria pollutant would exceed its respective threshold.

Table 5. Summary of Construction Emissions and CEQA Thresholds

Pollutant	NO_x	VOC/ROG	PM_{10}	$PM_{2.5}$	SO_x	CO	CO_2e
Construction Emissions Thresholds							
Daily Threshold (lb/day)	100	75	150	55	150	550	60,400.55
Annual Threshold (ton/yr)	18.25	13.69	27.38	10.04	27.38	100.38	11,023.10
Estimated Unmitigated Construction Emissions							
Daily (lb/day)	15.45	15.45	3.06	1.32	0.05	46.45	5718.23
Annual (ton/yr)	2.82	2.82	0.56	0.24	0.01	8.48	946.72

Table 6 Summary of Operations emissions and CEQA Thresholds

Pollutant	NO_x	VOC/ROG	PM_{10}	$PM_{2.5}$	SO_x	CO	CO_2e
Operation Emissions Thresholds							
Daily Threshold (lb/day)	55	55	150	55	150	550	60,400.55
Annual Threshold (ton/yr)	10.04	10.04	27.38	10.04	27.38	100.38	11,023.10
Estimated Unmitigated Operations Emissions							
Daily (lb/day)	3.70	0.88	1.35	0.64	0.01	6.55	1188.45
Annual (ton/yr)	0.68	0.16	0.25	0.12	0.00	1.20	196.76

APPENDIX C

BIOLOGICAL RESOURCE ASSESSMENT AND JURISDICTIONAL DETERMINATION

French Valley Airport

Air Traffic Control Tower Siting

Biological Resource Assessment & Jurisdictional Delineation

prepared for

Mead and Hunt
180 Promenade Circle, Suite 240
Sacramento, California 95834
Contact: Lisa Harmon
Via email: lisa.harmon@meadhunt.com

prepared by

Caskey Biological Consulting, LLC
2604 B El Camino Real #341
Carlsbad, California 92008

February 2024

Caskey
biological consulting

Table of Contents

Figures

Tables

Appendices

1 Introduction

Caskey Biological Consulting, LLC (Caskey) prepared this biological resource assessment and jurisdictional delineation report to document the existing conditions for the French Valley Airport (F70) Air Traffic Control Tower (ATCT) Siting Project (Project) and to evaluate the potential for Project-related impacts to sensitive biological resources and waterways.

The purpose of this document is to provide technical information on the Project site and survey buffers (Study Area), and to determine to what extent the Project may impact special-status species and sensitive natural communities.

1.1 Project Location

The Study Area is located in the City of Murrieta within the French Valley Airport. Regionally, the Study Area is in the southwestern portion of Riverside County (Figure 1). The approximate center of the Project site is at latitude 33.577707°N and longitude -117.130130°W (WGS84) (Figure 2) and is located within the *Murrieta, California* United States Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 3). The Project site elevation ranges between approximately 1,335 and 1,340 feet (ft.) above mean sea level (msl).

1.2 Project Description

The Project will involve the construction of a new ATCT within the F70 airfield. Currently, Riverside County, the owner and operator of F70, is conducting an assessment on three potential locations for the new ATCT.

Proposed ATCT Site No. 1 is located west of Runway 18/36 within the Study Area. The site is approximately 600 feet west of the runway centerline and is accessible from Sky Canyon Road which runs parallel to the Study Area and airport boundary. ATCT construction would require a paved parking area, additional paved interior road to connect the site to Sky Canyon Road, security fencing, and lighting (Figure 2).

Proposed ATCT Site No. 2 is located west of Runway 18/36 within the Study Area. The site is approximately 875 feet from the runway centerline and is accessible from Sky Canyon Road which runs parallel to the Study Area and airport boundary. ATCT construction would require a paved parking area, additional paved interior road to connect the site to Sky Canyon Road, security fencing, and lighting (Figure 2).

Proposed ATCT Site No. 2 is located west of Runway 18/36 within the Study Area. The site is approximately 600 feet west from the runway centerline and is accessible from Sky Canyon Road which runs parallel to the Study Area and airport boundary. ATCT construction would require a paved parking area, additional paved interior road to connect the site to Sky Canyon Road, security fencing, and lighting (Figure 2).

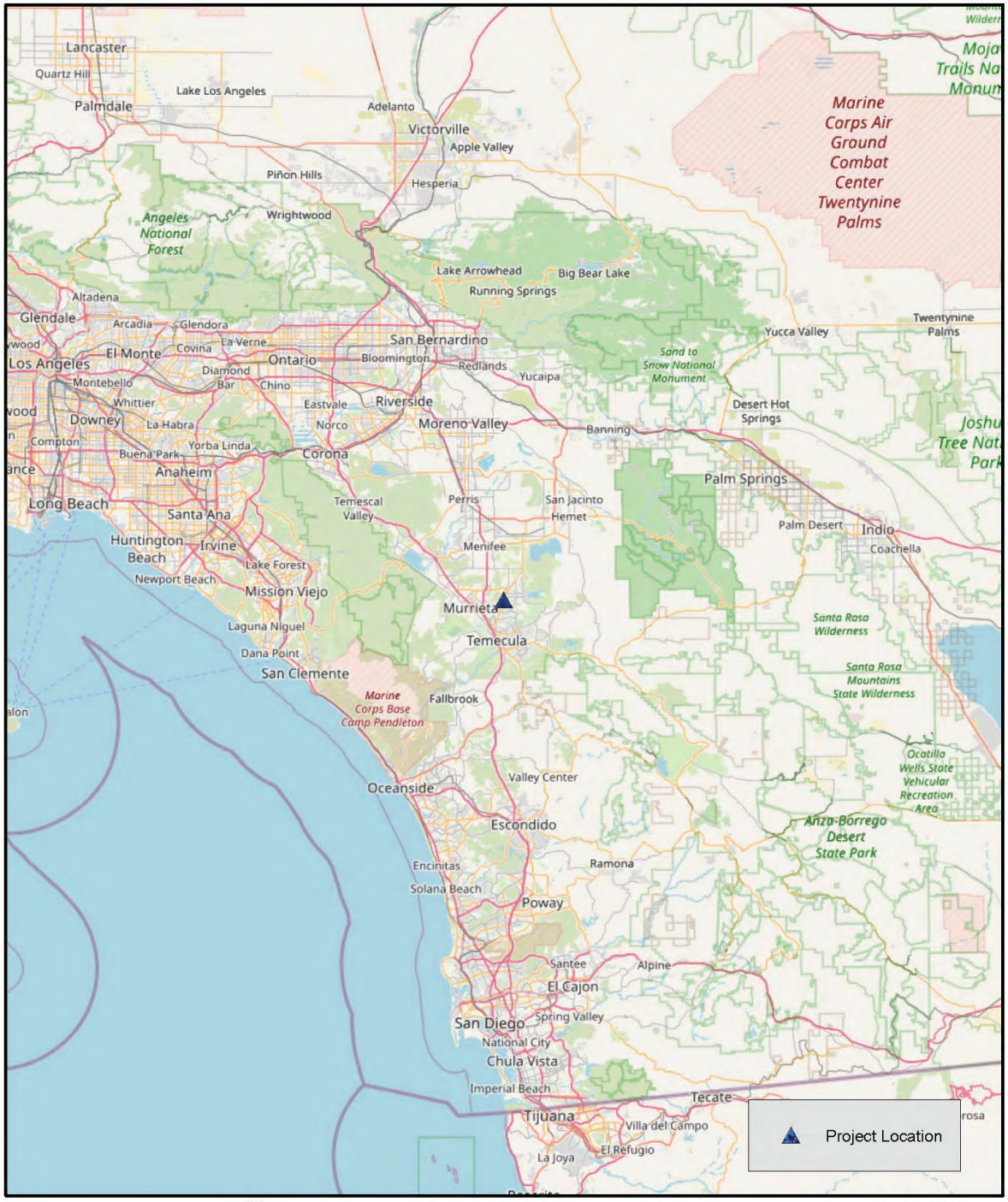


FIGURE 1
Regional Location

Caskey biological consulting

DATE: February 22, 2024
COORDINATE SYSTEM: NAD 1983 State Plane California Zone VI (feet)
SOURCE: ESRI Open Street Map, CBC

PROJECT:
French Valley Airport
Tower Siting

Figure 1 - Regional Map

Figure 2 - Study Area Map

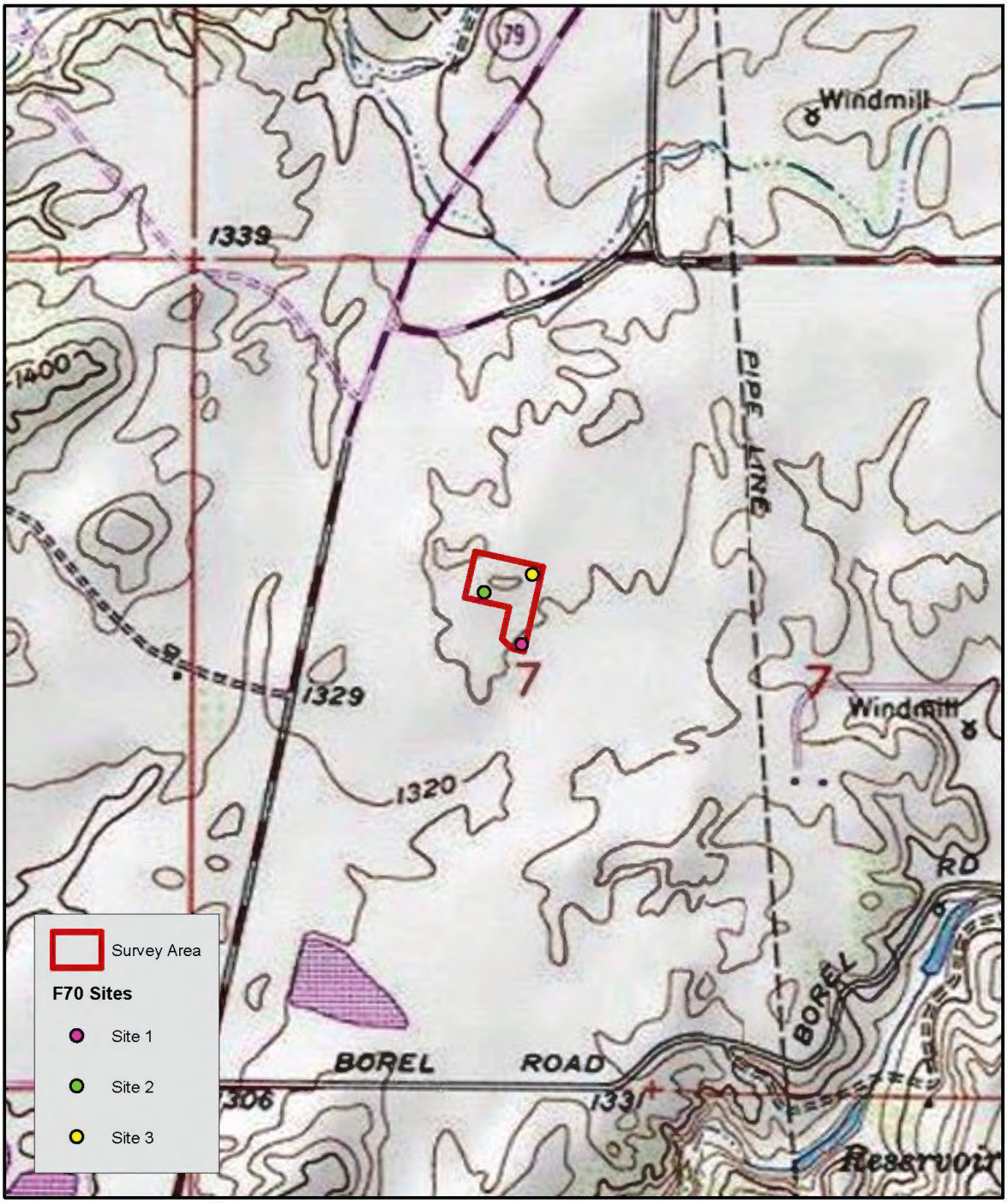


Figure 3 – Work Area Topographic Map

2 Methodology

2.1 Database and Literature Review

Prior to conducting the field surveys, thorough literature review and records searches were conducted to determine which special-status biological resources may potentially occur on or within the vicinity of the survey area. Previous special-status plant and wildlife species occurrence records within the USGS *Murrieta* quadrangle were determined through queries of the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation system (IPaC; USFWS 2024), CDFW California Natural Diversity Database (CNDDB, CDFW 2024a), and the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants (CNPS 2024a). All federally- and state-listed, fully protected species (FP), Species of Special Concern (SSC), Watch List (WL), and plants with a California Rare Plant Ranking (CRPR) of 1-4 that could be present based on the record search were evaluated. Species were not discussed if there is no record of occurrence, or the species has been extirpated within one mile of the proposed action area. The results from these scientific database queries were compiled into a table provided in Appendix A. In addition to the above sources, Caskey reviewed aerial imagery depicting the Project site (Google Earth 2024), the Web Soil Survey (United States Department of Agriculture, Natural Resources Conservation Service [USDA NRCS] 2024), U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory Wetland Geodatabase (USFWS 2024), and other available background information.

2.2 Regulatory Overview

Regulated or sensitive biological resources and potentially jurisdictional waterbodies studied and analyzed herein include special-status plant and animal species, nesting birds and raptors, sensitive plant communities, and non-wetland and wetland waters. Regulatory authority over biological resources and jurisdictional waterbodies is shared by federal, state, and local authorities.

2.2.1 Special-Status Plant Species and Communities

- Species listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (FESA);
- Species listed or candidates for listing as rare, threatened, or endangered under the California Endangered Species Act (CESA) or Native Plant Protection Act (NPPA);
- Plant species with a California Rare Plant Rank (CRPR) of 1-4; and
- Sensitive Natural Communities under CDFW (2024b) and California Native Plant Society (CNPS).

2.2.2 Special-Status Wildlife Species

For the purposes of this report, special-status species include:

- Species listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (FESA);
- Species listed or candidates for listing as rare, threatened, or endangered under the California Endangered Species Act (CESA);
- Species designated as Fully Protected (FP) by Fish and Game Code (CFGC) Sections 3511, 4700, 5050, and 5515;
- Species identified as Species of Special Concern (SSC) by the California Department of Fish and Wildlife (CDFW);
- Species designated as Watch List (WL) by the CDFW;
    - WL defined as taxa that were previously designated as SSC, but no longer merit that status, or which do not yet meet SSC criteria, but for which there is a need for additional information to clarify status (CNDDB, 2024b); and
- Avian species protected by the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act.

2.2.3 Non-Wetland Waters of the United States

The United States Army Corp of Engineers (USACE) defines non-wetland waters of the U.S. (WOTUS) in the Arid West Region by determining the ordinary high water mark (OHWM) in stream channels. The OHWM is defined in 33 CFR 328.3€ as:

> *"…that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impresses on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas."*

Identification of OHWM involves assessments of stream geomorphology and vegetation response to the dominant stream discharge. Determining whether any non-wetland water is a jurisdictional WOTUS involves further assessment in accordance with the regulations, case law, and clarifying guidance as discussed below.

2.2.4 Wetland Waters of the United States

According to routine delineation procedure within the *Wetlands Delineation Manual* (USACE 1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008b), three indicators are used to classify an area as a wetland under the jurisdiction of the USACE: (1) a predominance of plant life that is adapted to life in wet conditions (hydrophytic vegetation); (2) soils that saturate, flood, or pond long enough during the growing season to develop anaerobic conditions in the upper part (hydric soils); and (3) permanent or periodic inundation or soil saturation, at least seasonally (wetland hydrology). The 2020 USACE National Wetland Plant List was used to determine the indicator status of

the examined vegetation by the following indicator status categories: Upland (UPL), Facultative Upland (FACU), Facultative (FAC), Facultative Wetland (FACW), and Obligate Wetland (OBL).

Additionally, Caskey evaluated sources of water, potential connections and distances to traditional navigable waters (TNWs), and other factors that affect whether waters qualify as WOTUS under current regulations. Due to recent efforts by the USACE to replace the Clean Water Rule with the pre-existing regulations and guidance, specific attention was dedicated during the survey to any features where jurisdictional status would be affected by the regulatory changes.

2.2.5 Waters of the State

The State Water Resources Control Board (SWRCB) has formally implemented the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (SWRCB 2019)*, which provides a wetland definition, framework for determining if a wetland is a water of the State, and wetland delineation procedures. The SWRCB defines an area as a wetland if, under normal circumstances:

(i) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both;

(ii) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and

(iii) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

The SWRCB's *Implementation Guidance for the Wetland Definition and Procedures for Discharges of Dredge and Fill Material to Waters of the State* (2020), states that waters of the U.S. and waters of the State should be delineated using the standard USACE delineation procedures, taking into consideration that the methods shall be modified only to allow for the fact that a lack of vegetation does not preclude an area from meeting the definition of a wetland. The SWRCB Procedures only apply to wetlands, and they do not include updated definitions or delineation methods for non-wetland aquatic features.

The limits of waters of the State, as defined under the Porter-Cologne Act (California Water Code section 13000 et seq.), were determined by first examining the topography and morphology to identify those features with an OHWM. The extent of waters of the State was delineated within these features as the boundaries of the streams/channels OHWM, coterminous with USACE's jurisdiction.

2.2.6 CDFW Streams and Riparian Habitat

The extent of potential streambeds, streambanks, and riparian habitat subject to CDFW jurisdiction under Section 1600 et seq. of the California Code, Fish and Game Code was delineated by reviewing the topography and morphology of potentially jurisdictional features to determine the outer limit of riparian vegetation, where present, or the tops of banks for stream features.

2.3 Field Survey

Caskey Principal Biologist, Jason Caskey, conducted a site visit and field survey on February 15, 2024. The Study Area, measuring approximately 4 acres, included the anticipated area of disturbance and a 100-foot buffer. Temperatures ranged from 57-59°F, and wind ranged from 2 to 4 miles per hour. The survey included walking meandering transects throughout the entirety of the Study Area to document the existing site conditions and to identify potentially jurisdictional waterbodies, including any potential wetlands and non-wetlands waters exhibiting an OHWM that could constitute WOTUS or WOS, along with associated riparian resources. During the survey, top of bank, including any associated riparian habitat, OHWM, and other observation points were mapped using FieldMaps for ArcGIS connected to a Geode + GNSS submeter unit and antenna global positioning system.

The potential for presence of sensitive biological resources, including sensitive plant and animal species, sensitive plant communities, and habitat for nesting birds protected by Federal and State laws were also evaluated. Assessments for the potential occurrence of special-status species are based upon known ranges, habitat preferences for the species, species listed in the USFWs IPaC consultation report, species occurrence records within one-mile radius of the Study Area from the CNDDB, and the survey results of the Study Area. The potential for each special-status species to occur in the Study Area were evaluated according to the following criteria:

- **Absent.** Few or none of the habitat components meeting the species requirements are present (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime), and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality, no documented CNDDB species occurrences within five miles of project, or documented occurrence is extirpated or species would have been identified on-site during biological surveys (focused-level, protocol-level, or otherwise), if present. The species is not likely to be found on the site.
- **Unlikely to Occur**. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a low probability of being found on the site.
- **Likely to Occur.** All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a moderate to high probability of being found on the site.
- **Present.** Species is observed on the site or has been recorded (e.g., CNDDB, other reports) on the site recently (within the last five years).

Representative photos from the site visits are provided in Appendix B. During the survey, an inventory of all plant and animal species observed was compiled and is provided in Appendix C.

3 Existing Site Conditions

This section summarizes the results of the literature review, biological resource assessment, and jurisdictional delineation. Discussions regarding the general environmental setting, vegetation communities present, plants and animals observed, potential special-status species issues, soil types, regional and local hydrology, and other possible constraints regarding the biological resources within the Study Area are presented below. Representative photographs of the Study Area are provided in Appendix B and a complete list of all plant and animal species observed on site during the field survey is provided in Appendix C.

The Study Area is located in Murrieta, California, within the French Valley Airport. Land uses in and around the Study Area consist of an airfield, airplane hangars, and commercial office buildings.

3.1 Vegetation Communities and Land Cover Types

Vegetation communities and land cover type in the Study Area include cheatgrass-medusahead grasslands (Table 1) (Figure 4). For a full list of vegetation observed during the field survey, please refer to Appendix C.

- **Cheatgrass-medusahead grassland**: This non-native community was present through the entirety of the Study Area and is the main cover type within the proposed work area. Cheatgrass (*Bromus tectorum*) was the dominant species with associated species primarily consisting of other non-native herbaceous species such as ripgrut grass (*Bromus diandrys*) and maltese star thistle (*Centaurea melitensis*).

Table 1 - Vegetation Communities and Land Cover Types within the Study Area

Vegetation Community/ Cover Types	Acreage	Global/State Sensitivity[1]
Cheatgrass-medusahead grassland	3.92	GNA/SNA
Total	**3.92**	

GNA = global rank not applicable; SNA = State rank not applicable (CDFW 2024b).

3.2 Soils

The USDA NRCS Web Soil Survey depicts two soil units within the Study Area: Buchenau silt loam, 2 to 8 percent slopes, and the Buren loam, deep, 2 to 8 percent slopes.

Buchenau silt loam, 2 to 8 percent slopes (BkC2) is a moderately well-drained alluvium soil derived from mixed sources. BkC2 has a typical soil profile of silt loam from 0 to 7 inches and loam from 7 to 45 inches. The soil is not rated as hydric (USDA NRCS 2024).

Buren loam, deep, 2 to 8 percent slopes (BxC2) is a moderately well-drained alluvium soil derived from mixed sources. The depth to the restrictive feature and water table was generally more than 80-inches. The typical soil profile is loam from 0 to 40 inches. BxC2 is not rated as a hydric soil (USDA NRCS 2024).

3.3 Hydrology

The Study Area is located within the Murrieta Creek Hydrological Unit Code (HUC) 1807030204. The Murrieta Creek watershed, within the Santa Margarita subbasin, contains Murrieta Creek and Temecula Creek, which drains an area encompassing approximately 588 square miles. Flows from stormwater run-off collects in Murrieta Creek and Temecula Creek where they combine into the Santa Margarita Creek south of Temecula. The Santa Margarita River's terminus is at the Pacific Ocean in Camp Pendleton located in north San Diego County, California (USGS 2024).

Caskey reviewed the USFWS National Wetlands Inventory (NWI) and the USGS National Hydrography Dataset prior to conducting the delineation. There were no mapped areas indicating potential wetlands or waterways within the NWI or National Hydrography Dataset database search.

