



MONTEREY
REGIONAL AIRPORT

DRAFT AIRPORT MASTER PLAN ENVIRONMENTAL IMPACT REPORT

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Monterey Peninsula Airport District

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EXECUTIVE SUMMARY

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ES 1.0 INTRODUCTION

The Environmental Impact Report (EIR) process, as defined by the *California Environmental Quality Act of 1970* (CEQA) (California Public Resources Code [PRC], Sections 21000 et seq.) as amended, requires the preparation of an objective, full-disclosure document to: (a) inform agency decision-makers and the general public of the reasonably foreseeable significant direct and indirect environmental effects of a proposed action; (b) identify feasible mitigation measures to avoid or substantially lessen any identified significant impacts; and (c) identify and evaluate reasonable alternatives to the proposed project.

Pursuant to CEQA, the Monterey Peninsula Airport District (MPAD)¹, as the Lead Agency, has prepared a Draft EIR for the proposed Monterey Regional Airport Master Plan (Proposed AMP) (Proposed Project). The Proposed AMP provides a development framework to implement improvements that would enable the Monterey Regional Airport (Airport) to accommodate future demand for forecasted air travel. The Proposed AMP is available for review at: <https://montereyairport.specialdistrict.org/>, and is incorporated by this reference in its entirety.

ES 2.0 PROJECT LOCATION

Monterey Regional Airport is centrally located between the cities in and around the Monterey Peninsula in the northwest portion of Monterey County (county), California. The Airport encompasses approximately 498 acres of property and is bordered by the City of Monterey on the northwest, west, south and east, and the City of Del Rey Oaks to the northeast. The United States (U.S.) Navy also owns several parcels near the Airport, including most of the golf course located immediately to the west. Monterey Bay is slightly more than one mile to the west of the Airport. The Airport is not located within the California Coastal Zone (City of Monterey website 2018).

The area surrounding the Airport is generally urban in character and is already developed, generally in accordance with the adopted land use plans and policies of the relevant local jurisdictions. Land uses surrounding the Airport include a mix of residential, commercial, and industrial properties. Directly

¹ MPAD is a Special Airport District that was created by the California Legislature in 1941. It is a stand-alone public entity, governed by five publicly elected members to the Board of Directors. District voting boundaries were set by the enabling legislation and encompass the cities of Monterey, Pacific Grove, Carmel-by-the-Sea, Del Rey Oaks, and majority portions of Seaside and Sand City. Unincorporated communities, including Pebble Beach, the west end of Carmel Valley, Hidden Hills, Monterra, Laguna Seca, Pasadera, and Monterey-Salinas Highway to the Laureles Grade, are also located within the MPAD voting boundaries.

north of the Airport is residential development located within the City of Del Rey Oaks. There are also industrial and commercial developments located within the City of Del Rey Oaks east of the Airport along Canyon Del Rey Boulevard (Highway 218). On the northwest side of the Airport is the City of Monterey's Casanova Oak Knoll Neighborhood Association (CONA) neighborhood, which includes single-family and multi-family residential properties.

Immediately to the south of the Airport along Garden Road are industrial and commercial buildings that include offices and warehouses, as well as several churches and government offices. Highway 68, a state- and county-designated scenic highway, is adjacent to the Airport along portions of its southern boundary as well. Other land uses along the north side of Highway 68 include commercial, office, and light industrial development. South of Highway 68 are single-family residences and open space. Farther east of the Airport along Highway 68 is the Ryan Ranch development, which consists of industrial and commercial land uses as well as a preschool. Farther south is county land with large-lot residences or open space.

ES 3.0 PROJECT OBJECTIVES

The Proposed Project objectives are summarized below and discussed in more detail in Section 2.5 of the Draft EIR.

- **Enhance Airport Safety** - Provide improvements that will enhance the Airport's safety by meeting Federal Aviation Administration (FAA) design standards to the maximum extent feasible;
- **Prepare for Future Aviation Demand** - Provide improvements to safely and adequately prepare for forecasted aviation operations and demand through the year 2033 consistent with new code requirements and passenger expectations for airport functionality;
- **Incorporate Airport Sustainability Goals** - Incorporate the Airport's goals, objectives, and performance targets for sustainability within proposed development projects;
- **Increase Airport Self-Sufficiency** - Provide opportunities for additional revenue-producing uses of the Airport to enhance its economic viability and self-sufficiency.

ES 3.1 Enhance Airport Safety

Currently, there are non-standard conditions (i.e., existing facilities that do not comply with current FAA design standards) present at the Airport. The Proposed Project provides solutions to the following design and operational issues:

- Runway 10R-28L to Taxiway “A” Centerline to Centerline Separation - FAA provides design standards for runways and parallel taxiways based on an airport’s critical design aircraft² and its instrument approach visibility minimums (FAA 2014a, Advisory Circular [AC] 150/5300-13A, *Airport Design*). The FAA design standard for runway-taxiway separation for Runway 10R-28L is 400 feet from the runway centerline to the parallel taxiway centerline.³ However, Taxiway “A” is separated from Runway 10R-28L (centerline to centerline) by only 327 feet on the west end, 327.5 feet on the east end, and by 275 feet in front of the terminal building area.
- Hold Line Separation⁴ - The standard hold line position leading to Runway 10R-28L and parallel taxiways is 250 feet (centerline to centerline). However, south of the runway the hold lines on Taxiways “F,” “G,” “J,” and “K” are currently positioned at a separation distance of 200 feet from the runway centerline.
- Aircraft Parking Area - The design standard for separation between the centerline of Runway 10R-28L and aircraft parking areas is 500 feet. On the south side of the runway, aircraft parking areas are 330 feet from the runway centerline.
- High Energy Runway Crossings - Due to only a partial parallel runway on the north side of Runway 10R-28L (Taxiway “B”), aircraft north of the runway that need to access the Runway 28L end must cross the runway using Taxiways “J,” “K,” or “L.” These crossings are in the middle third of the runway, which is considered by FAA to be the “high energy” area (FAA AC 150/5300-13A, Section 401b[4]). FAA recommends limiting crossings to the outer thirds of a runway so the portion of the runway where a pilot can least maneuver is kept clear to minimize the risk of a collision.
- Taxiway Connector Geometry - Taxiways “G,” “K,” and “L” do not connect to the smaller runway (Runway 10L-28R) with standard 90-degree angles. FAA AC 150/5300-13A, Section 401 b(4) recommends that design turns for taxiway intersections be 90 degrees whenever possible. Taxiway “M” allows direct access from the north general aviation (GA) apron to Runway 10L-28R, which is also not recommended by FAA’s design standards.

² The critical design aircraft is the most demanding aircraft type, or grouping of aircraft with similar characteristics, that make regular use of an airport (i.e., 500 annual operations) (excluding touch-and-go operations, which is an operation by an aircraft that lands and departs on a runway without stopping or exiting the runway) (FAA AC 150/5300-13A).

³ Based on a Runway Design Code [RDC] D-III aircraft with ½-mile visibility minimums. FAA has established the Airport Reference Code (ARC) to relate critical design aircraft factors to airfield design standards. When an airport has more than one runway, the RDC signifies the design standards to which each runway should be built. It is analogous to the ARC for the fleet of aircraft using the designated runway.

⁴ Hold lines are used to indicate the position beyond which aircraft/vehicles require air traffic control tower (ATCT) authorization before proceeding on or across a runway. These markings are to prevent aircraft and vehicles from entering critical areas associated with a runway and navigational aids or to control traffic at the intersection of taxiways (FAA 2013, AC 150/5340-1L, *Standards for Airport Markings*, Para. 3.1).

- Code of Federal Regulations (CFR), Title 14, Part 77 (Part 77)⁵ - The existing commercial terminal building is located 500 feet from the Runway 10R-28L centerline and penetrates the Part 77 transitional surface. There is currently obstruction lighting in place. The existing aircraft rescue and fire-fighting (ARFF) building is also within the Part 77 transitional surface. In addition, a 5.5-acre privately-owned parcel area located off airport property approximately 800 feet east of the Highway 68/Olmsted Road intersection contains numerous obstructions to the Runway 10R-28L Part 77 transitional surface per FAA ACs 150/5300-16A, 17C, and 18B.⁶
- Runway protection zones (RPZs)⁷ - RPZs established off the eastern ends of both runways extend off airport property and include incompatibilities, such as commercial buildings. Under FAA standards, these RPZs should be under the Airport’s control either through avigation easements to prevent land use incompatibilities or by owning the property outright. FAA’s *Interim Guidance of Land Uses within a Runway Protection Zone* (FAA 2012) states,

“Airport owner control over the RPZ land is emphasized to achieve the desirable protection of people and property on the ground. Although FAA recognizes that in certain situations the airport sponsor may not fully control land within an RPZ, the FAA expects the airport sponsor to take all possible measures to protect against and remove or mitigate incompatible land uses.”

- Wildlife Hazards - FAA requires airport sponsors to maintain a safe operating environment, which means they must conduct a wildlife hazard assessment (WHA) and prepare a wildlife hazard management plan (WHMP) when there has been a wildlife strike (FAA 2016a). The WHMP identifies the specific actions an airport will take to mitigate the risk of wildlife strikes on or near the Airport. The Airport’s WHMP contains numerous strategies and techniques that are to be implemented for wildlife management at the Airport (MPAD 2013).

ES 3.2 Prepare for Future Aviation Demand

A second objective of the Proposed Project is to provide facility improvements that will meet future projected aviation demand within the 20-year planning period. FAA has reviewed and approved the aviation forecasts developed in conjunction with the Proposed AMP (**Table ES-1** and **Appendix B**). These forecasts have been used as a basis for planning and development of the Proposed Project.

⁵ The Part 77 transitional surface is an imaginary airspace surface emanating from the edge of the primary surface at a 7:1 ratio. The primary surface is 1,000 feet wide, centered on the runway. Thus, the transition surface for an airport’s primary runway begins at 500 feet from the runway centerline (CFR, Title 14, Part 77).

⁶ FAA AC 150/5300-16A, *General Guidance and Specifications for Aeronautical Surveys: Establishment of Geodetic Control and Submission to the National Geodetic Survey*, AC 150/5300-17C, *Standards for Using Remote Sensing Technologies in Airport Surveys*, and AC 150/5300-18B, *General Guidance and Specifications for Submission of Aeronautical Surveys to NGS: Field Data Collection and Geographic Information System (GIS) Standards* provide guidance for the collection and submission of aeronautical data and to identify the FAA’s GIS model for airport-related data. The data will be used to develop satellite-based approach procedures and to better utilize and manage the National Airspace System (FAA website 2018).

⁷ The RPZ is a trapezoidal area centered on the runway, typically beginning 200 feet beyond the runway end. RPZs have been established by FAA to provide an area clear of obstructions and incompatible land uses to enhance the protection of people and property on the ground. The dimensions of the RPZ vary according to the visibility minimums and the type of aircraft operation on the runway.

**TABLE ES-1
FAA-Approved 20-Year Aviation Forecasts
Monterey Regional Airport**

	FAA-APPROVED FORECAST ACTIVITY				
	2013 ¹	2015 ²	2018 ¹ (Years 1-5)	2023 ¹ (Years 6-10)	2033 ¹ (Years 11-20)
Enplaned Passengers	200,651	182,553³	223,000	245,000	275,000
Commercial Operations					
Air Carrier/Air Taxi ⁴	15,964	13,901	16,700	19,000	22,800
General Aviation (GA) Operations					
Itinerant ⁵	25,270	28,387	28,100	31,300	40,400
Local ⁶	10,876	20,763 ⁷	11,800	12,800	15,900
Total	36,146	49,150	39,900	44,100	56,300
Military Operations					
Itinerant ⁵	803	955	900	900	900
Local ⁶	914	3,286	600	600	600
Total	1,717	4,241	1,500	1,500	1,500
Total Airport Operations	53,827	67,292	58,100	64,600	80,600
Based Aircraft	152	113⁸	160	175	200

¹ Coffman Associates 2015 (**Appendix B**)

² EIR base year from FAA Air Traffic Activity Data System Standard Report - Monterey Regional Airport.

³ Airport records 2017.

⁴ Includes commercial passenger aircraft and chartered aircraft.

⁵ Itinerant operations are all operations other than local operations.

⁶ Local operations are those that operate in the local traffic pattern or within sight of the airport; are known to be departing for, or arriving from, flight in the local traffic practice areas located within a 20-mile radius of the airport; or execute simulated instrument approaches or low passes at the Airport (CFR, Title 14, Section 170.3 - Definitions).

⁷ A flight school was opened in August 2014 that has increased local GA operations beyond what was anticipated in the Proposed AMP forecasts. This forecast anomaly is not considered to affect the viability of the forecasts. Enplanements and commercial operations remain within the forecasted activity levels.

⁸ GCR, Inc. 2016.

Based on the FAA-approved aviation activity forecasts (**Table ES-1**) and the aviation facility requirements analyzed in Chapter Four of the Proposed AMP, several areas and functions of the Airport are already undersized or will be in the future if the planning forecasts are realized. The Proposed AMP (Chapter Three) provides a demand/capacity analysis based on established guidelines and methodologies for airport planning and design and utilizes information obtained from the Airport and users/tenants to the extent possible. This allows MPAD to have an understanding of the basic parameters required for future facilities to function effectively. Among other things, the Proposed AMP identifies the following:

- The Airport’s annual service volume (ASV)⁸ is currently at 43 percent; by the end of the long-term planning horizon (20 years), total annual operations are anticipated to reach 66 percent of the Airport’s ASV (Coffman Associates 2015:Table 3E). Therefore, major airfield capacity improvements are not considered necessary within the scope of the Proposed AMP.

⁸ ASV accounts for the hourly capacity of each runway configuration as defined in FAA AC 150/5060-5, *Airport Capacity and Delay* (FAA 1983), as well as the ratio of annual demand to average daily demand and the ratio of average daily demand to average peak hour demand during the peak month.

- The commercial terminal is currently operating at 100 percent of its gate capacity and 60 percent of its aircraft apron parking capacity when demand for “remain overnight” (RON) space is included.
- The commercial terminal currently operates at 92 percent of its gross existing capacity with several aspects of the building at or over capacity:
 - Ticket counter kiosk positions (at capacity)
 - Transportation Security Administration (TSA) baggage check (over capacity)
 - Claim lobby (over capacity)
 - Concourse circulation area (over capacity)
 - Retail concessions (over capacity)
 - Rental car counter queue area (over capacity)
 - Building systems and support areas - stairwells, storage, general circulation, and mechanical/heating, ventilation, and air conditioning (HVAC) (over capacity)
- Public vehicular parking lots associated with the commercial terminal currently operate over capacity. In the long-term, a shortfall of approximately 446 spaces is anticipated.

In addition to the potential long-term shortfall in the functional areas of the existing commercial terminal, portions of the terminal are over 60 years old and alterations to the original structure have created inefficiencies, especially on the secure side of the building. For example, in the secure concourse area, the circulation areas are undersized by almost 70 percent using methodologies detailed in FAA AC 150/5360-13, *Planning and Design Guidelines for Airport Terminal Facilities* (1988). In the baggage claim area, both the floor area and the circulation area are undersized, especially when multiple aircraft are deplaning. The rental car area also has an inadequate queuing area. The existing commercial apron is long and narrow, necessitating parallel aircraft parking for larger aircraft (including the critical design aircraft, the MD-80 series) and operating restrictions on Taxiway “A.”

Other areas of the Airport are also projected to operate above capacity during one or more of the planning horizons of the Proposed AMP:

- T-hangar space (potential long-term shortfall - 31,100 square feet [sf])
- GA apron area (potential long-term shortfall - 3,600 square yards [sy])
- Commercial terminal vehicular parking (based on an 85 percent utilization rate)⁹ (potential intermediate shortfall - 248 spaces; potential long-term shortfall - 376 spaces)
- Commercial terminal curb area (potential long-term shortfall - 73 linear feet [lf])

⁹ Based on parking data from the Airport from 2015 through mid-2018, enplanements have continued to grow, but parking demand has not. This may indicate a trend due to transportation network companies (TNCs) and other related transportation issues. The Airport will continue to monitor the parking demand throughout implementation of the Proposed Project.

ES 3.3 Incorporate Airport Sustainability Goals

A third objective of the Proposed Project is to incorporate measures into future proposed projects to meet the Airport's sustainability goals. The Airport has already incorporated several successful sustainability initiatives, for example, energy-saving lighting projects, the installation of electric vehicle (EV) charging stations, the purchase of electric vehicles, a terminal recycling program, the installation of low-water use terminal fixtures, and use of an energy-efficient film on the windows and doors along the airfield side of the terminal. The Proposed Project includes the use of energy-efficient and low-flow water fixtures in new buildings and the proposed construction of relocated passenger terminal and ARFF buildings to Leadership in Energy and Environmental Design (LEED) standards. LEED is a widely used rating and certification system for a building's "green," (i.e., resource-efficient or sustainable) features. In addition, the proposed consolidation of GA facilities on the north side of the Airport will reduce taxiing time and related aviation emissions.

ES 3.4 Increase Airport Self-Sufficiency

A fourth objective of the Proposed Project is to plan for additional revenue-producing opportunities so the Airport can continue to provide its share of matching funds for its federal- and state-provided grants.¹⁰ The Airport has federal grant assurances that must be met as a condition of the acceptance of federal monies for maintenance and development projects. The federal grant assurances include Grant Assurance 3, Sponsor Fund Availability. This grant assurance requires that the airport sponsor have "sufficient funds available for that portion of the project costs which are not to be paid by the United States." It also requires that the sponsor have "sufficient funds to assure operation and maintenance of items funded under this grant agreement which it will own or control." The Proposed AMP's on-airport land use plan includes areas of the Airport not needed for aviation purposes that can be developed or redeveloped for revenue-generating purposes.

ES 4.0 PROJECT DESCRIPTION

Preparation of the Proposed AMP was funded partially through a federal grant and, therefore, the Proposed AMP and planning process must follow the format established in FAA AC 150/5070-6B, *Airport Master Plans*, as amended (FAA 2015a). As stated in AC 150/5070-6B, Section 104, "The master plan is the sponsor's strategy for the development of the airport." FAA only approves the following elements (AC 150/5070-6B, Section 105):

- 1) Forecasts of Demand – The master plan forecast should be reviewed to ensure that the underlying assumptions and forecast methodologies are appropriate. Paragraph 704.h of this guidance should be used to determine consistency of the master plan forecast levels and the Terminal Area Forecast

¹⁰ Public use airports rely on federal Airport Improvement Program (AIP) funding for a significant number of their capital improvement projects, especially those related to airport safety enhancement. Each year the Airport submits a proposed five-year capital improvement program to FAA for future funding consideration.

(TAF).¹¹ Inconsistencies between the master plan forecast and TAF must be resolved and the forecast approved before proceeding with subsequent planning work.

- 2) Airport Layout Plan (ALP)¹² – All airport development at federally-obligated airports must be done in accordance with an FAA- and sponsor-approved ALP. Furthermore, proposed development must be shown on an approved ALP to be eligible for Airport Improvement Program (AIP) funding. FAA approval of the ALP indicates that the existing facilities and proposed development depicted on the ALP conforms to the FAA airport design standards in effect at the time of the approval or that an approved modification to standard has been issued. Such approval also indicates that the FAA finds the proposed development to be safe and efficient.

For the purposes of this EIR, 2015 has been established as the base year (existing conditions) and information from the FAA's Air Traffic Activity Data System (ATADS) system has been used (FAA 2015b). Proposed Project buildout years for this EIR are 2025 (short-term projects) and 2035 (long-term projects), which generally align with Proposed Project implementation phases. The 2025-year forecast activity (for purposes of analysis) has been interpolated between the Proposed AMP forecast activity for years 2023 and 2033, which are shown in **Table ES-1**. The 2035-year forecast activity (for purposes of analysis) has been calculated using the average annual growth rate for 2033 from Chapter Two of the Proposed AMP (**Appendix B**).

The projects that are evaluated within the Draft EIR include the projects recommended in the Proposed AMP's capital improvement program, as well as the Proposed AMP's overall on-airport land use plan (which could include non-aviation development and redevelopment on the airport property) and are shown in **Exhibit ES-1**. Proposed short-term development projects (occurring within 10 years) are evaluated within the EIR at a project-specific level, while future long-term development projects (occurring within 20 years) are evaluated to the level of detail feasible based on available project information (i.e., at a programmatic level). Proposed long-term development projects would likely develop in phases over a long period of time, and future environmental analysis could be required prior to their approval and construction.

One of the primary components of the Proposed Project is a multi-project airport safety enhancement component. Due to the need for federal funding and approval, a federal environmental assessment (EA) is also being prepared for the safety enhancement components of the Proposed Project consistent with the requirements of the *National Environmental Policy Act of 1969* (NEPA) (United States Code [USC], Title 42, Sections 4321 et seq.) and its implementing regulations (i.e., the President's Council on Environmental Quality [CEQ] Regulations - CFR, Title 40, Sections 1500-1508). FAA is the Lead agency for the EA. This proposed safety enhancement project component of the Proposed Project would include the following and would be phased over approximately 10 years:

¹¹ The Terminal Area Forecast is the official FAA forecast of aviation activity for U.S. airports and is prepared to meet the budget and planning needs of the FAA and provide information for use by state and local authorities, the aviation industry, and the public.

¹² An ALP is a set of technical drawings depicting related airspace, land use, and property data and is required (and approved) by FAA to identify mandated safety areas, as well as to aid in determination of federal grant eligibility and funding.



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- Relocate 44 general GA hangars and a fuel tank from the southeast side of the Airport to the north side of the Airport;
- Add up to seven new GA hangars on the north side of the Airport;
- Relocate the existing ARFF building (also requires the construction of a temporary ARFF and ARFF service road until a relocated permanent ARFF can be constructed);
- Relocate the commercial terminal and necessary apron pavement (and associated parking and roadway improvements);
- Close Taxiway “K” at its connection with the new commercial terminal apron;
- Implement a 52.5-foot southerly shift of 1,850 lf of Taxiway “A” and associated lighting, signage, and markings;
- Remark hold lines on Taxiway “A” at Taxiway Connectors “G” and “J” to a 250-foot separation from the Runway 10L-28R centerline;
- Install taxiway “islands” at Taxiway Connectors “G” and “J”; and
- Construct replacement vehicular parking along Fred Kane Drive.

Other proposed short-term project components include:

- Acquire a 5.5-acre private parcel near the proposed relocated commercial terminal complex;
- Construct a Highway 68 frontage road; and
- Construction a new “north side” road, which would extend from Del Rey Gardens Drive in Del Rey Oaks (off Highway 218) to the northeast side of the Airport. Access to the north side of the Airport is currently provided via Airport Road, which runs through the CONA neighborhood, located northwest of the Airport. The new “north side” road would provide additional access to the north side of the Airport and would allow access through the CONA neighborhood for areas east of Gate 22 to be discontinued.

The long-term project components (programmatic) for the Proposed Project include:

- Construct 106 new GA hangars on the north side of the Airport;
- Redevelop the existing GA (small aircraft) hangar area (no increase in use intensity);
- Redevelop the existing airport industrial area (no increase in use intensity);
- Construct non-aviation uses on the north side of the Airport (north of Airport Road);
- Construct non-aviation uses on the south side of the Airport (north of Highway 68);
- Upgrade the perimeter fence;
- Construct a consolidated maintenance building;
- Acquire RPZ land (20 acres);
- Acquire RPZ aviation easement (14 acres); and
- Extend Taxiway “B” to the Runway 28L threshold and construct geometry improvements for Taxiways “G,” “K,” “L, and “M.”

ES 5.0 PROJECT SETTING

The Airport is surrounded by the cities of Monterey and Del Rey Oaks. Extensive arterial and highway systems surround the Airport, providing access from several locations. Freeway access to the Airport is provided from Highway 1 via the Highway 1/Highway 68/Fremont Street interchange or the Highway 1/Highway 218 (Canyon del Rey Boulevard) interchange. Access to the commercial terminal area is from Olmsted Road, access to fixed base operators (FBO) areas is from Garden Road, and access to the uses on the north side of the Airport is from Fremont Street via Airport Road.

The topography on the Airport ranges from nearly flat in areas at, or directly adjacent to, the runways to steeply sloping at the eastern end of the Airport where a series of six 11-foot-high retaining walls support the runway plateau. Undeveloped areas of the Airport are vegetated with native and non-native flora and have been subject to a variety of disturbances necessary for the maintenance and operation of the Airport.

The Airport is a commercial service aviation facility comprised of approximately 498 acres. It is included in the 2017 – 2021 *National Plan of Integrated Airport Systems* (NPIAS) (FAA 2016b) and the *California Aviation System Plan* (CASP) (California Department of Transportation [Caltrans] 2013) and is classified as a “nonhub primary commercial service” airport. It has two parallel runways, associated taxiway and navigational systems, and aviation facilities and related businesses, including a commercial terminal and apron, an ARFF building, and two FBOs, as well as limited non-aeronautical businesses. The primary runway, Runway 10R-28L, is 7,175 feet long and 150 feet wide, with a 175-foot displaced threshold¹³ on each runway end to meet RSA requirements for landing. The secondary or parallel runway, Runway 10L-28R, is 3,504 feet long and 60 feet wide and serves smaller GA aircraft.

The Airport serves domestic destinations. No international destinations are served by the Airport. In 2015, over 182,550 enplaned passengers were served (**Table ES-1**). The commercial terminal is one contiguous building encompassing approximately 70,000 sf and is accessible from Fred Kane Drive via Olmsted Road or Henderson Way to Garden Road. Vehicular parking associated with the commercial terminal includes spaces utilized by passengers, visitors, employees, rental car companies, public transit, taxis/shuttles, and transportation network companies (TNCs). The existing public parking supply is provided by four lots: upper and lower short-term lots, a long-term lot, and an overflow lot. A total of 438 public parking spaces and 395 employee, rental car, and taxi/shuttle spaces are provided. Assuming an 85 percent utilization rate to allow for the overlap of arrival and departure passengers, the existing public parking lots are at capacity.

The commercial terminal provides only ground level boarding. The current configuration of the terminal gates has five departure gates and nine parking positions, which are sized to handle regional jet or large turboprop aircraft. The commercial apron is long and narrow (i.e., it is over 1,400 feet long, but only 60 feet wide). When larger aircraft utilize the terminal apron, they park parallel to Taxiway “A,” which reduces the total number of parking positions available. The terminal apron generally has room for six

¹³ A displaced threshold is a threshold that is located at a point on the runway other than the designated beginning of the runway. It allows for landing at a different point on the runway to avoid obstructions.

RON aircraft. At this time, the terminal is operating at 100 percent of its gate capacity and 60 percent of its aircraft apron parking capacity when demand for RON spaces is included.

The Airport is home base for more than 135 GA aircraft including helicopters and single-engine, multi-engine, and turbine aircraft and has approximately 50 T-hangars, 73 box hangars, and 71 conventional hangars. The Airport has the storage capacity for 88,000 gallons of jet fuel (Jet A) and 37,750 gallons of aviation gasoline (AvGas) in either above-ground tanks or fuel delivery trucks. The Airport also has a 1,200-gallon truck that carries diesel fuel.

GA facilities are in four distinct areas on the Airport: northwest ramp; northeast ramp; southeast ramp; and southwest ramp. Airports certificated under CFR Title 14, Part 139 (Part 139) are required to provide ARFF services during air carrier operations and to maintain its equipment and personnel based on the established ARFF index. The Airport's ARFF facility is located on the airfield at the east end of the commercial apron and falls within ARFF Index B on a scale from A to E, with A applicable to the smallest aircraft and E applicable to the largest aircraft (based on aircraft length). The facility is owned by MPAD and staffed by the City of Monterey. It houses three engines and a command vehicle and has five bays.

ES 6.0 EIR FOCUS AND EFFECTS FOUND NOT TO BE SIGNIFICANT

All Proposed Project components are addressed and analyzed at one of two levels within this EIR:

- 1) Proposed Project components anticipated to be implemented within the next 10-11 years that have project funding identified, and for which basic project details are available and adequate to analyze the potential environmental impacts, are evaluated at a project-specific level and are considered short-term projects for purposes of this EIR. These short-term project components encompass both short and intermediate-term projects listed in the Proposed AMP for the first 10 years of implementation; and
- 2) Proposed Project components for which project funding is unknown or for which project details are not known at a sufficient level of detail to be evaluated at a project-specific level are addressed at a more programmatic level of detail (i.e., based on their general land use) and are considered long-term projects for purposes of this EIR. The long-term project components evaluated at the programmatic level may require additional environmental review at the time that specific project approvals are requested, and additional project-specific details are available and sufficient to conduct a more detailed environmental analysis.

If a later activity would have effects that were not examined in the EIR, an Addendum, Subsequent EIR, Supplemental EIR, Negative Declaration, or new EIR may be required. If MPAD finds that, pursuant to CEQA Guidelines, Section 15162, no new effects could occur, or no new mitigation measures would be required, MPAD can approve the activity as being within the scope of the project covered by the EIR, and no new environmental document would be required.

The following environmental effects of the Proposed Project have been found to be Less than Significant based on the analysis contained in Chapters Four and Five of the Draft EIR:

Aesthetics - Substantial adverse effects on a scenic vista; impacts to the scenic resources of the City of Del Rey Oaks; impacts to the scenic resources of Highway 68 due to proposed fence improvements; changes to the urban context of the Airport; and new sources of substantial light or glare.

Air Quality - Construction and operational emissions associated with proposed short- and long-term projects; conflicts with an applicable air quality plan; violations of state or national ambient air quality standards; exposure of a substantial number of people to objectionable odors; and exposure of sensitive receptors to substantial pollutant concentrations.

Cultural Resources - Project impacts to historic archaeological site MRY-HIST-001 and other miscellaneous historic debris; impacts to paleontological resources; and impacts related to an unanticipated encounter with human remains.

Energy - Energy consumption during construction or operation resulting in wasteful, inefficient, or unnecessary consumption; the upgrading of existing electrical infrastructure resulting in significant environmental effects; relocation of new or expanded fuel service at the Airport; and conflicts with existing energy standards or regional or local energy goals and policies.

Geology and Soils - Geologic or seismic-related hazards associated with proposed buildings and roads, including ground rupture, ground acceleration, liquefaction, and dynamic settlement; and expansive soil conditions in isolated areas.

Greenhouse Gas (GHG) Emissions - Conflicts with Association of Monterey Bay Area Government's (AMBAG) metropolitan transportation plan and sustainable communities strategy (MTP/SCS) goals; and conflicts with applicable local GHG reduction plans to reduce GHG emissions.

Hazards and Hazardous Materials - Exposure of construction workers to asbestos, lead paint, or hazardous air pollutants; the relocation of fuel storage tanks; the handling, storage, or disposal of hazardous materials; the use of hazardous materials during construction; hazardous emissions related to use or accidental spills of hazardous materials; the use of hazardous materials or accidental spills within ¼ mile of a school; airport safety hazards for people working or residing in areas adjacent or near the Airport; on-airport emergency response times; and changes to the Airport's emergency response/contingency plan.

Hydrology and Water Quality - Project-related construction or operational stormwater runoff pollutants; impacts to water quality standards; additional groundwater demand for proposed short-term projects; post-construction runoff quantities; and exceedances of the existing airport storm drain system.

Land Use and Planning - Planned reduction in GA ramp space and tie-down positions; on-airport land use compatibilities, including construction dust, noise, and congestion; off-airport land incompatibilities due to proposed land acquisitions; inconsistency with a CONA policy for a park on airport land; and

inconsistencies with applicable City of Monterey zoning, the County of Monterey general plan, county regional transportation plan (RTP) policies, or AMBAG's MTP/SCS.

Aircraft Noise - Impacts to future workers of proposed long-term projects on the south side of the Airport due to aircraft noise based on City of Monterey or the county comprehensive land use plan (CLUP) guidelines; airport operations in 2025 or 2035 would not cause a 1.5 decibel (dB) or more increase resulting in noise-sensitive areas being exposed to 65 Community Noise Equivalent Levels (CNEL) or greater as compared to the existing (2015 baseline) conditions; and airport operations in 2025 or 2035 would not cause a 3.0 dB or more increase resulting in noise-sensitive areas being exposed to 60 CNEL to less than 65 CNEL as compared to the existing (2015 baseline) conditions.

Land-based Noise - Vibration during construction; off-airport traffic noise increases; operational building noise; and daytime construction noise, including from construction traffic.

Population and Housing - Direct or indirect population or housing impacts, including the displacement of existing housing or people.

Public Services (Fire Protection, Emergency Services, and Police Protection) - Provision of fire protection, emergency services, and police protection on the Airport during construction or operation of proposed projects; and a need for new or physically altered government facilities.

Recreation - A need for the construction or expansion of recreational facilities.

Transportation/Traffic - A reduction in traffic due to the redistribution of traffic through four intersection along Highway 68 resulting from proposed short-term projects; impacts to Highway 68 segments from proposed short-term projects; impacts to the N. Fremont Street/Highway 1/Highway 68 interchange weaving segments from proposed short-term projects; design features that would increase hazards, incompatible land uses, or inadequate emergency access; traffic increases within the CONA neighborhood would be temporary during construction and negligible from short-term projects, and airport-related traffic would decrease in the long term; and no changes would occur to air traffic patterns.