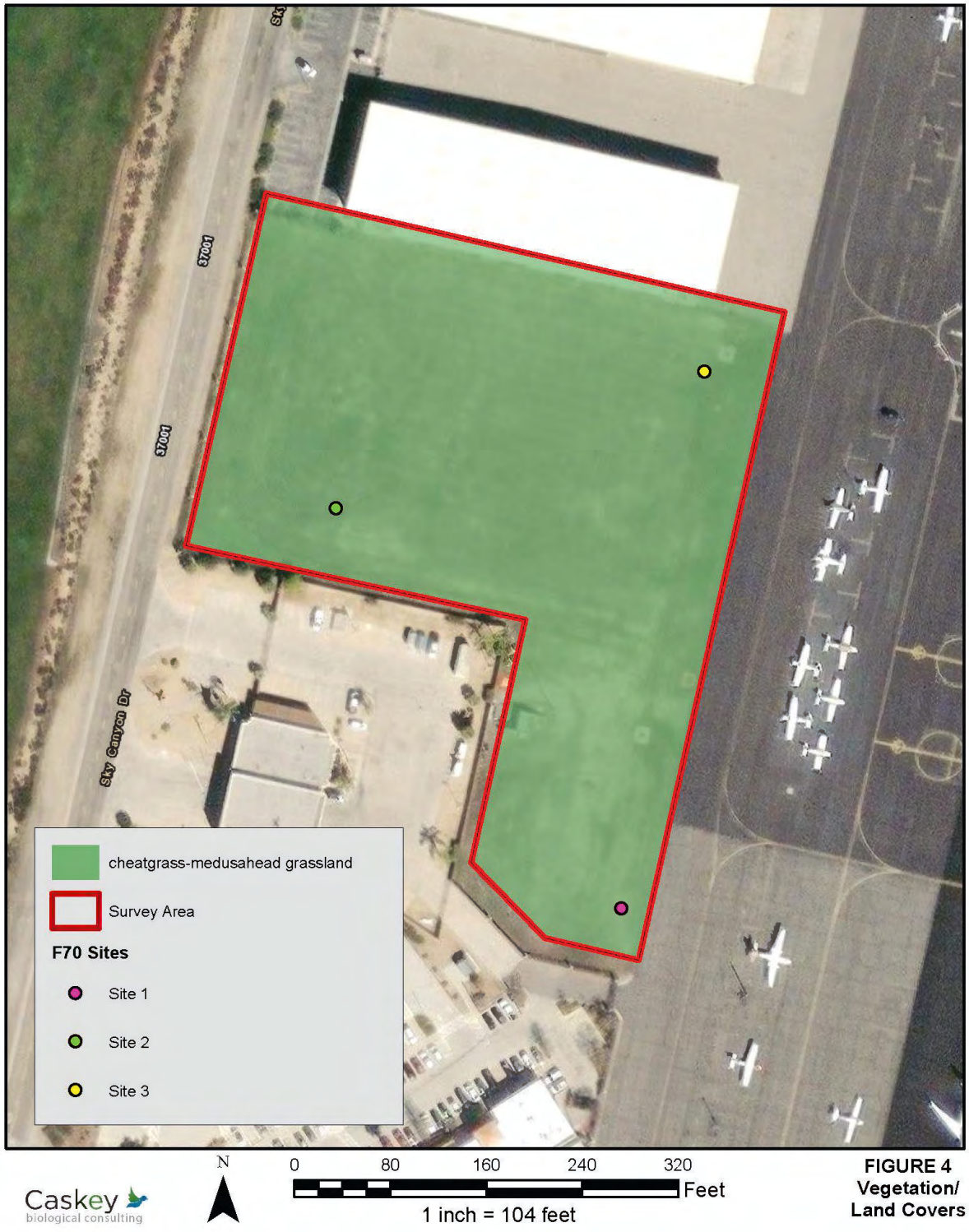


Figure 4 Vegetation/Land Covers Map

Figure 4 Vegetation/Land Covers Map

3.4 Observed Wildlife

No special-status species were observed within the Study Area during the biological resource assessment. Observed avian species included white-crowned sparrows (*Zonotrichia leucophrys*), mourning dove (*Zenaida macroura*), and a red-tailed hawk (*Buteo jamaicensis*). Abundant signs of active California ground squirrel (*Otospermophilus beecheyi*) burrows were observed within the Study Area. The burrows were identified as California ground squirrel based on direct observation of usage by the species. See Appendix C for a full list of species observed.

4 Results

This section discusses the findings of the biological resource assessment and jurisdictional delineation conducted within the Study Area. The criteria used to evaluate potential Project-related impacts to biological resources are presented in Section 2.3. For a complete evaluation of all species with a potential to occur, please refer to Appendix A.

4.1 Special-Status Species

4.1.1 Special-Status Plant Species

According to the CNDDB and CNPS three-mile radius search, ten (10) special-status plant species are known to have the potential to occur within the vicinity of the Study Area (Appendix A) while an additional three (3) species were identified by the USFWs IPaC system. The following 1B, 2B, and federally or state listed special-status plant species with records within three miles of the Study Area that were reviewed are shown below:

- smooth tarplant (*Centromadia pungens* ssp. *laevis*), CRPR 1B.1
- California Orcutt grass (*Orcuttia californica*), Federally Endangered, State Threatened, CRPR 1B.1
- San Diego ambrosia (*Ambrosia pumila*), Federally Endangered, CRPR 1B.1
- slender-horned spineflower (*Dodecahema leptoceras*), Federally Endangered, State Threatened, CRPR 1B.1
- Thread-leaved brodiaea (*Brodiaea filifolia*), Federally Threatened, State Endangered, CRPR 1B.1
- Spreading navarretia (*Navarretia fossalis*), Federally Threatened, CRPR 1B.1
- Parry's spineflower (*Chorizanthe parryi* var*. parryi*), CRPR 1B.1
- long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*), CRPR 1B.2
- Wiggins' cryptantha (*Cryptantha wigginsii*), CRPR 1B.2
- intermediate mariposa-lily (*Calochortus weedii* var. *intermedius*), CRPR 1B.2
- Munz's onion (*Allium munzii*), Federally Endangered, State Threatened, CRPR 1B.1
- San Diego button celery (*Eryngium aristulatum* var*. parishii*) Federally Endangered, State Endangered, CRPR 1B.1

Based on recent species records, the lack of suitable habitat, and the results of the field survey, none of the species identified above have the potential to occur

4.1.2 Special-Status Wildlife Species

According to the CNDDB three-mile radius search, seventeen (17) special-status wildlife species are known to occur or have the potential to occur within the vicinity of the Study Area (Appendix A) and one additional special-status species was identified by the USFWs IPaC system. The following special-status wildlife species with records within three-miles of the Study Area that were reviewed are shown below:

- Quino checkerspot butterfly (*Euphydryas editha quino*) Federally Endangered
- Monarch butterfly (*Danaus plexippus*), Federal candidate
- coastal California gnatcatcher (*Polioptila californica californica*) Federally Threatened, CDFW SSC
- least Bell's vireo (*Vireo belli pusillus*) Federally Endangered, State Endangered
- white-tailed kite (*Elanus leucurus*) CDFW Fully Protected
- loggerhead shrike (*Lanius ludovicianus*) CDFW SSC
- burrowing owl (*Athene cunicularia*) CDFW SSC
- tricolored blackbird (*Agelaius tricolor)* State Threatened, CDFW SSC
- northern harrier (*Circus cyaneus*) CDFW SSC
- Western spadefoot (*Spea hammondii*), Proposed Federally Threatened, CDFW SSC
- Stephen's kangaroo rat (*Dipodomys stephensi*) Federally Threatened, State Endangered
- Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), CDFW SSC
- vernal pool fairy shrimp (*Branchinecta lynchi*) Federally Threatened
- Riverside fairy shrimp (*Streptocephalus woottoni*) Federally Endangered
- Southwestern pond turtle (*Actinemys pallida*) Federally Proposed Threatened, CDFW SSC
- Southern California legless lizard (*Anniella stebbinsi*) CDFW SSC
- red-diamond rattlesnake (*Crotalus ruber*) CDFW SSC
- coast horned lizard (*Phrynosoma blainvillii*) CDFW SSC

Of the eighteen (18) species reviewed, five special-status species, the monarch butterfly, white-tailed kite, loggerhead shrike, northern harrier, and the coast horned lizard have the potential to occur within the Study Area based on the presence of suitable habitat and documented observations.

Monarch Butterfly

The Monarch is a large butterfly that is currently a candidate species for listing under FESA. This species has a wide range of habitat types including prairies, meadows, grasslands, and even populated areas such as parks, neighborhoods, and back yards. Milkweed is the host plant for this species' larvae and is a requirement for suitable habitat. Large, mature trees for roosting are required for overwintering habitat requirements. During the habitat assessment, no milkweed was observed, nor were there any large mature trees in the Study Area that could provide overwintering habitat. However, there are large trees in the vicinity that could

provide roosting habitat. Any future potential for the species to occur is likely limited to flyovers as the site is lacking many of the qualities needed for suitable habitat. The species was not observed during the habitat assessment and is considered unlikely to occur.

White-tailed Kite

White-tailed kite is a CDFW fully protected species that can be observed in a variety of habitats including savannas, open woodlands, grasslands, and agricultural fields. The species prefers to nest in large trees in the open or on the edge of forests. While there are no large trees in the Study Area that would be considered suitable for nesting, they were observed in the vicinity. There is an open area in the Study Area and in the vicinity that could be utilized for foraging. While there are a few habitat components observed in the Study Area and immediate vicinity, there has been no record of this species within three miles of the airfield within the last 30 years. Any observation of the species is likely limited to a flyover. This species is considered unlikely to occur.

Loggerhead Shrike

Loggerhead shrike is a CDFW SSC that inhabits savannah; pinyon-juniper; Joshua tree and riparian woodlands; desert oases, scrub, and washes. It prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting. While the Study Area lacks the dense shrubs for nesting, there are open spaces for foraging and numerous fences and other structures that could be utilized for perching and impaling prey. According to CNDDB records, the loggerhead shrike was last observed within three miles of the Study Area over 20-years ago. While some of the habitat components were observed within the Study Area, this species has a low probability of being found onsite and is unlikely to occur.

Northern Harrier

Northern harrier is a CDFW SSC that can be observed in a variety of habitats including coastal salt marshes, freshwater marshes, grasslands, and agricultural fields. The species nest on the ground in dense clumps of vegetation. There was no dense vegetation in the Study Area that would be considered suitable for nesting. There is an open area in the Study Area and in the vicinity that could be utilized for foraging. While there are a few habitat components observed in the Study Area and immediate vicinity, there has been no record of this species within three miles of the airfield within the last 30 years. Any observation of the species is likely limited to a flyover. This species is considered unlikely to occur.

Coast Horned Lizard

The coast horned lizard is a CDFW SSC that prefers open areas with sparse vegetation and sandy soils most often within grasslands and chaparral. This flat bodied lizard feeds mainly on ants and is most often found around ant hills, however, they have been known to feed on other invertebrates such as spiders and beetles. This lizard is most active during warm weather and will retreat to underground burrows during periods of cold or excessive heat. Many of the preferred habitat requirements for the coast horned lizard were observed during the habitat assessment including ant hills as potential food sources and inactive small mammal burrows for shelter. This species has been documented in the CNDDB within three

miles of the Study Area over 15 years ago. Although the species was not observed during the habitat assessment, considering all factors above, there is a low probability of this species being observed in the Study Area and it is unlikely to occur.

4.1.3 Migratory Birds

Nesting birds are protected under CFGC and MBTA. The non-native grasslands and coastal sage scrub habitats observed within the Study Area could be used by numerous species of nesting birds protected under CFGC. Additionally, there are numerous structures near the laydown area and access entry points that could provide nesting opportunities. The survey was conducted inside of the nesting bird season (February 15 – August 31) and suitable nesting habitat was observed to be present within the Study Area.

4.2 Sensitive Plant Communities

According to the CNDDB one-mile radius search, no sensitive natural communities have been documented within the vicinity of the Study Area.

4.3 Critical Habitats

The Study Area is not located within USFWS-designated critical habitat (USFWS 2024).

4.4 Potentially Jurisdictional Areas

There were no potentially jurisdictional waterways or wetlands located within the Study Area.

5 Discussion and Conclusion

This section discusses the results of the literature and database review, the biological resource assessment, and jurisdictional delineation. Based on the literature and data review and the results of the biological resource assessment, and jurisdictional delineation, it is reasonable to conclude that there is minimal potential for special-status plant and/or wildlife species to occur within the Study Area. There were no non-wetland or wetland waters that would be considered jurisdictional observed within the Study Area. The criteria used to evaluate potential Project-related impacts to biological resources are presented in Section 2.3.

5.1 Special-Status Species

5.1.1 Special-Status Plant Species

The Study Area does not contain any of the habitat requirements including wetlands, saltmarshes, or riparian areas, for the 13 special-status plant species identified during the literature and database review. All special-status species are considered absent from the Study Area. No other special-status plant species were observed during the habitat assessment. The analysis of potential for occurrence is based on habitat suitability along with IPaC and CNDDB occurrences within a three-mile radius.

5.1.2 Special-Status Wildlife Species

As discussed in Section 4.1.2, five (5) special-status animal species, the monarch butterfly white-tailed kit, loggerhead shrike, northern harrier and the coast horned lizard, are unlikely to occur in the Study Area based upon known ranges, habitat preferences for the species, and species occurrence records in the vicinity of the Study Area, as documented in the CNDDB, IPaC, and other records. Milkweed, the primary food source for the Monarch butterfly larvae, was not observed during the habitat assessment. However, large, mature eucalyptus were observed in the vicinity of the Study Area that could provide overwintering habitat thus observation would likely be limited to a flyover. An open space for foraging was observed for the white-tailed kite, loggerhead shrike, and northern harrier, however, their preferred nesting and habitat type was not observed. Observation of these three avian species is likely limited to a flyover and is thus unlikely to occur. There is sparsely vegetated open space and ant hills, the primary food source, within the Study Area that would be preferred by the coast horned lizard, but lack of species records in the area and no observations during the site survey make this species unlikely to occur. No other special-status wildlife species or their sign was observed during the habitat assessment.

5.2 Potentially Jurisdictional Waterbodies

No wetland and non-wetland waters of the U.S., waters of the State, or CDFW streams and riparian habitat, occur within the Study Area.

6 References

Calflora. 2024. Information on wild California plants for conservation, education, and appreciation. Berkeley, CA. Updated online and accessed via: www.calflora.org.

California Department of Fish and Wildlife (CDFW). 2024a. California Natural Diversity Database, Rarefind V. Accessed February 2024.

_____. 2024b. Vegetation Classification and Mapping Program's current list of vegetation Alliances, Associations, and Special Stands, and their Global and State rarity ranks. Accessed via: wildlife.ca.gov/Data/VegCAMP/Natural-Communities#sensitive%20natural%20communities.

California Native Plant Society (CNPS). 2024a. Inventory of Rare and Endangered Plants. V.7-08c-Interim 8-22-02. Updated online and accessed via: www.rareplants.cnps.org.

Google Earth. 2024. Imagery date May 21, 2023.

State Water Resources Control Board (SWRCB). 2019. State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State.

United States Army Corps of Engineers (USACE). 1987. Wetlands Delineation Manual, Technical Report Y-8. U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi. 100 pp. + append.

USACE. 2008a. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region.

USACE. 2008b. A Field Guide to the Identification of the Ordinary High-Water Mark in the Arid West Region of the Western United States. A Delineation Manual. Lichvar and McColley.

United States Fish and Wildlife Service (USFWS). 2024. National Wetlands Inventory. https://www.fws.gov/wetlands/

United States Geological Survey (USGS). 2024. Science In Your Watershed. https://water.usgs.gov/wsc/index.

United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS). 2022. Web Soil Survey. Accessed February 2024. Available at: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm.

United States Geological Survey. 2023. National Hydrography Dataset. Accessed February 2024 via The National Map. https://viewer.nationalmap.gov/advanced-viewer/.

United States Fish and Wildlife Service (USFWS). 2024. Information for Planning and Consultation online project planning tool. Available at: https://ecos.fws.gov/ipac.

Appendix A: Special-Status Species Evaluation Tables

Special-Status Plant Species in the Regional Vicinity of the Study Area

Scientific Name Common Name	Status Fed/State ESA CRPR Rank	Habitat Requirements	Potential to Occur	Rationale
Plants				
Centromadia pungens ssp. *laevis* smooth tarplant	None/None 1B.1	Annual herb associated with a variety of habitats including meadows, seeps, playas, riparian woodland, and valley and foothill grasslands. This species is most often observed in alkaline soils at an elevation between 0-640m. Blooms Apr-Sep	Absent	The Study Area lacks what would be considered suitable habitat for the species.
Navarretia fossalis Spreading navarretia	Threatened/ None/1B.1	Wetlands, vernal pools, and freshwater marshes. Elevation ranges from 30-1300m. Blooms from Apr–l - June	Absent	The Study Area lacks suitable habitat for the species.
Brodiaea filifolia thread-leaved brodiaea	Threatened/ Endangered 1B.1	Perennial bulbiferous herb found in a variety of habitats including chaparral, cismontane woodland, coastal scrub, playas, vernal pools, and valley and foothill grasslands. This species is observed within clay soils at an elevation between 25-1,120m. Blooms Mar-Jun.	Absent	The Study Area lacks what would be considered suitable habitat for the species.
Ambrosia pumila San Diego ambrosia	Endangered/ None 1B.1	Occurs in freshwater wetlands, vernal pools, and occasionally in coastal sage scrub and chaparral. Elevation ranges from 50-600m. Blooms from April to July.	Absent	The Study Area lacks what would be considered suitable habitat for the species.
Dodecahema leptoceras slender-horned spineflower	Endangered/ Endangered 1B.1	Annual herb located along alluvial fans within chaparral, cismontane woodland and coastal scrub in sandy soils. Elevation ranges from 200-760m. Blooms Apr-Jun.	Absent	The Study Area lacks suitable habitat for the species. There are no documented observations of the species within three-mile of the Study Area.
Orcuttia californica California orcutt grass	Endangered/ Endangered 1B.1	Occurs in wetlands, vernal pools, and riparian habitats. Elevation ranges from 15-700m. Blooms from April to August.	Absent	The Study Area lacks suitable habitat for the species.

Scientific Name Common Name	Status Fed/State ESA CRPR Rank	Habitat Requirements	Potential to Occur	Rationale
Chorizanthe parryi var. *parryi* Parry's spineflower	None/None 1B.1	Annual herb found in openings in chaparral, cismontane woodland, coastal scrub and valley and foothill grassland in sandy or rocky soils. Elevation ranges from 275-1220m. Blooms Apr-Jun.	Absent	The Study Area lacks what would be considered suitable habitat for the species.
Harpagonella palmeri Palmer's grapplinghook	None/None 4.2	Annual herb often found in open grassy areas within chaparral, coastal scrub, valley and foothill grasslands in clay soils. Elevation ranges from 20-955m. Blooms Mar-May.	Absent	The Study Area does contain an open grassy area, however, it is not within any of the preferred habitat types..
Chorizanthe polygonoides var. *longispina* long-spined spineflower	None/None 1B.2	Typically found on clay lenses which are largely devoid of shrubs. Can be found on the periphery of vernal pool habitat and even on the periphery of montane meadows near vernal seeps. Found at elevations ranging from 30 to 1,530m. Blooming period is from April to July.	Absent	The Study Area lacks what would be considered suitable habitat for the species.
Allium munzii Munz's onion	Endangered/ Threatened 1B.1	Found in chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland, valley and foothill grassland. Found at elevations ranging from 300 to 1,070 feet. Blooming period is from March to May	Absent	The Study Area lacks what would be considered suitable habitat for the species.
Eryngium aristulatum var. *parishii* San Diego button celery	Endangered/ Endangered 1B.1	Coastal scrub, valley and foothill grassland, vernal pools; grows within San Diego mesa hardpan, claypan vernal pools, southern interior basalt flow vernal pools. Blooming period is from May to June. Found at elevations between 20-620 meters.	Absent	The Study Area lacks what would be considered suitable habitat for the species.
Calochortus weedii var. *intermedius* intermediate mariposa lily	None/None 1B.2	Coastal scrub, chaparral, valley and foothill grassland on rocky soil and rocky outcrops. Blooming period is from June to July. Found at elevations between 105-855 meters.	Absent	The Study Area lacks what would be considered suitable habitat for the species.

Scientific Name Common Name	Status Fed/State ESA CRPR Rank	Habitat Requirements	Potential to Occur	Rationale
Cryptantha wigginsii Wiggins' cryptantha	None/None 1B.2	Coastal scrub; typically grows in clay soils. Blooming period is from March to May. Found at elevations between 20-275 meters.	Absent	The Study Area lacks what would be considered suitable habitat for the species.

CRPR (CNPS California Rare Plant Rank)

1A=Presumed Extinct in California

1B=Rare, Threatened, or Endangered in California and elsewhere

2A=Plants presumed extirpated in California, but more common elsewhere

2B=Plants Rare, Threatened, or Endangered in California, but more common elsewhere

3=Review List: Plants about which more information is needed

4=Watch List: Plants of limited distribution

CRPR Threat Code Extension

.1=Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)

.2=Fairly endangered in California (20-80% occurrences threatened)

.3=Not very endangered in California (<20% of occurrences threatened)

Special Status Animal Species in the Regional Vicinity of the Project Site

Scientific Name Common Name	Status Fed/State ESA/ CDFW	Habitat Requirements	Potential to Occur	Rationale
Invertebrates				
Euphydryas editha quino quino checkerspot butterfly	Endangered/ None/ None	Ranges from Southern California to Baja throughout a variety of habitats including grasslands, coastal sage scrub, chamise chaparral, red shank chaparral, juniper woodland and semi desert scrub.	Absent	The Study Area does not contain coastal sage scrub nor the preferred larval food vegetative species such as *Plantago* spp.
Danaus plexippus monarch butterfly	Candidate/ None/None	Monarchs are observed across North America where host plants occur. Host plant genera include *Asclepias.*	Unlikely to occur	There were no milkweed, the host plant for the species, observed within the Study Area. According to the CNDDB records, there were no recorded observations within three-miles of the Study Area.
Birds				
Polioptila californica californica coastal California gnatcatcher	Threatened/ None SSC	Species occurs along the coast in highly fragmented habitat dominated by coastal sage scrub. Nests in sagebrush, often in gullies or drainages.	Absent	The Study Area lacks what would be considered suitable habitat for the species.
Vireo belli pusillus least Bell's vireo	Endangered/ Endangered/ None	Found almost entirely in dense shrubs and trees in riparian woodland habitats in southern California. Nests in dense foliage in drainages	Absent	There are no riparian areas within the Study Area that would be required to support the species.

Scientific Name Common Name	Status Fed/State ESA/ CDFW	Habitat Requirements	Potential to Occur	Rationale
Elanus leucurus white-tailed kite	None/None FP	Often observed in savannas, open woodlands, marshes, desert grasslands and agricultural fields. Nesting occurs in large trees in the open or edge of forests.	Unlikely to occur	There are open areas within the Study Area that could be used for foraging by the species. There are no large trees suitable for nesting. The CNDDB does have a single observational recording within three miles of the Study area, however, the record is more than 30-years old. Observation likely limited to a flyover.
Lanius ludovicianus loggerhead shrike	None/None SSC	Prefers open habitats including desert scrub, chaparral and savannahs. Frequently observed along roadsides and fence lines. Nests in thorny vegetation to deter predation.	Unlikely to occur	The Study Area contains some open grassland. There are numerous fences and posts for perching and impaling prey. There has been an observation recorded in the CNDDB within three miles of the Study Area, although it is over 20 years old. No observations were made during the site survey.
Athene cunicularia burrowing owl	None/None SSC	Located in open areas with sparse vegetation including deserts, grasslands and urban environments. Nesting occurs in areas with high burrow densities associated with high mammal populations.	Absent	There is an open grassland area within the southwestern portion of the Study Area; however, no suitable burrows or observations of the species were made during the site survey. There has been an observation documented in CNDDB, but it is over 30 years old and considered outdated.
Agelaius tricolor tricolored blackbird	None/ Threatened SSC	Found in a variety of habitats including annual grasslands, vernal pools, seasonal wetlands, agricultural fields, and riparian scrub habitats. The nest in colonies within areas that are highly accessible to water.	Absent	There are no riparian areas within the Study Area that would be required to support the species.

Scientific Name Common Name	Status Fed/State ESA/ CDFW	Habitat Requirements	Potential to Occur	Rationale
Circus cyaneus northern harrier	None/None SSC	Coastal salt marshes, freshwater marshes, grasslands, and agricultural fields; occasionally forages over open desert and brushlands.	Unlikely to occur	There are open areas within the Study Area that could be used for foraging by the species. The CNDDB does have a single observational recording within three miles of the Study area, however, the record is more than 30-years old. Observation likely limited to a flyover.
Amphibians				
Spea hammondii western spadefoot	None/None SSC	Inhabits open areas with sandy or gravelly soils in forests, grasslands, coastal sage scrub, chapparal, river floodplains and mountains. Breeding occurs after heavy rains in shallow pools.	Absent	There are no sandy or gravelly open areas within the Study Area. There were no pools of water within the Study Area despite recent rains.
Mammals				
Dipodomys stephensi Stephens' kangaroo rat	Endangered/ Threatened	Species prefers open habitat with less than 50% protective cover. Require soft, well-drained substrate for constructing burrows and are typically found in areas with sandy soils.	Absent	The site does have less than 50% protective cover, but this is due to regular maintenance from the airport. The soils were not sandy and thus not suitable for the species. In addition, the single observation recorded in the CNDDB is 25 years old and considered outdated.
Chaetodipus fallax fallax northwestern San Diego pocket mouse	None/None SSC	Found in a variety of habitats ranging from chaparral and grasslands to forests and deserts. The species requires low growing vegetation and rocky outcroppings as well as sandy soils for burrowing.	Absent	Low growing vegetation does exist within the Study Area, however, this is due to regular maintenance from the airport. No other habitat requirements were observed in the Study Area.

Scientific Name Common Name	Status Fed/State ESA/ CDFW	Habitat Requirements	Potential to Occur	Rationale
Crustaceans				
Branchinecta lynchi vernal pool fairy shrimp	Threatened/ None/None	Scattered throughout the Central Valley, this species inhabits vernal pools as small as a large puddle up to small lakes, but most often can be observe in grassland pools.	Absent	There are no vernal pools within the Study Area. According to the CNDDB records, there are no occurrences within three miles of the Study Area.
Streptocephalus woottoni Riverside fairy shrimp	Endangered/ None/None	Vernal pools, non-vegetated ephemeral pools	Absent	There are no vernal pools or ephemeral pools within the Study Area. According to the CNDDB records, there are no occurrences within three miles of the Study Area.
Reptiles				
Actinemys pallida southwestern pond turtle	Proposed Threatened/ None SSC	Located in ponds, lakes, rivers, streams, and marshes with dense vegetation. Require exposed banks for basking and nesting.	Absent	There are no aquatic habitats in the Study Area that would be considered suitable habitat for the species.
Anniella stebbinsi Southern California legless lizard	None/None SSC	Species found in moist, loose soil under leaf litter, rocks, and downed logs. Present in beach dunes, chaparral, woodlands, desert scrub and sandy stream banks.	Absent	The Study Area does not contain any areas with down logs or leaf piles within an area of high moisture. No observations of the required habitat or species were observed.
Crotalus ruber red-diamond rattlesnake	None/None SSC	Commonly associated with chaparral in foothills, coastal sage scrub, oak and pine woodlands, and desert scrub containing large rocks or boulders.	Absent	The Study Area lacks what would be considered suitable habitat for the species.

Scientific Name Common Name	Status Fed/State ESA/ CDFW	Habitat Requirements	Potential to Occur	Rationale
Phrynosoma blainvillii coast horned lizard	None/None SSC	Prefers open areas with sparse vegetation and sandy soils. Found in grasslands, coniferous forests and chaparral. Frequently observed feeding near ant hills.	Unlikely to occur	Few of the habitat components required by the species were observed during the site assessment including sparse vegetation. The site is lacking the required sandy soils.

Appendix B: Site Photographs

Caskey
biological consulting

Study Area - View North

Study Area - View Northwest

Study Area - View North

Study Area - View East

Study Area - View West

Study Area - View Northwest

Appendix C: Plant and Wildlife Observations

Plant Species Observed Within the Study Area

Scientific Name	Common Name
ANGIOSPERMS (EUDICOTS)	
*Oncosiphon pilulifer**	stinknet
Ambrosia psilostachya	ragweed
Corethrogyne filaginifolia	common sandaster
*Gazania linearis**	Treasure flower
*Centaurea melitensis**	Maltese star thistle
Heterotheca grandiflora	telegraph weed
BRASSICACEAE	**MUSTARD FAMILY**
*Brassica nigra**	black mustard
CHENOPODIACEAE	**GOOSEFOOT FAMILY**
*Salsola tragus**	Russian thistle
GERANIACEAE	**GERANIUM FAMILY**
*Erodium cicutarium**	redstem filaree
ANGIOSPERMS (MONOCOTS)	
POACEAE	**GRASS FAMILY**
*Bromus tectorum**	cheatgrass
*Bromus diandrus**	ripgut grass
*Bromus rubens**	red brome
ARECACEAE	**PALM FAMILY**
*Washingtonia robusta**	Mexican fan palm

*Non-Native Species, +Ornamental, Unlikely to be Invasive

Wildlife Species Observed Within the Study Area

Scientific Name	Common Name	Status	Native or Introduced
Birds			
Haemorhous mexicanus	house finch	None	Native
Zenaida macroura	mourning dove	None	Native
Calypte anna	Anna's hummingbird	None	Native
Sturnus vulgaris	European starling	None	Introduced
Falco sparverius	American kestrel	None	Native
Corvus brachyrhynchos	American crow	None	Native
Mimus polyglottos	northern mockingbird	None	Native
Passer domesticus	house sparrow	None	Introduced
Sayornis nigricans	black phoebe	None	Native
Mammals			
Otospermophilus beecheyi	California ground squirrel	None	Native

APPENDIX D

CULTURAL RESOURCES ASSESSMENT

Cultural Resource Assessment for the Air Traffic Control Tower at the French Valley Airport Riverside County, California

Jessica Cochrane

Prepared By

Applied EarthWorks, Inc.
3550 East Florida Avenue, Suite H
Hemet, CA 92544-4937

Prepared For
Mead & Hunt, Inc.
180 Promenade Circle, Suite 240
Sacramento, CA 95834

October 2024

USGS 7.5-MinuteTopographic Quadrangle: Murrieta, CA
Level of Investigation: Phase I Cultural Resource Survey
Key Words: Riverside County; Murrieta, 3.9 acres, Federal Aviation Administration

MANAGEMENT SUMMARY

The Riverside County Economic Development Agency's Aviation Division (EDA) proposes development of an air traffic control tower and associated parking and utilities at the French Valley Airport (Project) near Murrieta, Riverside County, California. The proposed Project will require approval from the Federal Aviation Administration (FAA) and is a federal undertaking pursuant to Section 106 of the National Historic Preservation Act. Under contract to Mead & Hunt, Inc., Applied EarthWorks, Inc. (Æ) conducted a cultural resource assessment of the Project's Area of Potential Effects (APE) in accordance with Title 36 Code of Federal Regulations, Part 800. The FAA is the lead agency for Section 106 compliance, and Riverside County Economic Development Agency's Aviation Division is the lead agency for the purposes of the California Environmental Quality Act.

The purpose of the investigation was to determine whether the Project would affect historic properties or historical resources in the APE eligible for nomination to or listed on the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR), as appropriate. This report summarizes the methods and results of the cultural resource assessment of the APE. Æ's assessment includes a records search and literature review, a Sacred Lands File search with the Native American Heritage Commission (NAHC), and an archaeological survey of the 3.9-acre APE.

The Eastern Information Center of the California Historical Resources Information System ceased operations indefinitely as of June 2024. Consequently, Æ completed an in-house literature and records search on August 22, 2024. The results of the review indicated 34 cultural resources have been documented within a 1-mile radius of the APE. None of these resources are within the APE.

Æ Senior Archaeologist Andrew DeLeon completed an intensive pedestrian archaeological survey of the APE on August 23, 2024. No cultural resources were observed within the APE. The APE is entirely disturbed with evidence of recent plowing with heavy equipment, the original construction of the French Valley Airport, and a modern brick structure in the southern portion of the APE. Ground visibility was poor, due to extensive weed growth and various grasses. Given these conditions, there is a low likelihood that archaeological deposits or features will be found during construction; therefore, Æ recommends no further cultural resource management within the APE.

Results of the NAHC file search and Native American contact list are included to assist the FAA and Riverside County EDA with their consultation efforts.

Field notes documenting the current investigation are on file at Æ's Hemet office. A copy of this report will also be submitted to the appropriate forthcoming information center, once established for Riverside County.

CONTENTS

FIGURES

TABLES

1
INTRODUCTION

The Riverside County Economic Development Agency's Aviation Division (EDA) proposes the development of an air traffic control tower and associated parking and utilities within the French Valley Airport (Project) near Murrieta, Riverside County, California. The Project will require approval from the Federal Aviation Administration (FAA) and is a federal action pursuant to the National Historic Preservation Act (NHPA). The FAA is the lead agency for compliance with Section 106 of the NHPA. The Project also requires discretionary approval from the EDA and is therefore subject to the requirements of CEQA. EDA is the lead agency for compliance with CEQA. Under contract to Mead & Hunt, Inc., Applied EarthWorks, Inc. (Æ) conducted a cultural resource assessment of the Project's Area of Potential Effects (APE) in accordance with Title 36 Code of Federal Regulations (CFR), Part 800.

Æ Principal Investigator Joan George (B.S., Registered Archaeologist 28093) was responsible for overall quality control for the Project and Æ Senior Archaeologist Andrew DeLeon (M.A., Registered Professional Archaeologist 17087) served as project manager. The report was compiled and written by Æ Staff Archaeologist Jessica Cochrane (B.A.). DeLeon completed the field survey.

For the purposes of this study, the Area of Potential Effects (NHPA term) encompasses the Project Area Limits (CEQA term). Consequently, "APE" is used throughout the remainder of this report.

1.1 PROJECT LOCATION AND DESCRIPTION

The Project is within the southwestern portion of the community of French Valley in Riverside County (Figure 1-1). Specifically, the Project is mapped within Section 7, Township 7 South, Range 2 West, as shown on the U.S. Geological Survey (USGS) Murrieta, California, 7.5-minute topographic quadrangle map (Figure 1-2). The elevation is approximately 1,420 feet above mean sea level.

The proposed tower site is east of Sky Canyon Drive and south of Sparkman Way, near Murrieta, California. The primary objective of the construction of the Project is to enhance aviation safety through improved communication and operational efficiency. The Project site covers an approximate area of 3.9 acres, with the air traffic control tower occupying 0.5 acres. The FAA has designated Site No. 1 as the optimal location for the construction of a 448-square-foot hexagonal tower, which will stand at a height of 93 feet, offering unobstructed views of both ends of the runway. The maximum depth of ground disturbance during the construction phase is not expected to exceed 6 feet.

Figure 1-1 Project vicinity in Riverside County, California.

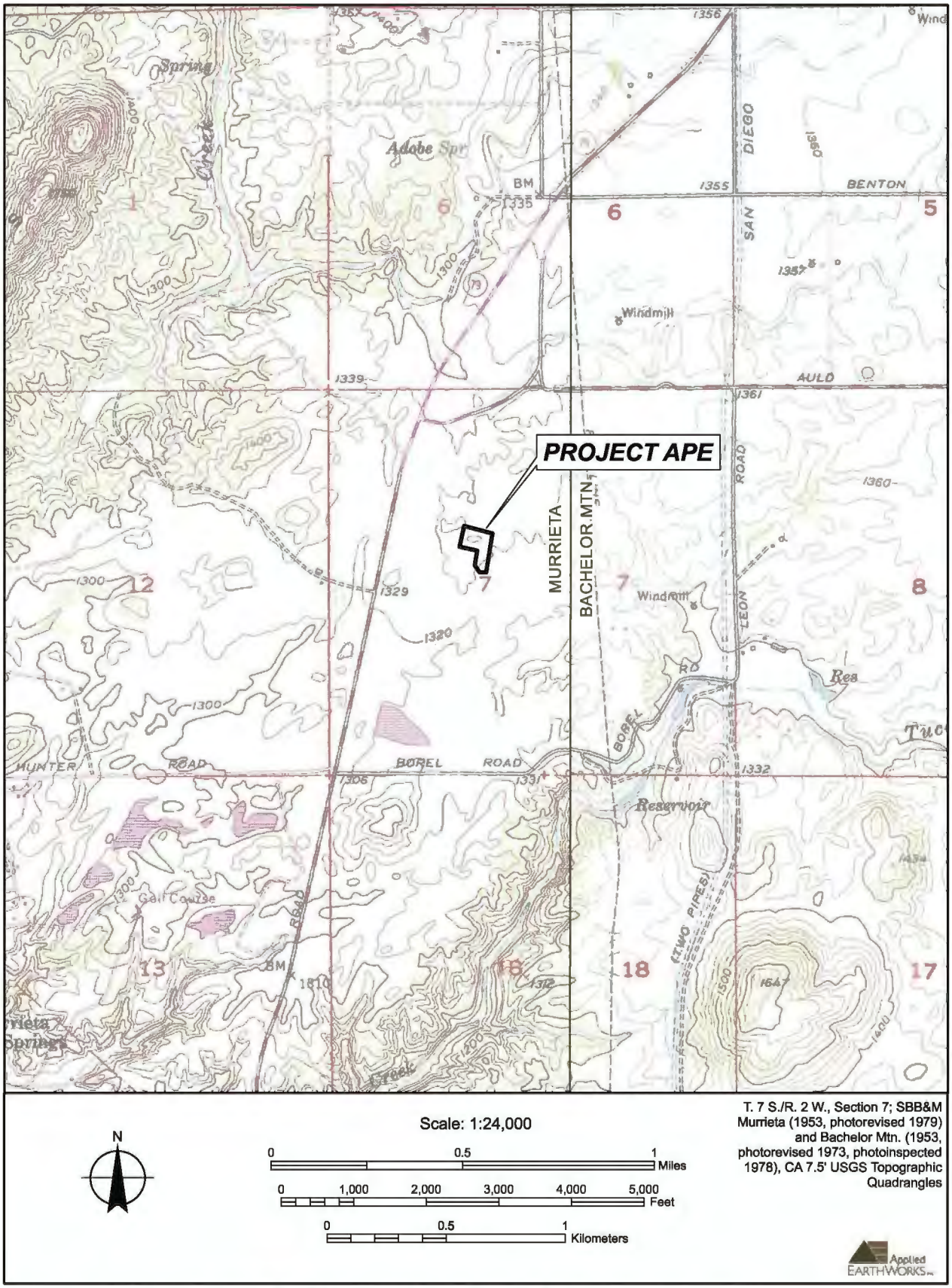


Figure 1-2 Project location on USGS Murrieta 7.5-minute topographic quadrangle.

1.2 REGULATORY CONTEXT

1.2.1 Federal Laws and Regulations

Section 106 of the NHPA requires federal agencies to consider the effects of their undertakings on historic properties. A historic property as defined in 36 CFR 800.16(l)(1) means any precontact or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP). Undertakings include any federally funded, licensed, or permitted project (36 CFR 800.16[y]): In the context of a federally permitted undertaking, such as this Project, a historic property generally is at least 50 years old and meets one or more of the four NRHP criteria of historic significance:

A. That are associated with events that have made a significant contribution to the broad patterns of our history;

B. That are associated with the lives of persons significant in our past;

C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. That have yielded, or may be likely to yield, information important to prehistory or history.

In order to be eligible for nomination to the NRHP, the historic property also must possess integrity of location, design, setting, materials, workmanship, feeling, and association (36 CFR 60.4), so that it is considered a good representative of a significant historical theme or pattern. A consultant's role is to render a professional recommendation rather than an administrative determination of NRHP eligibility. In the case of this Project, the FAA in consultation with the State Historic Preservation Officer (SHPO) and Native American tribes, if applicable, will determine NRHP eligibility. If the SHPO, tribes, and FAA disagree about a resource's NRHP eligibility, the Advisory Council on Historic Preservation (ACHP) or the Keeper of the NRHP may become involved in the eligibility determination process, if requested.

If a cultural resource is determined to be an eligible historic property under 36 CFR 60.4, then Section 106 requires that the effects of the proposed undertaking be assessed and considered in planning the undertaking. According to 36 CFR 800, "Regulations of the ACHP Governing the Section 106 Review Process," the lead agency, the SHPO or the Tribal Historic Preservation Officer, and ACHP:

> should be sensitive to the special concerns of Indian tribes in historic preservation issues, which often extend beyond Indian lands to other historic properties. When an undertaking may affect properties of historic value to an Indian tribe on non-Indian lands, the consulting parties shall afford such tribe the opportunity to participate as interested persons. Traditional cultural leaders and other Native Americans are considered interested persons with respect to undertakings that may affect historic properties of significance to such persons [36 CFR 800:3].

1.2.2 State Laws and Regulations

The Project also requires discretionary approval from the EDA and is therefore subject to the requirements of CEQA. The CEQA Statute and Guidelines directs lead agencies to determine whether a project will have a significant impact on historical resources. A cultural resource considered "historically significant" is considered a "historical resource," if it is over 50 years of age and is included in a local register of historical resources or is listed in or determined eligible for listing in the California Register of Historical Resources (CRHR) under any one of the following criteria (Title 14, California Code of Regulations [CCR], Section 15064.5):

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2. Is associated with the lives of persons important in our past;

3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or,

4. Has yielded, or may be likely to yield, information important in prehistory or history.

Compliance with CEQA's cultural resource provisions typically involves several steps. Briefly, archival research and field surveys are needed, and identified cultural resources are inventoried and evaluated in prescribed ways. Precontact and historical archaeological sites, as well as standing structures, buildings, and objects deemed historically significant and sufficiently intact (i.e., historical resources), must be considered in project planning and development.

A project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment (14 CCR 15064.5[b]) and the lead agency is responsible for identifying potentially feasible measures to mitigate significant adverse changes in the significance of a historical resource (14 CCR 15064.5[b]4).

1.3 AREA OF POTENTIAL EFFECTS

The APE encompasses 3.8 acres within the existing French Valley Airport and consists of the Project footprint plus an approximately 15-meter-wide buffer around the Project area. The maximum depth is 6 feet.

1.4 REPORT ORGANIZATION

This report documents the results of a cultural resource investigation of the APE. Chapter 1 described the Project and its location, defined the scope of this study, stated the regulatory context, and defined the APE. Chapter 2 presents the natural and cultural setting of the APE and the surrounding region. Chapter 3 summarizes the results of the archaeological literature review and records search and the Sacred Lands File (SLF) search with the Native American Heritage Commission (NAHC). Chapter 4 provides the cultural resource survey methods and results.

Cultural resource management recommendations are included in Chapter 5, followed by references in Chapter 6. Results of the SLF search are included in Appendix A.

2
SETTING

This chapter describes the precontact, ethnographic, and historical setting of the APE to provide a context for understanding the nature and significance of cultural resources identified throughout the region. Precontact, ethnographically, and historically, the nature and distribution of human activities in the region have been affected by such factors as topography and the availability of water and natural resources. Therefore, prior to a discussion of the cultural setting, the environmental setting of the area is summarized below.

2.1 ENVIRONMENTAL SETTING

The APE is situated near the west end of the Peninsular Ranges physiographic province within the Perris Block, bounded to the west by the Elsinore fault zone and on the east by the San Jacinto fault zone. The Perris Block is an internally unfaulted, eroded mass of rocks associated with the Southern California Batholith and older metasedimentary basement rocks. The Southern California Batholith is a massive geological intrusion that ranges in composition from gabbro to quartz monzonite (Baird and Miesch 1984) and dates mostly to early Upper Cretaceous time (Gastil 1999). The central zone of the Peninsular Ranges batholith appears to have begun uplifting also during the Upper Cretaceous (Wetmore et al. 2003), and it continued into the following Cenozoic Era (USGS 2018).

The APE is in an inland region separated from the Pacific Coast by the Santa Ana Mountains to the west; to the east, the San Jacinto and Santa Rosa mountains separate the region from the hyper-arid Colorado Desert. Based on values from Elsinore, Sun City, and Hemet (Western Regional Climate Center 2005), mean annual precipitation in the study area is about 9.9–10.9 inches, with 85–92 percent of that amount falling between November through April. Based on values from Vista 1 NE (near Oceanside), Laguna Beach, and Newport Beach (Western Regional Climate Center 2005), mean annual precipitation on the coast, which is west of the Santa Ana Mountains, ranges from 11.7 to 13.6 inches, suggesting a modest rain shadow effect on the lee of these mountains. However, coastal meteorological stations are near sea level, whereas elevations on the valley floor in the Project region range from 1,485 to 1,812 feet. Therefore, considering that precipitation increases with elevation, the rain shadow to the east of the Santa Ana Mountains is more pronounced than may first be apparent.

Vegetation throughout the region is grouped within four major plant communities: Riversidean alluvial fan sage scrub (the interior variant of the coastal sage scrub community), valley grassland, southern arroyo willow riparian, and chamise chaparral (Barbour and Wirka 1997; Holland 1986; Sawyer and Keeler-Wolf 2009; U.S. Fish and Wildlife Service 2021). Depending upon elevation and climate, various species from these communities were available for harvest from early spring until winter, and the leaves, stems, seeds, fruits, roots, and tubers from many of these plant species formed an important subsistence base for the Native American inhabitants of the region (Bean and Saubel 1972; Hyde and Elliott 1994), while also contributing important raw materials for baskets, cordage, and other crafted items.

2.2 PRECONTACT SETTING

The precontact history of inland Southern California is less thoroughly understood than that of the adjacent desert and coastal regions. This is partially a result of historical circumstances, such as ease of access, the location of universities, and public versus private land ownership, and partly due to the nature of archaeological research in these interior valleys and mountains of Southern California (Goldberg and Arnold 1988). In the absence of absolute chronological indicators for inland sites, researchers generally employ typological cross-dating from either coastal or desert sequences, often as the sole means for assigning age to archaeological sites within the interior valleys, including the APE.

Two large reservoir projects, the Perris Reservoir project (O'Connell et al. 1974) and the Eastside Reservoir Project (ESRP) (Goldberg et al. 2001), generated large data sets to provide a basis for resolving some of these regional problems. It is difficult to extrapolate the geographic extent of the precontact cultural patterns discerned from excavations at these two reservoirs, which are 12 miles apart in central western Riverside County. The ESRP is 7 miles northeast of the Project, and it is almost certain that precontact patterns within the APE are similar to those discerned for the ESRP studies.