Utilities and Service Systems - Water demand for proposed short-term projects; construction water demand; non-potable water demand for landscaping and biological mitigation; the upsizing of existing water lines resulting in significant environmental effects; exceedances of wastewater treatment requirements or capacity of the regional wastewater treatment plant; impacts to City of Monterey sewer lines for proposed north side short-term projects; exceedances of the Monterey Peninsula Landfill's permitted capacity; and compliance with applicable solid waste diversion requirements.

Cumulative Impacts - Impacts to historical or paleontological resources; potential wasteful, inefficient, or unnecessary consumption of energy resources; impacts related to the demolition of older buildings on the Airport, the handling, storage, use, or transport of hazardous materials, and off-airport emergency response times; impacts to surface water quality; noise impacts along roadways near the

Airport; impacts to adequate fire protection, emergency services, and police protection; impacts on wastewater treatment and disposal; and impacts on solid waste disposal.

ES 7.0 AREAS OF CONTROVERSY/ISSUES TO BE RESOLVED

Airports are consistently under scrutiny from the public regarding aircraft noise, take off and flight patterns, and the time of operations. Airport noise, even beyond the 65 CNEL contours, can create controversy. Local jurisdictions (other than the airport owner/operator) often set their own local general plan policies regarding the restriction of airport usage; however, federal law preempts local control of an airport. In addition, federal Grant Assurance No. 22, Economic Nondiscrimination, states in part that the Airport must “make the airport available for public use on reasonable terms and without unjust discrimination to all types, kinds and classes of aeronautical activities...” These grant assurances are stipulations that the Airport must adhere to receive federal funds.

In addition, both existing and projected cumulative traffic conditions in the area around the Airport will require extensive regional highway and intersection improvements to improve traffic flow. Measures to reduce vehicle miles traveled and other transportation demand management (TDM) are also often implemented at the regional level. The Airport’s ability to participate in the necessary improvements may be restricted by federal law; federal law states that airport revenues and FAA grant funds may not be used for purposes other than the capital or operating costs of the airport, the local airport system, or other local facilities owned or operated by the airport owner or operator that are directly and substantially related to the air transportation of passengers and property. These restrictions impact the Airport’s ability to fund and implement off-airport transportation system mitigation measures. Now that the Draft EIR has identified specific mitigation measures for Proposed Project impacts, the Airport will make specific requests to the FAA, where appropriate, for it to allow funding of off-airport mitigation measures. Because the Airport does not currently have a determination from the FAA that funding for any off-airport mitigation improvements will be allowed, however, the mitigation measures are considered infeasible at this time. Detailed information about the law and regulations prohibiting diversion of airport revenues and about FAA grant assurances is found in **Appendix N** to this Draft EIR.

Other areas of controversy or issues to be resolved as identified by comments on the Proposed AMP or in response to the Notice of Preparation (NOP) for this EIR include (**Appendix A**):

- Airport traffic through CONA;
- Impacts to the Highway 68 scenic corridor and existing driveway accesses;
- Necessary water permits and amendments to water distribution systems;
- Impacts to tribal cultural lands; and
- Jet exhaust

ES 8.0 REQUIRED DISCRETIONARY ACTIONS AND OTHER AGENCY APPROVALS

Prior to taking action on the Proposed Project, MPAD as the Lead Agency (and project proponent) for the Proposed Project under CEQA (CEQA Guidelines, Section 15367) must consider the information in the EIR and certify the Final EIR. The Lead Agency is also responsible for consideration of the Proposed

Project, its possible approval, the adoption of necessary findings and a statement of overriding considerations, if necessary, and implementation of the EIR's mitigation monitoring and reporting program (MMRP) if the project is approved. Compliance with existing state and local laws, regulations, and policies, as well as the approved MMRP, will be required of all future development proposals.

In addition, due to the potential for impacts to state-protected species, the California Department of Fish and Wildlife (CDFW) will act as a Responsible Agency under CEQA. The CDFW may use this EIR as the CEQA document needed to inform its decisions on any requested Section 2081 Incidental Take Permits under the California Fish and Game Code (CFGC), as necessary.

Other permits or approvals that may be required for individual components of the Proposed Project are listed below:

- Construction traffic phasing plan approval from Caltrans for haul routes with direct access to Highways 68 and/or 218.
- City of Del Rey Oaks approval for improvements to Del Rey Garden Drive.
- City of Monterey approval for improvements to Olmsted Road or Garden Road or other proposed development within their jurisdiction.
- United States Fish and Wildlife Service (USFWS) Incidental Take Permits under Section 7 or Section 10 of the *Endangered Species Act*.
- Approval from the California Regional Water Quality Control Board (RWQCB) for modifications to the Airport's stormwater pollution prevention plan (SWPPP).
- Construction permit from the RWQCB related to applicable National Pollutant Discharge Elimination System (NPDES) General Construction permitting requirements.
- Monterey Peninsula Water Management District (MPWMD) permits for proposed long-term projects requiring water above the Airport's existing California American Water (CalAm) water allocation.

ES 9.0 PROJECT ALTERNATIVES

Several criteria were used to select alternatives to the Proposed Project:

1. The ability of the alternative to achieve project objectives;
2. The feasibility of implementing the alternative; and
3. The alternative's ability to eliminate or reduce significant impacts.

To that end, several alternatives have been considered in the analysis, but not carried forward. These include:

- Shifting Taxiway “A” 400 feet from the Runway 10R-28L centerline.
- Expanding or replacing the existing commercial terminal:
 - Expanding the existing commercial terminal and apron;
 - Relocating the existing commercial terminal and apron to the south;
 - Relocating the existing commercial terminal and apron north of the airfield; or
 - Relocating the existing commercial terminal to the east but keeping the southeast GA hangars on the south side of the airfield.
- “North side” road alternatives:
 - Southeasterly connection from Highway 68;
 - Easterly connection from Ryan Ranch Road;
 - Northeasterly connection from General Jim Moore Boulevard;
 - Northwesterly connection from Rosita Road;
 - Westerly connection from Casanova Avenue; or
 - Southerly connection via a tunnel from Olmsted Road.
- Alternative locations for Monterey Regional Airport.

In accordance with Section 15126.6(a) of the CEQA Guidelines, this Draft EIR focuses on a reasonable range of alternatives and provides a comparison of their feasibility and ability to achieve Project Objectives (**Section ES 3.0**). The alternatives’ varying environmental effects and their merits and/or disadvantages in relation to the Proposed Project and to each other are also discussed as follows:

- **Alternative 1 (Environmentally Superior).** This alternative retains all the major project components of the Proposed Project. However, several components have been redesigned to reduce the environmental impacts identified for the Proposed Project. Detailed environmental analysis is contained in Chapter Four and compared quantitatively to the environmental impacts of the Proposed Project in a commensurate level of detail. This alternative meets all four Project Objectives.
- **Alternative 2 (No “North Side” Road).** This alternative retains all the project components of the Proposed Project, except for the construction of a new “north side” road. Instead, the Airport’s north side would continue to be accessed via Fremont Street and Airport Road in the City of Monterey (i.e., via CONA). Analysis of this alternative is compared qualitatively to the Proposed Project. This alternative could potentially meet all four Project Objectives.

- **Alternative 3 (No Project).** Under Alternative 3, no modifications to the Airport’s existing facilities would be made. Analysis of this alternative is compared qualitatively to the Proposed Project. This alternative does not meet the stated Project Objectives.

Table ES-2 provides a matrix that compares each alternative’s ability to meet the various Project Objectives. It should be noted that any of the above alternatives could serve the 20-year forecasts shown in **Table ES-1** since the Proposed Project and its alternatives do not involve capacity improvements to the airfield itself. Proposed improvements to support facilities at the Airport, including a relocated commercial terminal and additional hangars, are ancillary to the airfield and do not affect its capacity. Future impacts of the 20-year forecasts are, therefore, appropriately accounted for in the cumulative baseline of any of the alternatives presented in this EIR, including Alternative 3.

Would the Alternative Meet the Following Project Objectives?	Alternative 1	Alternative 2	Alternative 3
Enhance Airport Safety	Yes	Yes	No
Accommodate Future Aviation Demand	Yes	Yes	No
Incorporate Airport Sustainability Goals	Yes	Yes	No
Increase Airport Self-Sufficiency	Yes	Yes	No

An evaluation of potential environmental impacts of Alternatives 2 and 3 are provided in Chapter Three. In the case of Alternative 1, the impact analysis is contained in Chapter Four and is treated at the same level of detail as the Proposed Project. The CEQA Guidelines require that a “no project” alternative be evaluated, and that an environmentally superior alternative be designated. If the alternative with the fewest or least severe environmental impacts is the “no project” alternative, one of the other alternatives should be designated environmentally superior. As a result of the analysis in this Draft EIR, Alternative 1 is considered the “environmentally superior” alternative. It includes several project components that are different than the Proposed Project in an effort to lessen environmental impacts, as well as due to other concerns (**Exhibit ES-2**). These proposed components are listed below along with the rationale for the change:

Relocation of the existing ARFF building to the north side GA area permanently. The ARFF location identified in the Proposed Project would require that a relocated ARFF building be constructed after the relocated terminal building is operational and the existing terminal building is demolished. This would necessitate the construction of a temporary ARFF building since the existing ARFF building would need to be removed prior to construction of the relocated terminal apron.

It is environmentally preferable, as well as more cost-effective, to construct just one permanent ARFF building rather than constructing first a temporary building and then a permanent building in another location. Operationally, moving the ARFF to the north side would remove its emergency activity away from the commercial terminal and FBO areas, which would reduce the amount of congestion on the south side of the airfield. In addition, the ARFF location on the south side (Proposed Project) presents

potential penetrations to the transitional Part 77 surface of Runway 10R-28L. The north side location would eliminate this concern.

The permanent ARFF location on the north side under Alternative 1 meets FAA standards for response times on a CFR, Title, 14, Part 139-certificated airport. Existing water and electric service is available, including a connection to the on-airport solar farm which would reduce the Airport's off-airport energy requirements.

Prioritization of a "north side" road. Alternative 1 would construct a "north side" road in the first phase of implementation of the project components relating to safety enhancement, rather than as a separate project component as provided in the Proposed Project. Construction of the "north side" road during the first phase of the proposed safety enhancement component would eliminate the need for additional traffic to use Airport Road, even in the short term. Thus, prioritizing a "north side" road reflects the Airport's desire to minimize impacts to the CONA neighborhood.

The relocation of the ARFF building to the north side of the Airport is another reason for this proposed change under Alternative 1. If a north side ARFF facility was to respond to a call east of the Airport without a new "north side" road (as is planned under the Proposed Project with a temporary ARFF building), the responding vehicle would have to first travel west on Airport Road to Fremont Street to ultimately reach regional highways, such as Highways 68 or 218, to get back east. The resulting response time would be longer (more than five minutes) than the response time from the existing ARFF building. Conversely, if a north side ARFF facility was to respond to a call east of the Airport via the proposed "north side" road, response times are estimated to be approximately eight minutes faster than the response time from the existing ARFF building.

Changes to vehicular parking associated with the relocated commercial terminal complex. During initial terminal complex construction under Alternative 1, an estimated 923 new vehicular parking spaces would replace 602 existing spaces for a net increase of 321 vehicular parking spaces. This would fully meet the anticipated intermediate-term shortfall in commercial terminal parking (248 spaces) and most of the anticipated long-term shortfall (376 spaces).

Construction of the Highway 68 frontage road as a cul-de-sac road. The loop frontage road in the Proposed Project would be changed to a cul-de-sac frontage road ending in the northeastern corner of the 3.6-acre airport parcel to avoid sensitive plants along the northern and western parts of the loop. The Proposed Project tie-in to the Talbott property, adjacent to the east near its entrance with Highway 68, would also not be constructed. This avoids impacts to sensitive plants located in the southeastern corner of the Airport parcel and removes the need to alter the Talbott property's driveway or entrance to Highway 68.

All other aspects and proposed projects under Alternative 1 are the same as the Proposed Project.



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Table ES-3 compares the environmental effects and other merits or disadvantages of Alternatives 1, 2, and 3 in comparison to each other and the Proposed Project.

TABLE ES-3 Comparison of Project Alternatives - Significant Impacts Proposed Monterey Regional Airport Master Plan				
Resource/Threshold	Proposed Project Impact	Alternative 1 (Environmentally Superior)	Alternative 2 (No "North Side" Road)	Alternative 3 (No Project)
AESTHETICS				
Threshold 4.1-2 Would the Proposed Project or Alternative 1 substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state-designated scenic highway?	<u>Impact AES-1:</u> Potentially significant impacts to the scenic resources of Highway 68 due to grading and tree removal during construction of the proposed Highway 68 frontage road, south side drainage improvements, and long-term non-aeronautical development	Same	Same	None
	<u>Impact AES-2:</u> Potentially significant impacts to the scenic resources of Highway 68 due to the loss of mature trees due to short- and long-term projects could occur during the construction of the proposed Highway 68 frontage road, south side drainage improvements, and long-term non-aeronautical development	Same	Same	None
Threshold 4.1-3 - Would the Proposed Project or Alternative 1 substantially degrade the existing visual character or quality of the site and its surroundings?	<u>Impact AES-3:</u> The scale of the commercial terminal parking garage would be bigger than other existing buildings located a similar distance from Highway 68	None	Same	None

TABLE ES-3 (Continued)				
Resource/Threshold	Proposed Project Impact	Alternative 1 (Environmentally Superior)	Alternative 2 (No "North Side" Road)	Alternative 3 (No Project)
BIOLOGICAL RESOURCES				
Threshold 4.4-1 - Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFW or the USFWS	<u>Impact BIO-1</u> : Impacts to California legless lizards during construction activities	Same	Same	None
	<u>Impact BIO-2</u> : Impacts to nesting birds during construction activities	Same	Same	None
	<u>Impact BIO-3</u> : Loss of 1,518 sandmat manzanita (short-term projects)	Less, but still Potentially Significant	Less, but still Potentially Significant	None
	<u>Impact BIO-4</u> : Loss of 323 Monterey pine (short-term projects)	Less, but still Potentially Significant and Unavoidable	Less, but still Potentially Significant and Unavoidable	None
	<u>Impact BIO-5</u> : Loss of 8 Eastwood's goldenbush (short-term projects)	Less, but still Potentially Significant	Less, but still Potentially Significant	None
	<u>Impact BIO-6</u> : Loss of 18 Monterey ceanothus (short-term projects)	Less, but still Potentially Significant	Less, but still Potentially Significant	None
	<u>Impact BIO-7</u> : Loss of 49 small-leaved lomatium (short-term projects)	Less, but still Potentially Significant	Less, but still Potentially Significant	None
	<u>Impact BIO-8</u> : Loss of 539 Monterey spineflower and attendant seed bank (short-term projects)	Less, but still Potentially Significant	Less, but still Potentially Significant	None
	<u>Impact BIO-9</u> : Loss of 460 Yadon piperia (short-term projects)	Less, but still Potentially Significant and Unavoidable	Same	None
	<u>Impact BIO-10</u> : Potential loss of Seaside bird's beak (short-term projects)	Same	Same	None
	<u>Impact BIO-19</u> : Future loss of sandmat manzanita (long-term projects)	Same	Same	None
	<u>Impact BIO-20</u> : Future loss of Monterey pine (long-term projects)	Less, but still Potentially Significant and Unavoidable	Less, but still Potentially Significant and Unavoidable	None
	<u>Impact BIO-21</u> : Future loss of Eastwood's goldenbush (long-term projects)	Same	Less, but still Potentially Significant	None
	<u>Impact BIO-22</u> : Future loss of Monterey ceanothus (long-term projects)	Same	Less, but still Potentially Significant	None

TABLE ES-3 (Continued)				
Resource/Threshold	Proposed Project Impact	Alternative 1 (Environmentally Superior)	Alternative 2 (No “North Side” Road)	Alternative 3 (No Project)
Threshold 4.4-1 (Continued)	<u>Impact BIO-23</u> : Future loss of small-leaved lomatium (long-term projects)	Same	Less, but still Potentially Significant	None
	<u>Impact BIO-24</u> : Future loss of Monterey spineflower (long-term projects)	Same	Less, but still Potentially Significant	None
	<u>Impact BIO-25</u> : Future loss of Yadon’s piperia (long-term projects)	Same	Same	None
	<u>Impact BIO-26</u> : Loss of Seaside bird’s beak (long-term projects)	Same	Same	None
Threshold 4.4-2 - Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS	<u>Impact BIO-27</u> : Loss of 4.21 acres of sandmat manzanita chaparral (short-term projects)	Less, but still Potentially Significant	Less, but still Potentially Significant	None
	<u>Impact BIO-28</u> : Loss of 5.27 acres of Monterey pine forest (short-term projects)	Less, but still Potentially Significant and Unavoidable	Same	None
	<u>Impact BIO-29</u> : Loss of 4.83 acres of coast live oak woodland (705 trees) (short-term projects)	Less, but still Potentially Significant	Less, but still Potentially Significant	None
	<u>Impact BIO-33</u> : Future loss of sandmat manzanita chaparral (long-term projects)	Same	Less, but still Potentially Significant	None
	<u>Impact BIO-34</u> : Future loss of Monterey pine forest (long-term projects)	Same	Same	None
	<u>Impact BIO-35</u> : Future loss of coast live oak woodland (long-term projects)	Same	Less, but still Potentially Significant	None
Threshold 4.4-3 - Conflict with any local policies or ordinances protecting biological resources	<u>Impact BIO-36</u> : Potential inconsistencies with the Monterey City Code, Ch. 37 (short-term projects)	Same	Same	None
	<u>Impact BIO-37</u> : Potential inconsistencies with the Monterey Conservation Element, Goal d (short-term projects)	Same	Same	None
	<u>Impact BIO-40</u> : Potential inconsistencies with the Monterey City Code, Ch. 37(long-term projects)	Same	Same	None
	<u>Impact BIO-41</u> : Potential inconsistencies with the Monterey Conservation Element, Goal d(long-term projects)	Same	Same	None

TABLE ES-3 (Continued)				
Resource/Threshold	Proposed Project Impact	Alternative 1 (Environmentally Superior)	Alternative 2 (No “North Side” Road)	Alternative 3 (No Project)
Threshold 4.4-4 - Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan	<u>Impact BIO-42</u> : 1.25 acres of existing RSA Project conservation areas would be removed (short-term projects)	Same	None	None
	<u>Impact BIO-43</u> : A future perimeter fence upgrade could affect existing RSA Project conservation areas (long-term projects)	Same	Same	None
CULTURAL RESOURCES				
Threshold 4.5-2 - Cause a substantial adverse change in the significance of an archaeological resource as defined in State CEQA Guidelines, Section 15064.5	<u>Impact CUL-1</u> : Unknown archaeological resources could be adversely impacted by proposed construction	Same	Same	None
GEOLOGY AND SOILS				
Threshold 4.7-2 – Result in substantial soil erosion or the loss of topsoil	<u>Impact GEO-1</u> : Erosion or loss of topsoil	Same	Less, but still Potentially Significant	None
Threshold 4.7-3 – 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 offsite landslide, lateral spreading, subsidence, liquefaction or collapse	<u>Impact GEO-2</u> : Expose persons and structures to unacceptable factors of safety with respect to static slope movement and other slope instability issues	Same	Same	None
GREENHOUSE GAS EMISSIONS				
Threshold 4.8-1 - Result in a net increase in GHG emissions by 2035 compared to existing 2015 conditions	<u>Impact GHG-1</u> : Future GHG emissions would increase above 2015 levels	Same	Less, but still Potentially Significant	None
HAZARDS AND HAZARDOUS MATERIALS				
Threshold 4.9-1 - Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials	<u>Impact HAZ-1</u> : Since the construction of proposed project components require ground disturbance, there is a possibility that unknown hazardous sites or materials could be disturbed	Same	Same	None

TABLE ES-3 (Continued)				
Resource/Threshold	Proposed Project Impact	Alternative 1 (Environmentally Superior)	Alternative 2 (No "North Side" Road)	Alternative 3 (No Project)
Threshold 4.9-4 - For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area	<u>Impact HAZ-2</u> : Future non-aviation on the south side of the Airport could penetrate protected airspace	Same	Same	None
	<u>Impact HAZ-3</u> : Future non-aviation development on the north side of the Airport could exceed intensities set forth in the 2011 Handbook for Safety Zone 3	Same	Same	None
	<u>Impact HAZ-4</u> : Future non-aviation development on the north side of the Airport could exceed intensities set forth in the 2011 Handbook for Safety Zone 2	Same	Same	None
Threshold 4.9-5 - Impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan	<u>Impact HAZ-5</u> : In the short term, without a "north side" access road, there would be a decline in off-airport emergency response times	None	Same	None
HYDROLOGY AND WATER QUALITY				
Threshold 4.10-2 - Substantially deplete groundwater supplies or substantially interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table	<u>Impact HYD-1</u> : Future long-term development could use an increase of approximately 1.18 acre-feet (AF) per year of groundwater (worst-case), which would exceed the Airport's existing allotment	Same	Same	None

TABLE ES-3 (Continued)				
Resource/Threshold	Proposed Project Impact	Alternative 1 (Environmentally Superior)	Alternative 2 (No “North Side” Road)	Alternative 3 (No Project)
LAND USE AND PLANNING				
Threshold 4.11-3 - Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for avoiding or mitigating an environmental effect	None	None	Alternative 2 would be inconsistent with City of Del Rey Oaks Conservation Element Goal 2 to protect the Canyon Del Rey drainage system, and with City of Monterey goals and policies to reduce traffic and noise impacts within CONA.	None
	<u>Impact LU-1:</u> The Proposed Project is inconsistent with the City of Del Rey Oaks Policies C-3 and 13 of its general plan related to the anticipated traffic impacts	Same	Less ¹	None
	<u>Impact LU-2:</u> The Proposed Project is inconsistent with the City of Del Rey Oaks Policy C-17 of its general plan related to the proposed “north side” road	Same	None	None
	<u>Impact LU-3:</u> The Proposed Project is inconsistent with City of Monterey Policy b.4 of its Noise Element, which states, “Support limiting the number of fixed-base general aviation aircraft at the airport to the existing number”	Same	Same	Same
	<u>Impact LU-4:</u> The Proposed Project is inconsistent with City of Monterey Goal j, Policy j.2, and Programs j.1.1 and j.2.3 of its Circulation Element, which establish LOS D as an acceptable automobile LOS standard for roadway segments that are not within a multi-modal corridor and require a traffic analysis to determine appropriate mitigation and the funding of a pro-rata share toward improvements	Same	Same	None

TABLE ES-3 (Continued)				
Resource/Threshold	Proposed Project Impact	Alternative 1 (Environmentally Superior)	Alternative 2 (No "North Side" Road)	Alternative 3 (No Project)
Threshold 4.11-3 (Continued)	<u>Impact LU-5</u> : The Proposed Project (short-term projects) is not consistent with the CONA Neighborhood Plan goals and policies (Public Works Policies 15 and 16, and Airport Noise Policies 29, 34, and Program 34b) related to restricting the use of Airport Road for airport-related uses	None	Same	None
	<u>Impact LU-6</u> : The Proposed Project is inconsistent with CONA Neighborhood Plan Airport Noise Policy 34, which states that the neighborhood is opposed to the use of neighborhood residential streets by automobile and truck traffic going to and from the Airport and businesses on the Airport property as Airport Road would remain in use for existing or replacement airport land uses located west of Gate V22	Same	Same	Same
	<u>Impact LU-7</u> : Based on the Airport's operational growth forecasts for 2025 and 2035, potential inconsistencies could occur with CONA Neighborhood Plan Noise Goals 2, 3 and 4	Same	Same	Same
	<u>Impact LU-8</u> : The Proposed Project is not consistent with the current CLUP	Same	Same	Same
NOISE - Aircraft Noise				
Impact Criteria 4.10-1: Increase noise levels at noise-sensitive land uses to 65 CNEL or above as compared to the existing condition? (Thresholds 4.12.1-1 and 4.12.5-5)	<u>Impact NOI-1</u> : Future 2025 noise contours based on operational forecasts prepared for the Proposed AMP identify one additional residence within the 65-70 CNEL noise contour from existing conditions to 2025 conditions (This residence has been sound attenuated, but exterior noise impacts would be Potentially Significant.)	Same	Same	Same

TABLE ES-3 (Continued)				
Resource/Threshold	Proposed Project Impact	Alternative 1 (Environmentally Superior)	Alternative 2 (No "North Side" Road)	Alternative 3 (No Project)
Impact Criteria 4.10-1 (Continued)	<u>Impact NOI-2</u> : Future 2035 noise contours based on operational forecasts prepared for the Proposed AMP identify four additional residences within the 65-70 CNEL noise contour from existing conditions to 2035 conditions (These residences have been sound attenuated, but exterior noise impacts would be Potentially Significant.)	Same	Same	Same
	<u>Impact NOI-3</u> : Proposed long-term projects on the north side of the Airport could expose people working at the Airport to excessive noise levels	Same	Same	None
NOISE - Land-Based Noise				
Threshold 4.12.1-4 - Cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies)	<u>Impact NOI-4</u> : Some construction activities are expected to occur during nighttime hours when residents are especially sensitive to noise	Same	Less, but still Potentially Significant	None
PUBLIC SERVICES				
Threshold 4.14-1 - Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, 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: fire protection and police protection	<u>Impact PS-1</u> : ARFF response times to areas off-airport would be reduced below the recommended five-minute response time until the ARFF facility is permanently located on the south side or until the proposed "north side" road is constructed	None	Same	None

TABLE ES-3 (Continued)				
Resource/Threshold	Proposed Project Impact	Alternative 1 (Environmentally Superior)	Alternative 2 (No "North Side" Road)	Alternative 3 (No Project)
TRANSPORTATION/TRAFFIC				
Threshold 4.16-1 - Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit	<u>Impact TR-1</u> : Impacts to five intersections that are operating deficiently under existing conditions in the short term	Less, but still Potentially Significant and Unavoidable	Same	None
	<u>Impact TR-2</u> : Impacts to intersections and highway segments that are projected to operate deficiently under future conditions in the long term	Less, but still Potentially Significant and Unavoidable	Unknown ¹	None
	<u>Impact TR-3</u> : Project-related short- and long-term construction trips	Same	More ²	Unknown
Threshold 4.16-5: Increase VMT when compared to existing conditions within Monterey County due to proposed land use development	<u>Impact TR-7</u> : Future VMT impacts are unknown and speculative at this time	Same	Same	None
TRIBAL CULTURAL RESOURCES				
Threshold 4.17-1 - Cause a substantial adverse change in the significance of a tribal cultural resource ...	<u>Impact TRIB-1</u> : Unknown tribal cultural resources could be adversely impacted by proposed construction	Same	Same	None
UTILITIES - Water Supply and Service				
Threshold 4.18.1-1 – Have insufficient water supplies available to serve the Proposed Project or Alternative 1 from existing entitlements and resources or require new or expanded entitlements	<u>Impact UTIL-1</u> : Future long-term buildout of the Proposed Project or Alternative 1 could demand water in excess of what the Airport currently has remaining in its allocation	Same	Same	None

TABLE ES-3 (Continued)				
Resource/Threshold	Proposed Project Impact	Alternative 1 (Environmentally Superior)	Alternative 2 (No “North Side” Road)	Alternative 3 (No Project)
UTILITIES - Wastewater (Sewer) Service/Treatment				
Threshold 4.18.2-3 – Require an expansion of City of Monterey sewer infrastructure, the construction of which could cause significant environmental effect	<u>Impact UTIL-2:</u> South side demand shift could cause sewer capacity issues in the short term	Same	Same	None
	<u>Impact UTIL-3:</u> In the long term, future airport projects could exceed existing City of Monterey sewer infrastructure on either side of the Airport	Same	Same	None
UTILITIES - Solid Waste Disposal				
Threshold 4.18.3-2 – Comply with federal, state, and local statutes and regulations related to solid waste	<u>Impact UTIL-3:</u> Demolition of hazardous materials would require special handling and disposal	Same	Same	None
CUMULATIVE IMPACTS				
	Impacts to: aesthetics, air quality, biological resources, cultural resources, GHG emissions, hydrology and water quality, land use and planning, noise, transportation/traffic, tribal cultural resources, and utilities and service systems (water supply)	Same	Same	Less
GROWTH INDUCEMENT				
	Growth inducement related to the proposed “north side” road and the proposed Highway 68 frontage road	Same	Less	None
<p>¹ An in-depth traffic analysis of Alternative 2 with the distribution of long-term traffic from the north side of the Airport through the CONA neighborhood would be required to fully determine the extent and significance of the impact.</p> <p>² To the extent that construction traffic could utilize Airport Road to access areas on the north side of the Airport, construction vehicular impacts within the CONA neighborhood would be greater under Alternative 2 than would occur under the Proposed Project.</p>				

ES 10.0 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION

The Proposed Project would result in Significant Unavoidable impacts with respect to:

- Potentially significant impacts to the scenic resources of Highway 68 due to grading and tree removal during construction of the proposed Highway 68 frontage road, south side drainage improvements, and long-term non-aeronautical development (Impact AES-1);

- Aesthetic impacts related to the proposed commercial terminal complex parking garage, the scale of which would be bigger than other existing buildings located a similar distance from Highway 68 (Impact AES-3);
- Potentially unmitigable impacts to Monterey pine trees (*Pinus radiata*)/Monterey pine forest, a California Native Plant Society (CNPS) Rank 1B.1 plant and Sensitive Natural Community (Impacts BIO-4, BIO-20, BIO-28, and BIO-34) (323 trees and 5.27 acres in the short-term; unknown in the long-term);
- Potentially unmitigable impacts to Yadon’s piperia (*Piperia yadonii*), a federal endangered plant (Impacts BIO-9 and BIO-25) (460 individuals in the short-term; unknown in the long-term);
- Future greenhouse gas (GHG) emissions above 2015 levels (a projected long-term increase of 15,191.7 metric tons/year (CO₂e)¹⁴ (Impact GHG-1);
- A decline in off-airport emergency response times in the short term (i.e., until a new “north side” road is constructed) (Impact HAZ-5);
- Inconsistencies with *General Plan Update for the City of Del Rey Oaks* (1997), Policies C-3 and 13 related to anticipated traffic impacts if proposed mitigation proves infeasible (Impact LU-1);
- Inconsistency with *General Plan Update for the City of Del Rey Oaks*, Policy C-17 related to the proposed “north side” road (Impact LU-2);
- Inconsistency with *City of Monterey General Plan* (2016), Policy b.4 of its Noise Element, which states, “Support limiting the number of fixed-base general aviation aircraft at the airport to the existing number.” (Impact LU-3);
- Inconsistency with *City of Monterey General Plan*, Goal j, Policy j.2, and Programs j.1.1 and j.2.3 of its Circulation Element, which establish level of service (LOS) D as an acceptable automobile LOS standard for roadway segments that are not within a multi-modal corridor and require a traffic analysis to determine appropriate mitigation and the funding of a pro-rata share toward improvements, if proposed mitigation proves infeasible (Impact LU-4);
- Inconsistency with the City of Monterey’s *Casanova-Oak Knoll Neighborhood Plan* (CONA Neighborhood Plan) (1985) goals and policies (Public Works Policies 15 and 16, and Airport Noise Policies 29, 34, and Program 34b) related to restricting the use of Airport Road for airport-related uses until the proposed “north side” road is constructed (Impact LU-5);

¹⁴ Different types of GHGs have varying global warming potentials (GWPs). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO₂) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as “carbon dioxide equivalent” (CO₂e) and is the amount of a GHG emitted multiplied by its GWP.

- Inconsistency with CONA Neighborhood Plan, Airport Noise Policy 34, which states that the neighborhood is opposed to the use of neighborhood residential streets by automobile and truck traffic going to and from the Airport and businesses on the Airport property, as Airport Road would remain in use for existing or replacement airport land uses located west of Gate V22 (Impact LU-6);
- Inconsistencies with CONA Neighborhood Plan, Noise Goals 2, 3 and 4 (Impact LU-7) (see Impact NOI-1 and NOI-2 below);
- Inconsistency with the Monterey County’s *Comprehensive Land Use Plan for Monterey Peninsula Airport*¹⁵ (1987) until the airport land use commission (ALUC) updates the CLUP consistent with the Proposed Project (Impact LU-8);
- By 2025, exterior noise levels would be above the acceptable 65 CNEL standard for one residence based on anticipated increases in aircraft operations (although this residence has been sound attenuated for interior noise impacts) (Impact NOI-1);
- By 2035, exterior noise levels would be above the acceptable 65 CNEL noise standard for four residences based on anticipated increases in aircraft operations (although these residences have been sound attenuated for interior noise impacts) (Impact NOI-2);
- Reduced ARFF response times to areas off-airport below the recommended five-minute response time until the ARFF facility is permanently located on the south side or until the proposed “north side” road is constructed (Impact PS-1);
- Project-related peak hour trips through five intersections located along Highway 68 or Highway 218 that are currently operating at unacceptable levels of service (Impact TR-1);
- Project-related peak hour trips in the long term through intersections and highway segments that are projected to operate deficiently under future conditions (Impact TR-2);
- Future impacts related to increases in vehicle miles traveled (VMT), which are unknown and speculative at this time (Impact TR-7); and
- The following cumulative impacts:
 - Impacts to the scenic viewshed and resources of Highway 68;
 - Additional criteria pollutants;
 - Yadon’s piperia, sandmat manzanita (*Arctostaphylos pumila*), Monterey spineflower (*Chorizanthe pungens*), coast live oak (*Quercus agrifolia*), and Monterey pine experience loss and on-

¹⁵ In 2011, MPAD changed the name of the Airport from Monterey Peninsula Airport to Monterey Regional Airport.

going pressure from cumulative development including, loss of habitat and habitat fragmentation, erosion/sedimentation, manmade intrusions such as light, noise and overall activity, and the introduction of nonnative invasive species;

- Additional GHG emissions;
- Policy inconsistencies with the cities of Del Rey Oaks and Monterey regarding traffic LOS and non-vehicular modes of transportation;
- Policy inconsistencies with the *City of Monterey General Plan* and CONA Neighborhood Plan regarding restricting future aircraft growth;
- Exterior noise levels that would be above the acceptable noise standards for four residences by 2035 based on anticipated increases in aircraft operations; and
- The level of potential short-term and long-term cumulative development that could occur by 2025 and by 2035, respectively, would require major improvements to the local and regional road network.