As a consequence, this discussion of the Project's precontact cultural setting is drawn from the cultural sequence developed for the ESRP. This chronology was based first on artifact cross-dating, and then refined with radiocarbon and obsidian hydration dates (Onken and Horne 2001; Robinson 1998, 2001); however, the ESRP chronology draws heavily on a cultural sequence defined by Warren (1984) for Southern California, which is based largely on archaeological work conducted in the Colorado and Mojave deserts. Because Warren's chronology used period names that suggest links to the Mojave, these were replaced in the ESRP chronology by value neutral terms. Because no sites dating to the Paleoindian Period (ca. 12,000–9500 before present [B.P.]) have been documented within the region, the discussion below begins with the Early Archaic Period.

2.2.1 Early Archaic Period (circa 9500–7000 B.P.)

During this period, the environment of the interior deserts was more favorable for human occupation than the cismontane valleys of Southern California, where the Project is located. Populations in the interior valleys would have been tethered to the few reliable, drought-resistant water sources such as Lake Elsinore, Mystic Lake, and possibly the Cajalco Basin. In general, small, highly mobile groups traveled widely, using highly portable tool kits to procure and process critical resources, with brief and anticipated intervals of seasonal sedentism near predictable water locations. Due to isolated locations where the conditions for occupation were met, Early Archaic sites are rare compared to later periods of prehistory (Goldberg et al. 2001; Grenda 1997; Horne and McDougall 2008; McDougall 1995).

2.2.2 Middle Archaic Period (circa 7000–4000 B.P)

A gradual transition from wet pluvial conditions to arid desert conditions during the Early Holocene marks the transition to the Middle Archaic Period. Middle Archaic sites in Southern California include two in the ESRP, one at Lake Elsinore, the Stahl Site in Owens Valley, desert

sites in Death Valley, Salt Springs, and Pinto Basin in Joshua Tree National Park. Middle Archaic sites are associated with the margins of pluvial lakes and with now-extinct springs. Pinto-series projectile points, a type of basally-notched or bifurcate base dart point, are the most distinctive artifact type of this period (Justice 2002). Other artifacts found at Middle Archaic sites include leaf-shaped bifacial knives; split-cobble choppers and scrapers; scraper-planes; and small milling slabs and manos. With a few exceptions in the ESRP area and the Stahl Site, most sites of this age are small surface deposits of lithic artifacts suggestive of temporary and perhaps seasonal occupation by small groups of people.

2.2.3 Late Archaic Period (circa 4000–1500 B.P.)

The Late Archaic Period was one of cultural intensification coinciding with the Little Pluvial, a period when increased moisture allowed for more extensive occupation of the region. Sedentism likely increased during this period, with large occupation sites located adjacent to permanent water sources such as perennial springs and streams. Projectile points diagnostic of this period include Humboldt, Gypsum, and Elko-series dart points (Warren 1984), although Rose Spring arrow points appeared late within this period in the deserts. The mortar and pestle, used for processing acorns and hard seeds, also first appeared. A warming and drying trend began around 2100 B.P., leading to intensification of use of certain resources (Goldberg et al. 2001) .

2.2.4 Saratoga Springs Period (circa 1500–750 B.P.)

Occupants of the region continued to adapt to the arid environment in the deserts (Warren 1984). Lake Cahuilla likely refilled the Coachella Valley around 1450 B.P. and was the focus of exploitation of fish and wetland resources. Occupation around large local water sources declined as these dried, however, and people became tethered to springs (Goldberg et al. 2001). Cultural trends continued from the Late Archaic Period, as Saratoga Springs projectile points, associated with early use of the bow and arrow, appeared. The sparse assemblages found within the region, however, obscure the timing of local adoption of bow and arrow technology (Goldberg et al. 2001). Shoshonean language speakers likely moved into Southern California at this time. Brown and Buff Ware pottery first appeared on the lower Colorado River at about 1200 B.P. and started to diffuse across the California deserts by about 1100 B.P. (Moratto 1984). The warmer and drier Medieval Warm Period set in throughout the Southwest by about 1060 B.P. (Stine 1994; Warren 1984), and led to the withdrawal of Native American populations from marginal desert areas.

2.2.5 Late Precontact Period (circa 750–410 B.P.)

A period of lower temperatures and increased precipitation known as the Little Ice Age resulted in increased resource productivity in the region and subsequent population increase. Cottonwood Triangular points appear in inland assemblages and Obsidian Butte glass became much more common (Goldberg et al. 2001). Lake Cahuilla began to recede (Waters 1983), and the large Patayan populations occupying its shores moved westward to areas such as Anza Borrego, Coyote Canyon, the Upper Coachella Valley, the Little San Bernardino Mountains, and the San Jacinto Plain (Wilke 1976). The final recession of Lake Cahuilla, which had occurred by approximately 400 B.P., resulted in a population shift away from the lakebed into the Peninsular Ranges to the west and the Colorado River regions to the east.

2.2.6 Protohistoric Period (circa 410–180 B.P.)

Sedentism intensified during the Protohistoric Period. Increased hunting with bow and arrow and widespread exploitation of acorns, other hard nuts, and berries (indicated by the abundance of mortars and pestles) provided reliable and storable food resources. Reliable food sources likely prompted the establishment of small, completely sedentary villages with resource catchment areas around them (True 1966, 1970). Ceramic technology first appeared in the region around 350 B.P. Cottonwood Triangular points were supplemented by Desert Side-notched points. This period ended in 1769 A.D. when Spanish settlement began in Upper California.

2.3 ETHNOGRAPHIC SETTING

Based on information passed down from Tribal elders, published academic works in the areas of anthropology, history, and ethnohistory, and through recorded ethnographic and linguistic accounts (Kroeber 1925; Smith and Freers 1994; Strong 1929; Vane 2000), the Project lies within the ancestral cultural territory of the Luiseño. However, the area may also have been occupied by the Cahuilla due to population shifts in the historical era (Bean 1978). Both of these tribes speak languages of the Takic branch of the Shoshonean family, part of the larger Northern Uto-Aztecan language stock.

Luiseño territory in ethnographic times encompassed a stretch of the California coast and included most of the drainage of the San Luis Rey and Santa Margarita rivers. Inland, Luiseño territory extended south from Santiago Peak, including the Elsinore and Temecula valleys, and extended farther south to Mount Palomar and the San Jose Valley, then west to the coast at Agua Hedionda Creek. The coastal territory of the Luiseño extended north to near San Mateo Creek in Orange County (Bean 1978). Elders of the Pechanga Band of Indians add that the Temecula/ Pechanga people had usage or gathering rights to an area extending from Rawson Canyon on the east to Lake Mathews on the northwest, down Temescal Canyon to Temecula, eastward to Aguanga, and then along the crest of the Cahuilla Range back to Rawson Canyon.

Ethnographically, Cahuilla territory spanned from the summit of the San Bernardino Mountains in the north to Borrego Springs and the Chocolate Mountains in the south, a portion of the Colorado Desert west of Orocopia Mountain to the east, the San Jacinto Plain as far as Riverside, and the eastern slopes of Palomar Mountain to the west (Bean 1978).

2.3.1 The Luiseño Lifeway

The lifeways of the Luiseño, the most likely inhabitants of the area based on current ethnographic data, are described below. This description is derived primarily from Bean (1978) and Bean and Vane (2001) and is also applicable to the Cahuilla lifeway.

Prior to the Mission Period (prior to 1769), the Luiseño and Cahuilla organized themselves in patrilineal clans composed of 3 to 10 lineages, each distinctly different, named, and claiming a common genitor, with one lineage recognized as the founding lineage (Bean 1978; Bean and Vane 2001). Clans occupied a large territory in which each lineage owned a village site and specific resource areas. Clan lineages cooperated in large communal subsistence activities (including animal drives, hunts, and controlled burns) and in performing rituals.

The Luiseño and Cahuilla were, for the most part, hunters, collectors, and harvesters. Clans were apt to occupy land in valley, foothill, and mountain areas, providing them with the resources of many different ecological niches. Individual lineages or families owned specific resource areas within the clan territory. Although any given village had access to only some of the necessary resources, briskly flourishing systems of trade and exchange gave them access to neighboring and distant resources. Rules that forbade marriage to anyone related within five generations or belonging to the same moiety ensured that everyone had relatives living in many ecozones; this was an important arrangement because relatives were invited to ceremonies where the gift exchanges provided a way for drought-stricken groups to get food in return for treasure goods.

The Luiseño and Cahuilla, like other California Indians, understand the universe in terms of power, which they believed to be sentient and to have will. In their view, power is the principal causative agent for all phenomena. Unusual natural phenomena are viewed as especially sacred, being the repositories of concentrations of power. Mountain tops are held sacred, as are unusual rock formations, springs, and streams. Rock art sites are sacred, having been the sites of ceremonies. Burial and cremation sites are also sacred, as are many other places of residual power. In addition, various birds, but especially eagles, condors, hawks, and other birds of prey and their symbolic representations, are revered as sacred beings of great power and were sometimes killed ritually and mourned in mortuary ceremonies similar to those for human elites. For this reason, bird cremation sites are also sacred.

Murrieta Hot Springs, located approximately 2 miles southwest of the APE, is considered an important location that has cultural and religious significance to the Luiseño people. *Wuyóot*, the father of the Luiseño, was the last of the First People (*Káamalan*) who possessed all forms of '*ayelkwish*, or knowledge-power, and distributed it throughout creation at his death, “producing a residual knowledge in the landscape that can still be discovered today by those capable of understanding it” (Curti 2013). Harrington (1933), Boscana (1978), and Du Bois (1908) noted that when *Wuyóot* falls ill, he travels to various hot springs (including Murrieta Hot Springs) in the area, in hopes of being cured.

Because of these strong beliefs, rituals were (and continue to be) a constant factor in the life of Native American individuals. Some rituals were scheduled and routine (e.g., birth, puberty, death, mourning, and the eagle ritual and first rites), whereas others were sporadic and situationally performed (e.g., deer ceremony, bird dance, enemy songs, and the rain ritual) (Bean and Vane 2001:VII.A-3-10).

2.4 HISTORICAL SETTING

The history of the region provides a context for understanding local settlement from mission lands to the development of the modern urban landscape. It is the basis for the identification of the historical property types constructed during this period, and the evaluation of their significance as historical resources. The following California history is based on discussions in Beedle et al. (2010) and Mills et al. (2020). Relevant historical information for the Project region is based on Brackett (1939), Gunther (1984), San Jacinto Valley Genealogical Society (1989), Rawls and Bean (1998), Robinson (1957), and Rolle (1978).

2.4.1 California History

Exploration of the California coast in the sixteenth and seventeenth centuries was the basis for the Spanish claim to the region. In the eighteenth century, Spain recognized that to strengthen its claim, it would have to settle Alta California to preclude encroachment by the Russians and British. Therefore, in the latter half of the eighteenth century, Spain and the Franciscan Order founded a series of pueblos (towns), presidios (military camps), and missions (religious centers) along the California coast, beginning at San Diego in 1769.

In 1821, Mexico opened the ports of San Diego and Monterey to foreign trade (Crouch et al. 1982:200). American ships docked at California ports to purchase tallow and hides, known as California banknotes. Americans also settled in California, some of them becoming citizens and owners of large ranchos. Conflicts between the Californios and the central government in Mexico City led to a series of uprisings culminating in the Bear Flag Revolt of June 1846. However, Mexican control of California had effectively ended the year before, when the Californios expelled Manuel Micheltorena, the last Mexican governor.

With the signing of the Treaty of Guadalupe Hidalgo in 1848, ending the Mexican American War, California entered into the American Period and, in 1850, became the 31st state in the Union. During the late 1840s, there began the decline of old California's cattle ranching industry, which for over half a century represented the currency and staple of the rancho system. By the 1850s to 1860s, cattle ranching in the general region had greatly declined, and ranchos changed ownership regularly. In 1852, San Diego organized into a county; in 1853, San Bernardino followed suit. Riverside County would be formed in 1893, carved out of portions of San Bernardino and San Diego counties, with the city of Riverside as the county seat.

During the 1880s and 1890s, as in other areas surrounding the Riverside Colony, irrigation canals were built, and the regional citrus industry took root. The arrival of reliable water sources coincided with the arrival of a second transcontinental railroad. In 1882, construction of a competing rail line into Southern California, known as the California Southern Railway, was under way, financed by the Atchison, Topeka, and Santa Fe Railway Company (AT&SF). The line of a Santa Fe subsidiary was built from San Diego to the site of Perris and on to Riverside and San Bernardino in 1882. A second Santa Fe subsidiary, the Atlantic and Pacific Railroad, extended a line west from Albuquerque, then connected San Bernardino and Los Angeles; this connection was opened as of May 1887. The eastern United States was now readily accessible via Los Angeles. The establishment of a second competing railway line from the Midwest to Los Angeles in 1886 triggered a land boom in Southern California during the late 1880s, which brought substantial settlement to the region.

2.4.2 Settlement and Development of Murrieta and Vicinity

The town of Murrieta is named after Juan Murrieta, a prominent local sheep rancher who had settled in the region in the 1870s with his older brother, Ezequiel. They purchased 52,000 acres of the Temecula and Pauba ranchos in a partnership with Domingo Pujol and Francisco Sanjurjo (Curran et al. 2006:7). The two ranchers moved their flock of 100,000 sheep to the area from central California after discovering the lush valley in 1872, but by 1876, the partnership dissolved, and the land was divided. Ezequiel Murrieta then sold his land to the California

Southern Railroad in 1882 and returned to Spain. Juan Murrieta sold all but 1,000 acres of his ranch to the Temecula Land and Water Company and moved his family to Los Angeles. The Temecula Land and Water Company originally laid out and named the town "Murrietaville," founding it in 1884 at the height of the Southern California land boom.

In 1882, the Southern California Railroad laid tracks through the Temecula Valley and Temecula Canyon, linking the area to the company's coastal and southern transcontinental route. The town grew quickly with businesses and residents, and by 1890, Murrieta's population had reached 800 (Curran et al. 2006:7). The Murrieta Old Town area, bounded by Kalmia Street, Adams Avenue, Ivy Street, and the abandoned AT&SF alignment, marks the boundaries of the original townsite.

Development of the railroad made the export of local grain and other farm products economically more feasible, and the availability of railroad transport coincided with a decade of relatively wet winters in the late 1880s and early 1890s, which encouraged local agricultural settlement by newcomers from other parts of the country. Grain production was the predominant agricultural activity of the region in the early 1890s, with some stock grazing also carried out. As early as 1889, more than 100 railroad carloads of grain were reported shipped from Murrieta station (Garrison 1963:21). The success of local dry-land farming varied with the intensity of local winter rainfall: annual rainfall of 14 inches or more could provide reasonable yields of winter wheat or barley, and straw hay could be produced with a little less rainfall. The late 1880s and early 1890s were years of heavier-than-average winter rainfall in Southern California, providing encouragement to those engaged in dry-land farming. Grain from the surrounding areas was hauled to Murrieta to be transported by rail to Los Angeles and San Bernardino (Garrison 1963:138, 165, 168).

The decade of the 1920s offered regional urban growth in Southern California that was helpful to many farmers in the region. However, the 1920s also brought sustained national declines in the prices of many agricultural commodities due to major increases in agricultural production in the U.S. and elsewhere. Coupled with these declines were seven years of lower-than-average rainfall during the 1920s in Southern California. The years 1922–1924 were particularly dry, which set off a temporary collapse of hydroelectric power generation.

The natural hot springs where Juan Murrieta once washed his sheep were instrumental in bringing international renown to the community as the Murrieta Hot Springs Resort flourished during the first half of the twentieth century (City of Murrieta 2022). Nevertheless, by the mid-1930s, the AT&SF decided to pull the tracks from Perris to Temecula, and after the trains stopped running, the town of Murrieta began to experience a lull in its economy, surviving instead as a small agricultural community.

The turnover in land ownership during the 1930s and the eventual recovery of agricultural prices by the eve of World War II was followed by the disruption of the exodus of younger people into military service or leaving to work in urban areas. However, the favorable average rainfall conditions of the years from 1934 through 1944 were followed by a prolonged period of lower-than-average years of winter rainfall lasting until 1965. Water from the Colorado River Aqueduct was piped to the region beginning in the early 1940s.

The post–World War II era ushered in a boom in commercial, industrial, and residential development in and near the region's urban centers, followed by the construction of several freeways linking urban areas to one another. The Interstate 15 and 15E (later known as I-215) freeways were constructed past the town in the 1970s. Almost overnight, the region began a period of phenomenal growth, and a new community sprouted in and around the old town of Murrieta. The town boasted more than 24,000 residents when it became a city on July 1, 1991 (City of Murrieta 2022). and by 2005, more than 85,000 people had moved to the community, making it one of the five largest in Riverside County.

As urban areas were spread outward by development, once-rural areas took on a more semirural character, dotted by small, 2.5- and 5-acre "ranch" subdivisions. In more recent years, housing and urban development have spread outward from urban areas and swallowed up former agricultural land at an exponential rate, forever changing the character of the region. During the last decade, inexpensive land and housing transformed many of the towns in southwestern Riverside County into "bedroom" communities for those working in Los Angeles, Orange, and San Diego counties. Substantial growth over the last few decades has necessitated the construction of numerous artificial lakes, reservoirs, and other forms of municipal water storage, such as nearby Lake Perris, Lake Skinner, and the Eastside Reservoir (now Diamond Valley Lake). Increased population and automobile traffic has resulted in the need for construction of new roads, as well as expansion and improved safety of many of the pre-existing roads throughout the region. The over-expansion of the housing market, and ultimate crash in 2007, led to a shift in the region's development trend in recent years to increased infrastructure projects to support the population growth. Recently, new residential development has been spurred by a low inventory of homes and a slowly reviving market economy.

2.4.3 French Valley Airport

In the late 1970s, discussions were initiated regarding the need to relocate Rancho California Airport, mainly due to safety concerns and the owner's unwillingness to extend the lease with Riverside County. An evaluation process in June 1983 identified potential new sites, leading to the designation of the French Valley location as the new airport site by the Riverside County Board of Supervisors in June 1985. The FAA subsequently endorsed the layout plan for the French Valley Airport and allocated funding through four grants for land acquisition.

Construction of the French Valley Airport began in October 1987 and was completed by April 1989. The airport is managed by Riverside County, which also oversees three other airports: Chiraco Summit, Hemet-Ryan, and Jacqueline Cochran Regional Airport. The Economic Development Agency—Aviation and the Board of Supervisors handle the daily operations of these facilities. Since 1995, various capital improvement projects have been carried out at French Valley Airport, funded by the Airport Improvement Program, which assists public agencies with the planning and development of public-use airports included in the National Plan of Integrated Airport Systems (Coffman Associates 2009).

3
SOURCES CONSULTED

The following chapter details the sources consulted during the prefield research portion of the Project. These include a cultural resource literature and records search and historical map review of the APE.

3.1 CULTURAL RESOURCE LITERATURE AND RECORDS SEARCH

The Eastern Information Center (EIC) of the California Historical Resources Information System ceased operations indefinitely as of June 2024. Consequently, Æ completed an in-house literature and records search for the Project on August 22, 2024. The objective of this records search was to determine whether any precontact or historical cultural resources had been recorded previously within the APE or a 1-mile radius.

The records search review indicated 42 cultural resource investigations have been conducted previously within a 1-mile radius of the APE (Table 3-1). One of these investigations (RI-01865) involved a portion of the APE, with the result that 95 percent of the APE had been previously studied 40 years ago.

Table 3-1
Previous Cultural Resource Studies in the 1-Mile Search Radius

EIC Reference	Author(s)	Date	Title
RI-00036	Bettinger, Robert L.	1972	*Murrieta Hot Springs Development: Potential Impact on Archaeological Resources*
RI-00037	Dover, Christopher E.	1988	*A Cultural Resources Assessment Murrieta Hot Springs Specific Plan, Near Murrieta Hot Springs, California*
RI-00038	Koerper, Henry C.	1997	*Archaeological Survey of a 43.5 Acre Property: Tract NO. 24159-2, 3 & F (Final) Near Winchester and Hunter Roads, Murrieta Hot Springs, California. Author. Submitted to Private. Unpublished Report O*
RI-00186	Wells, Helen	1975	*Archaeological Impact Report: Eastern Municipal Water District, Riverside County, California: PL984 Water Systems Addition*
RI-00235	Daly, Ken	1977	*Environmental Impact Evaluation: Archaeological Assessment of the NW 1/4 of Section 6, T7S, R2W, SBBM, Near Adobe Spring, Riverside County, California*
RI-00362	Wilke, Philip J., and John Bischoff	1984	*Letter Report: Rancho Bella Vista Specific Plan*
RI-00363	Corbin, Alan B.	1978	*Environmental Impact Evaluation: Archaeological Assessment of 800 acres entitles Bellavista (tentative parcel map 11607) Riverside County, California*
RI-00409	Holcomb, Thomas	1978	*Environmental Impact Evaluation*
RI-00450	Suss, T., and M. Cole	1974	*Archaeological Impact Report - Parcel Map 6026*

Table 3-1
Previous Cultural Resource Studies in the 1-Mile Search Radius (continued)

EIC Reference	Author(s)	Date	Title
RI-01260	Desautels, Roger J.	1981	*An Archaeological Assessment of TPM 17650*
RI-01387	Bouscaren, Stephen	1982	*An Archaeological Assessment of the Old Dutch Village Property, West of Lake Skinner in Riverside County, California*
RI-01744	Salpas, Jean A.	1983	*An Archaeological and Historical Assessment of the Winchester Mesa Specific Plan Study Area, Riverside County, California*
RI-01841	Van Horn, David M. and John Murray	1984	*Archaeological Assessment Report, TP Map No. 20373 In Murrieta, Riverside..*
RI-01848	Scientific Resources Surveys, Inc.	1984	*An Archaeological Survey of a Portion of the San Diego Aqueduct Easement*
RI-01865[a]	Wilmoth, Stan	1984	*West of Skinner Reservoir, Riverside County, California.*
RI-02080	Keller, Jean Salpas	1987	*To Private (MWD). Unpublished Report*
RI-02259	Drover, Christopher E.	1978	*A Cultural Resource Assessment- SABA II Industrial Development*
RI-02305	Keller, Jean Salpas	1988	*An Archaeological Assessment of TPM # 23199, Riverside County, California*
RI-02556	Brock, James	1990	*Report On Archaeological Monitoring of the 50-Acre Southwest County Justice Center Property, Riverside County, California*
RI-02557	Brock, James	1999	*Report On Archaeological Monitoring for the Jail Expansion Project, Southwest County Justice Center Near Murrieta, California*
RI-02558	Brock, James	2000	*Report On Archaeological Monitoring for the Courthouse and Juvenile Detention Center Projects, Southwest County Justice Center, Near Murrieta, California.*
RI-02579	Brock, James	1989	*An Archaeological Assessment of the 50-Acre Southwest County Justice Center Property, Riverside County, California*
RI-02580	Drover, Christopher E.	1990	*A Cultural Resource Assessment, Dutch Village Project, French Valley, Riverside County, California.*
RI-02936	Love, Bruce, Bai "Tom" Tang, Daniel Ballester, and Mariam Duhdul	2001	*Historical/Archaeological Resources Survey Report: APN: 95-230-022, Southeast Corner of Benton Road and Winchester Road, Riverside County, California*
RI-03152	Hector, Susan	1988	*Letter Report: Archaeological Survey of the Winchester Road General Plan Amendment 114-Acre Property*
RI-03370	Drover, Christopher E..	1990	*A Cultural Resource Assessment: Airport Business Park, French Valley, Riverside County, California*
RI-03371	Drover, Christopher E.	1993	*A Cultural Resource Addendum: Airport Business Park, French Valley, Riverside County, California*
RI-03739	Landis, Daniel	1993	*A Cultural Resources Survey for the Gas Piping No. 6900 Project, Riverside County, California*
RI-04404	Jones and Stokes Associates, Inc.	2000	*Final Cultural Resources Inventory Report for the Williams Communication, Inc., Fiber Optic Cable System Installation Project, Riverside to San Diego, California Vol I–IV.*

Table 3-1
Previous Cultural Resource Studies in the 1-Mile Search Radius (continued)

EIC Reference	Author(s)	Date	Title
RI-04542	White, Robert S., and Laura S. White	2002	*A Cultural Resources Assessment of a 4.5 Acre Parcel as Shown on TPM 30363, Southeast Corner of Auld Road and Van Gaale, Near Temecula, Riverside County*
RI-04874	Dice, Michael, E. Bruce Lander, and Leslie Nay Irish	2001	*A Phase I Archaeological Resource Survey and a Paleontological Records Review of Tract #30097, A 37.68-Acre Residential Project located near Auld Road and Gaale Lane, French Valley, County of Riverside*
RI-04933	McKenna, Jeanette A.	2003	*A Phase I Resources Survey of Assessor Parcel 958-060-005, A 20 Acre Parcel Located in Riverside County, California*
RI-04943	McKenna, Jeanette A.	2003	*Aphasia Cultural Resource Investigation of the Temecula Valley Unified School District School No.4 Project Area in the Winchester Area of Riverside County, California*
RI-05204	White, Laurie	2000	*Letter Report: Records Search Results for Sprint PCS Facility (French Valley), Near Murrieta Hot Springs, Riverside County, CA*
RI-05223	Goodwin, Riordan, Nat Lawson, and Jennifer Reynolds	2005	*Archaeological Testing and Monitoring Program Murrieta Springs (Tract Map Number 29707) City of Murrieta Riverside County, California*
RI-06674	Goodwin, Riordan and Robert E. Rynolds	2003	*Cultural and Paleontological Resources Assessment: Murrieta Springs Tract 29707, City of Murrieta Riverside County, California*
RI-06721	Lange, Reder	2006	*Cultural Resources Assessment: Tentative Tract Map No. 34076, Riverside County, California*
RI-06788	Hoover, Anna M., Susan Underbrink, and Kristie R. Blevins	2006	*An Archaeological and Paleontological Mitigation-Monitoring Report for French Calley IV and V, Tracts 30098 and 30097, APNs 958-060-006 and -007, 958-070-004 to -011 and -014, Riverside County, California*
RI-06851	Brown, Joan C., and Stephen O'Neil	2005	*Archaeological Survey for the French Valley Airport Center Project, Riverside County, California*
RI-07386	Aislin-Kay, Marnie, and Kenneth J. Lord	2006	*Phase I Cultural Resources Assessment, with Paleontological Records Review, Cameo Project, Tentative Tract Map #32323, French Valley Area, Riverside County, California.*
RI-07954	Brown, Joan C., and John Diestler	2008	*Phase IV Archaeological Monitoring for the French Valley Airport Center Project, Parcel Number 3369 1; Case Number PP21163, Riverside County, California*
RI-10195	Hogan, Michael, and Salvador Z. Boites	2018	*Cultural Resources Monitoring Project French Valley Self-Storage Project*

a - Study overlaps the APE.