While Alternative 1 would not reduce every potentially significant impact to a Less than Significant level, it would reduce several of the Potentially Significant and Unavoidable impacts of the Proposed Project, as discussed below. It would also reduce the amount of mitigation needed for several of the Proposed Project’s biological impacts, where the impact is stated as “Less, but still Potentially Significant.”

Alternative 1 would reduce the Proposed Project’s Potentially Significant and Unavoidable impacts in the following manner:

- **Highway 68 visual impacts** - The scale of the commercial terminal parking garage under the Proposed Project would be bigger than other existing buildings located a similar distance from Highway 68 and the ability of future landscape plans along the highway to fully screen the proposed structure is not known at this time. Under Alternative 1, this proposed parking structure would be converted to a surface parking lot, reducing potential visual impacts to the Highway 68 scenic corridor.
- **Impacts to Yadon’s piperia, a federal endangered plant** - While the Proposed Project would impact as many as 460 individuals in the short term, Alternative 1 would impact 156 individuals; thus, over 300 individuals would be protected.
- **Impacts to Monterey pine trees, a CNPS Rank 1B.1 plant, and Monterey pine forest, a Sensitive Natural Community** - While the Proposed Project would impact as many as 323 trees and 5.27 acres of forest in the short term, Alternative 1 would impact 305 trees and 4.54 acres; thus 18 trees and 0.73 acres of forest would be protected.
- **Increases in greenhouse gases above 2015 levels** - The Proposed Project would provide approximately 1,271 parking spaces within the proposed relocated commercial terminal complex within two

parking garages and four surface level parking lots. This represents a substantial commitment of resources to personal vehicular travel. In contrast, Alternative 1 would provide approximately 923 parking spaces in three surface level parking lots. As California continues to move towards meeting its 2030 and 2050 GHG goals, Alternative 1 allows the Airport to be more flexible in responding to future trends in personal mobility choices.

- **Loss of trees** - The Proposed Project would remove an estimated 404 trees in the southside terminal and Highway 68 frontage road area; Alternative 1 would remove approximately 354 trees in the same area. Thus, Alternative 1 would protect an additional 50 trees in this area. This not only reduces the amount of GHG created by a loss of carbon sequestration but would reduce visual impacts along the highway.
- **Off-airport emergency response times in the short term (i.e., until a new “north side” road is constructed)** - The Proposed Project would not construct a new “north side” road until Phase 5 of the proposed short-term development resulting in a decline in off-airport emergency response times until the temporary ARFF building is no longer necessary; Alternative 1 would construct the new “north side” road in Phase 1 (short term) and would, thus, avoid a short-term decline in emergency response time for off-airport emergencies.
- **CONA Neighborhood Plan policy inconsistencies** - Alternative 1 would construct a “north side” road in the first phase of the safety enhancement component, rather than as a separate project as planned in the Proposed Project, to remove the need for additional traffic to use Airport Road, even in the short term. This would eliminate policy inconsistencies with the City of Monterey’s CONA Neighborhood Plan regarding traffic and related impacts through the CONA neighborhood (Public Works Policies 15 and 16 and Airport Noise Policy 29 and Program 34b).
- **Project-related peak hour trips to intersections currently operating at unacceptable levels of service** - While the Proposed Project would contribute peak hour trips to five intersections along Highways 68 or 218 operating deficiently, Alternative 1 would only contribute peak hour trips to two such intersections.

Tables ES-4 and ES-5 contain lists of all potentially significant impacts and required mitigation for the Proposed Project and Alternative 1, as well as the level of significance after mitigation, respectively.

TABLE ES-4 Proposed Project - Potentially Significant Impacts and Mitigation (Project-Specific and Cumulative) Proposed Monterey Regional Airport Master Plan		
Impact	Mitigation Program	Level of Significance After Mitigation
AESTHETICS Threshold 4.1-2 - Would the Proposed Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state-designated scenic highway?		
Impact AES-1: Potentially significant impacts to the scenic resources of Highway 68 could occur during temporary construction of both short- and long-term projects. These impacts would occur as a result of the Proposed Project’s grading and tree removal for the proposed Highway 68 frontage road, future non-aeronautical land uses along Highway 68, and stormwater improvements associated with south side development.	AES/mm-1 - Construction contract specifications for any phase of development where a construction laydown area/staging area will be used shall include security fencing with opaque screening around the construction sites and staging areas to block the ground-level views of the site. No removal of trees shall be allowed at the staging area. All trees removed within the 100-foot setback from Highway 68 due to construction shall be replaced within the setback at a ratio of 1:10 in keeping with City of Monterey requirements for other projects along the highway corridor. AES/rr-1 - Proposed buildings or structures in proximity to the Highway 68 scenic corridor must be placed outside a 100-foot setback from the highway right-of-way consistent with the City of Monterey General Plan, Urban Design Element Policy h-9. This setback is enforced through the City of Monterey’s development approval process for projects within its jurisdiction.	Potentially Significant and Unavoidable (Temporary)
Impact AES-2: Potentially significant impacts to the scenic resources of Highway 68 could occur during operation of both short- and long-term projects. These impacts would occur as a result of the loss of mature trees under the Proposed Project for the proposed Highway 68 frontage road, future non-aeronautical land uses along Highway 68, and stormwater improvements associated with south side development.	AES/mm-2 - Detailed landscaping plans shall be required for all aspects of the proposed short- and long-term south side projects, including proposed stormwater improvements and the proposed Highway 68 frontage road, to ensure that adequate vegetative screening is provided to preserve the existing scenic quality of the associated segment of Highway 68. The landscaping plans shall include native species, protecting existing cypress, Monterey pine, and coast live oak trees to the extent possible, and use trees to screen parking, where appropriate. Detailed landscaping plans for development within or adjacent to the 100-foot setback from Highway 68 within the City of Monterey zoned areas shall include the following additional provision: All trees removed within the 100-foot setback from Highway 68 shall be replaced within the setback at a ratio of 1:10 in keeping with City of Monterey requirements for other projects along the highway corridor. AES/rr-1 - Proposed buildings or structures in proximity to the Highway 68 scenic corridor must be placed outside a 100-foot setback from the highway right-of-way consistent with the City of Monterey General Plan, Urban Design Element Policy h-9. This setback is enforced through the City of Monterey’s development approval process for projects within its jurisdiction.	Less than Significant

TABLE ES-4 (Continued)

Threshold 4.1-3 - Would the Proposed Project substantially degrade the existing visual character or quality of the site and its surroundings?		
<p>Impact AES-3: The scale of the commercial terminal parking garage under the Proposed Project would be bigger than other existing buildings located a similar distance from Highway 68. Since the ability of future landscape plans along the highway to fully screen the proposed structure is not known at this time, impacts related to the proposed parking garage per Threshold 4.1-3 are Potentially Significant.</p>	<p>AES/mm-2 - Detailed landscaping plans shall be required for all aspects of the proposed short- and long-term south side projects, including proposed stormwater improvements and the proposed Highway 68 frontage road, to ensure that adequate vegetative screening is provided to preserve the existing scenic quality of the associated segment of Highway 68. The landscaping plans shall include native species, protecting existing cypress, Monterey pine, and coast live oak trees to the extent possible, and use trees to screen parking, where appropriate.</p> <p>Detailed landscaping plans for development within or adjacent to the 100-foot setback from Highway 68 within the City of Monterey zoned areas shall include the following additional provision: All trees removed within the 100-foot setback from Highway 68 shall be replaced within the setback at a ratio of 1:10 in keeping with City of Monterey requirements for other projects along the highway corridor.</p> <p>AES/mm-3 - For buildings and structures visible from the highway, architectural treatments and/or other building design features shall be incorporated so that the scenic values of the highway are not substantially damaged. Input from the California Department of Transportation and the City of Monterey regarding consistency with their scenic corridor policies shall be considered in the preparation of the landscape and site development plans. For development within the City of Monterey, the plans shall be provided to the City’s Architectural Review Board, along with any other required architectural renderings or site plans, for approval.</p> <p>AES/rr-2 - All development located within the City of Monterey’s D2 Development Control overlay district will require Architectural Review Committee approval. This design control is enforced through the City of Monterey’s development approval process for projects within its jurisdiction.</p> <p>AES/rr-3 - All new light sources and potential glare sources would have to comply with Part 77 regulations, as enforced by FAA, including the installation of solar panels, types of lights and intensity of lighting and night/day lighting combinations. FAA also requires a glint and glare study on solar panels located within the line-of-sight of a runway approach or an ATCT, as well as for other projects on a case-by-case basis.</p> <p>AES/rr-4 - Prior to issuance of any building permit, the contractor shall file a Notice of Proposed Construction or Alternation (FAA Form 7460-1) with the FAA regional office that will show compliance with the Part 77 regulation, as it relates to building or structure heights, markings, lighting, or other standards. The FAA’s Determination of No Hazard shall be submitted to MPAD prior to the start of construction.</p>	<p>Potentially Significant and Unavoidable</p>

TABLE ES-4 (Continued)		
Cumulative Impacts		
Potentially significant cumulative impacts to the scenic resources of Highway 68 could occur.	See AES/mm-1 through AES/mm-3 and AES/rr-1 and AES/rr-2 above for Impacts AES-1 through AES-3.	Potentially Significant and Unavoidable
AIR QUALITY		
Cumulative Impacts		
Additional criteria pollutants would be generated.	<p>AQ/rr-1 - The Airport shall implement a dust control plan that includes the following, as stipulated in FAA AC 150/5370-10G, <i>Standards for Specifying Construction of Airports</i>, Item P-156 (FAA 2014b) and the MBARD <i>CEQA Air Quality Guidelines</i> (MBARD 2008):</p> <ol style="list-style-type: none"> 1. Limit the area under construction at any one time. 2. Water all active construction areas at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure. 3. Cover all trucks hauling soil, sand, and other loose materials off property with tarpaulins or other effective covers. 4. Pave all roads on construction sites, if possible, and water all unpaved roads and construction haul routes to minimize dust during construction operations. 5. Limit traffic speeds along all unpaved haul routes to 15 miles per hour (mph). 6. Prohibit all grading activities during periods of high wind (over 15 mph). 7. Keep loader buckets low when transferring material to trucks. 8. Maintain at least 2 feet of freeboard on haul trucks. 9. Limit entering/exiting site to controlled areas to avoid track out. 10. Cover inactive storage piles. 11. Minimize the area of exposed erodible earth. 12. Apply temporary mulch or non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydro seed area with or without seeding, where applicable. 13. Plant vegetative ground cover in disturbed areas as soon as possible. 14. Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days). 15. Install wheel washers at the entrance to construction sites for all exiting trucks. 16. Sweep streets if visible soil material is carried out from the construction site. 17. Post a publicly visible sign which specifies the telephone number and person to contact regarding dust complaints. This person shall respond to complaints and take corrective action within 48 hours. The phone number of the MBARD shall be visible to ensure compliance with Rule 402 (Nuisance). 	Potentially Significant and Unavoidable

TABLE ES-4 (Continued)		
	<p>AQ/rr-2: In accordance with CARB’s In-Use Off Road Diesel Fueled Fleets Regulation (2016), the following measures for construction vehicles and/or equipment shall be implemented:</p> <ol style="list-style-type: none"> 1. Construction vehicles will use a CARB Tier 3 engine when available in the region; 2. Vehicle operators will limit idling to no more than five minutes; and, 3. All diesel equipment used for the project shall meet State of California diesel equipment requirements and be registered through the Statewide Portable Equipment Registration Program or the Diesel Off Road Online Reporting System. <p>See also TR/mm-6 and TR/mm-10 below under Impact TR-3 and TR-7, respectively.</p>	
BIOLOGICAL RESOURCES		
Threshold 4.4-1 - Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFW or the USFWS		
Construction Impacts		
<p>Impact BIO-1: Potential take of California legless lizard (SSC) under the Proposed Project is considered Potentially Significant per Threshold 4.4-1.</p>	<p>BIO/mm-1 - Within 30 days prior to site grading, an environmental monitor shall conduct surveys for California legless lizards and other reptiles. The surveyor shall utilize hand search or cover board methods in areas of disturbance where legless lizards are expected to be found (e.g., under shrubs, other vegetation, or debris). If cover board methods are used, they shall commence at least 30 days prior to the start of construction. If hand search methods are used, the surveys shall be completed immediately prior to and during grading activities. The surveyor shall capture and relocate any legless lizards or other reptiles observed during the survey effort. The captured individuals shall be relocated from the construction area(s) and placed in suitable habitat on the airport property.</p>	Less than Significant
<p>Impact BIO-2: Potential impacts to nesting birds (protected under the MBTA and CFGC) under the Proposed Project are considered Potentially Significant per Threshold 4.4-1.</p>	<p>BIO/mm-2 - To the maximum extent possible, initial vegetation-clearing activities in the project areas shall be conducted between October and February, which is outside of the typical bird breeding season. If the project schedule does not provide for late season vegetation removal, a nesting bird survey shall be conducted by a qualified biologist no more than one week prior to the land clearing to determine presence/absence of nesting birds within the vegetated area. If active nests are observed, work activities shall be avoided within 100 feet of the active nest(s) until young birds have fledged and left the nest. The nests shall be monitored weekly by a biologist having experience with nesting birds to determine when the nest(s) become inactive. The buffer may be reduced but not eliminated during active nesting if deemed appropriate by the biologist. Readily visible exclusion zones shall be established in areas where nests must be avoided. The Airport and the appropriate regulatory agency shall be contacted if any state or federally listed bird species are observed during surveys. Nests, eggs, or young of birds covered by the MBTA and CFGC shall not be moved or disturbed until the young have fledged.</p>	Less than Significant

TABLE ES-4 (Continued)

Short-Term Project Impacts

<p>Impact BIO-3: The anticipated loss of 1,518 sandmat manzanita (CNPS Rank 1B.2) under the Proposed Project is considered Potentially Significant per Threshold 4.4-1.</p>	<p>BIO/mm-3 - The Project Sponsor shall propagate, plant, and maintain at least 3,036 sandmat manzanita container plants. The sandmat manzanita container plants may be installed in the temporary disturbance areas and/or landscaping of the Proposed Project “north side” road, onsite Conservation Area 4 (Exhibit 4.4D), or the offsite conservation lands (refer to BIO/mm-29 through BIO/mm-31 of Threshold 4.4-2 and Exhibit 4.4D) as appropriate. The sandmat manzanita container plants shall be monitored and maintained for seven years following their installation. In order for the sandmat manzanita replacement mitigation to be considered successful, at least 3,036 replacement sandmat manzanita plants must be self-sustaining by the end of the seven-year monitoring program.</p>	<p>Less than Significant</p>
<p>Impact BIO-4: The anticipated loss of 323 Monterey pine (CNPS Rank 1B.1) under the Proposed Project is considered Potentially Significant per Threshold 4.4-1.</p>	<p>BIO/mm-4 - Prior to construction of any Proposed Project component that would remove Monterey pine trees, the Airport shall establish 1.0 acre of Monterey pine forest conservation space on the north side of the airport property. The Airport shall plant up to 25 Monterey pine trees in the conservation space. The 1.0 acre of Monterey pine forest conservation space shall be managed under a HCEP as described in BIO/mm-26 (Threshold 4.4-2).</p>	<p>Potentially Significant and Unavoidable</p>
<p>Impact BIO-5: The anticipated loss of eight Eastwood’s goldenbush (CNPS Rank 1B.1) under the Proposed Project is considered Potentially Significant per Threshold 4.4-1.</p>	<p>BIO/mm-5 - Prior to any site disturbances, the Project Sponsor shall retain a qualified biologist and/or horticulturalist to collect a sufficient amount of Eastwood’s goldenbush seed from individuals on the airport property to propagate a minimum of 16 Eastwood’s goldenbush container plants. The propagated materials shall be planted and maintained in Conservation Area 4 (Exhibit 4.4D).</p>	<p>Less than Significant</p>
<p>Impact BIO-6: The anticipated loss of 18 Monterey ceanothus (CNPS Rank 4.2) under the Proposed Project is considered Potentially Significant based on CNPS recommendations per Threshold 4.4-1.</p>	<p>BIO/mm-6 - Prior to any site disturbances, the Project Sponsor shall retain a qualified biologist and/or horticulturalist to collect a sufficient amount of Monterey ceanothus seed from individuals on the airport property to propagate a minimum of 36 Monterey ceanothus container plants. The propagated materials shall be planted and maintained in Conservation Area 4 (Exhibit 4.4D).</p>	<p>Less than Significant</p>
<p>Impact BIO-7: The anticipated loss of 49 small-leaved lomatium (CNPS Rank 4.2) under the Proposed Project is considered Potentially Significant based on CNPS recommendations per Threshold 4.4-1.</p>	<p>BIO/mm-7 - To minimize impacts to small-leaved lomatium and promote the continued existence of the species on the airport property, the Project Sponsor shall implement a soil and seed bank conservation program that will include small-leaved lomatium seed and top soil collection and distribution.</p> <p>Small-leaved lomatium shall be conserved in Conservation Area 4 by broadcast seeding and relocating the soil seed bank. Seed to be broadcast shall be collected from the project areas prior to start of construction. This species flowers from January through June; therefore, seed collection shall begin in May and continue through September, or when seed production ceases. To the extent feasible, all available seed shall be collected from plants located in the project disturbance areas.</p> <p>Soil from the project disturbance areas containing small-leaved lomatium seed shall be collected and reapplied. To accomplish this, the upper six inches of soil located within the vicinity of existing small-leaved lomatium individuals shall be collected and redistributed prior to grading activities. Soil collection shall occur immediately following completion of seed collection and prior to the first rainfall. The collected soil shall be immediately distributed in the disturbance areas. The collected seed shall be broadcast over the relocated soil, and then the receptor site shall be lightly raked to cover the seed.</p>	<p>Less than Significant</p>

TABLE ES-4 (Continued)		
<p>Impact BIO-8: The anticipated loss of 539 Monterey spineflower (federally endangered and CNPS Rank 1B.2) and the attendant seed bank (i.e., occupied habitat) under the Proposed Project is considered Potentially Significant per Threshold 4.4-1.</p>	<p>BIO/mm-8 - To minimize Monterey spineflower impacts and promote the continued existence of the species on the airport property, the Project Sponsor shall implement a soil and seed bank conservation program that shall include Monterey spineflower seed and top soil collection and distribution.</p> <p>Monterey spineflower shall be conserved in the temporarily impacted portions of the Proposed Project disturbance areas by broadcast seeding and relocating the soil seed bank. Seed to be broadcast shall be collected from the project areas prior to the start of construction. All seed collection activities shall be conducted by a USFWS-approved biologist. This species flowers from April through June; therefore, seed collection shall begin in August and continue through September, or when seed production ceases. To the extent feasible, all available seed shall be collected from plants located in the project disturbance areas.</p> <p>Soil from the project disturbance areas containing Monterey spineflower seed shall be collected and reapplied. To accomplish this, the upper six inches of soil located within the vicinity of existing Monterey spineflower individuals shall be collected and redistributed prior to grading activities. Soil collection shall occur immediately following completion of seed collection and prior to the first rainfall. The collected soil shall be immediately distributed in the disturbance areas that do not have existing Monterey spineflower occurrences. The collected seed shall be broadcast over the relocated soil, and then the receptor site shall be lightly raked to cover the seed.</p>	<p>Less than Significant</p>
<p>Impact BIO-9: The anticipated loss of 460 Yadon’s piperia (federally endangered and CNPS Rank 1B.1) under the Proposed Project is considered Potentially Significant per Threshold 4.4-1.</p>	<p>BIO/mm-9 - Yadon’s piperia located on the Airport in the vicinity of the Highway 68 frontage road loop and the adjacent 5.5-acre private property boundary shall be removed and implementation of BIO/mm-8 would be necessary in this location.</p> <p>The Highway 68 frontage road and terminal loop road shall be designed to be constructed on the existing asphalt to avoid impacts to the Yadon’s piperia that are located on the Airport and the adjacent 5.5-acre private property boundary. Prior to construction of the terminal parking garage and circulation road(s), the construction plans shall clearly show the placement of construction exclusion fence along the toe of slope on both the Airport and the adjacent 5.5-acre private property boundary. The intent of the fence is to exclude the Yadon’s piperia occurrences from accidental disturbance during construction. The fence shall be maintained in place throughout the construction period.</p> <p>BIO/mm-10 - To minimize the impacts to Yadon’s piperia, the Project Sponsor shall retain a qualified biologist to design and implement a five-year Yadon’s piperia seed and bulb collection and translocation program. The seed and bulb translocation program shall be prepared and approved for implementation by the Project Sponsor in the two years prior to construction of any Proposed Project component that would impact Yadon’s piperia, including but not limited to construction of the relocated terminal and associated aircraft ramp and the Highway 68 frontage road. The Yadon’s piperia seed and bulb collection and translocation program shall include the following:</p>	<p>Potentially Significant and Unavoidable</p>

TABLE ES-4 (Continued)

	<ul style="list-style-type: none"> • Detailed methods and a schedule for the collection and distribution of Yadon’s piperia seed and the translocation of Yadon’s piperia bulbs of individuals that are in the construction area(s). <ul style="list-style-type: none"> – During the flowering/blooming period for Yadon’s piperia (anticipated to be May-July) and in the year prior to project construction, a qualified biologist shall mark with pin flags individual Yadon’s piperia plants that will be impacted by the project construction. – During the time that the marked Yadon’s piperia are setting seed (anticipated to be between August-September), the biologist shall collect seed from the marked individuals. The collected seed shall be redistributed in a predetermined seed and bulb receiver site that is located adjacent to but outside of the disturbance area. Due to mycorrhizal associations, the seed and bulb receiver site must be near existing Yadon’s piperia individuals. <ul style="list-style-type: none"> ▪ Prior to distributing the collected seed in the receiver site, the receiver site shall be cleared of non-native vegetation. ▪ Once the seed receiver site is prepared, the biologist shall hand broadcast the seed in the receiver site, gently rake the seed into the duff/soil surface and cover the seed with pine needle duff. ▪ The seed and bulb receiver site and nearby Yadon’s piperia occurrences shall be fenced during construction to exclude the area from accidental damages during construction activities. • Prior to construction and when plants are dormant (anticipated to be October-December), the biologist shall excavate and relocate bulbs of the marked plants to the seed and bulb receiver site. The bulbs shall be planted approximately six inches below the soil surface. • Following completion of the seed and bulb relocation efforts, the biologist shall monitor the receiver site for four consecutive years. The goal of the monitoring shall be to quantify and document the number of individuals that emerged in the receiver site, the presence of non-native vegetation, and overall success of the translocation efforts. <p>Non-native vegetation removal must be conducted during the monitoring program. Non-native vegetation removal may not utilize translocated herbicides due to root to tuber/bulb transfer.</p>	
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TABLE ES-4 (Continued)		
<p>Impact BIO-10: Although the Proposed Project has been designed to avoid known Seaside bird’s beak (state endangered and CNPS Rank 1B.1), this plant is an annual species and its numbers and exact location can fluctuate. Thus, losses of the species could still occur. This is considered Potentially Significant per Threshold 4.4-1.</p>	<p>BIO/mm-11 - To account for Seaside bird’s beak seasonal population fluctuations and facilitate species avoidance, the Project Sponsor shall conduct annual surveys for Seaside bird’s beak in the Airport-owned parcel located between two adjacent private properties along Highway 68. The annual Seaside bird’s beak survey shall be conducted in June, July, or August of each year preceding the final design and development of the chosen Highway 68 frontage road alignment. The intent of the annual survey effort is to collect GPS data on the species’ distribution and develop a multi-season assessment of the quantity and distribution of the Seaside bird’s beak occurrences near the Highway 68 frontage road alignment. The annual survey GPS data shall be provided to the Airport so that the project design team can use the survey data during the development of the final design plans to align the proposed road in such a manner that avoids impacts to the Seaside bird’s beak.</p> <p>If full avoidance of the Seaside bird’s beak is feasible, the project contractors, under the direction of an environmental monitor, shall install construction exclusion fencing around the occurrences to exclude construction related disturbances from the area. If the design team determines that full avoidance of the species is not feasible, the Project Sponsor shall delay construction of the Highway 68 frontage road until they have coordinated with the CDFW to obtain a CESA 2081-Incidental Take Permit.</p>	<p>Less than Significant</p>
<p>Long-Term Project Impacts (Programmatic)</p>		
<p>Impact BIO-19: Any future loss of sandmat manzanita (CNPS Rank 1B.2) under either the Proposed Project is considered Potentially Significant per Threshold 4.4-1.</p>	<p>BIO/mm-21 - Prior to approving any proposed long-term projects on undeveloped lands at the Airport, the Project Sponsor shall retain a qualified biologist to conduct floristic botanical surveys and wildlife surveys in future project area(s) and prepare a Biological Resources Survey Report (BRSR). The surveys and subsequent BRSR shall determine if special-status species occur in the development area(s) and if special-status species would be impacted by proposed long-term project(s). If impacts to special-status species would occur, the biologist and the Project Sponsor shall develop mitigation strategies to address the impacts.</p> <p>The following recommendations for mitigation ratios/strategies for some plants known to occur in the development areas may be applied to proposed long-term project(s):</p> <ul style="list-style-type: none"> • Seaside bird's beak. The Project Sponsor shall coordinate with CDFW to obtain a 2081-Incidental Take Permit under the CESA. Under the 2081-Incidental Take Permit, mitigation ratios for Seaside bird's beak may require purchasing replacement habitat that is occupied by the species and conducting rehabilitation efforts on the replacement land. • Yadon's piperia. For proposed long-term projects with a federal nexus, the Project Sponsor shall coordinate with FAA and USFWS during the FESA, Section 7 process. Mitigation may require the Project Sponsor to implement minimization and conservation measures that relocate the individuals to be impacted. If these efforts fail or are deemed insufficient by USFWS, purchasing replacement habitat that is occupied by the species and conducting rehabilitation efforts on the replacement land may be required. 	<p>Less than Significant</p>

TABLE ES-4 (Continued)		
	<ul style="list-style-type: none"> – For projects that do not have a federal nexus, the Project Sponsor shall implement BIO/mm-10. • <u>Monterey spineflower</u>. For proposed long-term projects with a federal nexus, the Project Sponsor shall coordinate with the FAA and USFWS during the FESA, Section 7 process. Mitigation may require the Project Sponsor to implement minimization and conservation measures that involve seed and seed bank collection and redistribution on the airport property. – For projects that do not have a federal nexus, the Project Sponsor shall implement BIO/mm-8. • <u>CNPS Rare Plant Ranked 1, 2, and 3 species</u>. For each CNPS Rare Plant Ranked 1, 2, and 3 species (excluding Monterey pine) impacted by a proposed long-term project(s), the Project Sponsor shall plant two container plants of the same species for each one plant impacted (2:1). The replacement plantings shall be planted in any of the four onsite conservation areas or an established offsite conservation area. The replacement plantings shall be monitored and maintained for no less than five years. • <u>CNPS Rare Plant Ranked 4 species</u>. For each CNPS Rare Plant Ranked 4 species impacted by a proposed long-term project(s), the Project Sponsor shall: <ul style="list-style-type: none"> – For annual species, collect seed prior to project disturbance and redistribute the collected seed in suitable habitat in the project area following completion of disturbance. <p>For perennial species, propagate and plant one (1) container plant of the same species for each on plant impacted (1:1). The container plants shall be planted in any of the four onsite conservation areas or an established offsite conservation area. The replacement plantings shall be monitored and maintained for no less than three years.</p>	
Impact BIO-20: Any future loss of Monterey pine (CNPS Rank 1B.1) under either the Proposed Project is considered Potentially Significant per Threshold 4.4-1.	BIO/mm-21 - See above for Impact BIO-19.	Potentially Significant and Unavoidable
Impact BIO-21: Any future loss of Eastwood’s goldenbush (CNPS Rank 1B.1) under the Proposed Project is considered Potentially Significant per Threshold 4.4-1.	BIO/mm-21 - See above for Impact BIO-19.	Less than Significant
Impact BIO-22: Any future loss of Monterey ceonothus (CNPS Rank 4.2) under the Proposed Project is considered Potentially Significant based on CNPS recommendations per Threshold 4.4-1.	BIO/mm-21 - See above for Impact BIO-19.	Less than Significant

TABLE ES-4 (Continued)		
Impact BIO-23: Any future loss of small-leaved lomatium (CNPS Rank 4.2) under the Proposed Project is considered Potentially Significant based on CNPS recommendations per Threshold 4.4-1.	BIO/mm-21 - See above for Impact BIO-19.	Less than Significant
Impact BIO-24: Any future loss of Monterey spineflower (federally endangered and CNPS Rank 1B.2) and its attendant seed bank (i.e., occupied habitat) under the Proposed Project is considered Potentially Significant per Threshold 4.4-1.	BIO/mm-21 - See above for Impact BIO-19.	Less than Significant
Impact BIO-25: Any future loss of Yadon’s piperia (federally endangered and CNPS Rank 1B.1) under the Proposed Project is considered Potentially Significant per Threshold 4.4-1.	BIO/mm-21 - See above for Impact BIO-19.	Potentially Significant and Unavoidable
Impact BIO-26: Any future loss of Seaside bird’s beak (state endangered and CNPS Rank 1B.1) under the Proposed Project is considered Potentially Significant per Threshold 4.4-1.	BIO/mm-21 - See above for Impact BIO-19.	Less than Significant
Threshold 4.4-2 - Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS		
Construction and Short-Term Project Impacts		
Impact BIO-27: A loss of 4.21 acres of sandmat manzanita chaparral under the Proposed Project is considered Potentially Significant per Threshold 4.4-2.	<p>BIO/mm-22 - Prior to ground disturbance, the Project Sponsor shall retain an environmental monitor for all measures requiring environmental mitigation to ensure compliance with the EIR mitigation measures. The monitor shall be responsible for:</p> <ol style="list-style-type: none"> 1. Ensuring that procedures for verifying compliance with environmental mitigations are implemented; 2. Establishing lines of communication and reporting methods; 3. Conducting daily and weekly compliance reporting; 4. Conducting construction crew training regarding environmentally sensitive areas; 5. Maintaining authority to stop work; and 6. Outlining actions to be taken in the event of non-compliance. Monitoring shall be at a frequency and duration determined by the Project Sponsor and in consultation with the affected natural resource agencies (e.g., CDFW and USFWS). <p>BIO/mm-23 - All proposed grading plans shall clearly show the location of project delineation fencing that excludes adjacent sensitive communities from disturbance. The fencing shall consist of highly visible construction fence supported by steel T-stakes that are driven into the soil. The monitoring biologist shall field-fit the placement of the project delineation fencing to minimize impacts to adjacent communities and other sensitive resources. The project delineation fencing shall remain in place and functional throughout the duration of the project and no work activities shall occur outside the delineated work area. The grading plans shall clearly show all staging areas, which shall be located within the construction area and outside the adjacent habitat areas.</p>	Less than Significant

TABLE ES-4 (Continued)

	<p>BIO/mm-24 - Prior to the commencement of site grading, an environmental monitor shall conduct environmental awareness training for all construction personnel. The environmental awareness training shall include discussions of the special communities and special-status species that occur in the project area. Topics of discussion shall include:</p> <ol style="list-style-type: none"> 1. Description of the species’ habitats; general provisions and protections afforded by the FESA and CEQA; 2. Measures implemented to protect special-status species; 3. Review of the project boundaries and special conditions; 4. The monitor’s role in project activities; 5. Lines of communication; and 6. Procedures to be implemented in the event a special-status species is observed in the work area. <p>BIO/mm-25 - The Project Sponsor shall prepare a detailed erosion control plan, which shall address both temporary and permanent measures to control erosion. Erosion and soil protection shall be provided on all cut and fill slopes and the soil deposition areas. The erosion control plan shall include revegetation measures including mulching, hydro-seeding, or planting methods as appropriate. All permanent erosion control measures shall be initiated as soon as possible after completion of grading, and prior to the onset of the rainy season (October 15). Permanent revegetation and landscaping shall emphasize native shrubs and trees to improve the probability of slope and soil stabilization without adverse impacts to slope stability due to irrigation infiltration and long-term root development. Vegetation shall be watered regularly to ensure adequate root establishment.</p> <p>BIO/mm-26 - Prior to implementation of any Proposed Project project, the Project Sponsor shall prepare a HCEP that designates an 18.86-acre conservation area (Conservation Area 4) along the Airport’s northern property boundary as Open Space on the ALP. The HCEP shall provide for the conservation and management of approximately 11.92 acres of coast live oak woodland, 5.92 acres of sandmat manzanita chaparral, and 1.0 acre of Monterey pine forest habitats. Exhibit 4.4D shows the location of Conservation Area 4 and its associated habitat types.</p> <p>Future activities in Conservation Area 4 shall be limited to preserving and rehabilitating the coast live oak woodland, sandmat manzanita, Monterey pine forest, and special-status plant species that occur in the conservation area. Habitat rehabilitation activities shall focus on invasive species removal; planting native coast live oak woodland, sandmat manzanita chaparral, and Monterey pine forest associates; and augmenting the native rare plant species populations.</p> <p>The HCEP shall be prepared by a qualified biologist and/or botanist and shall detail the methods for managing the conservation area. At a minimum, the HCEP should include the following elements:</p>	
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TABLE ES-4 (Continued)

	<ol style="list-style-type: none"> 1. A brief narrative of the project location, description, and purpose; 2. Clearly identify the parties responsible for the conservation program and their contact information; 3. A map showing and quantifying all conservation areas; 4. Designation of a Monterey spineflower seed and soil receiver site; 5. Detailed discussion of the methods for implementing the HCEP including invasive species removal, sources of plant materials, and supplemental watering regimes; 6. Methods for the identification and removal of diseased or dead trees. 7. Detailed discussions of a special-status plant species propagation program. Special-status plant propagules shall be collected from the disturbance areas, grown, and reintroduced into the conservation areas; 8. Identification of locations, amounts, sizes, and types of plants to be planted, inclusive of at least 100 coast live oak trees, 2,000 sandmat manzanita container plants, and 25 Monterey pine trees. 9. Identification of necessary components (e.g., temporary irrigation, amendments, etc.) to ensure successful plant reestablishment; 10. A program schedule and established success criteria for a seven-year monitoring and reporting program that is structured to ensure the success of the HCEP. 11. Detailed discussions of the methods to be employed for implementing all additional habitat conservation requirements put forth by the USFWS and CDFW as appropriate. <p>BIO/mm-27 - The Project Sponsor shall retain a qualified biologist/botanist to supervise and monitor the implementation of the HCEP. The biologist/botanist shall supervise plant propagation, site preparation, implementation timing, species utilized, planting installation, maintenance, monitoring, and reporting of the habitat rehabilitation efforts. The biologist/botanist shall prepare and submit six annual reports and one final monitoring report to the Airport and other agencies as appropriate. The annual and final monitoring reports shall include discussions of the project activities, project photographs, and an assessment of the mitigation efforts' attainment of the success criteria.</p> <p>BIO/mm-28 - The Project Sponsor shall include in the Proposed Project design plans the installation of a water supply and irrigation system. The system will supply water for temporary irrigation that will be used to provide supplemental water to Conservation Area 4. The water supply and temporary irrigation system shall be installed as part of the short-term project development and prior to the installation of planting installation.</p>	
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TABLE ES-4 (Continued)

	<p>BIO/mm-29 - The Project Sponsor shall implement an offsite habitat conservation program that benefits local flora and fauna with emphasis on coast live oak woodland, maritime chaparral, and rare plant conservation. The conservation program shall be implemented on lands in the coastal Monterey area, preferably near the Airport. The Project Sponsor is currently pursuing conservation lands located just east of the Airport that supports approximately 1.04 acres of annual brome grasslands, 2.55 acres of coast live oak woodland, 4.01 acres of arroyo willow thicket, 3.41 acres of chamise chaparral, and 4.08 acres of woolly leaf manzanita chaparral. Exhibit 4.4D shows the location of the potential offsite conservation lands. The potential conservation lands are located adjacent to an existing Native Rare Plant Reserve that was established by USACE's <i>Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord</i> (1997). Should the acquisition of the potential conservation lands not be completed, the Project Sponsor shall pursue the acquisition of other lands that support or has the potential to support coast live oak woodland and maritime chaparral communities. Once the offsite conservation lands are secured, the Project Sponsor shall place the lands under a conservation easement in perpetuity.</p> <p>BIO/mm-30 - Upon acquisition of the offsite conservation lands, the Project Sponsor shall conduct a biological inventory of the conservation lands that includes floristic botanical surveys and wildlife surveys as appropriate. The intent of the biological inventory is to identify and quantify the resources present on the conserved lands and provide a baseline for the implementation of a resource-focused conservation program.</p> <p>BIO/mm-31 - The Project Sponsor shall prepare and implement a conservation program on the conserved lands. The conservation program shall utilize the biological inventory to develop management actions that focus on conserving, rehabilitating, and/or enhancing the biological resources present. At a minimum, the conservation program shall include:</p> <ol style="list-style-type: none"> 1. A brief narrative of the conservation lands' location, description, and purpose; 2. Clearly identify the parties responsible for the conservation program and their contact information; 3. Maps showing and quantifying all conservation areas, habitats, invasive species, native rare species, and suitable rehabilitation areas; 4. Identification of suitable habitat rehabilitation plant species including rare plants to be installed for mitigation for future projects proposed by the Project Sponsor. 5. Detailed discussion of the methods for implementing the conservation program including invasive species removal, installation and maintenance of plant materials, and supplemental watering regimes; 6. Methods for the identification and removal of diseased or dead trees, as needed. 7. Detailed discussions of a special-status plant species management; 8. Identification of necessary components (e.g., temporary irrigation, amendments, etc.) to ensure successful plant reestablishment; 9. A program schedule for a seven-year monitoring and reporting program that is structured to ensure the successful management of the conserved lands. 	
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TABLE ES-4 (Continued)		
<p>Impact BIO-28: A loss of 5.27 acres of Monterey pine forest under the Proposed Project is considered Potentially Significant per Threshold 4.4-2.</p>	<p>BIO/mm-22 through BIO/mm-31 - See above for Impact BIO-27.</p>	<p>Potentially Significant and Unavoidable</p>
<p>Impact BIO-29: A loss of 4.83 acres of coast live oak woodland (705 trees) under the Proposed Project is considered Potentially Significant per Threshold 4.4-2.</p>	<p>BIO/mm-22 through BIO/mm-31 - See above for Impact BIO-27.</p>	<p>Less than Significant</p>
<p>Construction and Long-Term Project Impacts (Programmatic)</p>		
<p>Impact BIO-33: Any future loss of sandmat manzanita chaparral under the Proposed Project is considered Potentially Significant per Threshold 4.4-2.</p>	<p>BIO/mm-32 - Prior to approving any proposed long-term project in the proposed non-aviation development areas or the upgraded perimeter fence alignment that would convert undeveloped lands to developed areas or otherwise remove vegetation, the Project Sponsor shall retain a qualified biologist to map and quantify the vegetative communities that are present in the project area and determine if the project would result in a net loss of sandmat manzanita chaparral, Monterey pine forest, and/or coast live oak woodland.</p> <ul style="list-style-type: none"> • If a net loss of sandmat manzanita chaparral would occur, the Project Sponsor shall preserve and rehabilitate, re-establish, or create additional sandmat manzanita chaparral at a 2:1 ratio. The preserved sandmat manzanita chaparral may be located on the existing airport property or offsite, as appropriate. • If a net loss of coast live oak woodlands would occur, the Project Sponsor shall conduct one or a combination of the following: <ul style="list-style-type: none"> – Preserve and rehabilitate, re-establish, or create additional coast live oak woodland at a 2:1 ratio. The preserved coast live oak woodland may be located on the existing airport property or offsite, as appropriate. – Plant two coast live oak trees for each one coast live oak tree removed. Replacement trees may be planted on the existing airport property or offsite, as appropriate. Replacement trees should be grown from local (Monterey Peninsula) stock. – Contribute \$1,000 to the Oak Woodlands Conservation Fund, as established under subdivision (a) of Section 1363 of the CFGC per each coast live oak tree removed for the project. The Project Sponsor shall coordinate with the CDFW and the State Wildlife Conservation Board (SWCB) to ensure that the contributed funds will be granted to the SWCB for the purpose of purchasing coast live oak woodland conservation easements. • If proposed long-term project(s) would impact Monterey pine forest, the Project Sponsor shall design the project(s) to minimize the impact to the greatest extent possible. If Monterey pine trees will be removed for proposed long-term project(s), the Project Sponsor shall incorporate Monterey Pine trees into the project design, in such a manner that does not conflict with safe flight operations at the Airport. 	<p>Less than Significant</p>

TABLE ES-4 (Continued)

	<ul style="list-style-type: none"> • For any proposed long-term project that results in a net loss of sandmat manzanita chaparral or coast live oak woodland that shall be mitigated through the preservation and rehabilitation, re-establishment, or creation of habitat, the Project Sponsor shall develop a project specific habitat mitigation and monitoring plan (HMMP). The HMMP shall: <ol style="list-style-type: none"> 1. Identify the project description and mitigation requirements; 2. Identify the responsible parties; 3. Map and quantify all preservation/mitigation areas; 4. Provide detailed discussions of the methods for implementing the mitigation program including invasive species removal, sources of plant materials, and supplemental watering regimes; 5. Identify the locations, amounts, sizes, and types of plants to be planted; 6. Identify necessary components (e.g., temporary irrigation, amendments, etc.) to ensure successful plant reestablishment; 7. Provide a program schedule and established success criteria for a monitoring and reporting program that is structured to ensure the success of the mitigation. <p>BIO/mm-33 - For any proposed long-term project that has potential to impact a sensitive natural community or a special-status species, the Project Sponsor shall retain an environmental monitor for all measures requiring environmental mitigation to ensure compliance with the CEQA measures. The monitor shall be responsible for:</p> <ol style="list-style-type: none"> 1. Ensuring that procedures for verifying compliance with environmental mitigations are implemented; 2. Establishing lines of communication and reporting methods; 3. Conducting compliance reporting; 4. Conducting construction crew training regarding environmentally sensitive areas; 5. Maintaining authority to stop work; and 6. Outlining actions to be taken in the event of non-compliance. <p>BIO/mm-34 - For any proposed long-term project that has potential to impact a sensitive natural community or will be conducted adjacent to a sensitive natural community, the Project Sponsor shall incorporate the use of construction delineation fencing to exclude construction-related impacts to the adjacent resources. The monitoring biologist shall field-fit the placement of the project delineation fencing to minimize impacts to adjacent communities and other sensitive resources. The project delineation fencing shall remain in place and functional throughout the duration of the project, and no work activities shall occur outside the delineated work area.</p>	
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TABLE ES-4 (Continued)		
	<p>BIO/mm-35 - For any proposed long-term project that has potential to impact a sensitive natural community or a special-status species, an environmental monitor shall conduct environmental awareness training for all construction personnel prior to the commencement of ground-disturbing activities. The environmental awareness training shall include discussions of the special communities and special-status species that occur in the project area. Topics of discussion shall include:</p> <ol style="list-style-type: none"> 1. Description of the species' habitats; 2. General provisions and protections afforded by the FESA and CEQA; 3. Measures implemented to protect special-status species; 4. Review of the project boundaries and special conditions; 5. The monitor's role in project activities; 6. Lines of communication; and <p>Procedures to be implemented in the event a special-status species is observed in the work area.</p>	
Impact BIO-34: Any future loss of Monterey pine forest under the Proposed Project is considered Potentially Significant per Threshold 4.4-2.	BIO/mm-32 through BIO/mm-35 - See above for Impact BIO-33.	Potentially Significant and Unavoidable
Impact BIO-35: Any future loss of coast live oak woodland under the Proposed Project is considered Potentially Significant per Threshold 4.4-2.	BIO/mm-32 through BIO/mm-36 - See above for Impact BIO-33.	Less than Significant
Threshold 4.4-3 - Conflict with any local policies or ordinances protecting biological resources		
Construction and Short-Term Project Impacts		
Impact BIO-36: Construction and operation of proposed short-term projects within the Terminal Area Parking and Circulation Area, Highway 68 Frontage Road Loop, and South Side Drainage Improvements subareas under the Proposed Project could be inconsistent with Chapter 37 of the City of Monterey City Code regarding tree removal, which is considered a Potentially Significant impact.	BIO/mm-36 - During the City of Monterey permitting process for the Highway 68 frontage road loop and associated terminal area parking and circulation components, the Project Sponsor shall coordinate with the City Forester to determine an appropriate in-lieu fee for the replacement of 117 coast live trees, 179 Monterey pine trees, six Monterey cypress trees, and four golden wattle trees that would be removed. Per the City of Monterey Code 37-11(D), the in-lieu fee payment to the City of Monterey shall be equivalent to the value of the removed trees or the cost of the numbers of replacement trees as determined by City Council Resolution. The value of the trees shall be established and conform to standards adopted by City Council Resolution. The payment shall be used to plant additional trees offsite in a location approved by the City Forester.	Less than Significant
Impact BIO-37: Construction and operation of proposed short-term projects under the Proposed Project within the Terminal Area Parking and Circulation Area, Highway 68 Frontage Road Loop, and South Side Drainage Improvements subareas could be inconsistent with City of Monterey biological resource policies of its Conservation Element, which is considered a Potentially Significant impact.	<p>BIO/mm-37 - The Project Sponsor shall incorporate California native plant species in the landscape designs of the Proposed Project "north side" road and Highway 68 frontage road designs.</p> <p>BIO/mm-38 - The Project Sponsor shall not utilize any plant species that are listed on the California Exotic Pest Plant Council lists in the landscape designs of any of the Proposed Project components.</p>	Less than Significant

TABLE ES-4 (Continued)

Construction and Long-Term Project Impacts		
<p>Impact BIO-40: Proposed construction and operation of long-term projects under the Proposed Project within the Terminal Area Parking and Circulation Area, Highway 68 Frontage Road Loop or Highway Frontage Road Cul-de-sac, and South Side Drainage Improvements subareas could be inconsistent with Chapter 37 of the City of Monterey City Code regarding tree removal, which is considered a Potentially Significant impact.</p>	<p>BIO/mm-42 - The Project Sponsor shall incorporate California native plant species in the landscape designs of any proposed long-term project that is conducted in the City of Monterey jurisdiction.</p>	<p>Less than Significant</p>
<p>Impact BIO-41: Proposed construction and operation of long-term projects under the Proposed Project within the Terminal Area Parking and Circulation Area, Highway 68 Frontage Road Loop or Highway Frontage Road Cul-de-sac, and South Side Drainage Improvements subareas could be inconsistent with City of Monterey biological resource policies of its Conservation Element, which is considered a Potentially Significant impact.</p>	<p>BIO/mm-43 - The Project Sponsor shall not utilize any plant species that are listed on the California Exotic Pest Plant Council lists in the landscape designs of any proposed long-term project that is conducted in the City of Monterey jurisdiction.</p> <p>BIO/mm-44 - For any proposed long-term project conducted in the City of Monterey jurisdiction that will result in the removal of coast live oak, Monterey pine, or Monterey cypress trees, the Project Sponsor shall conduct one of the following tree mitigation efforts:</p> <ul style="list-style-type: none"> • Per the City of Monterey City Code 37-11(C), the Project Sponsor shall replace any coast live oak, Monterey pine, or Monterey cypress tree(s) that are removed for proposed long-term projects that occur in the City of Monterey jurisdiction, as directed by the City Forester. The replacement trees should be planted onsite, if feasible, but may be planted offsite if project conditions prohibit onsite planting. The removed trees shall be replaced at a ratio of up to three trees for every one tree removed. • During the City of Monterey permitting process for proposed long-term projects that are conducted in the City of Monterey jurisdiction, the Project Sponsor shall coordinate with the City Forester to determine an appropriate in-lieu fee for the replacement of coast live trees, Monterey pine trees, and/or Monterey cypress trees that would be removed for the project. Per the City of Monterey Code 37-11(D), the in-lieu fee payment to the City of Monterey shall be equivalent to the value of the removed trees or the cost of the numbers of replacement trees as determined by City Council Resolution. The value of the trees shall be established and conform to standards adopted by City Council Resolution. The payment shall be used to plant additional trees offsite in a location approved by the City Forester. 	<p>Less than Significant</p>

TABLE ES-4 (Continued)		
Threshold 4.4-4 - Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan		
Construction and Short-Term Project Impacts		
<p>Impact BIO-42: The Proposed Project would remove 1.25 acres of previously established conservation areas for the RSA Project due to the construction and operation of the “north side” road and is considered a Potentially Significant impact under Threshold 4.4-4.</p>	<p>BIO/mm-45 - To replace the 0.79 acre of Conservation Area 1 (sandmat manzanita chaparral) that would be removed by the construction of the Proposed Project “north side” road, the Airport shall designate 1.1 acres of existing sandmat manzanita chaparral as open space on the ALP and manage the resource per the guidelines of the RSA Project HCEP. The Airport shall revise the RSA Project HCEP to incorporate the new Conservation Area 1 boundaries and extend the conservation area invasive species management for an additional two years. The 1.1 acres to be designated as open space is located immediately north of the Conservation Area 1 boundary and within the existing airport perimeter fence (refer to Conservation Area 1 Replacement in Exhibit 4.4D).</p> <p>BIO/mm-46 - To replace the 0.46 acre of Conservation Area 2 (coast live oak woodland) that would be removed by the construction of the Proposed Project “north side” road, the Airport shall designate 0.46 acre of existing coast live oak woodland as open space on the ALP and manage the resource per the guidelines of the HCEP. The Airport shall revise the RSA Project HCEP to incorporate the new Conservation Area 2 boundaries and extend the conservation area invasive species management for an additional two years. The 0.46 acre to be designated as open space is located at the northwest corner of the airport property near the existing detention basin (refer to Conservation Area 2 Replacement in Exhibit 4.4D).</p>	<p>Less than Significant</p>
Construction and Long-Term Project Impacts		
<p>Impact BIO-43: A proposed perimeter fence upgrade under the Proposed Project could directly impact the existing RSA Project Conservation Area 1, Conservation Area 2, and/or Conservation Area 1 Replacement areas and is considered a Potentially Significant impact.</p>	<p>BIO/mm-47 - To avoid direct impacts to the conservation areas on the airport property, the Project Sponsor shall design the upgraded perimeter fence alignment to avoid the conservation areas. If full avoidance of the conservation areas is not feasible, the Project Sponsor shall replace on a 1:1 basis all portions of the affected conservation area(s) that will fall within the upgraded perimeter fence. The replacement conservation areas shall support the same vegetative community type as the affected conservation area. Replacement conservation areas should be located on the airport property, if feasible. If establishing a replacement conservation area on the airport property is not feasible, the Project Sponsor may establish a replacement conservation area offsite, provided the replacement conservation area supports the same vegetative community type as the affected conservation area.</p>	<p>Less than Significant</p>
Cumulative Impacts		
<p>Yadon’s piperia, sandmat manzanita, Monterey spine-flower, coast live oak, and Monterey pine experience loss and ongoing pressure from cumulative development including, loss of habitat and habitat fragmentation, erosion/sedimentation, manmade intrusions such as light, noise and overall activity, and the introduction of nonnative invasive species.</p>	<p>See BIO/mm above for Impacts BIO-1 through BIO-10, BIO-19 through BIO-29, BIO-33 through BIO-37, and BIO-40 through BIO-43</p>	<p>Potentially Significant and Unavoidable</p>

TABLE ES-4 (Continued)		
CULTURAL RESOURCES		
Threshold 4.5-2 - Cause a substantial adverse change in the significance of an archaeological resource as defined in State CEQA Guidelines, Section 15064.5		
<p>Impact CUL-1: Unknown archaeological resources could be adversely impacted by proposed construction and/or operation under the Proposed Project for both short and long-term projects.</p>	<p>CUL/mm-1 - Prior to project implementation, a qualified archaeologist shall conduct a cultural resource awareness training for all construction personnel, which shall include the following:</p> <ul style="list-style-type: none"> • Review the types of prehistoric and historic resources that may be uncovered; • Provide examples of common prehistoric and historic archaeological artifacts to examine; • Review what makes an archaeological resource significant to archaeologists and local Native Americans; • Describe procedures for notifying involved or interested parties in case of a new discovery; • Describe reporting requirements and responsibilities of construction personnel; • Review procedures that shall be used to record, evaluate, and mitigate new discoveries; and • Describe procedures that would be followed in the case of discovery of disturbed as well as intact human burials and burial-associated artifacts. <p>CUL/mm-2 - In the event that cultural resources are exposed during project implementation, work shall stop in the immediate vicinity, and an archaeologist who meets the Secretary of the Interior’s Professional Qualification Standards shall be retained to evaluate the find and recommend relevant mitigation measures.</p> <p>CUL/mm-3 - In areas of dense vegetation that have not been subject to extensive prior disturbance, an archaeological monitoring plan shall be developed prior to project implementation (Exhibit 4.5E). The archaeological monitoring plan shall include (but not be limited to) the following (see also Section 4.17.6):</p> <p>A list of personnel involved in the monitoring activities;</p> <ul style="list-style-type: none"> • Description of how the monitoring shall occur; • Description of frequency of monitoring (e.g., full time, part time, spot checking); • Description of what resources are expected to be encountered; • Description of circumstances that would result in the halting of work at the project site; • Description of procedures for halting work on the site and notification procedures; • Description of monitoring reporting procedures; and • Provide specific, detailed protocols for what to do in the event of the discovery of human remains. 	<p>Less than Significant</p>
<p>Cumulative Impacts</p>		
<p>Impacts could occur to unknown cultural resources or human remains.</p>	<p>See CUL/mm-1 through CUL/mm-3 above for Impact CUL-1.</p>	<p>Less than Significant</p>

TABLE ES-4 (Continued)		
GEOLOGY AND SOILS		
Threshold 4.7-2 – Result in substantial soil erosion or the loss of topsoil		
<p>Impact GEO-1: The Proposed Project could cause substantial soil erosion, including a loss of topsoil.</p>	<p>GEO/mm-1 - Final manufactured slopes shall not exceed the geotechnical investigation recommendations provided per GEO/mm-2 and all exposed surfaces shall be vegetated or otherwise protected from erosion as recommended in a site/project-specific erosion control plan.</p> <p>For projects disturbing one acre or more, a SWPPP shall be prepared subject to approval by the Central Coast Regional Water Quality Control Board (see also GEO/rr-5). The erosion control plan or SWPPP shall include BMPs, as well as measures to address site/project-specific concerns. At a minimum, all slopes shall be vegetated by hydroseeding or other landscape ground cover.</p> <p>GEO/rr-5 - Individual projects that have a potential for one acre or more of ground disturbance are required to obtain NPDES coverage under the state’s Construction General Permit Order 2009-2009-DWQ (Construction General Permit) and incorporate BMPs to reduce erosion and sedimentation through implementation of a construction-specific SWPPP.</p>	<p>Less than Significant</p>
Threshold 4.7-3 – 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 offsite landslide, lateral spreading, subsidence, liquefaction or collapse		
<p>Impact GEO-2: The Proposed Project could expose persons and structures to unacceptable factors of safety with respect to static slope movement and other slope instability issues due to the presence of geologic and soil instability hazards present at locations of proposed short-term projects.</p>	<p>GEO/mm-2 - Prior to submittal on the building plans and calculations for any buildings, including parking structures, to the appropriate reviewing engineer or Building Department for plan check review, a qualified geotechnical consultant shall prepare a design-level geotechnical investigation report performed in accordance with the current California Building Code, and related Code requirements, which are in effect at the time the project is being designed (see also GEO/rr-1). The investigation shall include field exploration, laboratory testing, engineering analysis and geotechnical recommendations for earthwork and foundations. The project plans and calculations shall incorporate the geotechnical recommendations from the geotechnical consultant.</p> <p>GEO/mm-3 - Prior to plan check approval, the geotechnical consultant shall perform a geotechnical review of the project plans and specifications to confirm the geotechnical recommendations have been incorporated into the project construction documents. A plan review letter from the geotechnical consultant shall be submitted to the reviewing engineer or Building Department for review and approval.</p> <p>GEO/mm-4 - The geotechnical consultant shall be retained to perform geotechnical observation and testing for the project during construction. At the completion of construction and at intervals specified by the reviewing engineer or Building Department, the geotechnical consultant shall prepare summary letters documenting that the soil conditions encountered were compatible with the proposed foundation, slab-on-grades for the parking structures, and other buildings and that the geotechnical recommendations have been implemented by the contractor as required in the project plans and specifications.</p>	<p>Less than Significant</p>

TABLE ES-4 (Continued)		
	<p>GEO/rr-1 - Chapter 18, Soils and Foundations, of the CBSC requires that geotechnical evaluation be conducted that include, among other requirements, a record of the soil profile, evaluation of active faults in the area, and recommendations for foundation type and design criteria that address issues as applicable such as (but not limited to) bearing capacity of soils, provision to address expansive soils and liquefaction, settlement and varying soil strength.</p> <p>GEO/rr-2 - The Seismic Hazards Mapping Act, along with related standards in the Seismic Hazards Mapping Regulations (CCR, Title 14, Division 2, Chapter 8, Article 10, Section 3270 et seq.), directs local governments to require the completion and review of appropriate geotechnical studies prior to approving development projects.</p> <p>GEO/rr-3 - For those project components located within the City of Monterey, the following Safety Element policy is applicable:</p> <p style="padding-left: 40px;">Policy a2. Engineering and geologic investigations should be undertaken for proposed projects within high and moderate seismic hazard zones before approval is given by the City. The entire City is currently within seismic hazard zone IV and these studies are required for almost all new construction except for very minor additions.</p> <p>GEO/rr-4 - In accordance with California law, project design and construction would be required to comply with provisions of the CBSC. The MPAD Board has adopted all applicable building codes per MPAD Ordinance No. 921.</p>	
GREENHOUSE GAS EMISSIONS		
Threshold 4.8-1 - Result in a net increase in GHG emissions by 2035 compared to existing 2015 conditions		
<p>Impact GHG-1: Since projected future GHG emissions associated with the Proposed Project would increase above estimated 2015 levels, impacts of the Proposed Project related to GHG emissions are Potentially Significant under Threshold 4.8-1.</p>	<p>GHG/mm-1 - The following measures for construction vehicles and/or equipment shall be implemented:</p> <ol style="list-style-type: none"> 1. All off-road, diesel-powered construction equipment greater than 50 horsepower shall be equipped with U.S. EPA Tier 3 (or greater) engines; 2. Construction vehicles shall minimize idling time either by shutting equipment off when not in use or reducing the time of idling to no more than three minutes; 3. All diesel equipment used for the project shall meet State of California diesel equipment requirements and be registered through the Statewide Portable Equipment Registration Program or the Diesel Off-Road Online Reporting System; 4. The contractor shall use “clean air” alternate fuel vehicles when available; 5. The contractor shall reduce electrical generator usage wherever possible; and 6. The contractor shall use an MBARD-approved low carbon fuel for construction equipment when available. 	<p>Significant and Unavoidable</p>

TABLE ES-4 (Continued)		
	<p>GHG/mm-2 - The following measures for construction administration shall be implemented:</p> <ol style="list-style-type: none"> 1. The contractor shall encourage carpools for construction worker commutes; and 2. The contractor shall reduce electricity use in the construction office by using compact fluorescent bulbs, powering off computers every day, and demonstrating the efficiency of heating and cooling units. <p>GHG/mm-3 - The Airport shall provide language in future tenant lease agreements to require the use of high-efficiency equipment, including EnergyStar certified appliances and LED or equivalent interior and exterior lighting, where applicable.</p> <p>GHG/mm-4 - The Airport shall continue to provide and maintain electric vehicle (EV) charging stations in the relocated commercial terminal parking lot.</p> <p>GHG/mm-5 - In coordination with Monterey-Salinas Transit, the public transit agency serving Monterey County, the Airport will provide a transit bus stop to serve the relocated commercial terminal.</p>	
Cumulative Impacts		
Additional GHG emissions would be generated.	See GHG/mm-1 through GHG/mm-3 above for Impact GHG-1. See also TR/mm-6 and TR/mm-10 below under Impact TR-3 and TR-7, respectively.	Potentially Significant and Unavoidable
HAZARDS AND HAZARDOUS MATERIALS		
Threshold 4.9-1 - Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials		
Impact HAZ-1: Since the construction of the Proposed Project proposed projects would require ground disturbance, there is a possibility that unknown hazardous sites or materials could be disturbed. This is a Potentially Significant impact per Threshold 4.9-1.	HAZ/mm-1 - Phase 1 (site inspection) and, if recommended based on the results of the Phase 1 report, Phase 2 (sampling and/or modeling) environmental site assessments shall be performed prior to construction for all ground disturbance activities for Proposed Project projects. Recommendations regarding the need to remediate any contaminants shall be implemented, as necessary.	Less than Significant
Threshold 4.9-4 - For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area		
Impact HAZ-2: Proposed long-term non-aeronautical projects on the southern 3.6-acre parcel within proposed Safety Zone 5 could allow for a greater concentration of people than what is recommended in the Handbook (2011).	HAZ/mm-2 - The northern part of the 3.6-acre southern parcel within Safety Zone 5 shall remain as undeveloped open space.	Less than Significant
Impact HAZ-3: Proposed long-term non-aeronautical projects in the 4.3-acre area within proposed Safety Zone 3 on the north side of the Airport could allow for a greater concentration of people than what is recommended in the Handbook (2011).	HAZ/mm-3 - Proposed non-aeronautical projects in the 4.3-acre area on the north side of the Airport within Safety Zone 3 shall not exceed the non-residential intensity maximums described in the 2011 Handbook for Safety Zone 3.	Less than Significant

TABLE ES-4 (Continued)		
Impact HAZ-4: Proposed long-term non-aeronautical projects in two areas on the north side (approximately 5.5 acres and approximately 3.5 acres) within proposed Safety Zone 2 could exceed the nonresidential intensities specified by the Handbook (2011).	HAZ/mm-4 - The 9.0 acres of land in the north side within Safety Zone 2 shall only be developed with light industrial uses and/or be preserved as open space consistent with the recommendations described in the 2011 Handbook for Safety Zone 2.	Less than Significant
Threshold 4.9-5 - Impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan		
Impact HAZ-5: In the short term, without another “north side” access road, there would be a decline in off-airport emergency response times as long as the temporary ARFF building is in use on the north side of the Airport (see also Significant Impact PS-1, Section 4.14.5).	None available.	Significant and Unavoidable
HYDROLOGY AND WATER QUALITY		
Threshold 4.10-2 - Substantially deplete groundwater supplies or substantially interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table		
Impact HYD-1: Proposed long-term projects under the Proposed Project could use an increase of approximately 1.18 AF per year of groundwater (worst case). As this amount of water use exceeds the Airport’s existing groundwater entitlement, significant adverse impacts on groundwater supplies could occur if future development were to proceed as described.	<p>HYD/mm-1 - Proposed long-term projects shall not proceed without a guaranteed water source that has been approved by the MPWMD and that shows that adverse groundwater impacts to constrained basins would not occur. Securing such a water source would involve mitigation recommended in the Utilities section of this EIR (UTIL/mm-1 through UTIL/mm-3).</p> <p>HYD/rr-4 - MPWMD is charged with allocating water within the Monterey Peninsula region, permitting the use of water credits for each jurisdiction/district, and regulating some aspects of water production and distribution by private purveyors (i.e., CalAm). One of the responsibilities of MPWMD is to balance water supply and demand through the MPWMD Water Allocation Program and to carefully track how much of the allotted water has been used by member jurisdictions. MPWMD evaluates a project’s water demand and issues a water permit for the project as depicted on the final construction plans.</p>	Less than Significant
Cumulative Impacts		
Impacts to groundwater quality and demand could occur.	See HDY/mm-1 and HYD/rr-4 above under Impact HYD-1.	Less than Significant
LAND USE AND PLANNING		
Threshold 4.11-3 - Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for avoiding or mitigating an environmental effect		
Impact LU-1: The Proposed Project is inconsistent with City of Del Rey Oaks Policy C-3 and Policy C-13 of its general plan related to traffic impacts of the Proposed Project and Alternative 1. The Airport will participate in its fair share of mitigation for impacted intersection of bicycle route improvements, to the extent possible and consistent with FAA regulations and requirements relating to the use of airport revenue. However, since proposed traffic mitigation measures may not be feasible, these policy inconsistencies are considered Potentially Significant per Threshold 4.11.5.3.	None available	Potentially Significant and Unavoidable