The records search resulted in the identification of 33 previously recorded cultural resources within the 1-mile search radius. Of these, 33 are archaeological resources: 3 isolated artifacts, 27 prehistoric sites, 2 historical sites, and a site with both built-environment and archaeological components (Table 3-2). None of these resources is within the APE.

Table 3-2
Previously Recorded Cultural Resources in the 1-Mile Search Radius

Primary No.	Trinomial	Description
Isolated Prehistoric Artifacts		
33-011809	—	Two metate fragments
33-017362	—	One bifacial mano
Prehistoric Resources		
33-000716	—	Bedrock milling, extensive midden, and lithic scatter
33-000856	—	Lithic scatter
33-001001	CA-RIV-1001	Bedrock milling
33-001005	CA-RIV-1005	Bedrock milling, midden, and lithic scatter
33-001006	CA-RIV-1006	Bedrock milling
33-001269	CA-RIV-1269	Bedrock milling
33-001359	CA-RIV-1359	Bedrock milling
33-001361	CA-RIV-1361	Bedrock milling
33-002225	CA-RIV-2225	Bedrock milling
33-002932	CA-RIV-2932	Bedrock milling
33-002933	CA-RIV-2933	Bedrock milling
33-002970	CA-RIV-2970	Bedrock milling
33-003839	CA-RIV-3839	Bedrock milling
33-004641	CA-RIV-4641	Bedrock milling and lithic scatter
33-004642	CA-RIV-4642	Bedrock milling
33-004648	CA-RIV-4648	Large complex lithic scatter
33-004654	CA-RIV-4654	Bedrock milling
33-004658	CA-RIV-4658	Bedrock milling
33-004660	CA-RIV-4660	Bedrock milling
33-004661	CA-RIV-4661	Bedrock milling, metate and mano
33-004662	CA-RIV-4662	Bedrock milling
33-011038	CA-RIV-6649	Bedrock milling
33-011601	CA-RIV-6912	Bedrock milling
33-013282	CA-RIV-7410	Bedrock milling, lithic scatter and fire affected rock
33-013952	CA-RIV-7642	Lithic scatter
33-015851	CA-RIV-8220	Bedrock milling
33-015852	CA-RIV-8221	Bedrock milling
Isolated Historical Artifact		
33-017363	—	One horseshoe
Historical Resources		
33- 013242	CA-RIV-7327H	Complex of four slabs, three building foundation footings and associated structural debris and historical refuse
33-013871	—	Historical Winchester Road
Built Environment with Archaeological Components		
33-005087	CA-RIV-5087	1901 Turn of the century dwelling and historical refuse

3.2 HISTORICAL MAP REVIEW

In addition to the record search research, a series of historical maps and aerial photographs from various sources were consulted to assess land use and development in the study area. Æ reviewed and compiled information from:

- USGS topographic quadrangle maps (https://ngmdb.usgs.gov/topoview/): Elsinore 1:125,000 (1901), Southern California 1:125,000 (1901), Murrieta 1:62,500 (1942) 1:24,000 (1953), Santa Ana 1:250,000 (1947, 1956, 1959, and 1960), Santa Ana 1:100,000 (1983); and

- Aerial photographs of the area (historicaerials.com/viewer): images from 1938 to 1996.

The historical maps showed the APE and its vicinity previously consisted of agricultural lands with no structures, roads, or historical features. The aerial photos were similar, until those from 1987 showed the presence of the French Valley Airport.

3.3 SACRED LANDS FILE SEARCH

On June 6, 2024, Æ contacted the NAHC for a review of their SLF to determine if any known Native American cultural properties (e.g., traditional use or gathering areas, places of religious or sacred activity) are present within or adjacent to the APE. The NAHC responded on July 9, 2024, stating the SLF search was completed with negative results. The NAHC provided a list of Native American individuals and organizations to be contacted to elicit information and/or concerns regarding cultural resource issues related to the proposed Project. Results of the NAHC file search and Native American contact list are included in Appendix A to assist the FAA and Riverside County EDA with their consultation efforts.

4
CULTURAL RESOURCE SURVEY METHODS AND RESULTS

The following sections detail the methods and results of the intensive pedestrian field survey of the APE. The information provided below represents the means by which conclusions regarding archaeological sensitivity of the APE were reached. The entire 4-acre APE was accessible during the survey which was completed by Æ Senior Archaeologist Andrew DeLeon on August 23, 2024.

4.1 SURVEY METHODS

DeLeon began surveying on the southeast corner of the APE and proceeded northward. The survey was conducted in 10-meter transects oriented north–south, moving westward through the APE. While surveying, DeLeon photographed the APE at various locations to document its current condition.

4.2 SURVEY RESULTS

The APE is entirely disturbed, showing signs of recent plowing by heavy equipment (Figure 4-1). Ground visibility was poor at approximately 15 percent, due to weed growth and grasses that obscured most of the ground surface (Figure 4-2). There were no signs of natural geologic features or outcrops in the APE, primarily because this area was developed during the airport's original construction.

During the survey, DeLeon discovered a modern brick structure in the southern portion of the APE, likely used for maintenance and operations at the French Valley Airport (Figure 4-3). No additional structures or cultural resources were identified within the APE during the survey.

Figure 4-1 Overview from southwest corner of APE., facing east.

Figure 4-2 Overview from southeast corner of APE, facing northwest.

Figure 4-3 Modern brick structure on south end of APE, facing north.

5
MANAGEMENT RECOMMENDATIONS

Æ did not encounter any nonmodern cultural resources within the APE during the intensive pedestrian survey. The entire Project is highly disturbed, with evidence of tilling, the original construction of the French Valley Airport, and a modern brick structure in the southern portion of the APE. Ground visibility was poor at approximately 15 percent, due to weed growth and grasses that obscured most of the ground surface. As a result, there is a low likelihood that archaeological deposits or features will be found during construction. Consequently, a finding of No Adverse Effect is recommended for the Project as presently planned, and no further cultural resource management of the Project is recommended.

However, if the APE is expanded to include areas not covered by this study or other recent cultural resource investigations, additional cultural resource studies may be required.

As stated, results of the NAHC file search and Native American contact list are included in Appendix A to assist the FAA and Riverside County EDA with their consultation efforts.

6
REFERENCES

Baird, Alexander K., and Alfred T. Miesch
1984 *Batholithic Rocks of Southern California: A Model for the Petrochemical Nature of Their Source Materials*. Geological Survey Professional Paper 1284. U.S. Department of the Interior, Washington, D.C.

Barbour, Michael G., and Jeane Wirka
1997 *Classification of Alluvial Scrub in Los Angeles, Riverside, and San Bernardino Counties*. Department of Environmental Horticulture, University of California, Davis, California. Prepared for California Department of Fish and Game, Region 5.

Bean, Lowell J.
1978 Cahuilla. In *California*, edited by Robert F. Heizer, pp. 575–587. Handbook of North American Indians, Vol. 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Bean, Lowell J., and Katherine S. Saubel
1972 *Temalpakh, Cahuilla Indian Knowledge and Usage of Plants*. Malki Museum Press, Banning, California.

Bean, Lowell J., and Sylvia B. Vane
2001 *Eastside Reservoir Project Phase III: Ethnography and Ethnohistory*. Cultural Systems Research, Inc., Menlo Park, California. Prepared for Metropolitan Water District of Southern California, Los Angeles.

Beedle, Peggy, M. Colleen Hamilton, and Joan George
2010 *Final Historical Resources Evaluation Report: State Route 79 Realignment Project, Domenigoni Parkway to Gilman Springs Road*. Applied EarthWorks, Inc., Hemet, California. Prepared for Riverside County Transportation Commission and CH2M Hill for submittal to Caltrans District 8, San Bernardino, California.

Boscana, Gerónimo
1978 *Chinigchinich: A Revised and Annotated Version of Alfred Robinson's Translation of Father Gerónimo Boscana's Historical Account of the Belief, Usages, Customs and Extravagancies of the Indians of This Mission of San Juan Capistrano Called the Acagchemen Tribe*. Classics in California Anthropology, Vol. 3. Malki Museum Press, Banning, California. Originally published 1993, Fine Arts Press, Santa Ana, California.

Brackett, Robert W.
1939 *A History of Ranchos of San Diego County, California*. Union Title and Trust Company, San Diego, California.

City of Murrieta
2022 Murrieta History, https://www.murrietaca.gov/621/City-History. City of Murrieta.

Coffman Associates
2009 *Airport Master Plan for French Valley Airport, Riverside County, California*. Draft Final Technical Report. Electronic document, https://rcfva.com/sites/g/files/aldnop191/files/migrated/Portals-0-French-Valley-MP-Draft-Final.pdf.

Crouch, Dora P., Daniel J. Garr, and Axel I. Mundigo
1982 *Spanish City Planning in North America*. MIT Press, Cambridge, Massachusettes.

Curran, Marvin, Loretta Barnett, and Rebecca Farnbauch
2006 *Murrieta*. Images of America. Arcadia, San Francisco and Chicago.

Curti, Giorgio H.
2013 Luiseño Ethnohistory: The Pre-Contact Period and Its Ongoing Cultural Significance. In *Final Cultural Resources Inventory of the Interstate 15 Border Patrol Checkpoint, City of Temecula, Riverside County, California*. Prepared for U.S. Customs and Border Protection.

DuBois, Constance Goddard
1908 The Religion of the Luiseño Indians of Southern California. University of California Publications in American Archaeology and Ethnology Vol. 8(3):69–186. Berkeley.

Garrison, Arlean V.
1963 *My Children's Home: A History of Murrieta California*. Mayhall Print Shop, Elsinore, California.

Gastil, Gordon R.
1999 The Southern California Batholith. In *Classic Cordilleran Concepts: A View from California*, edited by Eldridge M. Moores, Doris Sloan, and Dorothy L. Stout, pp. 201–215. Geological Society of America Special Paper 338. Cypress College, Cypress, California.

Goldberg, Susan K., and Jeanne E. Arnold
1988 *Prehistoric Sites in the Prado Basin, California: Regional Context and Significance Evaluation*. INFOTEC Research, Inc., Sonora, California. Submitted to U.S. Army Corps of Engineers, Los Angeles District.

Goldberg, Susan K., Cynthia J. Klink, Jill Onken, W. Geoffrey Spaulding, Mark C. Robinson, Melinda C. Horne, and Rebecca L. McKim
2001 *Synthesis of Findings*. Metropolitan Water District of Southern California Eastside Reservoir Project Final Report of Archaeological Investigations, Vol. IV. Applied EarthWorks Inc., Hemet, California. Prepared for the Metropolitan Water District of Southern California, Los Angeles.

Grenda, Donn R.
1997 *Continuity and Change: 8,500 Years of Lacustrine Adaptation on the Shores of Lake Elsinore*. Statistical Research Technical Series 59. Statistical Research, Inc., Tucson, Arizona.

Gunther, Jane Davies
1984 *Riverside County, California, Place Names: Their Origins and Their Stories*. Rubidoux Printing, Riverside, California.

Harrington, John P.
1933 *Annotations of Alfred Robinson's Chinigchinich: A Revised and Annotated Version of Alfred Robinson's Translation of Father Gerónimo Boscana's Historical Account of the Belief, Usages, Customs and Extravangancies of the Indians of This Mission of San Juan Capistrano Called the Acagchemem Tribe*, edited by P. T. Hanna. Fine Arts Press, Santa Rosa, California.

Holland, Robert F.
1986 *Preliminary Descriptions of the Terrestrial Natural Communities of California*. State of California, Department of Fish and Game, Sacramento.

Horne, Melinda C., and Dennis P. McDougall
2008 *CA-RIV-6069: Early Archaic Settlement and Subsistence in the San Jacinto Valley, Western Riverside County, California*, with contributions by Jill A. Onken, Nancy Valente, Suzanne Griset, W. Geoffrey Spaulding, and R. Scott Anderson. Applied EarthWorks, Inc., Hemet, California. Prepared for Metropolitan Water District of Southern California, Los Angeles.

Hyde, Villiana C., and Eric Elliott
1994 *Yumayk Yumayk: Long Ago*. University of California Press, Berkeley.

Justice, Noel D.
2002 *Stone Age Spear and Arrow Points of California and the Great Basin*. Indiana University Press, Bloomington.

Kroeber, Alfred L.
1925 *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78. Smithsonian Institution, Washington, D.C.

McDougall, Dennis P.
1995 *Metropolitan Water District Eastside Reservoir Project, Interim Data Recovery Report, CA-RIV-862/H*. Applied EarthWorks, Inc., Fresno, California. Submitted to Metropolitan Water District of Southern California, Los Angeles.

Mills, Evan, Kholood Abdo, and Joan George
2020 *Supplemental Phase I Cultural Resources Assessment for the Clinton Keith Road Extension Project (Segment 4), Murrieta Region, Riverside County, California*. Applied EarthWorks, Inc., Hemet, California. Prepared for Jacobs, Riverside, California.

Moratto, Michael J.
1984 *California Archaeology*. Academic Press, Orlando, Florida.

O'Connell, James F., Philip J. Wilke, Thomas F. King, and Carol L. Mix (editors)
1974 *Perris Reservoir Archeology: Late Prehistoric Demographic Change in Southeastern California*. California Department of Parks and Recreation Archeological Report No. 14. Sacramento.

Onken, Jill A., and Melinda C. Horne
2001 Chronosequencing. In *Synthesis of Findings*, edited by Susan E. Rapp and Susan K. Goldberg, pp. 91–169. MWD Eastside Reservoir Project Final Report of Archaeological Investigations. Susan K. Goldberg, general editor. Applied EarthWorks, Inc., Hemet, California. Prepared for Metropolitan Water District of Southern California, Los Angeles.

Rawls, James J., and Walton Bean
1998 *California: An Interpretive History*. 7th ed. McGraw-Hill Companies, Boston, Massachusetts.

Robinson, Mark C.
1998 *Arrow Points from the Eastside Reservoir Project: Typology and Chronology in the Late Prehistoric of Riverside County, California*. Master's thesis, Department of Anthropology, University of Oregon. Eugene.

2001 Units of Analysis. In *Synthesis of Findings*, edited by Susan E. Rapp and Susan K. Goldberg, pp. 171–199. MWD Eastside Reservoir Project Final Report of Archaeological Investigations. Susan K. Goldberg, general editor. Applied EarthWorks, Inc., Hemet, California. Prepared for Metropolitan Water District of Southern California, Los Angeles.

Robinson, William W.
1957 *The Story of Riverside County*. Title Insurance and Trust Company, Los Angeles, California.

Rolle, Andrew F.
1978 *California, a History*. Harlan Davidson, Inc., Arlington Heights, Illinois.

San Jacinto Valley Genealogical Society
1989 *San Jacinto Valley Past and Present*. Curtis Media Corporation, Dallas, Texas.

Sawyer, John O., and Todd Keeler-Wolf
2009 *A Manual of California Vegetation*. 2nd ed. California Native Plant Society, Sacramento, California.

Smith, Gerald A., and Steven M. Freers
1994 *Fading Images: Indian Pictographs of Western Riverside County*. Riverside Museum Press, Riverside, California.

Stine, Scott
1994 Extreme and Persistent Drought in California and Patagonia during Medieval Time. *Nature* 369:546–549.

Strong, William Duncan
1929 *Aboriginal Society in Southern California*. University of California Publications in American Archaeology and Ethnology Vol. 26(1):1–358. University of California Press, Berkeley.

True, Delbert L.
1966 *Archaeological Differentiation of Shoshonean and Yuman Speaking Groups in Southern California*. Ph.D. dissertation, Department of Anthropology, University of California. Los Angeles.

1970 *Investigations of a Late Prehistoric Complex in Cuyamaca Rancho State Park, San Diego County, California*. Archaeological Survey Monographs 1. University of California, Los Angeles.

U.S. Fish and Wildlife Service
2021 San Diego Nwr Habitat Types, https://www.fws.gov/story/san-diego-nwr-habitat-types, accessed September 4, 2024. San Diego NWR Habitat Types, U.S. Fish and Wildlife Service.

U.S. Geological Survey
2018 Quaternary Alluvium and Marine Deposits (Caq;0). https://mrdata.usgs.gov/geology/state/sgmc2-unit.php?unit=CAQ;0, accessed September 2018.

Vane, Sylvia B.
2000 *Ethnographic Overview: Inland Feeder Project*. Cultural Systems Research, Inc., Menlo Park, California. Prepared for Metropolitan Water District of Southern California, Los Angeles.

Warren, Claude N.
1984 The Desert Region. In *California Archaeology*, pp. 339–430. Academic Press, New York.

Waters, Michael R.
1983 Late Holocene Lacustrine Chronology and Archaeology of Ancient Lake Cahuilla, California. *Quaternary Research* 19(3):373–387.

Western Regional Climate Center
2005 Lompoc, California (045064) Period of Record Monthly Climate Summary 1950 to 2005. Electronic document, http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?calomp+sca. Western U.S. Climate Historical Summaries, Climatological Data Summaries, S. California.

Wetmore, Paul H., Charles Herzig, Helge Alsleben, Michelle Sutherland, Keegan L. Schmidt, Paul W. Schultz, and Scott R. Paterson

2003 Mesozoic Tectonic Evolution of the Peninsular Ranges of Southern and Baja California. In *Tectonic Evolution of Northwestern Mexico and the Southwestern USA*, edited by Scott E. Johnson, Scott R. Paterson, John M. Flecher, Gary H. Girty, David L. Kimbrough, and Arturo M. Martín-Baraja. Geological Society of America Special Paper 374:93–116. Geological Society of America, Boulder, Colorado.

Wilke, Philip J.

1976 *Late Prehistoric Human Ecology at Lake Cahuilla, Coachella Valley, California*. Ph.D. dissertation, Department of Anthropology, University of California. Riverside.

APPENDIX A

Sacred Lands File Search

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov

July 9, 2024

Andrew DeLeon
Applied EarthWorks, Inc.