TABLE ES-4 (Continued)		
<p>Impact LU-2: The Proposed Project is inconsistent with City of Del Rey Oaks Policy C-17 of its general plan related to the proposed “north side” road. Until such time that a general plan amendment is approved, this policy inconsistency is considered Potentially Significant per Threshold 4.11.5.3.</p>	<p>LU/mm-1 - The Airport shall work with the City of Del Rey Oaks to implement a general plan amendment to the <i>General Plan Update for the City of Del Rey Oaks</i> to remove Policy C-17 to allow the construction of the proposed “north side” road.</p>	<p>Potentially Significant and Unavoidable</p>
<p>Impact LU-3: The Proposed Project is inconsistent with City of Monterey Policy b.4 of its Noise Element, which states, “Support limiting the number of fixed-base general aviation aircraft at the airport to the existing number.” Although the potential consistency exists due to federal preemption of the use of airports, this impact is considered Potentially Significant per Threshold 4.11-3.</p>	<p>None available</p>	<p>Significant and Unavoidable</p>
<p>Impact LU-4: The Proposed Project is inconsistent with City of Monterey Goal j, Policy j.2, and Programs j.1.1 and j.2.3 of its Circulation Element, which establish LOS D as an acceptable automobile LOS standard for roadway segments that are not within a multi-modal corridor and require a traffic analysis to determine appropriate mitigation and the funding of a pro-rata share toward improvements.</p>	<p>None available</p>	<p>Potentially Significant and Unavoidable</p>
<p>Impact LU-5: The Proposed Project (short-term projects) is inconsistent with the CONA Neighborhood Plan goals and policies related to restricting the use of Airport Road for airport-related uses (Public Works Policies 15 and 16 and Airport Noise Policy 29 and Program 34b). These inconsistencies are considered Potentially Significant per Threshold 4.11-3. However, the following is important to understand in the context of this inconsistency determination: 1) streets and intersections within the CONA neighborhood currently operate at acceptable levels of service and will experience minimal increased traffic due to the Proposed Project’s short-term development; 2) the Proposed Project includes a proposed “north side” road to Highway 218 in the long term; and 3) CONA neighborhood roads are public roads and must allow public usage within the established regulations and codes.</p>	<p>None available</p>	<p>Significant and Unavoidable</p>

TABLE ES-4 (Continued)		
Impact LU-6: The Proposed Project is inconsistent with CONA Neighborhood Plan Airport Noise Policy 34, which states that the neighborhood is opposed to the use of neighborhood residential streets by automobile and truck traffic going to and from the Airport and businesses on the Airport property as Airport Road would remain in use for existing or replacement airport land uses located west of Gate V22. This inconsistency is considered Potentially Significant per Threshold 4.11-3. However, it is important to understand in the context of this inconsistency determination that CONA neighborhood roads are public roads and must allow public usage within the established regulations and codes.	None available	Significant and Unavoidable
Impact LU-7: Based on the Airport’s operational growth forecasts for 2025 and 2035, inconsistencies would occur with CONA Neighborhood Plan Noise Goals 2, 3 and 4 per Threshold 4.11-3. The Airport’s future 65 CNEL noise contours could impact the exterior noise levels of one additional residence by 2025 and four additional residences by 2035 within the CONA neighborhood (see Exhibits 4.12A - 4.12C). (These units have already been sound insulated to provide acceptable interior noise levels.) This is a Potentially Significant impact of the Proposed Project.	None available	Potentially Significant and Unavoidable
Impact LU-8: Similar to the existing condition, the Proposed Project is not consistent with the current CLUP. Therefore, impacts related to consistency with the CLUP are Potentially Significant per Threshold 4.11-3.	LU/mm-2 - Per state law (PUC, Section 21676[c]), the MPAD shall refer the Proposed AMP to the county ALUC. The ALUC is required to modify the CLUP to maintain consistency with the Proposed AMP.	Significant and Unavoidable
Cumulative Impacts		
Policy inconsistencies with the cities of Del Rey Oaks and Monterey regarding traffic levels of service and non-vehicular modes of transportation	See CUM TR/mm-1 through CUM TR/mm-9 below under Impact TR-2 and Impact TR-7.	Potentially Significant and Unavoidable
Policy inconsistencies with the City of Monterey and CONA regarding restricting future aircraft growth	None available due to federal preemption of airports	Potentially Significant and Unavoidable
AIRCRAFT NOISE		
Impact Criteria 4.10-1: Increase noise levels at noise-sensitive land uses to 65 CNEL or above as compared to the existing condition? (Thresholds 4.12.1-1 and 4.12.5-5)		
Impact NOI-1: Future 2025 noise contours based on operational forecasts prepared for the Proposed AMP identify one additional residence within the 65-70 CNEL noise contour from existing (2015) conditions to 2025 conditions. This residence has been sound attenuated but the exterior noise impacts would be Potentially Significant per Thresholds 4.12.1-1 and 4.12.1-5.	None available	Significant and Unavoidable

TABLE ES-4 (Continued)		
<p>Impact NOI-2: Future 2035 noise contours based on operational forecasts prepared for the Proposed AMP identify four additional residences within the 65-70 CNEL noise contour from existing (2015) conditions to 2035 conditions. These residences have been sound attenuated but the exterior noise impacts would be Potentially Significant per Thresholds 4.12.1-1 and 4.12.1-5.</p>	<p>None available</p>	<p>Significant and Unavoidable</p>
<p>Impact NOI-3: Proposed long-term projects on the north side of the Airport under the Proposed Project could expose people working at the Airport to excessive noise levels if commercial offices are located within the existing or future 65 CNEL and adequate interior noise insulation is not incorporated into building design. Potential noise impacts would be Potentially Significant per Thresholds 4.12.1-1 and 4.12.1-5.</p>	<p>NOI/mm-1 - An interior acoustical noise study shall be required for any future commercial offices located within the existing or future 65 CNEL and recommended measures incorporated to ensure that the interior building noise levels remain 45 dB or less. This mitigation is consistent with the conditions provided for in the CLUP.</p>	<p>Less than Significant</p>
<p>Cumulative Impacts</p>		
<p>See Impact NOI-2 above. Exterior noise levels that would be above the acceptable noise standards for four residences by 2035 based on anticipated increases in aircraft operations</p>	<p>None available</p>	<p>Potentially Significant and Unavoidable</p>
<p>LAND-BASED NOISE</p>		
<p>Threshold 4.12.1-4 - Cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies)</p>		
<p>Impact NOI-4: Some construction activities (Phase 2 of proposed short-term projects) under the Proposed Project are expected to occur during nighttime hours when nearby residents would be more sensitive to noise. With at least some of the expected construction activity occurring during nighttime hours, construction operations are considered a Potentially Significant temporary noise impact.</p>	<p>NOI/mm-2 - To address potential impacts of nighttime noise-generating construction activities, the following mitigation measures shall be incorporated into the short-term projects:</p> <ol style="list-style-type: none"> 1. Construction truck hauling operations may proceed through the CONA neighborhood only in the time period from 7:00 AM to 7:00 PM. Outside these hours, construction hauling activity shall use a route that does not proceed through the CONA neighborhood. (<u>Proposed Project only</u>) 2. For construction activity occurring within approximately 500 feet of residences, portable noise barriers shall be installed near nighttime construction areas. The locations of the barriers should break the line-of-sight from the construction area(s) to any residential locations visible from the construction area. This may include erection of temporary plywood barriers to create a break in the line-of-sight, or erection of a tent employing sound blanket walls around the stationary noise source(s). 3. Construction vehicles shall minimize idling time either by shutting equipment off when not in use or reducing the time of idling to no more than 3 minutes (5-minute limit is required by the state airborne toxics control measure (CCR, Title 13, Sections 2449(d)(3) and 2485); 	<p>Less than Significant</p>

TABLE ES-4 (Continued)		
	<p>4. Adjacent property owners shall be notified of the construction schedule.</p> <p>5. All noise-producing project equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specification. Mobile or fixed “package” equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment.</p> <p>6. The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.</p> <p>NOI/mm-3 - Proposed north side project component daytime construction activity shall comply with the City of Del Rey Oaks’ noise ordinance of 7:00 AM to 7:00 PM.</p>	
PUBLIC SERVICES		
Threshold 4.14-1 - Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, 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: fire protection and police protection		
Impact PS-1: Under the Proposed Project, ARFF response times to areas off-airport would be reduced below the recommended five-minute response time until the ARFF facility is permanently relocated on the south side or until the proposed “north side” road is constructed. Thus, the impacts would be considered Unavoidable and Significant for construction impacts per Threshold 4.14-1.	None available	Significant and Unavoidable (during construction)

TABLE ES-4 (Continued)

TRANSPORTATION/TRAFFIC

Threshold 4.16-1 - Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit

<p>Impact TR-1: Based on the Caltrans impact criteria, the addition of a single project trip at an intersection that is operating deficiently can be considered an impact. Thus, the Proposed Project would have a Potentially Significant impact at the following intersections that are operating deficiently under existing conditions in the short term per Threshold 4.16-1:</p> <ul style="list-style-type: none"> - #6: Del Monte Boulevard/Highway 218 (two PM peak hour trips) - #7: Highway 218/N. Fremont Boulevard (nine PM peak hour trips) - #14: York Road/Highway 68 (one PM peak hour trip) - #17: Corral De Tierra Road/Highway 68 (one PM peak hour trip) - #19: Torero Drive/Highway 68 (one PM peak hour trip) 	<p>TR/mm-1 - Intersection #6: Del Monte Boulevard/Highway 218 – Prior to the first occupancy of a project element that contributes at least one (1) new peak hour traffic trip to the intersection, add a second northbound Del Monte Boulevard left turn lane.</p> <p><i>Although this impact could be mitigated by constructing the stated improvement, the impact is considered Significant and Unavoidable at this time because the improvement necessary to reduce the significant impact is infeasible as it is within the jurisdiction and control of another agency (Caltrans) and implementation within the necessary timeframe cannot be assured.</i></p> <p><i>Further, the proposed mitigation measure may be only feasible if allowed by federal law; federal law states that airport revenues and FAA grant funds may not be used for purposes other than the capital or operating costs of the airport, the local airport system, or other local facilities owned or operated by the airport owner or operator that are directly and substantially related to the air transportation of passengers and property. These restrictions impact the Airport’s ability to fund and implement off-airport mitigation measures. Now that the Airport has identified specific mitigation measures for Proposed Project impacts, it will make specific requests to the FAA, where appropriate, for it to allow funding of off-airport mitigation measures. Because the Airport does not currently have a determination from the FAA that funding for any off-airport mitigation improvements will be allowed, however, the mitigation measures are considered infeasible. Detailed information about the law and regulations prohibiting diversion of airport revenues and FAA grants is found in Appendix N to this Draft EIR.</i></p> <p>TR/mm-2 - Intersection #7: Highway 218/Fremont Boulevard – Prior to the first occupancy of a project element that contributes at least one (1) new peak hour traffic trip to the intersection, add a second northbound Highway 218 left turn lane.</p> <p><i>Although this impact could be mitigated by constructing the stated improvement, the impact is considered Significant and Unavoidable at this time because the improvement necessary to reduce the significant impact is infeasible as it is within the jurisdiction and control of another agency (Caltrans) and implementation within the necessary timeframe cannot be assured.</i></p> <p><i>Proposed Mitigation Measure TR/mm-2 is not considered feasible because the FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.</i></p> <p>TR/mm-3 - Intersection #14: York Road/Highway 68 - Prior to the first occupancy of a project element that contributes at least one (1) new peak hour traffic trip to the intersection, convert this intersection to a roundabout, as proposed in TAMC’s SR 68 Scenic Highway Plan study. Per the TAMC website, Measure X sales tax funds have been dedicated for this improvement. Federal and state funding from SB 1 programs may also be available.</p>	<p>Significant and Unavoidable</p>
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TABLE ES-4 (Continued)

	<p><i>Although this impact could be mitigated by constructing the stated improvement, the impact is considered Significant and Unavoidable at this time because the improvement necessary to reduce the significant impact is infeasible as it is within the jurisdiction and control of another agency (Caltrans) and implementation within the necessary timeframe cannot be assured.</i></p> <p><i>Proposed Mitigation Measure TR/mm-3 is not considered feasible because the FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.</i></p> <p>TR/mm-4 - Intersection #17: Corral De Tierra Road/Highway 68 – Prior to the first occupancy of a project element that contributes at least one (1) new peak hour traffic trip to the intersection, convert intersection to a roundabout, as proposed in TAMC’s <i>SR 68 Scenic Highway Plan</i> study. Per the TAMC website, Measure X sales tax funds have been dedicated for this improvement. Federal and state funding from SB 1 programs may also be available.</p> <p><i>Although this impact could be mitigated by constructing the stated improvement, the impact is considered Significant and Unavoidable at this time because the improvement necessary to reduce the significant impact is infeasible as it is within the jurisdiction and control of another agency (Caltrans) and implementation within the necessary timeframe cannot be assured.</i></p> <p><i>Proposed Mitigation Measure TR/mm-4 is not considered feasible because the FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.</i></p> <p>TR/mm-5 - Intersection #19: Torero Drive/Highway 68 – Prior to the first occupancy of a project element that contributes at least one (1) new peak hour traffic trip to the intersection, convert intersection to a roundabout, as proposed in TAMC’s <i>SR 68 Scenic Highway Plan</i> study. Per the TAMC website, Measure X sales tax funds have been dedicated for this improvement. Federal and state funding from SB 1 programs may also be available.</p> <p><i>Although this impact could be mitigated by constructing the stated improvement, the impact is considered Significant and Unavoidable at this time because the improvement necessary to reduce the significant impact is infeasible as it is within the jurisdiction and control of another agency (Caltrans) and implementation within the necessary timeframe cannot be assured.</i></p> <p><i>Further, proposed Mitigation Measure TR/mm-5 is not considered feasible because the FAA may not authorize the use of any FAA grant funds or Airport revenue to be used to construct or fund any off-Airport improvements or mitigation measure.</i></p>	
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TABLE ES-4 (Continued)		Potentially Significant and Unavoidable
<p>Impact TR-2: Proposed Project long-term projects would generate additional project-related vehicular trips that would impact existing and future congested intersections and Highway 68 segments within the project study area. Proposed Project long-term traffic impacts are considered Potentially Significant per Threshold 4.16-1.</p>	<p>CUM TR/mm-1 - Prior to the first occupancy of any new or redeveloped facility that is part of the 10-year development of the Proposed Project, the following improvements to Intersection #6: Del Monte Boulevard/Highway 218 shall be in place:</p> <ol style="list-style-type: none"> 1. Add 2nd Northbound Del Monte Blvd Left-Turn Lane; 2. Add Northbound Del Monte Blvd Right-Turn Overlap Phasing; and 3. Add Southbound Del Monte Blvd Right-Turn Overlap Phasing <p><i>Proposed Mitigation Measure CUM TR/mm-1 is not considered feasible because the mitigation project is within Caltrans' jurisdiction and FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.</i></p> <p>CUM TR/mm-2 - Prior to the first occupancy of any new or redeveloped facility that is part of the 10-year development of the Proposed Project, the following improvement to Intersection #7: Highway 218/Fremont Boulevard shall be in place:</p> <ol style="list-style-type: none"> 1. Add 2nd Northbound Del Monte Blvd Left-Turn Lane <p><i>Proposed Mitigation Measure CUM TR/mm-2 is not considered feasible because the mitigation project is within Caltrans' jurisdiction and FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.</i></p> <p>CUM TR/mm-3 - Prior to the first occupancy of any new or redeveloped facility that is part of the 10-year development of the Proposed Project, the following improvements to Intersection #9: Highway 218/Del Rey Gardens Drive shall be in place:</p> <ol style="list-style-type: none"> 1. Signalize Intersection; 2. Add 2nd Northbound Highway 218 Through Lane; and 3. Add 2nd Southbound Highway 218 Through Lane <p><i>Proposed Mitigation Measure CUM TR/mm-3 is not considered feasible because the mitigation project is within Caltrans' jurisdiction and FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.</i></p> <p>CUM TR/mm-4 - Prior to the first occupancy of any new or redeveloped facility that is part of the 10-year development of the Proposed Project, Intersection #14: York Road/Highway 68 shall be converted to a roundabout.</p>	

TABLE ES-4 (Continued)

	<p><i>Proposed CUM TR/mm-4 is not considered feasible because the mitigation project is within Caltrans' jurisdiction and FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.</i></p> <p>CUM TR/mm-5 - Prior to the first occupancy of any new or redeveloped facility that is part of the 10-year development of the Proposed Project, Intersection #16: Laureles Grade Road/Highway 68 shall be converted to a roundabout.</p> <p><i>Proposed CUM TR/mm-5 is not considered feasible because the mitigation project is within Caltrans' jurisdiction and FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.</i></p> <p>CUM TR/mm-6 - Prior to the first occupancy of any new or redeveloped facility that is part of the 10-year development of the Proposed Project, Intersection #17: Corral De Tierra/Highway 68 shall be converted to a roundabout.</p> <p><i>Proposed CUM TR/mm-6 is not considered feasible because the mitigation project is within Caltrans' jurisdiction and FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.</i></p> <p>CUM TR/mm-7 - Prior to the first occupancy of any new or redeveloped facility that is part of the 10-year development of the Proposed Project, Intersection #18: San Benancio/Highway 68 shall be converted to a roundabout.</p> <p><i>Proposed CUM TR/mm-7 is not considered feasible because the mitigation project is within Caltrans' jurisdiction and FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.</i></p> <p>CUM TR/mm-8 - Prior to the first occupancy of any new or redeveloped facility that is part of the 10-year development of the Proposed Project, Intersection #19: Torero Drive/Highway 68 shall be converted to a roundabout.</p> <p><i>Proposed CUM TR/mm-8 is not considered feasible because the mitigation project is within Caltrans' jurisdiction and FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.</i></p> <p>CUM TR/mm-9 - Implementing agencies shall evaluate VMT as part of project-specific review and discretionary approval decisions for land use projects consistent with then applicable regulatory requirements under CEQA. Where project-level significant impacts are identified, implementing agencies (including the Airport as applicable) shall identify and implement measures that reduce VMT. Examples of measures that reduce VMT include infill development, mixed use and transit-oriented development, complete street programs, reduced parking requirements, and providing alternative transportation facilities, such as bike lanes and transit stops.</p>	
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TABLE ES-4 (Continued)		
Impact TR-3: Project-related short- and long-term construction trips would be added to intersections and road segments that have been identified as operating deficiently during the peak commute hours under existing conditions or are anticipated to operate deficiently under future conditions. As a result, Proposed Project construction traffic impacts would be Potentially Significant, albeit temporary, per Threshold 4.16-1.	TR/mm-6 - Offsite truck hauling operations for either short- or long-term construction projects shall not occur during the hours of 7:00 AM through 9:00 AM or 4:00 PM through 6:00 PM, Monday through Friday, to avoid peak hour traffic conditions.	Less than Significant
Threshold 4.16-5: Increase VMT when compared to existing conditions within Monterey County due to proposed land use development		
Impact TR-7: Since the location and commute patterns of future users of additional hangars and future employees or clients of proposed long-term non-aviation projects are unknown and speculative, impacts of the Proposed Project in terms of VMT are Potentially Significant per Threshold 4.16-5.	TR/mm-10 - Implementing agencies shall evaluate VMT as part of project-specific review and discretionary approval decisions for land use projects under the Proposed Project. Where project-level significant impacts are identified, implementing agencies shall identify and implement measures that reduce VMT. Examples of measures that reduce VMT include infill development, mixed use and transit-oriented development, complete street programs, reduced parking requirements, and providing alternative transportation facilities, such as bike lanes and transit stops.	Potentially Significant and Unavoidable
Cumulative Impacts		
The level of potential short-term and long-term cumulative development that could occur by 2025 and by 2035, respectively, would require major improvements to the local and regional road network	See CUM TR/mm-1 through CUM TR/mm-9 above under Impact TR-2.	Potentially Significant and Unavoidable
TRIBAL CULTURAL RESOURCES		
Threshold 4.17-1 - Cause a substantial adverse change in the significance of a tribal cultural resource ...		
Impact TRIB-1: Unknown tribal cultural resources could be adversely impacted by proposed construction or operation of proposed short- and long-term projects under the Proposed Project.	TRIB/mm-1 - The Airport shall continue to consult with OCEN regarding projects requiring ground-disturbing activities within the project study area. The Airport shall also provide OCEN with copies of cultural resource reports that include tribal cultural resources. In addition, the Airport shall provide OCEN with a copy of the Proposed AMP for review. TRIB/mm-2 - If previously undocumented tribal cultural resources are discovered (e.g., inadvertent discovery), the Airport shall consult with OCEN regarding proper treatment and disposition of the finds. This could include the repatriation of items of cultural patrimony, OCEN participation in the development of treatment plans, use of an approved OCEN Native American monitor, and review of treatment plan documents and reports.	Less than Significant
Cumulative Impacts		
Impacts could occur to unknown tribal cultural resources or human remains.	See TRIB/mm-1 through TRIB/mm-3 above for Impact TRIB-1.	Less than Significant

TABLE ES-4 (Continued)

UTILITIES - WATER SUPPLY AND SERVICE

Threshold 4.18.1-1 – Have insufficient water supplies available to serve the Proposed Project from existing entitlements and resources or require new or expanded entitlements

<p>Impact UTIL-1: Future long-term buildout of the Proposed Project could demand water in excess of what the Airport currently has remaining in its allocation.</p>	<p>UTIL/mm-1 - All proposed long-term projects shall reduce water demand in new construction through indoor and outdoor water conservation measures that result in onsite water credits that allow the Airport to stay within its available CalAm entitlements.</p> <p>UTIL/mm-2 - To the extent feasible, the pumping and distribution abilities of the wells in the Old North Side Industrial Area shall be increased to supplement the Airport’s water allocation. Specifically, the existing wells shall be used to provide water for proposed landscaping and biological mitigation located on the north side of the Airport.</p> <p>UTIL/mm-3 - The conditions of the applicable MPWMD permit shall be incorporated into each proposed long-term project requiring an additional permit (see Section 2.9 for public agency approvals required).</p> <p>UTIL/rr-1 - In compliance with SB 610, proposed long-term projects meeting one of the definitions of a project in Water Code, Section 10912(a) shall include a water assessment in conjunction with required future CEQA review.</p> <p>UTIL/rr-2 - In conjunction with the development of the Proposed Project, building plans and site improvement plans shall demonstrate compliance with applicable non-residential mandatory measures in the <i>California Green Building Standards Code</i> (CalGreen).</p> <p>UTIL/rr-3 - In conjunction with the development of the Proposed Project, new or modified water service to the site shall comply with the District’s rules and regulations, including design and construction of connections and water facilities, payments for service, conditions for service, and compliance with its permanent and emergency water conservation programs that outline escalating water restrictions under water supply shortage conditions and other general provisions.</p>	<p>Less than Significant</p>
<p>Cumulative Impacts</p>		
<p>Future water resources within the Monterey Peninsula region have not been secured.</p>	<p>See UTIL/mm-1 through UTIL/mm-3 and and UTIL/rr-1 through UTIL/rr-3 above under Impact UTIL-1.</p>	<p>Less than Significant</p>

TABLE ES-4 (Continued)		
UTILITIES - WASTEWATER (SEWER) SERVICE/TREATMENT		
Threshold 4.18.2-3 – Require an expansion of City of Monterey sewer infrastructure, the construction of which could cause significant environmental effect		
Impact UTIL-2: South side demand shift could cause sewer capacity issues in the short term.	<p>UTIL/mm-4 - The Airport shall initiate coordination with the City of Monterey prior to any development on the north or south sides of the Airport to determine if the Proposed Project would exceed the capacity of the city’s sewer system.</p> <p>UTIL/mm-5 - The Airport shall pay a reasonable “fair share” cost of project impacts pursuant to the City of Monterey’s capital improvement program for any needed sewer upgrades.</p> <p>UTIL/rr-4 - In conjunction with the development of the Proposed Project, building plans and site improvement plans shall show compliance with pertinent regulations related to sewer system connections, installation of on-site facilities for industrial dischargers and food service establishments (e.g., pretreatment equipment, pollution control facilities, spill containment facilities, accidental slug control plans, and monitoring/metering facilities), as well as obtain the necessary discharge permits and comply with the discharge limits, prohibitions, monitoring and reporting, inspection and sampling, and other provisions of the permit.</p>	Less than Significant
Impact UTIL-3: In the long term, proposed airport projects could exceed existing City of Monterey sewer infrastructure on either side of the Airport.	See UTIL/mm-4, UTIL/mm-5, and UTIL/rr-4 for Impact UTIL-2 above.	Less than Significant
UTILITIES - SOLID WASTE DISPOSAL		
Threshold 4.18.3-2 – Comply with federal, state, and local statutes and regulations related to solid waste		
Impact UTIL-4: Demolition of the existing commercial terminal and ARFF buildings, as well as the Old North Side Industrial Area and select hangars, would be likely to require special handling and disposal protocols to ensure the waste is accepted at the appropriate facility.	<p>UTIL/mm-6 - The Airport shall require its contractor to follow all protocols for hazardous waste that could be accepted at the MPL (i.e., non-friable asbestos, non-friable waste, chromium-contaminated soils), including:</p> <ul style="list-style-type: none"> • Receiving pre-approval from MRWMD staff for non-friable asbestos; • Double-wrapping and sealing in six-millimeter plastic, or completely covering the truck bed with a tightly secured tarp to ensure non-friable waste fibers cannot escape; • Completing the Generator Waste Profile manifest form for each shipment; • Scheduling each load at least 72 hours prior to arrival; and • Determining the level of STLC testing required to ensure chromium levels are acceptable. 	Less than Significant

TABLE ES-5 Alternative 1 - Potentially Significant Impacts and Mitigation (Project-Specific and Cumulative) Proposed Monterey Regional Airport Master Plan		
Impact	Mitigation Program	Level of Significance After Mitigation
AESTHETICS Threshold 4.1-2 - Would Alternative 1 substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state-designated scenic highway?		
Impact AES-1: Potentially significant impacts to the scenic resources of Highway 68 could occur during temporary construction of both short- and long-term projects. These impacts would occur as a result of Alternative 1’s grading and tree removal for the proposed Highway 68 frontage road, future non-aeronautical land uses along Highway 68, and stormwater improvements associated with south side development.	AES/mm-1 - Construction contract specifications for any phase of development where a construction laydown area/staging area will be used shall include security fencing with opaque screening around the construction sites and staging areas to block the ground-level views of the site. No removal of trees shall be allowed at the staging area. All trees removed within the 100-foot setback from Highway 68 due to construction shall be replaced within the setback at a ratio of 1:10 in keeping with City of Monterey requirements for other projects along the highway corridor. AES/rr-1 - Proposed buildings or structures in proximity to the Highway 68 scenic corridor must be placed outside a 100-foot setback from the highway right-of-way consistent with the City of Monterey General Plan, Urban Design Element Policy h-9. This setback is enforced through the City of Monterey’s development approval process for projects within its jurisdiction.	Potentially Significant and Unavoidable (Temporary)
Impact AES-2: Potentially significant impacts to the scenic resources of Highway 68 could occur during operation of both short- and long-term projects. These impacts would occur as a result of the loss of mature trees under Alternative 1 for the proposed Highway 68 frontage road, future non-aeronautical land uses along Highway 68, and stormwater improvements associated with south side development.	AES/mm-2 - Detailed landscaping plans shall be required for all aspects of the proposed short- and long-term south side projects, including proposed stormwater improvements and the proposed Highway 68 frontage road, to ensure that adequate vegetative screening is provided to preserve the existing scenic quality of the associated segment of Highway 68. The landscaping plans shall include native species, protecting existing cypress, Monterey pine, and coast live oak trees to the extent possible, and use trees to screen parking, where appropriate. Detailed landscaping plans for development within or adjacent to the 100-foot setback from Highway 68 within the City of Monterey zoned areas shall include the following additional provision: All trees removed within the 100-foot setback from Highway 68 shall be replaced within the setback at a ratio of 1:10 in keeping with City of Monterey requirements for other projects along the highway corridor. AES/rr-1 - Proposed buildings or structures in proximity to the Highway 68 scenic corridor must be placed outside a 100-foot setback from the highway right-of-way consistent with the City of Monterey General Plan, Urban Design Element Policy h-9. This setback is enforced through the City of Monterey’s development approval process for projects within its jurisdiction.	Less than Significant
Cumulative Impacts		
Potentially significant cumulative impacts to the scenic resources of Highway 68 could occur.	See AES/mm-1 through AES/mm-3 and AES/rr-1 above for Impacts AES-1 and AES-2.	Potentially Significant and Unavoidable

TABLE ES-5 (Continued)

AIR QUALITY		
Cumulative Impacts		
<p>Additional criteria pollutants would be generated.</p>	<p>AQ/rr-1 - The Airport shall implement a dust control plan that includes the following, as stipulated in FAA AC 150/5370-10G, <i>Standards for Specifying Construction of Airports</i>, Item P-156 (FAA 2014b) and the MBARD <i>CEQA Air Quality Guidelines</i> (MBARD 2008):</p> <ol style="list-style-type: none"> 1. Limit the area under construction at any one time. 2. Water all active construction areas at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure. 3. Cover all trucks hauling soil, sand, and other loose materials off property with tarpaulins or other effective covers. 4. Pave all roads on construction sites, if possible, and water all unpaved roads and construction haul routes to minimize dust during construction operations. 5. Limit traffic speeds along all unpaved haul routes to 15 miles per hour (mph). 6. Prohibit all grading activities during periods of high wind (over 15 mph). 7. Keep loader buckets low when transferring material to trucks. 8. Maintain at least 2 feet of freeboard on haul trucks. 9. Limit entering/exiting site to controlled areas to avoid track out. 10. Cover inactive storage piles. 11. Minimize the area of exposed erodible earth. 12. Apply temporary mulch or non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydro seed area with or without seeding, where applicable. 13. Plant vegetative ground cover in disturbed areas as soon as possible. 14. Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days). 15. Install wheel washers at the entrance to construction sites for all exiting trucks. 16. Sweep streets if visible soil material is carried out from the construction site. 17. Post a publicly visible sign which specifies the telephone number and person to contact regarding dust complaints. This person shall respond to complaints and take corrective action within 48 hours. The phone number of the MBARD shall be visible to ensure compliance with Rule 402 (Nuisance). <p>AQ/rr-2 - In accordance with CARB’s In-Use Off Road Diesel Fueled Fleets Regulation (2016), the following measures for construction vehicles and/or equipment shall be implemented:</p> <ol style="list-style-type: none"> 1. Construction vehicles will use a CARB Tier 3 engine when available in the region; 2. Vehicle operators will limit idling to no more than five minutes; and, 3. All diesel equipment used for the project shall meet State of California diesel equipment requirements and be registered through the Statewide Portable Equipment Registration Program or the Diesel Off Road Online Reporting System. <p>See also TR/mm-9 and TR/mm-10 below under Impact TR-6 and TR-7, respectively.</p>	<p>Potentially Significant and Unavoidable</p>

TABLE ES-5 (Continued)		
BIOLOGICAL RESOURCES		
Threshold 4.4-1 - Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFW or the USFWS		
Construction Impacts		
Impact BIO-1: Potential take of California legless lizard (SSC) under Alternative 1 is considered Potentially Significant per Threshold 4.4-1.	BIO/mm-1 - Within 30 days prior to site grading, an environmental monitor shall conduct surveys for California legless lizards and other reptiles. The surveyor shall utilize hand search or cover board methods in areas of disturbance where legless lizards are expected to be found (e.g., under shrubs, other vegetation, or debris). If cover board methods are used, they shall commence at least 30 days prior to the start of construction. If hand search methods are used, the surveys shall be completed immediately prior to and during grading activities. The surveyor shall capture and relocate any legless lizards or other reptiles observed during the survey effort. The captured individuals shall be relocated from the construction area(s) and placed in suitable habitat on the airport property.	Less than Significant
Impact BIO-2: Potential impacts to nesting birds (protected under the MBTA and CFGC) under Alternative 1 are considered Potentially Significant per Threshold 4.4-1.	BIO/mm-2 - To the maximum extent possible, initial vegetation-clearing activities in the project areas shall be conducted between October and February, which is outside of the typical bird breeding season. If the project schedule does not provide for late season vegetation removal, a nesting bird survey shall be conducted by a qualified biologist no more than one week prior to the land clearing to determine presence/absence of nesting birds within the vegetated area. If active nests are observed, work activities shall be avoided within 100 feet of the active nest(s) until young birds have fledged and left the nest. The nests shall be monitored weekly by a biologist having experience with nesting birds to determine when the nest(s) become inactive. The buffer may be reduced but not eliminated during active nesting if deemed appropriate by the biologist. Readily visible exclusion zones shall be established in areas where nests must be avoided. The Airport and the appropriate regulatory agency shall be contacted if any state or federally listed bird species are observed during surveys. Nests, eggs, or young of birds covered by the MBTA and CFGC shall not be moved or disturbed until the young have fledged.	Less than Significant
Short-Term Project Impacts		
Impact BIO-11: The anticipated loss of 1,450 sandmat manzanita (CNPS Rank 1B.2) under Alternative 1 is considered Potentially Significant per Threshold 4.4-1.	BIO/mm-12 - The Project Sponsor shall propagate, plant, and maintain at least 2,900 sandmat manzanita container plants. The sandmat manzanita container plants may be installed in the temporary disturbance areas and/or landscaping of the Alternative 1 "north side" road, onsite Conservation Area 4 (Exhibit 4.4D), or the offsite conservation lands (refer to BIO/mm-29 through BIO/mm-31 of Threshold 4.4-2 and Exhibit 4.4D) as appropriate. The sandmat manzanita container plants shall be monitored and maintained for seven years following their installation. To consider the sandmat manzanita replacement mitigation successful, at least 2,900 replacement sandmat manzanita plants must be self-sustaining by the end of the seven-year monitoring program.	Less than Significant
Impact BIO-12: The anticipated loss of 305 Monterey pine trees (CNPS Rank 1B.1) under Alternative 1 is considered Potentially Significant per Threshold 4.4-1.	BIO/mm-13 - Prior to construction of any Alternative 1 component that would remove Monterey pine trees, the Airport shall establish 1.0 acre of Monterey pine forest conservation space on the north side of the airport property. The Airport shall plant up to 25 Monterey pine trees in the conservation space. The 1.0 acre of Monterey pine forest conservation space shall be managed under a HCEP as described in BIO/mm-26 (Threshold 4.4-2).	Potentially Significant and Unavoidable

TABLE ES-5 (Continued)		
<p>Impact BIO-13: The anticipated loss of eight Eastwood’s goldenbush (CNPS Rank 1B.1) under Alternative 1 is considered Potentially Significant per Threshold 4.4-1.</p>	<p>BIO/mm-14 - Prior to any site disturbances, the Project Sponsor shall retain a qualified biologist and/or horticulturalist to collect a sufficient amount of Eastwood’s goldenbush seed from individuals on the airport property to propagate a minimum of 16 Eastwood’s goldenbush container plants. The propagated materials shall be planted and maintained in Conservation Area 4 (Exhibit 4.4D).</p>	<p>Less than Significant</p>
<p>Impact BIO-14: The anticipated loss of 18 Monterey ceanothus (CNPS Rank 4.2) under Alternative 1 is considered Potentially Significant based on CNPS recommendations per Threshold 4.4-1.</p>	<p>BIO/mm-15 - Prior to any site disturbances, the Project Sponsor shall retain a qualified biologist and/or horticulturalist to collect a sufficient amount of Monterey ceanothus seed from individuals on the airport property to propagate a minimum of 36 Monterey ceanothus container plants. The propagated materials shall be planted and maintained in Conservation Area 4 (Exhibit 4.4D).</p>	<p>Less than Significant</p>
<p>Impact BIO-15: The anticipated loss of 49 small-leaved lomatium (CNPS Rank 4.2) under Alternative 1 is considered Potentially Significant based on CNPS recommendations per Threshold 4.4-1.</p>	<p>BIO/mm-16 - To minimize impacts to small-leaved lomatium and promote the continued existence of the species on the airport property, the Project Sponsor shall implement a soil and seed bank conservation program that will include small-leaved lomatium seed and top soil collection and distribution.</p> <p>Small-leaved lomatium shall be conserved in Conservation Area 4 by broadcast seeding and re-locating the soil seed bank. Seed to be broadcast shall be collected from the project areas prior to start of construction. This species flowers from January through June; therefore, seed collection shall begin in May and continue through September, or when seed production ceases. To the extent feasible, all available seed shall be collected from plants located in the project disturbance areas.</p> <p>Soil from the project disturbance areas containing small-leaved lomatium seed shall be collected and reapplied. To accomplish this, the upper six inches of soil located within the vicinity of existing small-leaved lomatium individuals shall be collected and redistributed prior to grading activities. Soil collection shall occur immediately following completion of seed collection and prior to the first rainfall. The collected soil shall be immediately distributed in the disturbance areas. The collected seed shall be broadcast over the relocated soil, and then the receptor site shall be lightly raked to cover the seed.</p>	<p>Less than Significant</p>

TABLE ES-5 (Continued)		
<p>Impact BIO-16: The anticipated loss of 502 Monterey spineflower (federally endangered and CNPS Rank 1B.2) and the attendant seed bank (i.e., occupied habitat) under Alternative 1 is considered Potentially Significant per Threshold 4.4-1.</p>	<p>BIO/mm-17 - To minimize Monterey spineflower impacts and promote the continued existence of the species on the airport property, the Project Sponsor shall implement a soil and seed bank conservation program that shall include Monterey spineflower seed and top soil collection and distribution.</p> <p>Monterey spineflower shall be conserved in the temporarily impacted portions of the Alternative 1 disturbance areas by broadcast seeding and relocating the soil seed bank. Seed to be broadcast shall be collected from the project areas prior to the start of construction. All seed collection activities shall be conducted by a USFWS-approved biologist. This species flowers from April through June; therefore, seed collection shall begin in August and continue through September, or when seed production ceases. To the extent feasible, all available seed shall be collected from plants located in the project disturbance areas.</p> <p>Soil from the project disturbance areas containing Monterey spineflower seed shall be collected and reapplied. To accomplish this, the upper six inches of soil located within the vicinity of existing Monterey spineflower individuals shall be collected and redistributed prior to grading activities. Soil collection shall occur immediately following completion of seed collection and prior to the first rainfall. The collected soil shall be immediately distributed in the disturbance areas that do not have existing Monterey spineflower occurrences. The collected seed shall be broadcast over the relocated soil, and then the receptor site shall be lightly raked to cover the seed.</p>	<p>Less than Significant</p>
<p>Impact BIO-17: The anticipated loss of 156 Yadon's piperia (federally endangered and CNPS Rank 1B.1) under Alternative 1 is considered Potentially Significant per Threshold 4.4-1.</p>	<p>BIO/mm-18 - Yadon's piperia located on the Airport in the vicinity of the Highway 68 frontage road loop and the adjacent 5.5-acre private property boundary shall be removed and implementation of BIO/mm-8 would be necessary in this location.</p> <p>The Highway 68 frontage road and terminal loop road shall be designed to be constructed on the existing asphalt to avoid impacts to the Yadon's piperia that are located on the Airport and the adjacent 5.5-acre private property boundary. Prior to construction of the terminal parking garage and circulation road(s), the construction plans shall clearly show the placement of construction exclusion fence along the toe of slope on both the Airport and the adjacent 5.5-acre private property boundary. The intent of the fence is to exclude the Yadon's piperia occurrences from accidental disturbance during construction. The fence shall be maintained in place throughout the construction period.</p> <p>BIO/mm-19 - To minimize the impacts to Yadon's piperia, the Project Sponsor shall retain a qualified biologist to design and implement a five-year Yadon's piperia seed and bulb collection and translocation program. The seed and bulb translocation program shall be prepared and approved for implementation by the Project Sponsor in the two years prior to construction of any Alternative 1 component that would impact Yadon's piperia, including but not limited to construction of the relocated terminal and associated aircraft ramp and the Highway 68 frontage road. The Yadon's piperia seed and bulb collection and translocation program shall include the following:</p>	<p>Potentially Significant and Unavoidable</p>

TABLE ES-5 (Continued)

	<ul style="list-style-type: none"> • Detailed methods and a schedule for the collection and distribution of Yadon’s piperia seed and the translocation of Yadon’s piperia bulbs of individuals that are in the construction area(s). <ul style="list-style-type: none"> – During the flowering/blooming period for Yadon’s piperia (anticipated to be May-July) and in the year prior to project construction, a qualified biologist shall mark with pin flags individual Yadon’s piperia plants that will be impacted by the project construction. – During the time that the marked Yadon’s piperia are setting seed (anticipated to be between August-September), the biologist shall collect seed from the marked individuals. The collected seed shall be redistributed in a predetermined seed and bulb receiver site that is located adjacent to but outside of the disturbance area. Due to mycorrhizal associations, the seed and bulb receiver site must be near existing Yadon’s piperia individuals. <ul style="list-style-type: none"> ▪ Prior to distributing the collected seed in the receiver site, the receiver site shall be cleared of non-native vegetation. ▪ Once the seed receiver site is prepared, the biologist shall hand broadcast the seed in the receiver site, gently rake the seed into the duff/soil surface and cover the seed with pine needle duff. ▪ The seed and bulb receiver site and nearby Yadon’s piperia occurrences shall be fenced during construction to exclude the area from accidental damages during construction activities. • Prior to construction and when plants are dormant (anticipated to be October-December), the biologist shall excavate and relocate bulbs of the marked plants to the seed and bulb receiver site. The bulbs shall be planted approximately six inches below the soil surface. • Following completion of the seed and bulb relocation efforts, the biologist shall monitor the receiver site for four consecutive years. The goal of the monitoring shall be to quantify and document the number of individuals that emerged in the receiver site, the presence of non-native vegetation, and overall success of the translocation efforts. <p>Non-native vegetation removal must be conducted during the monitoring program. Non-native vegetation removal may not utilize translocated herbicides due to root to tuber/bulb transfer.</p>	
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TABLE ES-5 (Continued)		
<p>Impact BIO-18: Although Alternative 1 has been designed to avoid known Seaside bird’s beak (state endangered and CNPS Rank 1B.1), this plant is an annual species and its numbers and exact location can fluctuate. Thus, losses of the species could still occur. This is considered Potentially Significant per Threshold 4.4-1 per Threshold 4.4-1.</p>	<p>BIO/mm-20 - To account for Seaside bird’s beak seasonal population fluctuations and facilitate species avoidance, the Project Sponsor shall conduct annual surveys for Seaside bird’s beak in the Airport-owned parcel located between two adjacent private properties along Highway 68. The annual Seaside bird’s beak survey shall be conducted in June, July, or August of each year preceding the final design and development of the chosen Highway 68 frontage road alignment. The intent of the annual survey effort is to collect GPS data on the species’ distribution and develop a multi-season assessment of the quantity and distribution of the Seaside bird’s beak occurrences near the Highway 68 frontage road alignment. The annual survey GPS data shall be provided to the Airport so that the project design team can use the survey data during the development of the final design plans to align the proposed road in such a manner that avoids impacts to the Seaside bird’s beak.</p> <p>If full avoidance of the Seaside bird’s beak is feasible, the project contractors, under the direction of an environmental monitor, shall install construction exclusion fencing around the occurrences to exclude construction related disturbances from the area. If the design team determines that full avoidance of the species is not feasible, the Project Sponsor shall delay construction of the Highway 68 frontage road until they have coordinated with the CDFW to obtain a CESA 2081-Incidental Take Permit.</p>	<p>Less than Significant</p>
<p>Long-Term Project Impacts (Programmatic)</p>		
<p>Impact BIO-19: Any future loss of sandmat manzanita (CNPS Rank 1B.2) under Alternative 1 is considered Potentially Significant per Threshold 4.4-1.</p>	<p>BIO/mm-21 - Prior to approving any proposed long-term projects on undeveloped lands at the Airport, the Project Sponsor shall retain a qualified biologist to conduct floristic botanical surveys and wildlife surveys in future project area(s) and prepare a Biological Resources Survey Report (BRSR). The surveys and subsequent BRSR shall determine if special-status species occur in the development area(s) and if special-status species would be impacted by proposed long-term project(s). If impacts to special-status species would occur, the biologist and the Project Sponsor shall develop mitigation strategies to address the impacts.</p> <p>The following recommendations for mitigation ratios/strategies for some plants known to occur in the development areas may be applied to proposed long-term project(s):</p> <ul style="list-style-type: none"> • <u>Seaside bird's beak</u>. The Project Sponsor shall coordinate with CDFW to obtain a 2081-Incidental Take Permit under the CESA. Under the 2081-Incidental Take Permit, mitigation ratios for Seaside bird's beak may require purchasing replacement habitat that is occupied by the species and conducting rehabilitation efforts on the replacement land. 	<p>Less than Significant</p>

TABLE ES-5 (Continued)

	<ul style="list-style-type: none"> • <u>Yadon's piperia</u>. For proposed long-term projects with a federal nexus, the Project Sponsor shall coordinate with FAA and USFWS during the FESA, Section 7 process. Mitigation may require the Project Sponsor to implement minimization and conservation measures that relocate the individuals to be impacted. If these efforts fail or are deemed insufficient by USFWS, purchasing replacement habitat that is occupied by the species and conducting rehabilitation efforts on the replacement land may be required. <ul style="list-style-type: none"> – For projects that do not have a federal nexus, the Project Sponsor shall implement BIO/mm-10. • <u>Monterey spineflower</u>. For proposed long-term projects with a federal nexus, the Project Sponsor shall coordinate with the FAA and USFWS during the FESA, Section 7 process. Mitigation may require the Project Sponsor to implement minimization and conservation measures that involve seed and seed bank collection and redistribution on the airport property. <ul style="list-style-type: none"> – For projects that do not have a federal nexus, the Project Sponsor shall implement BIO/mm-8. • <u>CNPS Rare Plant Ranked 1, 2, and 3 species</u>. For each CNPS Rare Plant Ranked 1, 2, and 3 species (excluding Monterey pine) impacted by a proposed long-term project(s), the Project Sponsor shall plant two container plants of the same species for each one plant impacted (2:1). The replacement plantings shall be planted in any of the four onsite conservation areas or an established offsite conservation area. The replacement plantings shall be monitored and maintained for no less than five years. • <u>CNPS Rare Plant Ranked 4 species</u>. For each CNPS Rare Plant Ranked 4 species impacted by a proposed long-term project(s), the Project Sponsor shall: <ul style="list-style-type: none"> – For annual species, collect seed prior to project disturbance and redistribute the collected seed in suitable habitat in the project area following completion of disturbance. <p>For perennial species, propagate and plant one (1) container plant of the same species for each on plant impacted (1:1). The container plants shall be planted in any of the four onsite conservation areas or an established offsite conservation area. The replacement plantings shall be monitored and maintained for no less than three years.</p> 	
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TABLE ES-5 (Continued)		
Impact BIO-20: Any future loss of Monterey pine (CNPS Rank 1B.1) under Alternative 1 is considered Potentially Significant per Threshold 4.4-1.	BIO/mm-21 - See above for Impact BIO-19.	Potentially Significant and Unavoidable
Impact BIO-21: Any future loss of Eastwood’s goldenbush (CNPS Rank 1B.1) under Alternative 1 is considered Potentially Significant per Threshold 4.4-1.	BIO/mm-21 - See above for Impact BIO-19.	Less than Significant
Impact BIO-22: Any future loss of Monterey ceonothus (CNPS Rank 4.2) under Alternative 1 is considered Potentially Significant based on CNPS recommendations per Threshold 4.4-1.	BIO/mm-21 - See above for Impact BIO-19.	Less than Significant
Impact BIO-23: Any future loss of small-leaved lomatium (CNPS Rank 4.2) under Alternative 1 is considered Potentially Significant based on CNPS recommendations per Threshold 4.4-1.	BIO/mm-21 - See above for Impact BIO-19.	Less than Significant
Impact BIO-24: Any future loss of Monterey spineflower (federally endangered and CNPS Rank 1B.2) and its attendant seed bank (i.e., occupied habitat) under Alternative 1 is considered Potentially Significant per Threshold 4.4-1.	BIO/mm-21 - See above for Impact BIO-19.	Less than Significant
Impact BIO-25: Any future loss of Yadon’s piperia (federally endangered and CNPS Rank 1B.1) under Alternative 1 is considered Potentially Significant per Threshold 4.4-1.	BIO/mm-21 - See above for Impact BIO-19.	Potentially Significant and Unavoidable
Impact BIO-26: Any future loss of Seaside bird’s beak (state endangered and CNPS Rank 1B.1) under Alternative 1 is considered Potentially Significant per Threshold 4.4-1.	BIO/mm-21 - See above for Impact BIO-19.	Less than Significant
Threshold 4.4-2 - Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS		
Construction and Short-Term Project Impacts		
Impact BIO-30: A loss of 4.16 acres of sandmat manzanita chaparral under Alternative 1 is considered Potentially Significant per Threshold 4.4-2.	BIO/mm-22 - Prior to ground disturbance, the Project Sponsor shall retain an environmental monitor for all measures requiring environmental mitigation to ensure compliance with the EIR mitigation measures. The monitor shall be responsible for: <ol style="list-style-type: none"> 1. Ensuring that procedures for verifying compliance with environmental mitigations are implemented; 2. Establishing lines of communication and reporting methods; 3. Conducting daily and weekly compliance reporting; 4. Conducting construction crew training regarding environmentally sensitive areas; 5. Maintaining authority to stop work; and 6. Outlining actions to be taken in the event of non-compliance. Monitoring shall be at a frequency and duration determined by the Project Sponsor and in consultation with the affected natural resource agencies (e.g., CDFW and USFWS). 	Less than Significant

TABLE ES-5 (Continued)

	<p>BIO/mm-23 - All proposed grading plans shall clearly show the location of project delineation fencing that excludes adjacent sensitive communities from disturbance. The fencing shall consist of highly visible construction fence supported by steel T-stakes that are driven into the soil. The monitoring biologist shall field-fit the placement of the project delineation fencing to minimize impacts to adjacent communities and other sensitive resources. The project delineation fencing shall remain in place and functional throughout the duration of the project and no work activities shall occur outside the delineated work area. The grading plans shall clearly show all staging areas, which shall be located within the construction area and outside the adjacent habitat areas.</p> <p>BIO/mm-24 - Prior to the commencement of site grading, an environmental monitor shall conduct environmental awareness training for all construction personnel. The environmental awareness training shall include discussions of the special communities and special-status species that occur in the project area. Topics of discussion shall include:</p> <ol style="list-style-type: none"> 1. Description of the species’ habitats; general provisions and protections afforded by the FESA and CEQA; 2. Measures implemented to protect special-status species; 3. Review of the project boundaries and special conditions; 4. The monitor’s role in project activities; 5. Lines of communication; and 6. Procedures to be implemented in the event a special-status species is observed in the work area. <p>BIO/mm-25 - The Project Sponsor shall prepare a detailed erosion control plan, which shall address both temporary and permanent measures to control erosion. Erosion and soil protection shall be provided on all cut and fill slopes and the soil deposition areas. The erosion control plan shall include revegetation measures including mulching, hydro-seeding, or planting methods as appropriate. All permanent erosion control measures shall be initiated as soon as possible after completion of grading, and prior to the onset of the rainy season (October 15). Permanent revegetation and landscaping shall emphasize native shrubs and trees to improve the probability of slope and soil stabilization without adverse impacts to slope stability due to irrigation infiltration and long-term root development. Vegetation shall be watered regularly to ensure adequate root establishment.</p> <p>BIO/mm-26 - Prior to implementation of any Alternative 1 project, the Project Sponsor shall prepare a HCEP that designates an 18.86-acre conservation area (Conservation Area 4) along the Airport’s northern property boundary as Open Space on the ALP. The HCEP shall provide for the conservation and management of approximately 11.92 acres of coast live oak woodland, 5.92 acres of sandmat manzanita chaparral, and 1.0 acre of Monterey pine forest habitats. Exhibit 4.4D shows the location of Conservation Area 4 and its associated habitat types.</p>	
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TABLE ES-5 (Continued)

	<p>Future activities in Conservation Area 4 shall be limited to preserving and rehabilitating the coast live oak woodland, sandmat manzanita, Monterey pine forest, and special-status plant species that occur in the conservation area. Habitat rehabilitation activities shall focus on invasive species removal; planting native coast live oak woodland, sandmat manzanita chaparral, and Monterey pine forest associates; and augmenting the native rare plant species populations.</p> <p>The HCEP shall be prepared by a qualified biologist and/or botanist and shall detail the methods for managing the conservation area. At a minimum, the HCEP should include the following elements:</p> <ol style="list-style-type: none"> 1. A brief narrative of the project location, description, and purpose; 2. Clearly identify the parties responsible for the conservation program and their contact information; 3. A map showing and quantifying all conservation areas; 4. Designation of a Monterey spineflower seed and soil receiver site; 5. Detailed discussion of the methods for implementing the HCEP including invasive species removal, sources of plant materials, and supplemental watering regimes; 6. Methods for the identification and removal of diseased or dead trees. 7. Detailed discussions of a special-status plant species propagation program. Special-status plant propagules shall be collected from the disturbance areas, grown, and reintroduced into the conservation areas; 8. Identification of locations, amounts, sizes, and types of plants to be planted, inclusive of at least 100 coast live oak trees, 2,000 sandmat manzanita container plants, and 25 Monterey pine trees. 9. Identification of necessary components (e.g., temporary irrigation, amendments, etc.) to ensure successful plant reestablishment; 10. A program schedule and established success criteria for a seven-year monitoring and reporting program that is structured to ensure the success of the HCEP. 11. Detailed discussions of the methods to be employed for implementing all additional habitat conservation requirements put forth by the USFWS and CDFW as appropriate. <p>BIO/mm-27 - The Project Sponsor shall retain a qualified biologist/botanist to supervise and monitor the implementation of the HCEP. The biologist/botanist shall supervise plant propagation, site preparation, implementation timing, species utilized, planting installation, maintenance, monitoring, and reporting of the habitat rehabilitation efforts. The biologist/botanist shall prepare and submit six annual reports and one final monitoring report to the Airport and other agencies as appropriate. The annual and final monitoring reports shall include discussions of the project activities, project photographs, and an assessment of the mitigation efforts' attainment of the success criteria.</p>	
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TABLE ES-5 (Continued)

	<p>BIO/mm-28 - The Project Sponsor shall include in the Alternative 1 design plans the installation of a water supply and irrigation system. The system will supply water for temporary irrigation that will be used to provide supplemental water to Conservation Area 4. The water supply and temporary irrigation system shall be installed as part of the short-term project development and prior to the installation of planting installation.</p> <p>BIO/mm-29 - The Project Sponsor shall implement an offsite habitat conservation program that benefits local flora and fauna with emphasis on coast live oak woodland, maritime chaparral, and rare plant conservation. The conservation program shall be implemented on lands in the coastal Monterey area, preferably near the Airport. The Project Sponsor is currently pursuing conservation lands located just east of the Airport that supports approximately 1.04 acres of annual brome grasslands, 2.55 acres of coast live oak woodland, 4.01 acres of arroyo willow thicket, 3.41 acres of chamise chaparral, and 4.08 acres of woolly leaf manzanita chaparral. Exhibit 4.4D shows the location of the potential offsite conservation lands. The potential conservation lands are located adjacent to an existing Native Rare Plant Reserve that was established by USACE's <i>Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord</i> (1997). Should the acquisition of the potential conservation lands not be completed, the Project Sponsor shall pursue the acquisition of other lands that support or has the potential to support coast live oak woodland and maritime chaparral communities. Once the offsite conservation lands are secured, the Project Sponsor shall place the lands under a conservation easement in perpetuity.</p> <p>BIO/mm-30 - Upon acquisition of the offsite conservation lands, the Project Sponsor shall conduct a biological inventory of the conservation lands that includes floristic botanical surveys and wildlife surveys as appropriate. The intent of the biological inventory is to identify and quantify the resources present on the conserved lands and provide a baseline for the implementation of a resource-focused conservation program.</p> <p>BIO/mm-31 - The Project Sponsor shall prepare and implement a conservation program on the conserved lands. The conservation program shall utilize the biological inventory to develop management actions that focus on conserving, rehabilitating, and/or enhancing the biological resources present. At a minimum, the conservation program shall include:</p> <ol style="list-style-type: none"> 1. A brief narrative of the conservation lands' location, description, and purpose; 2. Clearly identify the parties responsible for the conservation program and their contact information; 3. Maps showing and quantifying all conservation areas, habitats, invasive species, native rare species, and suitable rehabilitation areas; 4. Identification of suitable habitat rehabilitation plant species including rare plants to be installed for mitigation for future projects proposed by the Project Sponsor. 	
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TABLE ES-5 (Continued)		
	<p>5. Detailed discussion of the methods for implementing the conservation program including invasive species removal, installation and maintenance of plant materials, and supplemental watering regimes;</p> <p>6. Methods for the identification and removal of diseased or dead trees, as needed.</p> <p>7. Detailed discussions of a special-status plant species management;</p> <p>8. Identification of necessary components (e.g., temporary irrigation, amendments, etc.) to ensure successful plant reestablishment;</p> <p>A program schedule for a seven-year monitoring and reporting program that is structured to ensure the successful management of the conserved lands.</p>	
Impact BIO-31: A loss of 4.54 acres of Monterey pine forest under Alternative 1 is considered Potentially Significant per Threshold 4.4-2.	BIO/mm-22 through BIO/mm-31 - See above for Impact BIO-30.	Potentially Significant and Unavoidable
Impact BIO-32: A loss of 4.83 acres of coast live oak woodland (657 trees) under Alternative 1 is considered Potentially Significant per Threshold 4.4-2.	BIO/mm-22 through BIO/mm-31 - See above for Impact BIO-30.	Less than Significant
Construction and Long-Term Project Impacts (Programmatic)		
Impact BIO-33: Any future loss of sandmat manzanita chaparral under Alternative 1 is considered Potentially Significant per Threshold 4.4-2.	<p>BIO/mm-32 - Prior to approving any proposed long-term project in the proposed non-aviation development areas or the upgraded perimeter fence alignment that would convert undeveloped lands to developed areas or otherwise remove vegetation, the Project Sponsor shall retain a qualified biologist to map and quantify the vegetative communities that are present in the project area and determine if the project would result in a net loss of sandmat manzanita chaparral, Monterey pine forest, and/or coast live oak woodland.</p> <ul style="list-style-type: none"> • If a net loss of sandmat manzanita chaparral would occur, the Project Sponsor shall preserve and rehabilitate, re-establish, or create additional sandmat manzanita chaparral at a 2:1 ratio. The preserved sandmat manzanita chaparral may be located on the existing airport property or offsite, as appropriate. • If a net loss of coast live oak woodlands would occur, the Project Sponsor shall conduct one or a combination of the following: <ul style="list-style-type: none"> – Preserve and rehabilitate, re-establish, or create additional coast live oak woodland at a 2:1 ratio. The preserved coast live oak woodland may be located on the existing airport property or offsite, as appropriate. – Plant two coast live oak trees for each one coast live oak tree removed. Replacement trees may be planted on the existing airport property or offsite, as appropriate. Replacement trees should be grown from local (Monterey Peninsula) stock. 	Less than Significant

TABLE ES-5 (Continued)

	<ul style="list-style-type: none"> - Contribute \$1,000 to the Oak Woodlands Conservation Fund, as established under subdivision (a) of Section 1363 of the CFGC per each coast live oak tree removed for the project. The Project Sponsor shall coordinate with the CDFW and the State Wildlife Conservation Board (SWCB) to ensure that the contributed funds will be granted to the SWCB for the purpose of purchasing coast live oak woodland conservation easements. • If proposed long-term project(s) would impact Monterey pine forest, the Project Sponsor shall design the project(s) to minimize the impact to the greatest extent possible. If Monterey pine trees will be removed for proposed long-term project(s), the Project Sponsor shall incorporate Monterey Pine trees into the project design, in such a manner that does not conflict with safe flight operations at the Airport. • For any proposed long-term project that results in a net loss of sandmat manzanita chaparral or coast live oak woodland that shall be mitigated through the preservation and rehabilitation, re-establishment, or creation of habitat, the Project Sponsor shall develop a project specific habitat mitigation and monitoring plan (HMMP). The HMMP shall: <ol style="list-style-type: none"> 1. Identify the project description and mitigation requirements; 2. Identify the responsible parties; 3. Map and quantify all preservation/mitigation areas; 4. Provide detailed discussions of the methods for implementing the mitigation program including invasive species removal, sources of plant materials, and supplemental watering regimes; 5. Identify the locations, amounts, sizes, and types of plants to be planted; 6. Identify necessary components (e.g., temporary irrigation, amendments, etc.) to ensure successful plant reestablishment; 7. Provide a program schedule and established success criteria for a monitoring and reporting program that is structured to ensure the success of the mitigation. <p>BIO/mm-33 - For any proposed long-term project that has potential to impact a sensitive natural community or a special-status species, the Project Sponsor shall retain an environmental monitor for all measures requiring environmental mitigation to ensure compliance with the CEQA measures. The monitor shall be responsible for:</p> <ol style="list-style-type: none"> 1. Ensuring that procedures for verifying compliance with environmental mitigations are implemented; 2. Establishing lines of communication and reporting methods; 3. Conducting compliance reporting; 4. Conducting construction crew training regarding environmentally sensitive areas; 5. Maintaining authority to stop work; and 6. Outlining actions to be taken in the event of non-compliance. 	
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TABLE ES-5 (Continued)		
	<p>BIO/mm-34 - For any proposed long-term project that has potential to impact a sensitive natural community or will be conducted adjacent to a sensitive natural community, the Project Sponsor shall incorporate the use of construction delineation fencing to exclude construction-related impacts to the adjacent resources. The monitoring biologist shall field-fit the placement of the project delineation fencing to minimize impacts to adjacent communities and other sensitive resources. The project delineation fencing shall remain in place and functional throughout the duration of the project, and no work activities shall occur outside the delineated work area.</p> <p>BIO/mm-35 - For any proposed long-term project that has potential to impact a sensitive natural community or a special-status species, an environmental monitor shall conduct environmental awareness training for all construction personnel prior to the commencement of ground-disturbing activities. The environmental awareness training shall include discussions of the special communities and special-status species that occur in the project area. Topics of discussion shall include:</p> <ol style="list-style-type: none"> 1. Description of the species' habitats; 2. General provisions and protections afforded by the FESA and CEQA; 3. Measures implemented to protect special-status species; 4. Review of the project boundaries and special conditions; 5. The monitor's role in project activities; 6. Lines of communication; and <p>Procedures to be implemented in the event a special-status species is observed in the work area.</p>	
Impact BIO-34: Any future loss of Monterey pine forest under Alternative 1 is considered Potentially Significant per Threshold 4.4-2.	BIO/mm-32 through BIO/mm-35 - See above for Impact BIO-33.	Potentially Significant and Unavoidable
Impact BIO-35: Any future loss of coast live oak woodland under Alternative 1 is considered Potentially Significant per Threshold 4.4-2.	BIO/mm-32 through BIO/mm-36 - See above for Impact BIO-33.	Less than Significant

TABLE ES-5 (Continued)

Threshold 4.4-3 - Conflict with any local policies or ordinances protecting biological resources

Construction and Short-Term Project Impacts

<p>Impact BIO-38: Construction and operation of proposed short-term projects under Alternative 1 within the Terminal Area Parking and Circulation Area, Highway 68 Frontage Road Cul-de-sac, and South Side Drainage Improvements subareas could be inconsistent with Chapter 37 of the City of Monterey City Code regarding tree removal, which is considered a Potentially Significant impact.</p>	<p>BIO/mm-39 - During the City of Monterey permitting process for the Highway 68 frontage road cul-de-sac and associated terminal area parking and circulation components, the Project Sponsor shall coordinate with the City Forester to determine an appropriate in-lieu fee for the replacement of 67 coast live trees, 164 Monterey pine trees, 17 Monterey cypress trees, and four golden wattle trees that would be removed. Per the City of Monterey Code 37-11(D), the in-lieu fee payment to the City of Monterey shall be equivalent to the value of the removed trees or the cost of the numbers of replacement trees as determined by City Council Resolution. The value of the trees shall be established and conform to standards adopted by City Council Resolution. The payment shall be used to plant additional trees offsite in a location approved by the City Forester.</p>	<p>Less than Significant</p>
<p>Impact BIO-39: Construction and operation of proposed short-term projects under Alternative 1 within the Terminal Area Parking and Circulation Area, Highway 68 Frontage Road Cul-de-sac, and South Side Drainage Improvements subareas could be inconsistent with City of Monterey biological resource policies of its Conservation Element, which is considered a Potentially Significant impact.</p>	<p>BIO/mm-40 - The Project Sponsor shall incorporate California native plant species in the landscape designs of the proposed “north side” road and Highway 68 frontage road designs.</p> <p>BIO/mm-41 - The Project Sponsor shall not utilize any plant species that are listed on the California Exotic Pest Plant Council lists in the landscape designs of any of the Alternative 1 components.</p>	<p>Less than Significant</p>
<p>Construction and Long-Term Project Impacts</p>		
<p>Impact BIO-40: Proposed construction and operation of long-term projects under Alternative 1 within the Terminal Area Parking and Circulation Area, Highway 68 Frontage Road Loop or Highway Frontage Road Cul-de-sac, and South Side Drainage Improvements subareas could be inconsistent with Chapter 37 of the City of Monterey City Code regarding tree removal, which is considered a Potentially Significant impact.</p>	<p>BIO/mm-42 - The Project Sponsor shall incorporate California native plant species in the landscape designs of any proposed long-term project that is conducted in the City of Monterey jurisdiction.</p>	<p>Less than Significant</p>

TABLE ES-5 (Continued)		
<p>Impact BIO-41: Proposed construction and operation of long-term projects under Alternative 1 within the Terminal Area Parking and Circulation Area, Highway 68 Frontage Road Loop or Highway Frontage Road Cul-de-sac, and South Side Drainage Improvements subareas could be inconsistent with City of Monterey biological resource policies of its Conservation Element, which is considered a Potentially Significant impact.</p>	<p>BIO/mm-43 - The Project Sponsor shall not utilize any plant species that are listed on the California Exotic Pest Plant Council lists in the landscape designs of any proposed long-term project that is conducted in the City of Monterey jurisdiction.</p> <p>BIO/mm-44 - For any proposed long-term project conducted in the City of Monterey jurisdiction that will result in the removal of coast live oak, Monterey pine, or Monterey cypress trees, the Project Sponsor shall conduct one of the following tree mitigation efforts:</p> <ul style="list-style-type: none"> Per the City of Monterey City Code 37-11(C), the Project Sponsor shall replace any coast live oak, Monterey pine, or Monterey cypress tree(s) that are removed for proposed long-term projects that occur in the City of Monterey jurisdiction, as directed by the City Forester. The replacement trees should be planted onsite, if feasible, but may be planted offsite if project conditions prohibit onsite planting. The removed trees shall be replaced at a ratio of up to three trees for every one tree removed. <p>During the City of Monterey permitting process for proposed long-term projects that are conducted in the City of Monterey jurisdiction, the Project Sponsor shall coordinate with the City Forester to determine an appropriate in-lieu fee for the replacement of coast live trees, Monterey pine trees, and/or Monterey cypress trees that would be removed for the project. Per the City of Monterey Code 37-11(D), the in-lieu fee payment to the City of Monterey shall be equivalent to the value of the removed trees or the cost of the numbers of replacement trees as determined by City Council Resolution. The value of the trees shall be established and conform to standards adopted by City Council Resolution. The payment shall be used to plant additional trees offsite in a location approved by the City Forester.</p>	<p>Less than Significant</p>