Via Email to: adeleon@appliedearthworks.com

Re: AE 4619 Air Traffic Control Tower – French Valley Project, Riverside County

To Whom It May Concern:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Riverside County
7/9/2024

Tribe Name	Fed (F) Non-Fed (N)	Contact Person	Contact Address	Phone #	Fax #	Email Address	Cultural Affiliation	Counties	Last Updated
Agua Caliente Band of Cahuilla Indians	F	Lacy Padilla, Director of Historic Preservation/THPO	5401 Dinah Shore Drive Palm Springs, CA, 92264	(760) 333-5222	(760) 699-6919	ACBCI-THPO@aguacaliente.net	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	1/11/2024
Augustine Band of Cahuilla Indians	F	Tribal Operations,	84-001 Avenue 54 Coachella, CA, 92236	(760) 398-4722		info@augustinetribe-nsn.gov	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	4/18/2024
Cabazon Band of Cahuilla Indians	F	Doug Welmas, Chairperson	84-245 Indio Springs Parkway Indio, CA, 92203	(760) 342-2593	(760) 347-7880	jstapp@cabazonindians-nsn.gov	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	
Cahuilla Band of Indians	F	Anthony Madrigal, Tribal Historic Preservation Officer	52701 CA Highway 371 Anza, CA, 92539	(951) 763-5549		anthonymad2002@gmail.com	Cahuilla	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego	6/28/2023
Cahuilla Band of Indians	F	BobbyRay Esparza, Cultural Director	52701 CA Highway 371 Anza, CA, 92539	(951) 763-5549		besparza@cahuilla-nsn.gov	Cahuilla	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego	6/28/2023
Cahuilla Band of Indians	F	Erica Schenk, Chairperson	52701 CA Highway 371 Anza, CA, 92539	(951) 590-0942	(951) 763-2808	chair@cahuilla-nsn.gov	Cahuilla	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego	2/1/2024
La Jolla Band of Luiseno Indians	F	Norma Contreras, Chairperson	22000 Highway 76 Pauma Valley, CA, 92061	(760) 742-3771			Luiseno	Orange,Riverside,San Diego	
Los Coyotes Band of Cahuilla and Cupeño Indians	F	Ray Chapparosa, Chairperson	P.O. Box 189 Warner Springs, CA, 92086-0189	(760) 782-0711	(760) 782-0712		Cahuilla	Imperial,Riverside,San Bernardino,San Diego	
Morongo Band of Mission Indians	F	Ann Brierty, THPO	12700 Pumarra Road Banning, CA, 92220	(951) 755-5259	(951) 572-6004	abrierty@morongo-nsn.gov	Cahuilla Serrano	Imperial,Kern,Los Angeles,Riverside,San Bernardino,San Diego	
Morongo Band of Mission Indians	F	Robert Martin, Chairperson	12700 Pumarra Road Banning, CA, 92220	(951) 755-5110	(951) 755-5177	abrierty@morongo-nsn.gov	Cahuilla Serrano	Imperial,Kern,Los Angeles,Riverside,San Bernardino,San Diego	
Pala Band of Mission Indians	F	Christopher Nejo, Legal Analyst/Researcher	PMB 50, 35008 Pala Temecula Road Pala, CA, 92059	(760) 891-3564		cnejo@palatribe.com	Cupeno Luiseno	Orange,Riverside,San Bernardino,San Diego	11/27/2023
Pala Band of Mission Indians	F	Shasta Gaughen, Tribal Historic Preservation Officer	PMB 50, 35008 Pala Temecula Road Pala, CA, 92059	(760) 891-3515		sgaughen@palatribe.com	Cupeno Luiseno	Orange,Riverside,San Bernardino,San Diego	11/27/2023

Pala Band of Mission Indians	F	Alexis Wallick, Assistant THPO	PMB 50, 35008 Pala Temecula Road Pala, CA, 92059	(760) 891-3537		awallick@palatribe.com	Cupeno Luiseno	Orange,Riverside,San Bernardino,San Diego	11/27/2023
Pauma Band of Luiseno Indians	F	Temet Aguilar, Chairperson	P.O. Box 369 Pauma Valley, CA, 92061	(760) 742-1289	(760) 742-3422	bennaecalac@aol.com	Luiseno	Orange,Riverside,San Diego	
Pechanga Band of Indians	F	Steve Bodmer, General Counsel for Pechanga Band of Indians	P.O. Box 1477 Temecula, CA, 92593	(951) 770-6171	(951) 695-1778	sbodmer@pechanga-nsn.gov	Luiseno	Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura	8/2/2023
Pechanga Band of Indians	F	Tuba Ebru Ozdil, Pechanga Cultural Analyst	P.O. Box 2183 Temecula, CA, 92593	(951) 770-6313	(951) 695-1778	eozdil@pechanga-nsn.gov	Luiseno	Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura	8/2/2023
Quechan Tribe of the Fort Yuma Reservation	F	Jill McCormick, Historic Preservation Officer	P.O. Box 1899 Yuma, AZ, 85366	(928) 261-0254		historicpreservation@quechantribe.com	Quechan	Imperial,Kern,Los Angeles,Riverside,San Bernardino,San Diego	5/16/2023
Quechan Tribe of the Fort Yuma Reservation	F	Manfred Scott, Acting Chairman - Kw'ts'an Cultural Committee	P.O. Box 1899 Yuma, AZ, 85366	(928) 210-8739		culturalcommittee@quechantribe.com	Quechan	Imperial,Kern,Los Angeles,Riverside,San Bernardino,San Diego	5/16/2023
Quechan Tribe of the Fort Yuma Reservation	F	Jordan Joaquin, President, Quechan Tribal Council	P.O.Box 1899 Yuma, AZ, 85366	(760) 919-3600		executivesecretary@quechantribe.com	Quechan	Imperial,Kern,Los Angeles,Riverside,San Bernardino,San Diego	5/16/2023
Ramona Band of Cahuilla	F	John Gomez, Environmental Coordinator	P. O. Box 391670 Anza, CA, 92539	(951) 763-4105	(951) 763-4325	jgomez@ramona-nsn.gov	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	8/16/2016
Ramona Band of Cahuilla	F	Joseph Hamilton, Chairperson	P.O. Box 391670 Anza, CA, 92539	(951) 763-4105	(951) 763-4325	admin@ramona-nsn.gov	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	
Rincon Band of Luiseno Indians	F	Laurie Gonzalez, Tribal Council/Culture Committee Member	One Government Center Lane Valley Center, CA, 92082	(760) 484-4835		lgonzalez@rincon-nsn.gov	Luiseno	Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura	5/31/2023
Rincon Band of Luiseno Indians	F	Joseph Linton, Tribal Council/Culture Committee Member	One Government Center Lane Valley Center, CA, 92082	(760) 803-3548		jlinton@rincon-nsn.gov	Luiseno	Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura	5/31/2023
Rincon Band of Luiseno Indians	F	Cheryl Madrigal, Cultural Resources Manager/Tribal Historic Preservation Officer	One Government Center Lane Valley Center, CA, 92082	(760) 648-3000		cmadrigal@rincon-nsn.gov	Luiseno	Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura	5/31/2023
Rincon Band of Luiseno Indians	F	Denise Turner Walsh, Attorney General	One Government Center Lane Valley Center, CA, 92082	(760) 689-5727		dwalsh@rincon-nsn.gov	Luiseno	Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura	7/7/2023
Santa Rosa Band of Cahuilla Indians	F	Steven Estrada, Tribal Chairman	P.O. Box 391820 Anza, CA, 92539	(951) 659-2700	(951) 659-2228	sestrada@santarosa-nsn.gov	Cahuilla	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego	4/8/2024

Santa Rosa Band of Cahuilla Indians	F	Vanessa Minott, Tribal Administrator	P.O. Box 391820 Anza, CA, 92539	(951) 659-2700	(951) 659-2228	vminott@santarosa-nsn.gov	Cahuilla	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego	4/8/2024
Soboba Band of Luiseno Indians	F	Isaiah Vivanco, Chairperson	P.O. Box 487 San Jacinto, CA, 92581	(951) 654-5544	(951) 654-4198	ivivanco@soboba-nsn.com	Cahuilla Luiseno	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego	7/14/2023
Soboba Band of Luiseno Indians	F	Jessica Valdez, Cultural Resource Specialist	P.O. Box 487 San Jacinto, CA, 92581	(951) 663-6261	(951) 654-4198	jvaldez@soboba-nsn.gov	Cahuilla Luiseno	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego	7/14/2023
Soboba Band of Luiseno Indians	F	Joseph Ontiveros, Tribal Historic Preservation Officer	P.O. Box 487 San Jacinto, CA, 92581	(951) 663-5279	(951) 654-4198	jontiveros@soboba-nsn.gov	Cahuilla Luiseno	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego	7/14/2023
Torres-Martinez Desert Cahuilla Indians	F	Alesia Reed, Cultural Committee Chairwoman	P.O. Box 1160 Thermal, CA, 92274	(760) 397-0300		lisareed990@gmail.com	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	10/30/2023
Torres-Martinez Desert Cahuilla Indians	F	Mary Belardo, Cultural Committee Vice Chair	P.O. Box 1160 Thermal, CA, 92274	(760) 397-0300		belardom@gmail.com	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	10/30/2023
Torres-Martinez Desert Cahuilla Indians	F	Gary Resvaloso, TM MLD	P.O. Box 1160 Thermal, CA, 92274	(760) 777-0365		grestmtm@gmail.com	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	10/30/2023
Torres-Martinez Desert Cahuilla Indians	F	Abraham Becerra, Cultural Coordinator	P.O. Box 1160 Thermal, CA, 92274	(760) 397-0300		abecerra@tmdci.org	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	10/30/2023
Torres-Martinez Desert Cahuilla Indians	F	Thomas Tortez, Chairperson	P.O. Box 1160 Thermal, CA, 92274	(760) 397-0300	(760) 397-8146	thomas.tortez@tmdci.org	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	10/30/2023

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed AE 4619 Air Traffic Control Tower – French Valley Project, Riverside County.

Record: PROJ-2024-003416
Report Type: List of Tribes
Counties: Riverside
NAHC Group: All

F70 ATCT Project	Tribal Consultaiton Record				
Tribe Name	**Contact Person**	**Title**	**Reply Date**	**Request Consultation Y/N**	**County Response**
Torres-Martinez Desert Cahuilla Indians	**Abraham Becerra**	Cultural Coordinator			No response.
Torres-Martinez Desert Cahuilla Indians	**Alesia Reed**	Cultural Committee Chairwoman			No response.
Pala Band of Mission Indians	**Alexis Wallick**	Assistant THPO			No response.
Morongo Band of Mission Indians	**Ann Brierty**	THPO			No response.
Cahuilla Band of Indians	**Anthony Madrigal**	Tribal Historic Preservation Officer			No response.
Cahuilla Band of Indians	**BobbyRay Esparza**	Cultural Director			No response.
Rincon Band of Luiseno Indians	**Cheryl Madrigal**	Cultural Resources Manager//THPO			No response.
Pala Band of Mission Indians	**Christopher Nejo**	Legal Analyst/Researcher	1.15.25	Yes.	Received letter requesting consultation on 1.15 Sent response letter on 1.15 with copy of CRA and opening consultation. Requested meeting week of 1.20.
Rincon Band of Luiseno Indians	**Denise Turner Walsh**	Attorney General			Received letter requesting consultation on 1.16 Sent response letter on 1.17 with copy of CRA and opening consultation. Requested meeting week of 1.20.
Cabazon Band of Cahuilla Indians	**Doug Welmas**	Chairperson			No response.
Cahuilla Band of Indians	**Erica Schenk**	Chairperson			No response.
Torres-Martinez Desert Cahuilla Indians	**Gary Resvaloso**	TM MLD			No response.
Soboba Band of Luiseno Indians	**Isaiah Vivanco**	Chairperson			No response.
Soboba Band of Luiseno Indians	**Jessica Valdez**	Cultural Resource Specialist			No response.
Quechan Tribe of the Fort Yuma Reservation	**Jill McCormick**	Historic Preservation Officer	########	No	Not appplicable.
Ramona Band of Cahuilla	**John Gomez**	Environmental Coordinator			No response.
Quechan Tribe of the Fort Yuma Reservation	**Jordan Joaquin**	President - Quechan Tribal Council			No response.
Ramona Band of Cahuilla	**Joseph Hamilton**	Chairperson			No response.
Rincon Band of Luiseno Indians	**Joseph Linton**	Tribal Council/Culture Committee Member			Received letter on 1.16.25 requesting information. Sent letter on 1.17. 25 with CRA report and ino on downloading site records. Requested mtg. week of 1/20.
Soboba Band of Luiseno Indians	**Joseph Ontiveros**	Tribal Historic Preservation Officer			See below for response to Pechanga.
Agua Caliente Band of Cahuilla Indians	**Lacy Padilla**	Director of Historic Preservation / THPO	########	No.	Not appplicable.
Rincon Band of Luiseno Indians	**Laurie Gonzalez**	Tribal Council/Culture Committee Member	1.16.2025	Yes.	Received letter via emailfrom S. Linton requesting additional info including site records.
Quechan Tribe of the Fort Yuma Reservation	**Manfred Scott**	Acting Chairman - Kw'ts'an Cultural			No response.
Torres-Martinez Desert Cahuilla Indians	**Mary Belardo**	Cultural Committee Vice Chair			No response.

La Jolla Band of Luiseno Indians	**Nonna Contreras**	Chairperson			No response.
Los Coyotes Band of Cahuilla and Cupeño Indians	**Ray Chapparosa**	Chairperson			No response.
Morongo Band of Mission Indians	**Robert Martin**	Chairperson		Yes, but received after closure of response period.	Received letter requestion consultation on Jan. 31, after closure of 30-day review period. Follow up letter to be sent identifying mitigation measures to be applied and to allow them to participate in monitoring.
Pala Band of Mission Indians	**Shasta Gaughen**	THPO	1.15.25	**Yes**	Formal Consultation Initiated 1.16.25 through emailed letter. Copy of Cultural Resources Assessment sent with letter. Meeting requested for week of 1/20.
Pechanga Band of Indians	**Steve Bodmer**	General Counsel for Pechanga Band of Indians		**Yes.**	**See below for response to Pechanga.**
Santa Rosa Band of Cahuilla Indians	**Steven Estrada**	Tribal Chairman			No response.
Pauma Band of Luiseno Indians	**Temet Aguilar**	Chairperson			No response.
Torres-Martinez Desert Cahuilla Indians	**Thomas Tortez**	Chairperson			No response.
Augustine Band of Cahuilla Indians	**Tribal Operations**	Tribal Operations		**No.**	A. Jamison received email indicating that they would not request consultation.
Pechanga Band of Indians	**Tuba Ebru Ozdil**	Pechanga Cultural Analyst	1.8.25	**Yes**	Received email requesting consultation from J. Ochoa MLIS. Sent CRA and letter for Consultaiton on 1.9.25 Sent site records on 1.10.25 via secure FTP.
Santa Rosa Band of Cahuilla Indians	**Vanessa Minott**	Tribal Administrator	45656	**No**	Not appplicable.

Key:

Negative Response
Consultation In Progress
Responded after deadline

THPO
Pala Band of Mission Indians

TRIBAL HISTORIC PRESERVATION OFFICE
PALA BAND OF MISSION INDIANS
PMB 50, 35008 Pala Temecula Road | Pala, CA 92059
Phone 760-891-3510 | www.palatribe.com

January 15, 2025

Angela Jamison
County of Riverside, Director of Airports
ajamison@rivco.org

Re: AB-52 Native American Consultation for a proposed Air Traffic Tower at the French Valley Airport, Riverside County, California

Dear Angela Jamison:

The Pala Band of Mission Indians Tribal Historic Preservation Office has received your notification of the project referenced above. This letter constitutes our response on behalf of Robert Smith, Tribal Chairman.

We have consulted our maps and determined that the project as described is not within the boundaries of the recognized Pala Indian Reservation. It is, however, within the boundaries of the territory that the tribe considers its Traditional Use Area (TUA) or it is situated in close proximity to the Reservation and information generated would likely be useful in better understanding regional culture and history. Therefore, we would like to initiate AB-52 consultation at this time. Please forward any maps, reports, and scheduled or completed cultural resource surveys to our office, either by e-mail or postal mail.

We appreciate involvement with your initiative and look forward to working with you on future efforts. Pala is now offering tribal monitoring services. If you have questions or need additional information, please do not hesitate to contact the THPO Office by e-mail at THPO@palatribe.com.

Sincerely,

Shasta C. Gaughen, PhD
Tribal Historic Preservation Officer
Pala Band of Mission Indians

Riverside County Aviation

January 16, 2025

Shasta Gaughen, Ph.D
Tribal Historic Preservation Officer
Pala Band of Mission Indians
35008 Pala Temecula Road
Pala, CA 92059

Sent via email

Subject: Formal Consultation pursuant to AB 52 regarding a proposed Air Traffic Control Tower at the French Valley Airport

Ms. Gaughen:

Thank you for your emailed letter of January 15, 2025, and your interest in the proposed Air Traffic Control Tower (ATCT) at the French Valley Airport. The County of Riverside (County) is pleased to initiate formal government to government consultation through this correspondence and report transmittal in accordance with California Assembly Bill No. 52 (AB-52).

The County engaged Applied Earthworks to undertake a cultural resources assessment in association with the proposed project. A copy of site assessment report is included for your review with this correspondence. The results of the assessment indicate that the project site, which is located in a previously disturbed area within airport boundaries, has a low probability to yield cultural materials. In addition, the proposed project will have no effect on air traffic patterns, airport capacity, or the type of aircraft that frequent the airport. Based on this data and the results of other environmental studies conducted in support of the proposed project, the County will prepare an Initial Study/Negative Declaration in support of the proposed project.

The County is interested in the cultural heritage of the Pala Band of Mission Indians, and I am happy to answer any project-related questions you may have. I would like to schedule a follow-up call with you during the week of January 20, 2025. Please do not hesitate to reach out to me at ajamison@rivco.org.

Thank you for your assistance,

Angela Jamison

Angela Jamison
Director of Airports

Enclosure: Cultural Resources Assessment Report for a Proposed Air Traffic Control Tower at the French Valley Airport.

Riverside County Aviation

February 18, 2025

Sent via email

Mr. John Pepper
Deputy Tribal Historic Preservation Officer
Tribal Historic Preservation Office
Pala Band of Mission Indians
35008 Pala Temecula Road – PMB 50
Pala, CA 92059

Subject: AB-52 Consultation in support of a proposed Air Traffic Control Tower at the Jacqueline Cochran Regional Airport.

Mr. Pepper:

Thank you again for your interest in the proposed Air Traffic Control Tower (ATCT) at the French Valley Airport and for meeting with me on January 28, 2025.

As follow up to our meeting, the County has revised its proposed mitigation measures to address the items discussed:

- Archaeological monitoring during the first turn of dirt / initial excavation during site grading and construction activities.
- The development of Cultural Resources Management Plan at least 60 days prior to construction activities. The CRMP will be developed in consultation with an archaeologist and monitoring tribe(s).

The monitoring measures proposed for inclusion in the County's forthcoming Initial Study / Mitigated Negative Declaration are summarized in Table 1 on the following pages

Table 1. Proposed Cultural Resource Monitoring Measures for a Proposed ATCT at the Jacqueline Cochran Regional Airport	
Mitigation Measure	**Description**
CUL-1: Conduct Cultural Resources Monitoring during Initial Ground Disturbing Activities.	The Project Archaeologist and Tribal Representative(s) shall monitor initial ground disturbing activities. (Ongoing disturbance of the same area will not require ongoing monitoring.). Approximately 60 days prior to construction, the Project Archaeologist, in consultation with the Monitoring Tribe(s), shall develop a Cultural Resources Monitoring Plan (CRMP) to address the details, timing, and responsibility of archaeological and cultural activities that will occur on the project site such as: project grading and development scheduling. The CRMP will include the coordination of a monitoring schedule as agreed upon by the Monitoring Tribe(s), the Project Archaeologist, and the County. The CRMP shall identify the protocols and stipulations that the County, Monitoring Tribe(s), and Project Archaeologist shall follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resources. They shall have the authority to stop and redirect excavation in order to evaluate the significance of any archaeological resources discovered within 60 feet of the find.
CUL-2: Inadvertent Discovery of Native American Cultural Resources.	If Native American cultural resources are inadvertently discovered during the course of grading for this project, the following procedures shall be carried out for the treatment and disposition: **Temporary On-Site Curation and Storage:** During the course of construction, all discovered resources shall be temporarily curated in a secure location on site with Native American Tribal Monitor oversight of the process. **Curation:** The County shall relinquish ownership of all cultural resources. The Project Archaeologist, following consultation with the Monitoring Tribe(s), shall deliver the materials to a qualified repository in Riverside County that meets or exceeds federal standards per Code of Federal Regulations (CFR) Title 36, Part 79, and that shall be made available to all qualified researchers and tribal representatives. **Treatment and Final Disposition:** The County shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all cultural materials and nonhuman remains, as part of the required mitigation for impacts to cultural resources. Reporting. The Project Archaeologist shall prepare a final archaeological report within 60 days of project completion. The report shall follow Cultural Resources Management Plan (CRMP).

	Reporting. The Project Archaeologist shall prepare a final archaeological report within 60 days of project completion. The report shall follow Cultural Resources Management Plan (CRMP).
CUL-3: Discovery of Human Remains.	In the event that human remains (or remains that may be human) are discovered within the construction areas, all activity within 60 feet of the find shall be immediately halted. Any discovery of human remains shall be immediately reported by the Project Archaeologist and Native American Monitor(s) to the County Coroner. If the human remains are determined to be Native American, the County Coroner shall notify the Native American Heritage Commission (NAHC), who shall appoint a Most Likely Descendant (MLD) in accordance with California Public Resources Code 5097.98. The discovery of any Native American human remains and / or funerary objects shall be kept confidential and secure to prevent any further disturbance. In the case where discovered human remains cannot be fully documented and recovered on the same day, the remains and associated funerary objects, sacred objects and / or objects of cultural patrimony shall be covered with an opaque material or placed in opaque cloth bags. A physical barrier (e.g., metal plate, concrete slab that can be moved by heavy equipment) shall be placed over the excavation opening to protect the remains until examination by the MLD. If this type of protective barrier is not available, a 24-hour guard shall be posted outside of working hours. The MLD shall complete his or her inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The MLD shall identify and direct the most appropriate means of treating the human remains and any associated funerary object(s). As determined through consultation with the County, the MLD shall make recommendations that allow the burial to remain in situ and protected. Once complete, a final report of all activities associated with or resulting from the discovery of human remains shall be submitted to the NAHC. With the implementation of these measures, no impact to land of interest to tribes is anticipated.

Please review these mitigation measures and reach out to me if you have any question at ajamison@rivco.org. With the acceptance of these measures, the County of Riverside (County) will conclude government to government consultation in accordance with California Assembly Bill No. 52 (AB-52).

Riverside County Aviation

The County remains interested in the cultural heritage of the Pala Band of Mission Indians, and I am happy to answer any project-related questions you may have. I look forward to working with you when we initiate project construction approximately one year from now.

Thank you for your assistance,

Angela Jamison

Angela Jamison
Director of Airports

4080 Lemon Street, 14th Floor • Riverside, California 92501 • (951) 955-9722

P. O. Box 1605 • Riverside, California 92502-1605

Riverside County Aviation

March 3, 2025

Shasta Gaughen, Ph.D
Tribal Historic Preservation Officer
Pala Band of Mission Indians
35008 Pala Temecula Road
Pala, CA 92059

Subject: Closure of Formal Consultation pursuant to AB 52
Proposed Air Traffic Control Tower at the French Valley Airport

Ms. Gaughan,

Thank you for your ongoing interest in the proposed Air Traffic Control Tower at the French Valley Airport. The consultation that we have undertaken with the Pala Band of Mission Indians, and specifically our conversation with John Pepper, Assistant Tribal Historic Preservation Office, has contributed the County's understanding of tribal resources near the French Valley Airport and to the development of our forthcoming Mitigated Negative Declaration (MND) pursuant to the California Environmental Quality Act (CEQA).

Since your original outreach letter of January 15, 2024, Riverside County has undertaken the following:

- On January 16, 2025, the County opened formal consultation and provided additional project-related data, including the project's Cultural Resource Assessment, Biological Resource Assessment.
- On January 28, 2025, the County and met with John Pepper, Assistant THPO, to discuss mitigation measures that could be included in the forthcoming MND that would be acceptable to the Pala Band of Mission Indians.
- On February 19, the County sent the Pala Band proposed mitigation measures for inclusion in the forthcoming MND.

The County plans to release its MND using the mitigation measures proposed; therefore, we are closing formal consultation as of Monday, March 3, 2025. We invite you to review the MND during the 30-day public review period, which is anticipated to be released on March 7, 2025.

Many thanks to you and John Pepper for undertaking successful consultation in support of our project.

Sincerely,

Angela Jamison
Airports Director

From:	Jamison, Angela
To:	Lisa Harmon
Subject:	FW: Pechanga Tribe"s AB52 Request for Consultation on Air Traffic Control Tower (ATCT) at the French Valley Airport
Date:	Wednesday, January 8, 2025 12:00:53 PM
Attachments:	image001.png

Angela Jamison
Director of Airports
Riverside County TLMA-Aviation Division
(951) 955-9418 Office
(951) 529-8195 Cell
ajamison@rivco.org

From: Juan Ochoa <jochoa@pechanga-nsn.gov>
Sent: Wednesday, January 8, 2025 11:52 AM
To: Jamison, Angela <AJamison@Rivco.org>
Cc: Ebru Ozdil <eozdil@pechanga-nsn.gov>; Molly Earp <mearp@pechanga-nsn.gov>; Paul Macarro <pmacarro@pechanga-nsn.gov>; Tina Thompson Mendoza <tmendoza@pechanga-nsn.gov>
Subject: Pechanga Tribe's AB52 Request for Consultation on Air Traffic Control Tower (ATCT) at the French Valley Airport

Dear Angela Jamison,

This email is written on behalf of the Pechanga Band of Indians (hereinafter, "the Tribe") a federally recognized Indian tribe and sovereign government in response to the AB 52 notice provided by the County of Riverside (County) Division of Airports.

This email serves as the Tribe's formal request to begin consultation under AB 52 for this Project. Per AB 52, we intend to assist the County in determining the type of environmental document that should be prepared for this Project (i.e. EIR, MND, ND); with identifying potential tribal cultural resources (TCRs); determining whether potential substantial adverse effects will occur to them; and to develop appropriate preservation, avoidance and/or mitigation measures, as appropriate. CEQA, as amended by AB 52, requires the County to avoid damaging effects to the significance of a tribal cultural resource. As such, the preferred TCR mitigation is complete avoidance and the Tribe requests that all efforts to preserve sensitive TCRs be made as early in the development process as possible.

Please add the Tribe to your distribution list(s) for public notices and circulation of all documents, including environmental review documents, archaeological reports, development plans, conceptual grading plans (if available), and all other applicable documents pertaining to this Project. The Tribe further requests to be directly notified of all public hearings and scheduled approvals concerning this Project, and that these comments be incorporated into the record of approval for this Project.

The Pechanga Tribe asserts that the Undertaking is a part of '*Atáaxum* (Luiseño) territory, and therefore the Tribe's aboriginal territory as evidenced by the existence of cultural features associated with religious practice and an extensive artifact record in the vicinity of the Project. This culturally sensitive area is affiliated with the Pechanga Band of Indians because of the Tribe's cultural ties to this area as well as our extensive history with the County and other projects within the area.

As you know, the AB 52 consultation process is ongoing and continues until appropriate mitigation has been agreed upon for the TCRs that may be impacted by the Project. As such, under both AB 52 and CEQA, we look forward to working closely with the County on ensuring that a full, comprehensive environmental review of the Project's impacts is completed.

In addition to those rights granted to the Tribe under AB 52, the Tribe reserves the right to fully participate in the environmental review process, as well as to provide further comment on the Project's impacts to cultural resources and potential mitigation for such impacts.

The Pechanga Tribe looks forward to working together with the County of Riverside Division of Airports in protecting the invaluable Pechanga cultural resources found in the Project area. The formal contact person for this Project will be Ebru Ozdil. Please contact her at 951-770-6313 or at eozdil@pechanga-nsn.gov within 30 days of receiving this consultation request so that we can begin the consultation process. Thank you.

Juan Ochoa, MLIS
Assistant Tribal Historic Preservation Officer
Pechanga Cultural Resources Department
P.O. Box 2183
Temecula, CA 92593
Office:(951)-770-6308
jochoa@pechanga-nsn.gov

Riverside County Aviation

January 9, 2025

Ms. Ebru Ozdil
Pechanga Cultural Resources Department
P.O. Box 2183
Temecula, CA 92593

Sent via email

Ms. Ozdil:

Thank you for your email response of January 8, 2025, as sent by Juan Ochoa, Assistant Tribal Historic Preservation Officer, and for your interest in the proposed Air Traffic Control Tower (ATCT) at the French Valley Airport. The County of Riverside (County) is pleased to initiate formal government to government consultation through this correspondence and report transmittal in accordance with California Assembly Bill No. 52 (AB-52).

The County engaged Applied Earthworks to undertake a cultural resources assessment in association with the proposed project. A copy of site investigation report is included with this correspondence for your review. The results of the investigation indicated that the project site, which is located in a previously disturbed area within airport boundaries, has a low probability to yield cultural materials. In addition, the proposed project will have no effect on air traffic patterns, airport capacity, or the type of aircraft that frequent the airport. Based on this data and the results of other environmental studies conducted in support of the proposed project, the County will prepare an Initial Study/Negative Declaration in support of the proposed project.

The County is interested in the cultural heritage of the Pechanga Band of Indians, and I am happy to answer any project-related questions you may have. I would like to schedule a follow-up call with you during the week of January 13, 2024, to discuss this project and answer any questions you may have. Please do not hesitate to reach out to me at ajamison@rivco.org.

Thank you for your assistance,

Angela Jamison

Angela Jamison
Director of Airports
CC: J. Ochoa, Assistant Tribal Historic Preservation Officer

From: Lisa Harmon
To: Juan Ochoa; Ebru Ozdil
Cc: Jamison, Angela
Subject: RE: Pechanga Tribe"s AB52 Request for Consultation on Air Traffic Control Tower (ATCT) at the French Valley Airport
Date: Thursday, January 9, 2025 8:40:40 PM
Attachments: image001.png
Geotechnical Report_French Valley Runway Rehab_2019.pdf

Juan and Ebru,

Attached is a geotechnical report for previous work conducted at the French Valley Airport. This study spans the runway. Although the adjacent tower site is not specifically addressed, the soil borings provide data regarding underlying soils.
As mentioned earlier, we cannot undertake a separate geotechnical study with borings until we receive a design grant following CEQA review.

Angela Jamison has forwarded her availability under separate cover. Please provide your availability regarding the week of January 20.

Thanks so much,
Lisa

Lisa Harmon

Direct: 916-993-4650 | Cell: 530-574-7620 | Transfer Files
meadhunt.com | Experience Exceptional

From: Juan Ochoa <jochoa@pechanga-nsn.gov>
Sent: Thursday, January 9, 2025 2:56 PM
To: Lisa Harmon <Lisa.Harmon@meadhunt.com>; Ebru Ozdil <eozdil@pechanga-nsn.gov>
Cc: Jamison, Angela <AJamison@Rivco.org>
Subject: RE: Pechanga Tribe's AB52 Request for Consultation on Air Traffic Control Tower (ATCT) at the French Valley Airport

Hi Lisa,

Thank you for your reply as well as the cultural report. Do you have any digital copies of the site/grading plan as well as any biological and or geotech studies? Unfortunately our team is booked the week of January 13. If you have any availability for February please send dates and times for our consideration.

Regards,

Juan Ochoa, MLIS
Assistant Tribal Historic Preservation Officer
Pechanga Cultural Resources Department
P.O. Box 2183
Temecula, CA 92593
Office:(951)-770-6308
jochoa@pechanga-nsn.gov

From: Lisa Harmon <Lisa.Harmon@meadhunt.com>
Sent: Thursday, January 9, 2025 1:59 PM
To: Ebru Ozdil <eozdil@pechanga-nsn.gov>
Cc: Jamison, Angela <AJamison@Rivco.org>; Juan Ochoa <jochoa@pechanga-nsn.gov>
Subject: RE: Pechanga Tribe's AB52 Request for Consultation on Air Traffic Control Tower (ATCT) at the French Valley Airport

Ozdil,

On behalf of Angela Jamison, Riverside County's Director of Airports, please see the attached correspondence and the Cultural Resources Assessment undertaken in support of Riverside County's proposed Air Traffic Control Tower (ATCT) at the French Valley Airport. This correspondence initiates Formal Consultation pursuant to AB 52.

As mentioned in the attached letter, the County is interested in furthering this conversation with you during the week of January 13.

Thanks,
Lisa Harmon
Mead & Hunt, Inc.

Lisa Harmon (She, Her, Hers)
Project Planner | Aviation
Direct: 916-993-4650 | Cell: 530-574-7620 | Transfer Files
Mead & Hunt
LinkedIn | Facebook | Instagram

From: Juan Ochoa <jochoa@pechanga-nsn.gov>
Sent: Wednesday, January 8, 2025 11:52 AM
To: Jamison, Angela <AJamison@Rivco.org>
Cc: Ebru Ozdil <eozdil@pechanga-nsn.gov>; Molly Earp <mearp@pechanga-nsn.gov>; Paul Macarro <pmacarro@pechanga-nsn.gov>; Tina Thompson Mendoza <tmendoza@pechanga-nsn.gov>
Subject: Pechanga Tribe's AB52 Request for Consultation on Air Traffic Control Tower (ATCT) at the French Valley Airport

Dear Angela Jamison,

This email is written on behalf of the Pechanga Band of Indians (hereinafter, "the Tribe") a federally recognized Indian tribe and sovereign government in response to the AB 52 notice provided by the County of Riverside (County) Division of Airports.

This email serves as the Tribe's formal request to begin consultation under AB 52 for this Project. Per AB 52, we intend to assist the County in determining the type of environmental document that should be prepared for this Project (i.e. EIR, MND, ND); with identifying potential tribal cultural resources (TCRs); determining whether potential substantial adverse effects will occur to them; and to develop appropriate preservation, avoidance and/or mitigation measures, as appropriate. CEQA, as amended by AB 52, requires the County to avoid damaging effects to the significance of a tribal cultural resource. As such, the preferred TCR mitigation is complete avoidance and the Tribe requests that all efforts to preserve sensitive TCRs be made as early in the development process as possible.

Please add the Tribe to your distribution list(s) for public notices and circulation of all documents, including environmental review documents, archaeological reports, development plans, conceptual grading plans (if available), and all other applicable documents pertaining to this Project. The Tribe further requests to be directly notified of all public hearings and scheduled approvals concerning this Project, and that these comments be incorporated into the record of approval for this Project.

The Pechanga Tribe asserts that the Undertaking is a part of '*Atáaxum* (Luiseño) territory, and therefore the Tribe's aboriginal territory as evidenced by the existence of cultural features associated with religious practice and an extensive artifact record in the vicinity of the Project. This culturally sensitive area is affiliated with the Pechanga Band of Indians because of the Tribe's cultural ties to this area as well as our extensive history with the County and other projects within the area.

As you know, the AB 52 consultation process is ongoing and continues until appropriate mitigation has been agreed upon for the TCRs that may be impacted by the Project. As such, under both AB 52 and CEQA, we look forward to working closely with the County on ensuring that a full, comprehensive environmental review of the Project's impacts is completed.

In addition to those rights granted to the Tribe under AB 52, the Tribe reserves the right to fully participate in the environmental review process, as well as to provide further comment on the Project's impacts to cultural resources and potential mitigation for such impacts.

The Pechanga Tribe looks forward to working together with the County of Riverside Division of Airports in protecting the invaluable Pechanga cultural resources found in the Project area. The formal contact person for this Project will be Ebru Ozdil. Please contact her at 951-770-6313 or at eozdil@pechanga-nsn.gov within 30 days of receiving this consultation request so that we can begin the consultation process. Thank you.

Juan Ochoa, MLIS
Assistant Tribal Historic Preservation Officer

Pechanga Cultural Resources Department
P.O. Box 2183
Temecula, CA 92593
Office:(951)-770-6308
jochoa@pechanga-nsn.gov

Riverside County Aviation

March 3, 2025

Ms. Ebru Ozdil
Pechanga Cultural Resources Department
P.O. Box 2183
Temecula, CA 92593

Sent via email

Subject: Closure of Formal Consultation pursuant to AB 52 regarding a Proposed Air Traffic Control Tower at the French Valley Airport

Ms. Ozdil,

Thank you for your interest in the proposed Air Traffic Control Tower at the French Valley Airport as expressed in your email correspondence of January 8, 2025.

Since its receipt of your original letter dated January 8, 2025, which requested formal consultation under AB 52, Riverside County has undertaken the following:

- On January 9, 2025, the County provided a letter to initiate formal consultation.
- On January 9, 2025, the County's consultant provided an electronic copy of the project-related Cultural Resource Assessment prepared for the project by Applied Earthworks, a copy of a geotechnical report prepared for an earlier undertaking at the airport, and extended an invitation to meet and discuss the project.

Since more than 30 days has passed since our previous correspondence, the County will close formal consultation as of Monday, March 3, 2025.

The County plans to release a Mitigated Negative Declaration (MND) for the proposed project in accordance with CEQA on or about March 7, 2025. The MND includes specific mitigation measures associated with the inadvertent discovery of tribal resources. We invite you to review the MND during the 30-day public review period.

Many thanks for your interest in our project. The County looks forward to future consultation with you.

Angela Jamison
Airports Director

Rincon Band of Luiseño Indians
CULTURAL RESOURCES DEPARTMENT

One Government Center Lane | Valley Center | CA 92082
(760) 749-1092 | Fax: (760) 749-8901 | rincon-nsn.gov

January 16, 2025

Sent via email: ajamison@rico.org

Re: Proposed ATCT Construction at the French Valley Airport, Riverside County Aviation, California

Dear Ms. Jamison,

This letter is written on behalf of the Rincon Band of Luiseño Indians ("Rincon Band" or "Tribe"), a federally recognized Indian Tribe and sovereign government. We have received your notification regarding the above-mentioned project. The identified location is within the Traditional Use Area (TUA) of the Luiseño people. As such, the Rincon Band is traditionally and culturally affiliated to the project area.

We kindly ask to be provided with copies of existing documents pertaining to the project such as the cultural survey including the archaeological site records, shape files, archaeological record search results, geotechnical report, and the grading plans. Upon receipt and review, the Rincon Band will determine if AB52 consultation is needed.

If you have additional questions or concerns, please do not hesitate to contact our office at your convenience at (760) 749 1092 ext. 320 or via electronic mail at slinton@rincon-nsn.gov. Thank you for the opportunity to protect and preserve our cultural assets.

Sincerely,

Shuuluk Linton
Tribal Historic Preservation Coordinator

Riverside County Aviation

January 17, 2025

Mr. Shuuluk Linton
Tribal Historic Preservation Coordinator
Rincon Band of Luiseno Indians
One Government Center Lane
Valley Center, CA 92082

Sent via email

Subject: Formal Consultation pursuant to AB 52 regarding a proposed Air Traffic Control Tower at the French Valley Airport

Dear Mr. Linton:

Thank you for your emailed letter of January 16, 2025, and your interest in the proposed Air Traffic Control Tower (ATCT) at the French Valley Airport. The County of Riverside (County) is pleased to provide you with information about our project and the research undertaken to date.

The County engaged Applied Earthworks to undertake a Cultural Resources Assessment in association with the proposed project. A copy of site assessment report is included for your review with this correspondence. The results of the assessment indicate that the project site, which is in a previously disturbed area within airport boundaries, has a low probability to yield cultural materials. In addition, the proposed project will have no effect on air traffic patterns, airport capacity, or the type of aircraft that frequent the airport. Based on this data and the results of other environmental studies conducted in support of the proposed project, the County will prepare an Initial Study/Negative Declaration in support of the proposed project.

Your letter of January 16, 2025, also requested site records and other site background information. Based on the size and number of these records, I have asked our consultant, Mead & Hunt, Inc., to send those records to you using a secure FTP transfer. Please anticipate an email from Lisa Harmon, Mead & Hunt Inc., with a link to download site-records obtained during the preparation of the attached Cultural Resources Assessment. If you do not receive an email with a link to download the records by Monday, January 20, 2025, please reach out to me directly at the email below.

The County is interested in the cultural heritage of the Rincon Band of Luiseno Indians, and I am happy to answer any project-related questions you may have. I would like to schedule a follow-up call with you during the week of January 20, 2025. Please do not hesitate to reach out to me at ajamison@rivco.org.

Riverside County Aviation

Thank you for your assistance,

Angela Jamison

Angela Jamison
Director of Airports

Enclosure: Cultural Resources Assessment Report for a Proposed Air Traffic Control Tower at the French Valley Airport.

4080 Lemon Street, 14th Floor • Riverside, California 92501 • (951) 955-9722

P. O. Box 1605 • Riverside, California 92502-1605

Riverside County Aviation

March 3, 2025

Mr. Shuuluk Linton
Tribal Historic Preservation Coordinator
Rincon Band of Luiseno Indians
One Government Center Lane
Valley Center, CA 92082

Sent via email

Subject: Proposed Air Traffic Control Tower at the French Valley Airport

Mr. Linton,

Thank you for your interest in the proposed Air Traffic Control Tower at the French Valley Airport as expressed in your email correspondence of January 16, 2025.

On January 17, 2025, the County responded to you with a letter regarding the proposed project and provided an electronic copy of the project-related Cultural Resource Assessment prepared for the project by Applied Earthworks. To date, the County has not received further correspondence or a request to initiate formal consultation.

The County wanted to reach out to you because it plans to release a Mitigated Negative Declaration (MND) for the proposed project in accordance with CEQA on or about March 7, 2025. The MND includes specific mitigation measures associated with the inadvertent discovery of tribal resources and human remains. We invite you to review the MND during the 30-day public review period.

Many thanks for your interest in our project.

Angela Jamison
Airports Director

AUGUSTINE BAND OF CAHUILLA INDIANS

84-001 AVENUE 54 COACHELLA, CA 92236 | T: 760-398-4722 F: 760-369-7161

TRIBAL CHAIRPERSON: AMANDA AUGUSTINE TRIBAL TREASURER: WILLIAM VANCE

TRIBAL COUNCIL MEMBER: RONNIE VANCE

Date: 01/16/2025

Angela Jamison
County of Riverside, Director of Airports
Riverside County Aviation

SUBJECT: Proposed ATCT construction at the French Valley Airport

Thank you for contacting Augustine Band of Cahuilla Indians about the proposed **ATCT construction at the French Valley Airport Project**. We appreciate your consideration of the cultural resources in the project area.

At this time, we are not aware of any specific cultural resources within the project area that would be affected by the proposed development. Therefore, we do not believe that formal consultation is necessary at this stage.

If any cultural resources are discovered during the project, we ask that you contact the California Native American Heritage Commission immediately to take appropriate steps to evaluate and protect them.

Thank you once again for your attention to this important matter.

Very truly yours,

Jacobia Kirksey

Jacobia Kirksey, Tribal Operations Specialist
Augustine Band of Cahuilla Indians

TRIBAL HISTORIC PRESERVATION OFFICE

VIA ELECTRONIC MAIL

ajamison@rivco.org

January 31, 2025

Angela Jamison, Director of Airports
County of Riverside

Re: AB-52 Consultation for the Proposed ATCT Construction at the French Valley Airport, Riverside County, California

Dear Ms. Jamison:

The Morongo Band of Mission Indians (Tribe/MBMI) Tribal Historic Preservation Office received the Couty of Riverside's (County) letter regarding the above referenced project on January 9, 2025. The proposed Barton Road Specific Plan Amendment Project (Project) is located within the ancestral territory and traditional use area of the Cahuilla and Serrano people of the Morongo Band of Mission Indians.

Tribal cultural resources are non-renewable resources and therefore of high importance to the Morongo Tribe, therefore, tribal participation (a.k.a. tribal monitors) is recommended during all ground disturbing activities. We look forward to working with your agency to protect these irreplaceable resources out of respect for ancestors of the Morongo people who left them there, and for the people of today and for generations to come.

Projects within this area are potentially sensitive for cultural resources regardless of the presence or absence of remaining surface artifacts and features. Our office requests to initiate government-to-government consultation under Assembly Bill (AB) 52 (California Public Resources Code § 21080.3.1) and requests the following from your agency to ensure meaningful consultation:

- Currently proposed Project design and Mass Grading Maps
- A records search conducted at the appropriate California Historical Resources Information System (CHRIS) center with at least a 1.0-mile search radius from the project boundary. If this work has already been done, please furnish copies of the cultural resource documentation (ArcMap Shapefiles, reports and site records) generated through this search so that we can compare and review with our records to begin productive consultation.
- Tribal participation (a.k.a. tribal monitors) during the pedestrian survey and testing, if this fieldwork has not already taken place. In the event that archaeological crews have completed this work, our office requests a copy of the current Phase I study or other cultural assessments (including the cultural resources inventory).
- Shapefiles of the Projects area of effect (APE)
- Geotechnical Report

This letter does not conclude consultation. Upon receipt of the requested documents the MBMI THPO may further provide recommendations and/or mitigation measures.

The lead contact for this Project is Bernadette Ann Brierty, Tribal Historic Preservation Officer (THPO). MBMI Tribal Archaeologist, Sarah Bertman will be assisting the Tribe in the review of this project. Please do not hesitate to contact us at ABrierty@morongo-nsn.gov, THPO@morongo-nsn.gov,

sbertman@morongo-nsn.gov or (951) 663-2842, should you have any questions. The Tribe looks forward to meaningful government-to-government consultation with the County.

Respectfully,

Bernadette Ann Brierty

Bernadette Ann Brierty

Tribal Historic Preservation Officer

Morongo Band of Mission Indians

CC: Morongo THPO

12700 Pumarra Road – Banning, CA 92220 – (951) 755-5259 – Fax (951) 572-6004 – THPO@morongo-nsn.gov

Riverside County Aviation

March 3, 2025

Bernadette Ann Brierty
Tribal Historic Preservation Officer
Morongo Band of Mission Indians
12700 Pumarra Road
Banning, CA 92220

Sent via email

Subject: Proposed Air Traffic Control Tower at the French Valley Airport

Ms. Brierty,

Thank you for your interest in the proposed Air Traffic Control Tower at the French Valley Airport as expressed in your email correspondence of January 31, 2025.

The County's letter to tribal representatives requested a response by January 19, 2025. Although the County received your letter after its cutoff date, I wanted to reach out to you because the County plans to release a Mitigated Negative Declaration (MND) for the proposed project in on or about March 7, 2025. The MND includes specific mitigation measures associated with the inadvertent discovery of cultural resources that were developed with input from tribal representatives.

We invite you to review the MND, which will include a copy of the Cultural Resources Assessment prepared for the proposed project by Applied Earthworks, the County's archaeological consultant.
Many thanks for your interest in our project.

Angela Jamison
Airports Director

APPENDIX E

BUILT ENVIRONMENTAL AND SECTION 106 MEMO

Technical Memorandum

To: Angela Jamison, Airports Manager, Riverside County Transportation and Land Management Agency

From: Brian Matuk, Mead & Hunt, Inc.

Date: October 18, 2024

Subject: National Historic Preservation Act (NRHP) Section 106, Review of Built-Environment Resources in support of the proposed Air Traffic Control Tower Project at F70 French Valley Airport, Murrieta, California

1. Introduction and Background

The Riverside County Transportation and Land Management Agency proposes to develop an air traffic control tower (ATCT) and associated parking and utilities at the French Valley Airport (project) near the City of Murietta in Riverside County, California. The proposed project is a Federal Action pursuant to The National Environmental Policy Act of 1969 (NEPA) and Section 106 of the National Historic Preservation Act of 1966, as amended (Section 106). The Federal Aviation Administration (FAA) is the lead agency for compliance with NEPA and Section 106.

2. Approach

To determine if the Project has the potential to impact Historic Properties under Section 106, Mead & Hunt, Inc. (Mead & Hunt) historian Brian Matuk identified a project-specific area of potential effects for built-environment resources (Built-Environment APE) based on the project description provided by Riverside County (Attachment A).[a] Using this Built-Environment APE, Matuk conducted a desktop review of previously recorded resources and reports within a 0.25-mile radius of the Built-Environment APE. The previously recorded resources were obtained from subconsultant Applied Earthworks, which was engaged to undertake a project-specific cultural resources investigation. Additionally, Matuk reviewed historic aerial photographs to identify the potential for any extant built-environment resources within the APE that would qualify as Historic Properties under Section 106. A map showing the Built-Environment APE overlaid on a historic aerial photograph from 1980 is provided in Attachment B.