TABLE ES-5 (Continued)		
Threshold 4.4-4 - Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan		
Construction and Short-Term Project Impacts		
<p>Impact BIO-42: Alternative 1 would remove 1.25 acres of previously established conservation areas for the RSA Project due to the construction and operation of the “north side” road and is considered a Potentially Significant impact under Threshold 4.4-4.</p>	<p>BIO/mm-45 - To replace the 0.79 acre of Conservation Area 1 (sandmat manzanita chaparral) that would be removed by the construction of the Alternative 1 “north side” road, the Airport shall designate 1.1 acres of existing sandmat manzanita chaparral as open space on the ALP and manage the resource per the guidelines of the RSA Project HCEP. The Airport shall revise the RSA Project HCEP to incorporate the new Conservation Area 1 boundaries and extend the conservation area invasive species management for an additional two years. The 1.1 acres to be designated as open space is located immediately north of the Conservation Area 1 boundary and within the existing airport perimeter fence (refer to Conservation Area 1 Replacement in Exhibit 4.4D).</p> <p>BIO/mm-46 - To replace the 0.46 acre of Conservation Area 2 (coast live oak woodland) that would be removed by the construction of the Alternative 1 “north side” road, the Airport shall designate 0.46 acre of existing coast live oak woodland as open space on the ALP and manage the resource per the guidelines of the HCEP. The Airport shall revise the RSA Project HCEP to incorporate the new Conservation Area 2 boundaries and extend the conservation area invasive species management for an additional two years. The 0.46 acre to be designated as open space is located at the northwest corner of the airport property near the existing detention basin (refer to Conservation Area 2 Replacement in Exhibit 4.4D).</p>	<p>Less than Significant</p>
Construction and Long-Term Project Impacts		
<p>Impact BIO-43: A proposed perimeter fence upgrade under Alternative 1 could directly impact the existing RSA Project Conservation Area 1, Conservation Area 2, and/or Conservation Area 1 Replacement areas and is considered a Potentially Significant impact.</p>	<p>BIO/mm-47 - To avoid direct impacts to the conservation areas on the airport property, the Project Sponsor shall design the upgraded perimeter fence alignment to avoid the conservation areas. If full avoidance of the conservation areas is not feasible, the Project Sponsor shall replace on a 1:1 basis all portions of the affected conservation area(s) that will fall within the upgraded perimeter fence. The replacement conservation areas shall support the same vegetative community type as the affected conservation area. Replacement conservation areas should be located on the airport property, if feasible. If establishing a replacement conservation area on the airport property is not feasible, the Project Sponsor may establish a replacement conservation area offsite, provided the replacement conservation area supports the same vegetative community type as the affected conservation area.</p>	<p>Less than Significant</p>
Cumulative Impacts		
<p>Yadon’s piperia, sandmat manzanita, Monterey spineflower, coast live oak, and Monterey pine experience loss and ongoing pressure from cumulative development including, loss of habitat and habitat fragmentation, erosion/sedimentation, manmade intrusions such as light, noise and overall activity, and the introduction of nonnative invasive species.</p>	<p>See BIO/mm above for Impacts BIO-1, BIO-2, BIO-11 through BIO-26, BIO-30 through BIO-35, and BIO-38 through Bio-43.</p>	<p>Potentially Significant and Unavoidable</p>

TABLE ES-5 (Continued)		
CULTURAL RESOURCES		
Threshold 4.5-2 - Cause a substantial adverse change in the significance of an archaeological resource as defined in State CEQA Guidelines, Section 15064.5		
<p>Impact CUL-1: Unknown archaeological resources could be adversely impacted by proposed construction and/or operation under Alternative 1 for both short and long-term projects.</p>	<p>CUL/mm-1 - Prior to project implementation, a qualified archaeologist shall conduct a cultural resource awareness training for all construction personnel, which shall include the following:</p> <ul style="list-style-type: none"> • Review the types of prehistoric and historic resources that may be uncovered; • Provide examples of common prehistoric and historic archaeological artifacts to examine; • Review what makes an archaeological resource significant to archaeologists and local Native Americans; • Describe procedures for notifying involved or interested parties in case of a new discovery; • Describe reporting requirements and responsibilities of construction personnel; • Review procedures that shall be used to record, evaluate, and mitigate new discoveries; and • Describe procedures that would be followed in the case of discovery of disturbed as well as intact human burials and burial-associated artifacts. <p>CUL/mm-2 - In the event that cultural resources are exposed during project implementation, work shall stop in the immediate vicinity, and an archaeologist who meets the Secretary of the Interior’s Professional Qualification Standards shall be retained to evaluate the find and recommend relevant mitigation measures.</p> <p>CUL/mm-3 - In areas of dense vegetation that have not been subject to extensive prior disturbance, an archaeological monitoring plan shall be developed prior to project implementation (Exhibit 4.5E). The archaeological monitoring plan shall include (but not be limited to) the following (see also Section 4.17.6):</p> <p>A list of personnel involved in the monitoring activities;</p> <ul style="list-style-type: none"> • Description of how the monitoring shall occur; • Description of frequency of monitoring (e.g., full time, part time, spot checking); • Description of what resources are expected to be encountered; • Description of circumstances that would result in the halting of work at the project site; • Description of procedures for halting work on the site and notification procedures; • Description of monitoring reporting procedures; and <p>Provide specific, detailed protocols for what to do in the event of the discovery of human remains.</p>	<p>Less than Significant</p>
Cumulative Impacts		
<p>Impacts could occur to unknown cultural resources or human remains.</p>	<p>See CUL/mm-1 through CUL/mm-3 above for Impact CUL-1.</p>	<p>Less than Significant</p>

TABLE ES-5 (Continued)		
GEOLOGY AND SOILS		
Threshold 4.7-2 – Result in substantial soil erosion or the loss of topsoil		
<p>Impact GEO-1: Alternative 1 could cause substantial soil erosion, including a loss of topsoil.</p>	<p>GEO/mm-1 - Final manufactured slopes shall not exceed the geotechnical investigation recommendations provided per GEO/mm-2 and all exposed surfaces shall be vegetated or otherwise protected from erosion as recommended in a site/project-specific erosion control plan.</p> <p>For projects disturbing one acre or more, a SWPPP shall be prepared subject to approval by the Central Coast Regional Water Quality Control Board (see also GEO/rr-5). The erosion control plan or SWPPP shall include BMPs, as well as measures to address site/project-specific concerns. At a minimum, all slopes shall be vegetated by hydroseeding or other landscape ground cover.</p> <p>GEO/rr-5 - Individual projects that have a potential for one acre or more of ground disturbance are required to obtain NPDES coverage under the state’s Construction General Permit Order 2009-2009-DWQ (Construction General Permit) and incorporate BMPs to reduce erosion and sedimentation through implementation of a construction-specific SWPPP.</p>	<p>Less than Significant</p>
Threshold 4.7-3 – 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 offsite landslide, lateral spreading, subsidence, liquefaction or collapse		
<p>Impact GEO-2: Alternative 1 could expose persons and structures to unacceptable factors of safety with respect to static slope movement and other slope instability issues due to the presence of geologic and soil instability hazards present at locations of proposed short-term projects.</p>	<p>GEO/mm-2 - Prior to submittal on the building plans and calculations for any buildings, including parking structures, to the appropriate reviewing engineer or Building Department for plan check review, a qualified geotechnical consultant shall prepare a design-level geotechnical investigation report performed in accordance with the current California Building Code, and related Code requirements, which are in effect at the time the project is being designed (see also GEO/rr-1). The investigation shall include field exploration, laboratory testing, engineering analysis and geotechnical recommendations for earthwork and foundations. The project plans and calculations shall incorporate the geotechnical recommendations from the geotechnical consultant.</p> <p>GEO/mm-3 - Prior to plan check approval, the geotechnical consultant shall perform a geotechnical review of the project plans and specifications to confirm the geotechnical recommendations have been incorporated into the project construction documents. A plan review letter from the geotechnical consultant shall be submitted to the reviewing engineer or Building Department for review and approval.</p> <p>GEO/mm-4 - The geotechnical consultant shall be retained to perform geotechnical observation and testing for the project during construction. At the completion of construction and at intervals specified by the reviewing engineer or Building Department, the geotechnical consultant shall prepare summary letters documenting that the soil conditions encountered were compatible with the proposed foundation, slab-on-grades for the parking structures, and other buildings and that the geotechnical recommendations have been implemented by the contractor as required in the project plans and specifications.</p>	<p>Less than Significant</p>

TABLE ES-5 (Continued)		
	<p>GEO/rr-1 - Chapter 18, Soils and Foundations, of the CBSC requires that geotechnical evaluation be conducted that include, among other requirements, a record of the soil profile, evaluation of active faults in the area, and recommendations for foundation type and design criteria that address issues as applicable such as (but not limited to) bearing capacity of soils, provision to address expansive soils and liquefaction, settlement and varying soil strength.</p> <p>GEO/rr-2 - The Seismic Hazards Mapping Act, along with related standards in the Seismic Hazards Mapping Regulations (CCR, Title 14, Division 2, Chapter 8, Article 10, Section 3270 et seq.), directs local governments to require the completion and review of appropriate geotechnical studies prior to approving development projects.</p> <p>GEO/rr-3 - For those project components located within the City of Monterey, the following Safety Element policy is applicable:</p> <p style="padding-left: 40px;">Policy a2. Engineering and geologic investigations should be undertaken for proposed projects within high and moderate seismic hazard zones before approval is given by the City. The entire City is currently within seismic hazard zone IV and these studies are required for almost all new construction except for very minor additions.</p> <p>GEO/rr-4 - In accordance with California law, project design and construction would be required to comply with provisions of the CBSC. The MPAD Board has adopted all applicable building codes per MPAD Ordinance No. 921.</p>	
GREENHOUSE GAS EMISSIONS		
Threshold 4.8-1 - Result in a net increase in GHG emissions by 2035 compared to existing 2015 conditions		
<p>Impact GHG-2: Since projected future GHG emissions associated with Alternative 1 would increase above estimated 2015 levels, impacts of Alternative 1 related to GHG emissions are Potentially Significant under Threshold 4.8-1.</p>	<p>GHG/mm-1 - The following measures for construction vehicles and/or equipment shall be implemented:</p> <ol style="list-style-type: none"> 1. All off-road, diesel-powered construction equipment greater than 50 horsepower shall be equipped with U.S. EPA Tier 3 (or greater) engines; 2. Construction vehicles shall minimize idling time either by shutting equipment off when not in use or reducing the time of idling to no more than three minutes; 3. All diesel equipment used for the project shall meet State of California diesel equipment requirements and be registered through the Statewide Portable Equipment Registration Program or the Diesel Off-Road Online Reporting System; 4. The contractor shall use “clean air” alternate fuel vehicles when available; 5. The contractor shall reduce electrical generator usage wherever possible; and 6. The contractor shall use an MBARD-approved low carbon fuel for construction equipment when available. 	<p>Significant and Unavoidable</p>

TABLE ES-5 (Continued)		
	<p>GHG/mm-2 - The following measures for construction administration shall be implemented:</p> <ol style="list-style-type: none"> 1. The contractor shall encourage carpools for construction worker commutes; and 2. The contractor shall reduce electricity use in the construction office by using compact fluorescent bulbs, powering off computers every day, and demonstrating the efficiency of heating and cooling units. <p>GHG/mm-3 - The Airport shall provide language in future tenant lease agreements to require the use of high-efficiency equipment, including EnergyStar certified appliances and LED or equivalent interior and exterior lighting, where applicable.</p> <p>GHG/mm-4 - The Airport shall continue to provide and maintain electric vehicle (EV) charging stations in the relocated commercial terminal parking lot.</p> <p>GHG/mm-5 - In coordination with Monterey-Salinas Transit, the public transit agency serving Monterey County, the Airport will provide a transit bus stop to serve the relocated commercial terminal.</p>	
Cumulative Impacts		
Additional GHG emissions would be generated.	See GHG/mm-1 through GHG/mm-3 above for Impact GHG-1. See also TR/mm-9 and TR/mm-10 below under Impact TR-6 and TR-7, respectively.	Potentially Significant and Unavoidable
HAZARDS AND HAZARDOUS MATERIALS		
Threshold 4.9-1 - Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials		
Impact HAZ-1: Since the construction of Alternative 1 proposed projects would require ground disturbance, there is a possibility that unknown hazardous sites or materials could be disturbed. This is a Potentially Significant impact per Threshold 4.9-1.	HAZ/mm-1 - Phase 1 (site inspection) and, if recommended based on the results of the Phase 1 report, Phase 2 (sampling and/or modeling) environmental site assessments shall be performed prior to construction for all ground disturbance activities for Alternative 1 projects. Recommendations regarding the need to remediate any contaminants shall be implemented, as necessary.	Less than Significant
Threshold 4.9-4 - For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area		
Impact HAZ-2: Proposed long-term non-aeronautical projects on the southern 3.6-acre parcel within proposed Safety Zone 5 could allow for a greater concentration of people than what is recommended in the Handbook (2011).	HAZ/mm-2 - The northern part of the 3.6-acre southern parcel within Safety Zone 5 shall remain as undeveloped open space.	Less than Significant
Impact HAZ-3: Proposed long-term non-aeronautical projects in the 4.3-acre area within proposed Safety Zone 3 on the north side of the Airport could allow for a greater concentration of people than what is recommended in the Handbook (2011).	HAZ/mm-3 - Proposed non-aeronautical projects in the 4.3-acre area on the north side of the Airport within Safety Zone 3 shall not exceed the non-residential intensity maximums described in the 2011 Handbook for Safety Zone 3.	Less than Significant

TABLE ES-5 (Continued)		
<p>Impact HAZ-4: Proposed long-term non-aeronautical projects in two areas on the north side (approximately 5.5 acres and approximately 3.5 acres) within proposed Safety Zone 2 could exceed the nonresidential intensities specified by the Handbook (2011).</p>	<p>HAZ/mm-4 - The 9.0 acres of land in the north side within Safety Zone 2 shall only be developed with light industrial uses and/or be preserved as open space consistent with the recommendations described in the 2011 Handbook for Safety Zone 2.</p>	<p>Less than Significant</p>
<p>HYDROLOGY AND WATER QUALITY</p>		
<p>Threshold 4.10-2 - Substantially deplete groundwater supplies or substantially interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table</p>		
<p>Impact HYD-1: Proposed long-term projects under Alternative 1 could use an increase of approximately 1.18 AF per year of groundwater (worst case). As this amount of water use exceeds the Airport’s existing groundwater entitlement, significant adverse impacts on groundwater supplies could occur if future development were to proceed as described.</p>	<p>HYD/mm-1 - Proposed long-term projects shall not proceed without a guaranteed water source that has been approved by the MPWMD and that shows that adverse groundwater impacts to constrained basins would not occur. Securing such a water source would involve mitigation recommended in the Utilities section of this EIR (UTIL/mm-1 through UTIL/mm-3).</p> <p>HYD/rr-4 - MPWMD is charged with allocating water within the Monterey Peninsula region, permitting the use of water credits for each jurisdiction/district, and regulating some aspects of water production and distribution by private purveyors (i.e., CalAm). One of the responsibilities of MPWMD is to balance water supply and demand through the MPWMD Water Allocation Program and to carefully track how much of the allotted water has been used by member jurisdictions. MPWMD evaluates a project’s water demand and issues a water permit for the project as depicted on the final construction plans.</p>	<p>Less than Significant</p>
<p>Cumulative Impacts</p>		
<p>Impacts to groundwater quality and demand could occur.</p>	<p>See HDY/mm-1 and HYD/rr-4 above under Impact HYD-1.</p>	<p>Less than Significant</p>
<p>LAND USE AND PLANNING</p>		
<p>Threshold 4.11-3 - Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for avoiding or mitigating an environmental effect</p>		
<p>Impact LU-1: Alternative 1 is inconsistent with City of Del Rey Oaks Policy C-3 and Policy C-13 of its general plan related to traffic impacts of the Proposed Project and Alternative 1. The Airport will participate in its fair share of mitigation for impacted intersection of bicycle route improvements, to the extent possible and consistent with FAA regulations and requirements relating to the use of airport revenue. However, since proposed traffic mitigation measures may not be feasible, these policy inconsistencies are considered Potentially Significant per Threshold 4.11.5.3.</p>	<p>None available</p>	<p>Potentially Significant and Unavoidable</p>

TABLE ES-5 (Continued)		
<p>Impact LU-2: Alternative 1 is inconsistent with City of Del Rey Oaks Policy C-17 of its general plan related to the proposed “north side” road. Until such time that a general plan amendment is approved, this policy inconsistency is considered Potentially Significant per Threshold 4.11.5.3.</p>	<p>LU/mm-1 - The Airport shall work with the City of Del Rey Oaks to implement a general plan amendment to the <i>General Plan Update for the City of Del Rey Oaks</i> to remove Policy C-17 to allow the construction of the proposed “north side” road.</p>	<p>Potentially Significant and Unavoidable</p>
<p>Impact LU-3: Alternative 1 is inconsistent with City of Monterey Policy b.4 of its Noise Element, which states, “Support limiting the number of fixed-base general aviation aircraft at the airport to the existing number.” Although the potential consistency exists due to federal preemption of the use of airports, this impact is considered Potentially Significant per Threshold 4.11-3.</p>	<p>None available</p>	<p>Significant and Unavoidable</p>
<p>Impact LU-4: Alternative 1 is inconsistent with City of Monterey Goal j, Policy j.2, and Programs j.1.1 and j.2.3 of its Circulation Element, which establish LOS D as an acceptable automobile LOS standard for roadway segments that are not within a multi-modal corridor and require a traffic analysis to determine appropriate mitigation and the funding of a pro-rata share toward improvements.</p>	<p>None available</p>	<p>Potentially Significant and Unavoidable</p>
<p>Impact LU-6: Alternative 1 is inconsistent with CONA Neighborhood Plan Airport Noise Policy 34, which states that the neighborhood is opposed to the use of neighborhood residential streets by automobile and truck traffic going to and from the Airport and businesses on the Airport property as Airport Road would remain in use for existing or replacement airport land uses located west of Gate V22. This inconsistency is considered Potentially Significant per Threshold 4.11-3. However, it is important to understand in the context of this inconsistency determination that CONA neighborhood roads are public roads and must allow public usage within the established regulations and codes.</p>	<p>None available</p>	<p>Significant and Unavoidable</p>
<p>Impact LU-7: Based on the Airport’s operational growth forecasts for 2025 and 2035, inconsistencies would occur with CONA Neighborhood Plan Noise Goals 2, 3 and 4 per Threshold 4.11-3. The Airport’s future 65 CNEL noise contours could impact the exterior noise levels of one additional residence by 2025 and four additional residences by 2035 within the CONA neighborhood (see Exhibits 4.12A - 4.12C). (These units have already been sound insulated to provide acceptable interior noise levels.) This is a Potentially Significant impact of Alternative 1.</p>	<p>None available</p>	<p>Potentially Significant and Unavoidable</p>

TABLE ES-5 (Continued)		
Impact LU-8: Similar to the existing condition, Alternative 1 is not consistent with the current CLUP. Therefore, impacts related to consistency with the CLUP are Potentially Significant per Threshold 4.11-3.	LU/mm-2 - Per state law (PUC, Section 21676[c]), the MPAD shall refer the Proposed AMP to the county ALUC. The ALUC is required to modify the CLUP to maintain consistency with the Proposed AMP.	Significant and Unavoidable
Cumulative Impacts		
Policy inconsistencies with the cities of Del Rey Oaks and Monterey regarding traffic levels of service and non-vehicular modes of transportation	See CUM TR/mm-10 through CUM TR/mm-13 below under Impact TR-2 and Impact TR-7.	Potentially Significant and Unavoidable
Policy inconsistencies with the City of Monterey and CONA regarding restricting future aircraft growth	None available due to federal preemption of airports	Potentially Significant and Unavoidable
AIRCRAFT NOISE		
Impact Criteria 4.10-1: Increase noise levels at noise-sensitive land uses to 65 CNEL or above as compared to the existing condition? (Thresholds 4.12.1-1 and 4.12.5-5)		
Impact NOI-1: Future 2025 noise contours based on operational forecasts prepared for the Proposed AMP identify one additional residence within the 65-70 CNEL noise contour from existing (2015) conditions to 2025 conditions. This residence has been sound attenuated but the exterior noise impacts would be Potentially Significant per Thresholds 4.12.1-1 and 4.12.1-5.	None available	Significant and Unavoidable
Impact NOI-2: Future 2035 noise contours based on operational forecasts prepared for the Proposed AMP identify four additional residences within the 65-70 CNEL noise contour from existing (2015) conditions to 2035 conditions. These residences have been sound attenuated but the exterior noise impacts would be Potentially Significant per Thresholds 4.12.1-1 and 4.12.1-5.	None available	Significant and Unavoidable
Impact NOI-3: Proposed long-term projects on the north side of the Airport under Alternative 1 could expose people working at the Airport to excessive noise levels if commercial offices are located within the existing or future 65 CNEL and adequate interior noise insulation is not incorporated into building design. Potential noise impacts would be Potentially Significant per Thresholds 4.12.1-1 and 4.12.1-5.	NOI/mm-1 - An interior acoustical noise study shall be required for any future commercial offices located within the existing or future 65 CNEL and recommended measures incorporated to ensure that the interior building noise levels remain 45 dB or less. This mitigation is consistent with the conditions provided for in the CLUP.	Less than Significant
Cumulative Impacts		
See Impact NOI-2 above. Exterior noise levels that would be above the acceptable noise standards for four residences by 2035 based on anticipated increases in aircraft operations	None available	Potentially Significant and Unavoidable

TABLE ES-5 (Continued)

LAND-BASED NOISE

Threshold 4.12.1-4 - Cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies)

<p>Impact NOI-4: Some construction activities (Phase 2 of proposed short-term projects) under Alternative 1 are expected to occur during nighttime hours when nearby residents would be more sensitive to noise. With at least some of the expected construction activity occurring during nighttime hours, construction operations are considered a Potentially Significant temporary noise impact.</p>	<p>NOI/mm-2 - To address potential impacts of nighttime noise-generating construction activities, the following mitigation measures shall be incorporated into the short-term projects:</p> <ol style="list-style-type: none"> 1. For construction activity occurring within approximately 500 feet of residences, portable noise barriers shall be installed near nighttime construction areas. The locations of the barriers should break the line-of-sight from the construction area(s) to any residential locations visible from the construction area. This may include erection of temporary plywood barriers to create a break in the line-of-sight, or erection of a tent employing sound blanket walls around the stationary noise source(s). 2. Construction vehicles shall minimize idling time either by shutting equipment off when not in use or reducing the time of idling to no more than 3 minutes (5-minute limit is required by the state airborne toxics control measure (CCR, Title 13, Sections 2449(d)(3) and 2485); 3. Adjacent property owners shall be notified of the construction schedule. 4. All noise-producing project equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specification. Mobile or fixed “package” equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment. 5. The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only. <p>NOI/mm-3 - Proposed north side project component daytime construction activity shall comply with the City of Del Rey Oaks’ noise ordinance of 7:00 AM to 7:00 PM.</p>	<p>Less than Significant</p>
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TABLE ES-5 (Continued)		
TRANSPORTATION/TRAFFIC		
Threshold 4.16-1 - Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit		
<p>Impact TR-4: Based on the Caltrans impact criteria, the addition of a single project trip at an intersection that is operating deficiently can be considered an impact. Thus, Alternative 1 would have a Potentially Significant impact at the following intersections that are operating deficiently under existing conditions in the short term per Threshold 4.16-1:</p> <ul style="list-style-type: none"> - #6: Del Monte Boulevard/Highway 218 (four PM peak hour trips) - #7: Highway 218/N. Fremont Boulevard (four PM peak hour trips) 	<p>TR/mm-7 - Intersection #6: Del Monte Boulevard / Highway 218 – Prior to the first occupancy of a project element that contributes at least one (1) new peak hour traffic trip to the intersection, add a second northbound Del Monte Boulevard left turn lane.</p> <p><i>Although this impact could be mitigated by constructing the stated improvement, the impact is considered Significant and Unavoidable at this time because the improvement necessary to reduce the significant impact is infeasible as it is within the jurisdiction and control of another agency (Caltrans) and implementation within the necessary timeframe cannot be assured.</i></p> <p><i>Further, proposed Mitigation Measure TR/mm-7 is not considered feasible because the FAA may not authorize the use of any FAA grant funds or Airport revenue to be used to construct or fund any off-Airport improvements or mitigation measure.</i></p> <p>TR/mm-8 - Intersection # 7: Highway 218 / Fremont Boulevard – Prior to the first occupancy of a project element that contributes at least one (1) new peak hour traffic trip to the intersection, add a second northbound Highway 218 left turn lane.</p> <p><i>Although this impact could be mitigated by constructing the stated improvement, the impact is considered Significant and Unavoidable at this time because the improvement necessary to reduce the significant impact is infeasible as it is within the jurisdiction and control of another agency (Caltrans) and implementation within the necessary timeframe cannot be assured.</i></p> <p><i>Further, proposed Mitigation Measure TR/mm-8 is not considered feasible because the FAA may not authorize the use of any FAA grant funds or Airport revenue to be used to construct or fund any off-Airport improvements or mitigation measure.</i></p>	<p>Significant and Unavoidable</p>

TABLE ES-5 (Continued)		
<p>Impact TR-5: Alternative 1 long-term projects would generate additional project-related vehicular trips that would impact existing and future congested intersections and Highway 68 segments within the project study area. Alternative 1 long-term traffic impacts are considered Potentially Significant per Threshold 4.16-1.</p>	<p>CUM TR/mm-10 - Prior to the first occupancy of any new or redeveloped facility that is part of the 10-year development of Alternative 1, the following improvements to Intersection #6: Del Monte Boulevard/Highway 218 shall be in place:</p> <ol style="list-style-type: none"> 1. Add 2nd Northbound Del Monte Blvd Left-Turn Lane; 2. Add Northbound Del Monte Blvd Right-Turn Overlap Phasing; and 3. Add Southbound Del Monte Blvd Right-Turn Overlap Phasing <p><i>Proposed CUM TR/mm-10 is not considered feasible because the mitigation project is within Caltrans' jurisdiction and FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.</i></p> <p>CUM TR/mm-11 - Prior to the first occupancy of any new or redeveloped facility that is part of the 10-year development of Alternative 1, the following improvement to Intersection #7: Highway 218/Fremont Boulevard shall be in place:</p> <ol style="list-style-type: none"> 1. Add 2nd Northbound Del Monte Blvd Left-Turn Lane <p><i>Proposed CUM TR/mm-11 is not considered feasible because the mitigation project is within Caltrans' jurisdiction and FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.</i></p> <p>CUM TR/mm-12 - Prior to the first occupancy of any new or redeveloped facility that is part of the 10-year development of Alternative 1, the following improvements to Intersection #9: Highway 218/Del Rey Gardens Drive shall be in place:</p> <ol style="list-style-type: none"> 1. Signalize Intersection; 2. Add 2nd Northbound Highway 218 Through Lane; and 3. Add 2nd Southbound Highway 218 Through Lane <p><i>Proposed Mitigation Measure CUM TR/mm-12 is not considered feasible because the mitigation project is within Caltrans' jurisdiction and FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.</i></p> <p>CUM TR/mm-13 - Implementing agencies shall evaluate VMT as part of project-specific review and discretionary approval decisions for land use projects consistent with then applicable regulatory requirements under CEQA. Where project-level significant impacts are identified, implementing agencies (including the Airport as applicable) shall identify and implement measures that reduce VMT. Examples of measures that reduce VMT include infill development, mixed use and transit-oriented development, complete street programs, reduced parking requirements, and providing alternative transportation facilities, such as bike lanes and transit stops.</p>	<p>Potentially Significant and Unavoidable</p>

TABLE ES-5 (Continued)		
<p>Impact TR-6: Project-related short- and long-term construction trips would be added to intersections and road segments that have been identified as operating deficiently during the peak commute hours under existing conditions or are anticipated to operate deficiently under future conditions. As a result, Alternative 1 construction traffic impacts would be Potentially Significant, albeit temporary, per Threshold 4.16-1.</p>	<p>TR/mm-9 - Offsite truck hauling operations for either short- or long-term construction projects shall not occur during the hours of 7:00 AM through 9:00 AM or 4:00 PM through 6:00 PM, Monday through Friday, to avoid peak hour traffic conditions.</p>	<p>Less than Significant</p>
<p>Threshold 4.16-5: Increase VMT when compared to existing conditions within Monterey County due to proposed land use development</p>		
<p>Impact TR-7: Since the location and commute patterns of future users of additional hangars and future employees or clients of proposed long-term non-aviation projects are unknown and speculative, impacts of Alternative 1 in terms of VMT are Potentially Significant per Threshold 4.16-5.</p>	<p>TR/mm-10 - Implementing agencies shall evaluate VMT as part of project-specific review and discretionary approval decisions for land use projects under Alternative 1. Where project-level significant impacts are identified, implementing agencies shall identify and implement measures that reduce VMT. Examples of measures that reduce VMT include infill development, mixed use and transit-oriented development, complete street programs, reduced parking requirements, and providing alternative transportation facilities, such as bike lanes and transit stops.</p>	<p>Potentially Significant and Unavoidable</p>
<p>Cumulative Impacts</p>		
<p>The level of potential short-term and long-term cumulative development that could occur by 2025 and by 2035, respectively, would require major improvements to the local and regional road network</p>	<p>See CUM TR/mm-10 through CUM TR/mm-13 above under Impact TR-5.</p>	<p>Potentially Significant and Unavoidable</p>
<p>TRIBAL CULTURAL RESOURCES</p>		
<p>Threshold 4.17-1 - Cause a substantial adverse change in the significance of a tribal cultural resource ...</p>		
<p>Impact TRIB-1: Unknown tribal cultural resources could be adversely impacted by proposed construction or operation of proposed short- and long-term projects under Alternative 1.</p>	<p>TRIB/mm-1 - The Airport shall continue to consult with OCEN regarding projects requiring ground-disturbing activities within the project study area. The Airport shall also provide OCEN with copies of cultural resource reports that include tribal cultural resources. In addition, the Airport shall provide OCEN with a copy of the Proposed AMP for review.</p> <p>TRIB/mm-2 - If previously undocumented tribal cultural resources are discovered (e.g., inadvertent discovery), the Airport shall consult with OCEN regarding proper treatment and disposition of the finds. This could include the repatriation of items of cultural patrimony, OCEN participation in the development of treatment plans, use of an approved OCEN Native American monitor, and review of treatment plan documents and reports.</p>	<p>Less than Significant</p>
<p>Cumulative Impacts</p>		
<p>Impacts could occur to unknown tribal cultural resources or human remains.</p>	<p>See TRIB/mm-1 through TRIB/mm-3 above for Impact TRIB-1.</p>	<p>Less than Significant</p>

TABLE ES-5 (Continued)

UTILITIES - WATER SUPPLY AND SERVICE

Threshold 4.18.1-1 – Have insufficient water supplies available to serve the Proposed Project from existing entitlements and resources or require new or expanded entitlements

<p>Impact UTIL-1: Future long-term buildout of Alternative 1 could demand water in excess of what the Airport currently has remaining in its allocation.</p>	<p>UTIL/mm-1 - All proposed long-term projects shall reduce water demand in new construction through indoor and outdoor water conservation measures that result in onsite water credits that allow the Airport to stay within its available CalAm entitlements.</p> <p>UTIL/mm-2 - To the extent feasible, the pumping and distribution abilities of the wells in the Old North Side Industrial Area shall be increased to supplement the Airport’s water allocation. Specifically, the existing wells shall be used to provide water for proposed landscaping and biological mitigation located on the north side of the Airport.</p> <p>UTIL/mm-3 - The conditions of the applicable MPWMD permit shall be incorporated into each proposed long-term project requiring an additional permit (see Section 2.9 for public agency approvals required).</p> <p>UTIL/rr-1 - In compliance with SB 610, proposed long-term projects meeting one of the definitions of a project in Water Code, Section 10912(a) shall include a water assessment in conjunction with required future CEQA review.</p> <p>UTIL/rr-2 - In conjunction with the development of the Proposed Project, building plans and site improvement plans shall demonstrate compliance with applicable non-residential mandatory measures in the <i>California Green Building Standards Code</i> (CalGreen).</p> <p>UTIL/rr-3 - In conjunction with the development of the Proposed Project, new or modified water service to the site shall comply with the District’s rules and regulations, including design and construction of connections and water facilities, payments for service, conditions for service, and compliance with its permanent and emergency water conservation programs that outline escalating water restrictions under water supply shortage conditions and other general provisions.</p>	<p>Less than Significant</p>
<p>Cumulative Impacts</p>		
<p>Future water resources within the Monterey Peninsula region have not been secured.</p>	<p>See UTIL/mm-1 through UTIL/mm-3 and UTIL/rr-1 through UTIL/rr-3 above under Impact UTIL-1.</p>	<p>Less than Significant</p>

TABLE ES-5 (Continued)		
UTILITIES - WASTEWATER (SEWER) SERVICE/TREATMENT		
Threshold 4.18.2-3 – Require an expansion of City of Monterey sewer infrastructure, the construction of which could cause significant environmental effect		
<p>Impact UTIL-2: On the south side of the Airport near the commercial terminal, the Airport’s sewer lines enter the city system at different access points. The city system would need to be further evaluated regarding the demand shift from the western line to the eastern line to identify and address potential localized capacity issues for the short-term projects.</p>	<p>UTIL/mm-4 - The Airport shall initiate coordination with the City of Monterey prior to any development on the north or south sides of the Airport to determine if the Proposed Project would exceed the capacity of the city’s sewer system.</p> <p>UTIL/mm-5 - The Airport shall pay a reasonable “fair share” cost of project impacts pursuant to the City of Monterey’s capital improvement program for any needed sewer upgrades.</p> <p>UTIL/rr-4 - In conjunction with the development of the Proposed Project, building plans and site improvement plans shall show compliance with pertinent regulations related to sewer system connections, installation of on-site facilities for industrial dischargers and food service establishments (e.g., pretreatment equipment, pollution control facilities, spill containment facilities, accidental slug control plans, and monitoring/metering facilities), as well as obtain the necessary discharge permits and comply with the discharge limits, prohibitions, monitoring and reporting, inspection and sampling, and other provisions of the permit.</p>	<p>Less than Significant</p>
<p>Impact UTIL-3: In the long term, projects under Alternative 1 for both the south and north sides of the Airport may exceed the capacity of the available city sewer infrastructure, potentially requiring an upsizing of the city’s sewer lines.</p>	<p>See UTIL/mm-4, UTIL/mm-5, and UTIL/rr-4 above for Impact UTIL-2 above.</p>	<p>Less than Significant</p>
SOLID WASTE DISPOSAL		
Threshold 4.18.3-2 – Comply with federal, state, and local statutes and regulations related to solid waste		
<p>Impact UTIL-4: Demolition of the existing commercial terminal and ARFF buildings, as well as the Old North Side Industrial Area and select hangars, would be likely to require special handling and disposal protocols to ensure the waste is accepted at the appropriate facility.</p>	<p>UTIL/mm-6 - The Airport shall require its contractor to follow all protocols for hazardous waste that could be accepted at the MPL (i.e., non-friable asbestos, non-friable waste, chromium-contaminated soils), including:</p> <ul style="list-style-type: none"> • Receiving pre-approval from MRWMD staff for non-friable asbestos; • Double-wrapping and sealing in six-millimeter plastic, or completely covering the truck bed with a tightly secured tarp to ensure non-friable waste fibers cannot escape; • Completing the Generator Waste Profile manifest form for each shipment; • Scheduling each load at least 72 hours prior to arrival; and <p>Determining the level of STLC testing required to ensure chromium levels are acceptable.</p>	<p>Less than Significant</p>

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Chapter One

INTRODUCTION, PROJECT HISTORY AND SETTING

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INTRODUCTION, PROJECT HISTORY, AND SETTING

1.1 PURPOSE OF THIS ENVIRONMENTAL IMPACT REPORT

The Environmental Impact Report (EIR) process, as defined by the *California Environmental Quality Act of 1970* (CEQA) (California Public Resources Code [PRC], Sections 21000 et seq.) as amended, requires the preparation of an objective, full-disclosure document to: (a) inform agency decision-makers and the general public of the reasonably foreseeable significant direct and indirect environmental effects of a proposed action; (b) identify feasible mitigation measures to avoid or substantially lessen any identified significant impacts; and (c) identify and evaluate reasonable alternatives to the proposed project.