[a] Mead & Hunt historian Brian Matuk meets the professional qualifications of the *Secretary of the Interior's Standards for Professional Qualifications* (per 48 CFR 44738-44739) in history and architectural history.

3. Analysis

The Built-Environment APE encompasses 89.3 acres. Note that this APE is not the same as the APE identified for archaeological resources, which is based on site-related disturbance, and investigated by Applied Earthworks. The Built-Environment APE is located primarily within airport property boundaries, but extends beyond the project area to account for potential indirect (visual) effects that the construction of a new air traffic control tower may have on Historic Properties. The Built-Environment APE extends to a one-quarter-mile (0.25-mile) radius around the proposed location of the new 95-foot-tall ATCT to account for any visual effects that the new building may have on Historic Properties.

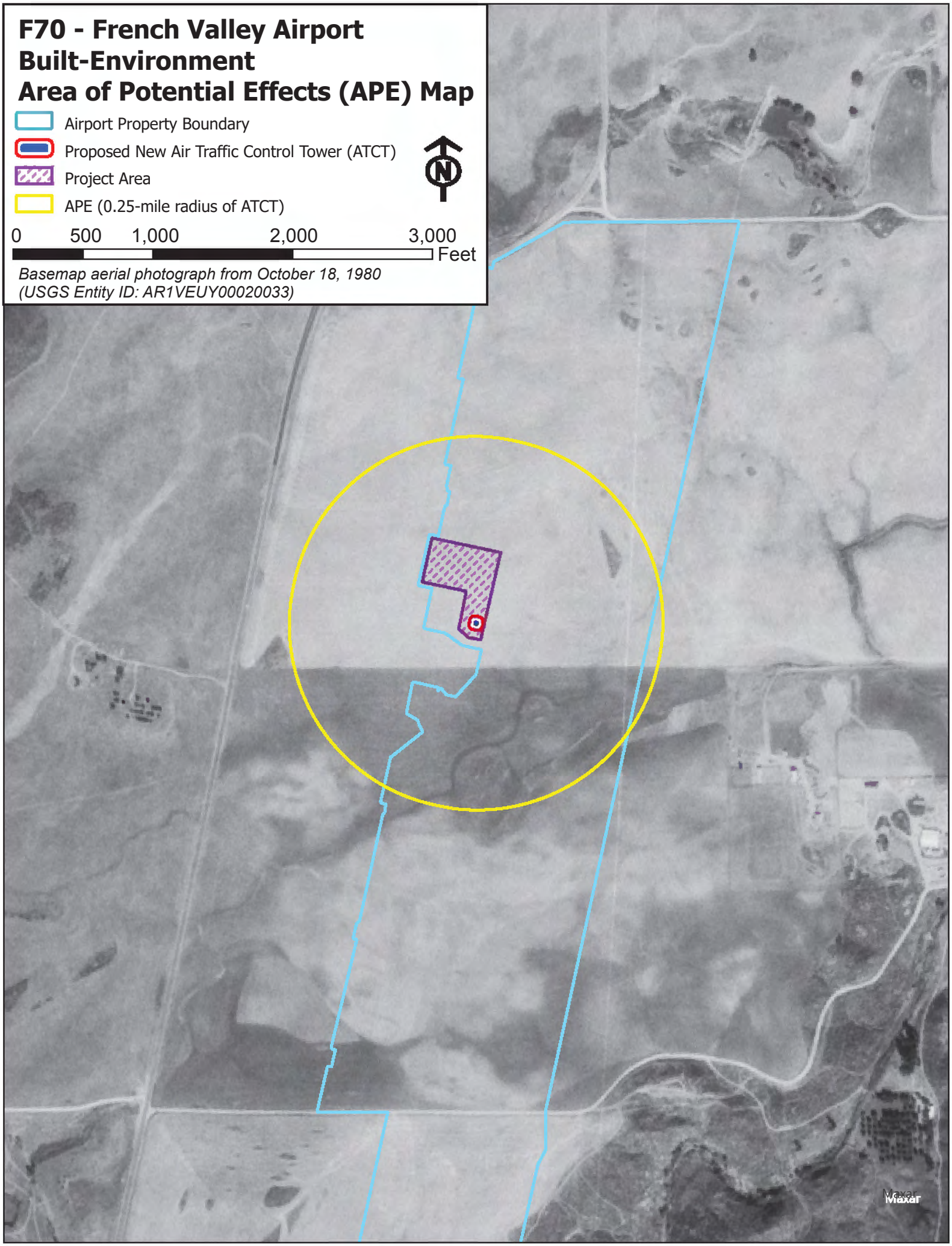
4. Conclusion

A review of previously identified resources, available reports, historic aerial photographs suggests that no extant built-environment resources are present within the APE that exceed 45 years of age; therefore, no built-environment resources are within the Built-Environment APE that would qualify as Historic Properties under Section 106. No impacts to the historic properties would occur as result of the proposed project.

Attachment A. Area of Potential Effects Map


F70 - French Valley Airport
Built-Environment
Area of Potential Effects (APE) Map
Airport Property Boundary
Proposed New Air Traffic Control Tower (ATCT)
Project Area
APE (0.25-mile radius of ATCT)
0
0.1
0.2
0.3
0.4
0.5
Miles
N
French Valley
Auld Rd
Industry Way
Sky Canyon Dr
89.3 acres
0.25 mi
La Alba Dr
Via Mira Mosa
Hazel Glen Rd
Yorkton Rd
Winchester Rd
Shady Maple Rd
Veranda Way
Borel Rd
Jolyr
Esri Community Maps Contributors, County of Riverside, California State Parks,
Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS,
Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS,
Maxar

Attachment B. 1980 Aerial Photograph with APE Overlay


F70 - French Valley Airport
Built-Environment
Area of Potential Effects (APE) Map
Airport Property Boundary
Proposed New Air Traffic Control Tower (ATCT)
Project Area
APE (0.25-mile radius of ATCT)
N
0
500
1,000
2,000
3,000
Feet
Basemap aerial photograph from October 18, 1980
(USGS Entity ID: AR1VEUY00020033)
Maxar

APPENDIX F

PALEONTOLOGICAL RESOURCES SENSITIVITY MEMO

Applied EARTHWORKS Inc.

133 N. San Gabriel Blvd., Suite 201
Pasadena, CA 91107-3414
O: (626) 578-0119 | F: (626) 204-5500
www.appliedearthworks.com

November 11, 2024

Lisa Harmon, Project Planner, Aviation
Mead & Hunt, Inc.
180 Promenade Circle, Suite 240
Sacramento, CA 95834
Transmitted via email to lisa.harmon@meadhunt.com

RE: Paleontological Technical Letter Report for the Air Traffic Control Tower at the French Valley Regional Airport near Murrietta, Riverside County, California

Dear Ms. Harmon,

At the request of Mead & Hunt, Inc., Applied EarthWorks, Inc. (Æ) completed a paleontological technical letter report for the development of an air traffic control tower and associated parking and utilities within the French Valley Airport (Project), near the city of Murrieta, Riverside County, California. Æ understands the Project includes approximately 4 acres within the existing French Valley Airport.

Æ's scope of work included a desktop review of geologic maps, paleontological literature, and museum records searches. This technical letter report summarizes the findings and was written by staff who meet mitigation paleontology industry-wide standards (Murphey et al., 2019), as well as qualification standards of the Society of Vertebrate Paleontology (2010). Æ completed this paleontological memorandum in partial satisfaction of California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) requirements. Riverside County (County) accepts federal Airport Improvement Program (AIP) grant funding to construct and maintain airport facilities; therefore, as a project within federal jurisdiction, this memo satisfies the requirements of NEPA, which covers all portions of the Project within airport boundaries. The Federal Aviation Administration (FAA) is the lead agency under NEPA, and the County is the lead agency under CEQA.

PROJECT DESCRIPTION AND BACKGROUND

The Project area is east of Sky Canyon Drive and south of Sparkman Way within the southwestern portion of the community of French Valley in Riverside County. It is mapped in Section 7, Township 7 South, Range 2 West, as shown on the U.S. Geological Survey (USGS) Murrieta, California, 7.5-minute topographic quadrangle map.

The primary objective of the Project is to enhance aviation safety through improved communication and operational efficiency. The Project area covers an approximate area of 3.9 acres, with the Air Traffic Control Tower to occupy 0.5 acres. The FAA has designated Site Number 1 as the optimal location for the construction of a 448-square-foot hexagonal tower, which will stand at a height of 93 feet, offering unobstructed views of both ends of the runway. The maximum depth of ground disturbance during the construction phase is not expected to exceed 6 feet.

Construction is slated to commence in 2026 and is anticipated to be completed within a six-month timeframe. The Project will involve the utilization of various heavy machinery and equipment, including graders, asphalt pavers, and cranes.

REGULATORY CONTEXT

This Project is subject to both state laws and local goals and policies. The following section provides an overview of the relevant laws and regulations.

Federal

When a proposed project involves federal funding and/or is on federal land or land under federal jurisdiction, Section 101(b)(4) of the Regulations for Implementing the Procedural Provisions of NEPA directs federal agencies to use all practicable means to "preserve important historic, cultural, and natural aspects of our national heritage." Paleontological resources are "natural aspects of our national heritage." Although this Project does not occur on federal lands, it is an airport development regulated by the FAA. Therefore, consideration of paleontological resources is required under NEPA, and an Environmental Assessment (EA) is being prepared pursuant to FAA Order 5050.4B, NEPA Implementing Instructions for Airport Actions; and Order 1050.1F, Environmental Impacts: Policies and Procedures.

State

At the state level, paleontological resources are protected under CEQA, which requires detailed studies that analyze the environmental effects of a proposed project. If a project is determined to have a potential significant environmental effect, the act requires that alternative plans and mitigation measures be considered. Specifically, Section VII(f) of Appendix G of the CEQA Guidelines, the Environmental Checklist Form, poses the question, "Will the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?" If paleontological resources are identified as being within the proposed project area, the sponsoring agency must take those resources into consideration when evaluating project effects. The level of consideration may vary with the importance of the resource.

Local

There are several policies covering paleontological resources within the County's *General Plan*, *Multipurpose Open Space (OS) Element* (Riverside County Planning Department, 2015:OS-51):

- **OS 19.6:** Whenever existing information indicates that a site proposed for development has high paleontological sensitivity as shown on Figure OS-8, a paleontological resource impact mitigation program (PRIMP) shall be filed with the Riverside County Geologist prior to site grading. The PRIMP shall specify the steps to be taken to mitigate impacts to paleontological resources.

- **OS 19.7:** Whenever existing information indicates that a site proposed for development has low paleontological sensitivity as shown on Figure OS-8, no direct mitigation is required unless a fossil is encountered during site development. Should a fossil be encountered, the Riverside County Geologist shall be notified and a paleontologist shall be retained by the project proponent. The paleontologist shall document the extent and potential significance of the paleontological resources on the site and establish appropriate mitigation measures for further site development.

- **OS 19.8:** Whenever existing information indicates that a site proposed for development has undetermined paleontological sensitivity as shown on Figure OS-8, a report shall be filed with the

Riverside County Geologist documenting the extent and potential significance of the paleontological resources on site and identifying mitigation measures for the fossil and for impacts to significant paleontological resources prior to approval of that department.

- **OS 19.9:** Whenever paleontological resources are found, the County Geologist shall direct them to a facility within Riverside County for their curation, including the Western Science Center in the City of Hemet.

PALEONTOLOGICAL RESOURCE POTENTIAL

The FAA does not include specific protocols or measures pertaining to paleontological resources within their EA guidelines. Many professional paleontologists in California follow the Society of Vertebrate Paleontology (2010) guidelines to determine the course of paleontological mitigation for a given project unless specific city, county, state, or federal guidelines are available. The County has assessed the paleontological sensitivity of geologic units and outlines measures to follow in order to mitigate adverse impacts to known or unknown fossil resources during project development (County of Riverside, 2015). Consequently, this assessment utilizes the County's ranking system.

The County has assigned various paleontological sensitivity rankings to the various geologic units exposed within its boundaries—Low, Undetermined, High A (Ha), and High B (Hb) Potential (County of Riverside, 2015). Geologic units are considered to be "sensitive" for paleontological resources and have a High paleontological resource potential if they are known to contain significant fossils anywhere in their extent, even if outside the Project area. High A (Ha) sensitivity is based on the occurrence of fossils that may be present at the ground surface of the Project area, whereas High B (Hb) sensitivity is based on the occurrence of fossils at or below a depth of 4 feet, which may be impacted during construction activities (County of Riverside, 2015). A coarse-grained paleontological sensitivity map of Riverside County is included in the OS Element, which indicates the sensitivity rankings across the ground surface (County of Riverside, 2015:Figure OS-8, OS-55).

METHODS

Æ completed desktop studies to assess the paleontological sensitivity of geologic units mapped at the ground surface and those likely to occur in the subsurface of the Project area. Æ first researched published geologic maps and paleontological literature for the region. Æ then retained the Natural History Museum of Los Angeles County (NHMLAC) and the Western Science Center (WSC) in Hemet, California, to conduct searches of fossil localities recorded in their collections. To augment these results, Æ also conducted searches of the online Paleobiology Database (PBDB) and the University of California Museum of Paleontology (UCMP). The PBDB lists a large collection of museum records and publications of fossil materials, whereas the UCMP is the largest repository of fossils on the West Coast of the U.S. with an older history of collection than several other regional natural history museums.

RESOURCE CONTEXT

The Project area is located within the northern portion of the Peninsular Range geomorphic province[1] which is characterized by steep, elongated valleys and ranges that generally trend northwestward from

[1] A geomorphic province is a region of unique topography and geology that is readily distinguished from other regions based on its landforms and tectonic history (American Geological Institute, 1976).

the tip of Baja California to the Los Angeles Basin. The city of Murrieta is located at the base of the Santa Ana Mountains and the Santa Rosa Plateau, with the Santa Margarita and Agua Tibia ranges approximately 12 to 14 miles to the south, and the San Jacinto ranges approximately 35 miles to the east. More specifically, Murrieta is situated within two structural blocks or subdivisions of the Peninsular Range province. The western foothill boundary of the city is within the Santa Ana Mountains block and the eastern portion is within the Perris block (City of Murrieta, 2022).

Three major faults zones and some subordinate fault zones are found in this province. The Elsinore Fault zone and the San Jacinto Fault zone trend northwest-southeast and are found near the middle of the province. The San Andreas Fault zone borders the northeasterly margin of the province, whereas a fault related to the San Andreas Transform Fault System, the Newport–Inglewood–Rose Canyon Fault zone exists near the western margin and Continental Borderland Geomorphic Province. According to the City of Murrieta's Environmental Impact Report (EIR) for its General Plan 2035 (City of Murrieta, 2020), the Elsinore Fault Zone is present within portions of the city near Interstate 15, while the other three noted major fault zones are within roughly 30 miles.

According to (Morton et al., 2006a), the surficial geology of the Project area is mapped as early to middle Pleistocene[2] old axial-channel deposits ($Qvoa_a$). Unit $Qvoa_a$ includes well consolidated and moderately indurated deposits dominated by sand with some gravel and pebble layers as well as silt and clay-rich alluvium (Morton et al., 2006b).

RECORDS SEARCH RESULTS

No paleontological localities are previously recorded within the Project area. The NHMLAC listed four vertebrate fossil localities within seven miles of the Project area. However, two of these are in Holocene sediments that are younger than the early to middle Pleistocene Qvoa sediments mapped at the surface within the Project area and are not expected to be present in the subsurface. A third locality yielded a specimen of *Bison* sp., a taxon only present in North America during the Rancholabrean[3] North American Land Mammal Age (NALMA), which also postdates Qvoa sediments. Therefore, these three localities are omitted from the table and discussion below.

In addition to the results from NHMLAC, three other localities are listed in record search results from previous Æ projects within a 10-mile radius. These several localities are in Pleistocene deposits like those mapped either at the surface or likely at depth in the Project area. The WSC records search does not list any fossil localities within the Project area or a 1-mile radius. Similarly, PBDB and UCMP online databases do not list any fossil localities from Holocene or Pleistocene alluvial deposits within the Project area or a 10-mile radius. Table 1 lists the known paleontological resources within a 10-mile radius of the Project area.

[2] Pleistocene Epoch: approximately 2.6 million to 11,700 years ago (Cohen et al., 2023).
[3] Rancholabrean: a faunal stage according to NALMA chronology, lasting from 210,000 to 14,000 years ago (Barnosky et al., 2014).

Table 1
Fossil Localities Reported within a 10-mile Radius of the Project Area, by Distance

Locality No. or Name	Geologic Unit (Date)	Taxa	Depth	Approx. Distance from Project Area
SBCM 5.6.628, 5.6.857, 5.6.859[a]	Unknown formation (Pleistocene)	Unspecified invertebrates Actinopterygii (fish) Reptilia (reptile) Leporidae (rabbit) Rodentia (rodent)	Unknown	2 miles
LACM VP 8008[a]	Unknown formation (Pleistocene)	*Mammuthus* sp. (mammoth)	Unknown	3 miles
LACM VP 7261[b]	Unknown formation (Pleistocene)	*Mammuthus* sp. (mammoth) Proboscidea (elephant) Ungulata (ungulate)	Unknown	5 miles
LACM VP 5168[a]	Quaternary older alluvium	*Equus* sp. (horse)	Unknown	10 miles

a - Records search from previous Æ projects
b - NHMLAC

Multiple localities have been documented within Qvoa and other similarly aged Pleistocene sediments in the vicinity of the Project area. Nearest to the Project area, localities SBCM 5.6.628, 5.6.857, and 5.6.859 preserve a diverse assortment of bony fish, reptile, rabbit, and rodent material. Approximately 3 miles to the northeast, LACM 8008 yielded a mammoth specimen. LACM VP 7261 is 5 miles northeast of the Project area. This locality preserves specimens of elephant and an indeterminate ungulate. Lastly, LACM VP 5168, approximately 10 miles northeast of the Project area, yielded a horse specimen. The depths of these localities are unknown.

FINDINGS AND RECOMMENDATIONS

Æ used the results from the desktop studies to determine the paleontological sensitivity of the Project area. According to the Riverside County Planning Department (2015) paleontological sensitivity map, the entire Project area is mapped as Low. Æ's desktop studies do not support this assessment. The Qvoa sediments mapped at the surface within the Project area are conducive to the preservation of fossils, and multiple paleontological resources have been recovered from similar geologic units in the vicinity. Therefore, Æ recommends elevating the paleontological sensitivity to the Riverside County Planning Department (2015) High A or B ranking, which is based on the occurrence of fossils at the surface or below 4 feet bgs, respectively.

As a result of the demonstrated high sensitivity of sedimentary beds within the Project area, Æ recommends that a qualified paleontologist prepare a Paleontological Resource Impact Mitigation Program (PRIMP) prior to the start of Project-related, ground-disturbing activities. The paleontologist should meet industry standards (Murphey et al., 2019) and/or qualifications standards of the Society of Vertebrate Paleontology (2010). The purpose of the PRIMP is to establish mitigation monitoring procedures and discovery protocols, based on industry-wide best practices (Murphey et al., 2019), for any paleontological resources that may be encountered as a result of earth-disturbing activities during construction of the Project. A PRIMP also will indicate where construction monitoring will be required for the Project and the frequency of required monitoring (i.e., full-time, spot checks, etc.). The collection and processing (e.g., wet- or dry-screening) of sediment samples to analyze for the presence or absence

of microvertebrates and other small fossils also would be addressed in a PRIMP. In addition to monitoring and sampling procedures, a PRIMP also will provide details about fossil collection, analysis, and preparation for permanent curation at an approved repository, such as the WSC. Lastly, the PRIMP describes the different reporting standards to be used for monitoring with negative findings versus monitoring resulting in fossil discoveries. Worker's Environmental Awareness Program training should be prepared prior to the start of Project-related ground disturbance and presented in person to all field personnel to describe the types of fossils that may occur and the procedures to follow if any are encountered in the Project area.

It has been a pleasure assisting you with this Project. If you have any questions, please do not hesitate to contact me at (626) 578-0119, extension 403.

Sincerely,

Melissa Macias, M.S.
Senior Paleontologist
Applied EarthWorks, Inc.

Edited and Approved By:

Amy Ollendorf, Ph.D., M.S., Register of Professional Archaeologists 12588
Paleontology Program Manager
Applied EarthWorks, Inc.

REFERENCES

American Geological Institute. 1976. Dictionary of geological terms. Anchor Press, Garden City, New York, 472 pp.

Barnosky, A. D., M. Holmes, R. Kirchholtes, E. Lindsey, K. C. Maguire, A. W. Poust, M. A. Stegner, J. Sunseri, B. Swartz, and J. Swift. 2014. Prelude to the Anthropocene: Two new North American land mammal ages (NALMAs). The Anthropocene Review 1(3):225-242.

City of Murrieta. 2020. Final Environmental Impact Report for the City of Murrieta General Plan 2035. Available at https://www.murrietaca.gov/DocumentCenter/View/3891/Final-Supplemental-EIR-May-2020. Accessed May 2020.

City of Murrieta. 2022. City of Murrieta General Plan 2035. Available at https://www.murrietaca.gov/303/General-Plan-2035. Accessed February 2022.

Cohen, K. M., S. C. Finney, P. L. Gibbard, and J.-X. Fan. 2023. The ICS international chronostratigraphic chart v2023/04 (2013; updated). Episodes 36:199–204. Available at http://www.stratigraphy.org/ICSchart/ChronostratChart2023-04.pdf.

County of Riverside. 2015. Cultural and Paleontological Resources; pp. 4.9-1–4.9-50 in Draft Environmental Impact Report No. 521Riverside County General Plan Updated Project, General Plan Amendment No. 960. Riverside County Planning Department, Riverside, California.

Morton, D. M., F. K. Miller, P. M. Cossette, and K. R. Bovard. 2006a. Geologic map of the San Bernardino and Santa Ana 30' × 60' quadrangles, California. U.S. Geological Survey Open-File Report 2006-1217.

Morton, D. M., F. K. Miller, P. M. Cossette, and K. R. Bovard. 2006b. Geologic map of the San Bernardino and Santa Ana 30' × 60' quadrangles, California: geology and description of map units, version 1.0. U.S. Geological Survey Open File Report 2006-1217.

Murphey, P. C., G. E. Knauss, L. H. Fisk, T. A. Deméré, and R. E. Reynolds. 2019. Best practices in mitigation paleontology. Proceedings of the San Diego Society of Natural History No. 47, 43 pp.

Riverside County Planning Department. 2015. Riverside County General Plan. Riverside, California.

Society of Vertebrate Paleontology. 2010. Standard procedures for the assessment and mitigation of adverse impacts to paleontological resources. Society of Vertebrate Paleontology Impact Mitigation Guidelines Revision Committee. Available at https://vertpaleo.org/wp-content/uploads/2021/01/SVP_Impact_Mitigation_Guidelines.pdf. Accessed April 27, 2022. 11 pp.