In accordance with these requirements, this EIR evaluates the potential environmental effects of implementation of the Monterey Regional Airport's (Airport) Proposed Airport Master Plan (Proposed AMP) (Proposed Project). This EIR has been prepared pursuant to the requirements of CEQA and the CEQA Guidelines (California Code of Regulations [CCR], Title 14, Section 15000 et seq.). An EIR is an informational document which informs public agency decision-makers and the public generally of the significant environmental effects of the project, identifies possible ways to minimize or avoid the significant effects, and describes reasonable alternatives to the project (CEQA, Section 21002.1). According to the CEQA Guidelines, Section 15121(b), while the information in this EIR does not control an agency's ultimate discretion on the project, an agency must respond to each significant finding under Section 15091 and, if necessary, make a statement of overriding consideration under Section 15093.

Future development at the Airport is also subject to the *National Environmental Policy Act of 1969* (NEPA) (United States Code [USC], Title 42, Sections 4321 et seq.) and its implementing regulations (i.e., the President's Council on Environmental Quality [CEQ] Regulations - Code of Federal Regulations [CFR], Title 40, Sections 1500-1508), various federal and state special purpose laws, and Federal Aviation Administration (FAA) oversight and approval. Environmental analysis under federal regulations will occur when FAA considers a development project for federal funding and/or project approval. Information contained in this EIR may be used as background information for federal environmental reviews.

1.2 LEAD AND RESPONSIBLE AGENCIES FOR THE PROJECT

Pursuant to Section 15121 of the CEQA Guidelines, an EIR is primarily an informational document intended to inform the public agency decision-makers and the general public of the potentially significant environmental effects of a project. Prior to taking action on the Proposed Project, Monterey Peninsula

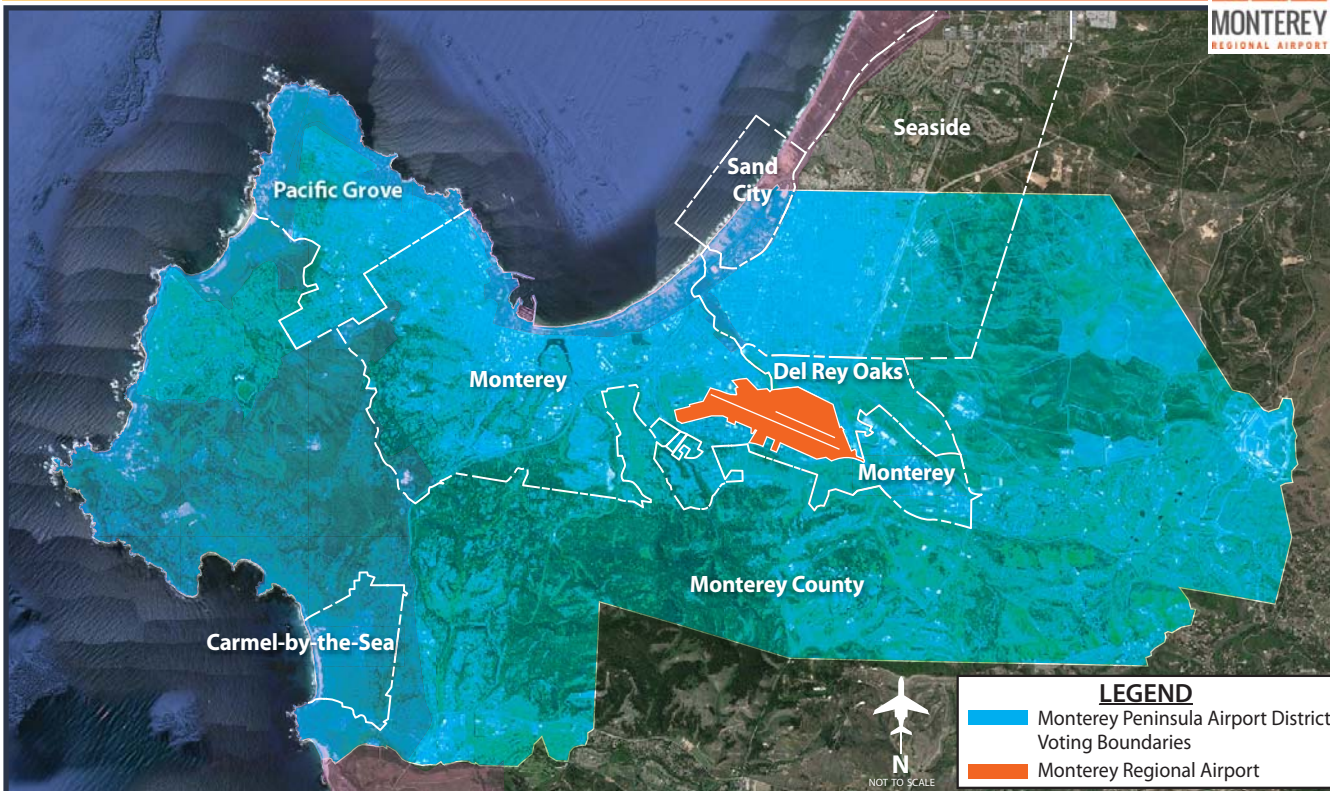
Airport District (MPAD)¹ as the Lead Agency (and project proponent) for the Proposed Project under CEQA (CEQA Guidelines, Section 15367) is responsible for preparation of the EIR and must consider the information in the EIR and certify the Final EIR. The Lead Agency is also responsible for consideration of the Proposed Project, its possible approval, the adoption of necessary findings and a statement of overriding considerations, if necessary, and implementation of the EIR’s mitigation monitoring and reporting program (MMRP) if the project is approved. Compliance with existing state and local laws, regulations, and policies, as well as the approved MMRP, will be required of all future development proposals.

In addition, due to the potential for impacts to state-protected species, the California Department of Fish and Wildlife (CDFW) will act as a Responsible Agency under CEQA. The CDFW may use this EIR as the CEQA document needed to inform its decisions on any requested Section 2081 Incidental Take Permits under the California Fish and Game Code (CFGC), as necessary.

Other permits or approvals that may be required for individual components of the Proposed Project are listed below:

- Construction traffic phasing plan approval from the California Department of Transportation (Caltrans) for haul routes with direct access to Highways 68 and/or 218.
- City of Del Rey Oaks approval for improvements to Del Rey Garden Drive.
- City of Monterey approval for improvements to Olmsted Road or Garden Road.
- United States (U.S.) Fish and Wildlife Service (USFWS) Incidental Take Permits under Section 7 or Section 10 of the *Endangered Species Act*.
- Approval from the California Regional Water Quality Control Board (RWQCB) for modifications to the Airport’s stormwater pollution prevention plan (SWPPP).
- Construction permit from the RWQCB related to applicable National Pollutant Discharge Elimination System (NPDES) General Construction permitting requirements.
- Monterey Peninsula Water Management District (MPWMD) permits would be required for proposed long-term projects requiring water above the Airport’s existing California American Water (CalAm) water allocation.

¹ MPAD is a Special Airport District that was created by the California Legislature in 1941. It is a stand-alone public entity, governed by five publicly elected members to the Board of Directors. District voting boundaries were set by the enabling legislation and encompass the cities of Monterey, Pacific Grove, Carmel-by-the-Sea, Del Rey Oaks, and majority portions of Seaside and Sand City. Unincorporated communities, including Pebble Beach, the west end of Carmel Valley, Hidden Hills, Monterra, Laguna Seca, Pasadera, and Monterey-Salinas Highway to the Laureles Grade, are also located within the MPAD voting boundaries (see **Exhibit 1A**).



1.3 ENVIRONMENTAL REVIEW PROCESS

This EIR has been prepared in accordance with CEQA and the CEQA Guidelines. Section 15151 of the CEQA Guidelines defines the standards of adequacy for an EIR as follows:

An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.

All Proposed Project components are addressed and analyzed at one of two levels within this EIR:

- 1) Development projects anticipated to be implemented within the next 10-11 years that have project funding identified, and for which basic project details are available and adequate to analyze the potential environmental impacts, are evaluated at a project-specific level and are considered short-term projects for purposes of this EIR and encompass both short and intermediate-term projects listed in the Proposed AMP for the first 10 years of implementation; and
- 2) Development projects for which project funding is unknown or for which project details are not known at a sufficient level of detail to be evaluated at a project-specific level are addressed at a more programmatic level of detail (i.e., based on their general land use) and are considered long-term projects for purposes of this EIR. The projects evaluated at the programmatic level may require additional environmental review at the time that specific project approvals are requested and additional project-specific details are available and sufficient to conduct a more detailed environmental analysis.

If a later activity would have effects that were not examined in the EIR, an Addendum, Subsequent EIR, Supplemental EIR, Negative Declaration, or new EIR may be required. If the agency finds that, pursuant to Section 15162, no new effects could occur, or no new mitigation measures would be required, the agency can approve the activity as being within the scope of the project covered by the EIR, and no new environmental document would be required.

The use of both a project-specific (for the short-term projects) and programmatic level of environmental review (for the long-term projects) will provide a more exhaustive consideration of potentially significant impacts, and alternatives than would be practical in an EIR if only project-specific analysis was provided. In addition, this approach ensures consideration of cumulative impacts that might be slighted in a case-by-case analysis. Also, this approach avoids duplicative reconsideration of basic policy considerations and allows the Lead Agency to consider broad policy alternatives and program-wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts.

In compliance with Section 15082 of the CEQA Guidelines, comments on the scope of this EIR were solicited from the public and interested agencies, as well as other interested parties, through a Notice of Preparation (NOP), which was published in the *Monterey Herald* on December 30, 2015. The NOP was distributed to 12 state or regional agencies through the State Clearinghouse on December 30, 2015. Three federal agencies; 57 local agencies, organizations, or individuals; 10 Native American tribes; and all property owners within five hundred feet of the perimeter of the Airport were sent the NOP via certified mail or hand delivery. The Proposed AMP Planning Advisory Committee (PAC)² and other interested stakeholders, organizations, and individuals received the NOP via email on December 30, 2015. The NOP and Initial Study are posted at: <https://montereyairport.specialdistrict.org/planning-and-development>.

The official review period for the Initial Study began on December 30, 2015 and ended on March 15, 2016. An environmental scoping meeting was held on February 3, 2016, from 2:00 - 4:00 PM. at the Monterey Airport Terminal, 200 Fred Kane Drive, Monterey, CA 93940 to facilitate agency and public review and comment on the Proposed Project. Comment cards were available for attendees to submit at the meeting or mail to airport staff. Nineteen people attended the scoping meeting. A total of 12 comment letters were received during, or immediately after, the official EIR scoping period. A copy of the NOP, Initial Study, distribution lists, and comments received are included as **Appendix A**.

The scope of the EIR analysis is based on the findings of the Initial Study and input received from the agencies and the public as part of the scoping process (see Section 1.7).

1.4 PROJECT HISTORY

Preparation of the Proposed AMP was funded partially through a federal grant and, therefore, the Proposed AMP and planning process must follow the format established in FAA Advisory Circular (AC) 150/5070-6B, *Airport Master Plans*, as amended (FAA 2015a). As stated in AC 150/5070-6B, Section 104, "The master plan is the sponsor's strategy for the development of the airport." FAA only approves the following elements (AC 150/5070-6B, Section 105):

- 1) Forecasts of Demand – The master plan forecast should be reviewed to ensure that the underlying assumptions and forecast methodologies are appropriate. Paragraph 704.h of this guidance should be used to determine consistency of the master plan forecast levels and the Terminal Area Forecast

² PAC members included representatives from the following agencies, organizations, and airport interest groups: Aircraft Owners and Pilots Association (AOPA); American Eagle; Association of Monterey Bay Area Governments (AMBAG); California Department of Transportation (Caltrans) - Division of Aeronautics; Casanova Oak Knoll Neighborhood Association (CONA); City of Del Rey Oaks; City of Monterey; FAA air traffic control tower (ATCT) personnel; FAA San Francisco Airports District Office; Highway 68 Coalition; Mazda Raceway Laguna Seca; Monterey Bay Aviation Advisory Board; Monterey Chamber of Commerce; Monterey County Airport Land Use Commission (ALUC); Monterey County Business Council; Monterey County Hospitality Association; Monterey Jet Center; National Business Aviation Association (NBAA); Naval Support Activity (NSA) Monterey/Naval Weapons Station (NWS) Seal Beach; RCA Enterprises; and Transportation Agency for Monterey County (TAMC).

(TAF).³ Inconsistencies between the master plan forecast and TAF must be resolved and the forecast approved before proceeding with subsequent planning work.

- 2) Airport Layout Plan (ALP)⁴ – All airport development at federally-obligated airports must be done in accordance with an FAA- and sponsor-approved ALP. Furthermore, proposed development must be shown on an approved ALP to be eligible for Airport Improvement Program (AIP) funding. FAA approval of the ALP indicates that the existing facilities and proposed development depicted on the ALP conforms to the FAA airport design standards in effect at the time of the approval or that an approved modification to standard has been issued. Such approval also indicates that the FAA finds the proposed development to be safe and efficient.

Thus, the Proposed AMP is the product of a comprehensive planning process that included:

- Analysis of the existing and future airport facility requirements based on various applicable FAA design guidelines (e.g., FAA AC 150/5300-13A, *Airport Design*, as amended, [FAA 2014a]);
- FAA-approved forecasts of future aviation activity;
- Collaboration with the Proposed AMP PAC made up of a broad constituency of interested members of the public, public agency representatives, and airport stakeholders; consideration of various alternatives to the Airport’s facility needs;
- Completion of environmental inventories;
- Creation of a proposed development concept and capital improvement program (i.e., financial plan); and
- Presentation of Proposed AMP materials to the public through information workshops and MPAD Board updates.

The Proposed AMP planning process also included the preparation of an updated ALP, an airport land use compatibility analysis,⁵ and a sustainability baseline assessment and sustainability management plan.

³ The Terminal Area Forecast is the official FAA forecast of aviation activity for U.S. airports and is prepared to meet the budget and planning needs of the FAA and provide information for use by state and local authorities, the aviation industry, and the public.

⁴ An ALP is a set of technical drawings depicting related airspace, land use, and property data and is required (and approved) by FAA to identify mandated safety areas, as well as to aid in determination of federal grant eligibility and funding.

⁵ The County of Monterey (county), as the Airport’s ALUC, is responsible under state law for updating the airport land use compatibility plan (ALUCP) to reflect the Proposed AMP. The Airport’s land use compatibility analysis, included as an appendix to the Proposed AMP, will provide the county with relevant information, data, and mapping from the Proposed AMP process to be used in the future ALUCP update.

The Airport’s last adopted airport master plan, the *Monterey Peninsula Airport Master Plan Update*, was completed in 1992, and was based on a 20-year aviation forecast of 129,600 annual operations (takeoffs and landings) by 2010 (MPAD 1992, Table 1-1). According to FAA’s air traffic control tower (ATCT) counts, however, annual operations at the Airport in 2010 were only 55,332 (FAA 2015b). The new 20-year forecasts approved by FAA for this Proposed AMP are shown in **Table 1A (Appendix B)**.

	FAA-APPROVED FORECAST ACTIVITY				
	2013 ¹	2015 ²	2018 ¹ (Years 1-5)	2023 ¹ (Years 6-10)	2033 ¹ (Years 11-20)
Enplaned Passengers	200,651	182,553³	223,000	245,000	275,000
Commercial Operations					
Air Carrier/Air Taxi ⁴	15,964	13,901	16,700	19,000	22,800
General Aviation (GA) Operations					
Itinerant ⁵	25,270	28,387	28,100	31,300	40,400
Local ⁶	10,876	20,763 ⁷	11,800	12,800	15,900
<i>Total</i>	36,146	49,150	39,900	44,100	56,300
Military Operations					
Itinerant ⁵	803	955	900	900	900
Local ⁶	914	3,286	600	600	600
<i>Total</i>	1,717	4,241	1,500	1,500	1,500
Total Airport Operations	53,827	67,292	58,100	64,600	80,600
Based Aircraft	152	113⁸	160	175	200
¹ Coffman Associates 2015 (Appendix B) ² EIR base year from FAA Air Traffic Activity Data System Standard Report - Monterey Regional Airport. ³ Airport records. Email from MRY to Judi Krauss, Coffman Associates, February 3, 2017. ⁴ Includes commercial passenger aircraft and chartered aircraft. ⁵ Itinerant operations are all operations other than local operations. ⁶ Local operations are those that operate in the local traffic pattern or within sight of the airport; are known to be departing for, or arriving from, flight in the local traffic practice areas located within a 20-mile radius of the airport; or execute simulated instrument approaches or low passes at the airport (Code of Federal Regulations [CFR], Title 14, Section 170.3 - Definitions). ⁷ A flight school was opened in August 2014 that has increased local GA operations beyond what was anticipated in the Proposed AMP forecasts. This forecast anomaly is not considered to affect the viability of the forecasts. Enplanements and commercial operations remain within the forecasted activity levels. ⁸ GCR, Inc. 2016. Airport Master Record, Form 5010-1 - Monterey Regional Airport					

For the purposes of this EIR, 2015 has been established as the base year (existing conditions) and information from the FAA’s Air Traffic Activity Data System (ATADS) system has been used. Proposed Project buildout years for this EIR are 2025 (short-term projects) and 2035 (long-term projects), which generally align with Proposed Project implementation phases. The 2025-year forecast activity (for purposes of analysis) has been interpolated between the Proposed AMP forecast activity for years 2023 and 2033, which are shown in **Table 1A**. The 2035-year forecast activity (for purposes of analysis) has been calculated using the average annual growth rate for 2033 from Chapter Two of the Proposed AMP (**Appendix B**).

Since the adoption of the 1992 airport master plan, the Airport has updated its ALP several times. One ALP revision was prepared to show the recent Runway Safety Area (RSA)⁶ Improvement Project (RSA Project), which incorporated an engineered arresting materials system (EMAS)⁷ on each end of the primary runway (Runway 10R-28L) in compliance with FAA safety standards. More recently, the ALP was revised to include the solar farm located on the north side of the Airport.⁸

An ALP update showing the Proposed AMP improvements was conditionally approved by FAA on December 7, 2016. Per AC 150/5070-6B, Section 107, the FAA may approve the ALP drawing set conditionally, based on specific components that will be subject to further review and approvals prior to funding and implementation. Under a conditional ALP approval, all future projects shown on the ALP are subject to compliance with NEPA. Prior to approval by MPAD, CEQA compliance is also required.

1.5 EXISTING ENVIRONMENTAL SETTING

The Airport is surrounded by the cities of Monterey and Del Rey Oaks (**Exhibit 1A**). Extensive arterial and highway systems surround the Airport, providing access from several locations. Freeway access to the Airport is provided from Highway 1 via the Highway 1/Highway 68/Fremont Street interchange or the Highway 1/ Highway 218 (Canyon del Rey Boulevard) interchange. Access to the commercial terminal area is from Olmsted Road, access to fixed base operators (FBO) areas is from Garden Road, and access to the uses on the north side of the Airport is from Fremont Street via Airport Road (**Exhibit 1B**).

The topography on the Airport ranges from nearly flat in areas at, or directly adjacent to, the runways to steeply sloping at the eastern end of the Airport where a series of six 11-foot-high retaining walls support the runway plateau and EMAS. Undeveloped areas of the Airport are vegetated with native and non-native flora and have been subject to a variety of disturbances necessary for the maintenance and operation of the Airport.

The Airport is a commercial service aviation facility comprised of approximately 498 acres. It is included in the 2017 – 2021 *National Plan of Integrated Airport Systems* (NPIAS) (FAA 2016) and the *California Aviation System Plan* (CASP) (Caltrans 2013) and is classified as a “nonhub primary commercial service” airport. It has two parallel runways, associated taxiway and navigational systems, and aviation facilities and related businesses, including a commercial terminal and apron, an aircraft rescue and firefighting (ARFF) building, and two FBOs, as well as limited non-aeronautical businesses.

⁶ The RSA is a defined surface surrounding the runway that is prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway.

⁷ EMAS is made up of blocks of crushable concrete that are used to slow aircraft and allow them to come to a stop in a shorter distance. EMAS is used at the Airport in lieu of a traditional graded surface due to the constrained topography and distance that exists on the runway plateau.

⁸ A Notice of Determination regarding the Adoption of a Negative Declaration for the solar farm project was filed with the Monterey County Clerk on January 11, 2017.



The primary runway, Runway 10R-28L, is 7,175 feet long and 150 feet wide, with a 175-foot displaced threshold⁹ on each runway end to meet RSA requirements for landing. The secondary or parallel runway, Runway 10L-28R, is 3,504 feet long and 60 feet wide and serves smaller general aviation (GA) aircraft. **Table 1B** lists the Airport’s existing runway and taxiway characteristics, as well as lighting and navigational aids associated with the airfield facilities. **Exhibit 1C** shows the location of the runways, taxiways, and airfield visual approach aids.

Field Elevation: 257.1 feet above MSL	RUNWAY 10R	RUNWAY 28L	RUNWAY 10L	RUNWAY 28R
Runway Length (feet)	7,175		3,503	
Runway Width (feet)	150		60	
Runway Surface Material (Condition)	Grooved Asphalt (Good)		Asphalt (Good)	
Runway Markings (Condition)	Precision (Good)		Basic (Good)	
Displaced Threshold (feet)	175	175	N/A	
Arresting Gear/System	EMAS	EMAS	N/A	
Runway Lighting	High Intensity		Medium Intensity	
Traffic Pattern	Left	Right	Left	Right
Runway Weight Bearing Capacity (pounds)				
Single Wheel (S)	100,000		12,500	
Double Wheel (D)	160,000		N/A	
Single Wheel Tandem (2S)	175,000		N/A	
Dual Wheel Tandem (2D)	300,000		N/A	
Runway Gradient (west to east)	1.40%		1.70%	
Taxiway Lighting	Medium Intensity			
Taxiway, Taxilanes & Apron Lighting	Centerline Markings, Tie-Down Area Marking, Reflectors			
Visual Approach Aids	PAPI-4 REIL MALSR	PAPI-4 REIL	N/A	
Instrument Approach Aids	ILS RNAV (GPS)	RNAV (RNP) RNAV (GPS) LOC/DME	RNAV (GPS)	GPS
Weather and Navigational Aids	Automated Surface Observing System; Lighted Wind Cone; Airport Beacon; Automatic Terminal Information System; Airport Traffic Control Tower			
Sources: FAA 2018. <i>Aeronautical Information Services, Chart Supplement (May 24 - July 19, 2018)</i> ; Monterey Regional Airport records.				
MSL = mean sea level				
N/A = not applicable				
EMAS = Engineered Arresting Materials System				
PAPI = Precision Approach Path Indicator - 4 box				
REIL = Runway End Identifier Lights				
MALSR = Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights				
ILS = Instrument Landing System				
RNAV = Area Navigation				
GPS = Global Positioning System				
RNP = Required Navigation Performance				
LOC/DME = Localizer/Distance Measuring Equipment				

⁹ A displaced threshold is a threshold that is located at a point on the runway other than the designated beginning of the runway. It allows for landing at a different point on the runway to avoid obstructions.



LEGEND	
	Airport Property Line
	Taxiway Identifier
KEY	
ASOS	- Automated Surface Observing System
ATCT	- Airport Traffic Control Tower
EMAS	- Engineered Materials Arresting System
MALSR	- Medium Intensity Approach Lighting System
PAPI	- Precision Approach Path Indicator
REIL	- Runway End Identification Lighting
VASI	- Visual Approach Slope Indicator



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The Airport serves domestic destinations. No international destinations are served by the Airport. In 2015, over 182,550 passengers were served (**Table 1A**). The commercial terminal is one contiguous building encompassing approximately 70,000 square feet (sf) and is accessible from Fred Kane Drive via Olmsted Road or Henderson Way to Garden Road. Holdrooms are located at the boarding gates with one holdroom at Gates 1, 2, and 3 and another holdroom at Gates 4 and 5. The two holdrooms are connected by a concourse circulation corridor on the secure side of airport security. A snack bar and gift shop are also available. A restaurant/bar is located on the second floor of the terminal on the public side of airport security. Based on the analysis contained in the Proposed AMP (Chapter Three), the terminal currently operates at 92 percent capacity overall (Coffman Associates 2015).

Vehicular parking associated with the commercial terminal includes spaces utilized by passengers, visitors, employees, rental car companies, public transit, taxis/shuttles, and transportation network companies (TNCs). The existing public parking supply is provided by four lots: upper and lower short-term lots, a long-term lot, and an overflow lot. A total of 438 public parking spaces and 395 employee, rental car, and taxi/shuttle spaces are provided. Assuming an 85 percent utilization rate to allow for the overlap of arrival and departure passengers, the existing public parking lots are at capacity.¹⁰

The commercial terminal provides only ground level boarding. The current configuration of the terminal gates has five departure gates and nine parking positions, which are sized to handle regional jet or large turboprop aircraft. The commercial apron is long and narrow (i.e., it is over 1,400 feet long, but only 60 feet wide). When larger aircraft utilize the terminal apron, they park parallel to Taxiway "A," which reduces the total number of parking positions available. The terminal apron generally has room for six remain overnight (RON) aircraft. At this time, the terminal is operating at 100 percent of its gate capacity and 60 percent of its parking capacity when demand for RON spaces is included.

The Airport is home base for more than 135 GA aircraft including helicopters and single-engine, multi-engine, and turbine aircraft (GCR, Inc. 2017) and has approximately 50 T-hangars, 73 box hangars, and 71 conventional hangars. The Airport has the storage capacity for 88,000 gallons of jet fuel (Jet A) and 37,750 gallons of aviation gasoline (AvGas) in either above-ground tanks or fuel delivery trucks. The Airport also has a 1,200-gallon truck that carries diesel fuel.

GA facilities are in four distinct areas on the Airport (**Exhibit 1C**):

- Northwest ramp - approximately 10,000 square yards (sy) (two acres) of apron with 28 aircraft tie-down positions (although none of the tie-downs are currently used). The apron is leased to one of the Airport's FBOs and use of the apron is through FBO permission only.
- Northeast ramp - approximately 7,400 sy (1.5 acres) of apron with 31 aircraft tie-down positions and six portable hangars (Port-a-Ports). The Monterey Navy Flying Club currently has a small maintenance hangar and office building at this ramp. The club offers AvGas fuel, flight training, and aircraft tie-down and storage for members.

¹⁰ Based on parking data from the Airport from 2015 through mid-2018, enplanements have continued to grow, but parking demand has not. This may indicate a trend due to transportation network companies (TNCs) and other related transportation issues. The Airport will continue to monitor the parking demand throughout implementation of the Proposed Project.

- Southeast ramp - approximately 15,000 sy (three acres) of apron with 32 aircraft tie-down positions. A full-service aircraft maintenance business, Global Executive - Jet Maintenance (GEM), operates from the conventional hangar. This area also contains a full-service flight school.
- Southwest ramp - approximately 95,400 sy (20 acres) of ramp associated with the Airport's two FBOs - Monterey Jet Center and Del Monte Aviation. The Monterey Jet Center has four large aircraft hangars with more than 200,000 sf of aircraft storage space and 10 acres of ramp. Del Monte Aviation occupies a large conventional hangar and the other 10 acres of ramp. Both FBOs provide fuel (AvGas and Jet A), pilot services, aircraft storage, transient aircraft parking, and minor maintenance.

Airports certificated under CFR Title 14, Part 139 (Part 139) (see Section 1.6 below) are required to provide ARFF services during air carrier operations and to maintain its equipment and personnel based on the established ARFF index. The Airport's ARFF facility is located on the airfield at the east end of the commercial apron and falls within ARFF Index B on a scale from A to E, with A applicable to the smallest aircraft and E applicable to the largest aircraft (based on aircraft length). The facility is owned by MPAD and staffed by the City of Monterey. It houses three engines and a command vehicle and has five bays.

1.6 REGULATORY SETTING

The regulation of airports and aircraft is subject to a wide range of federal, state, and local statutes and regulations. The federal government exercises authority over much of the airfield, including a complete preemption of the regulation of aircraft in flight undertaken for noise control or noise reduction purposes. In brief, all regulatory authority over procedures used in the operation of aircraft in flight and the control and use of the navigable airspace of the U.S. is exclusively federal. In addition, the federal government has regulatory authority related to aircraft and aircraft engine emissions.

The Airport is a Class I commercial service airport.¹¹ As such, it is required to have an Airport Operating Certificate (AOC) per Part 139 and to meet various federal aviation regulations. Included in these regulations are standards for: the marking and lighting of areas used for operations; firefighting and rescue equipment and services; the handling and storing of hazardous materials; the identification of obstructions; and safety inspection and reporting procedures.

FAA also has advisory circulars that cover various aspects of airport design. The following are applicable to development projects included in the Proposed AMP:

- AC 150/5060-5, *Airport Capacity and Delay* (FAA 1983)
- AC 150/5200-33B, *Hazardous Wildlife Attractants On or Near Airports* (FAA 2007)
- AC 150/5210-15A, *Aircraft Rescue and Firefighting Station Building Design* (FAA 2008)
- AC 150/5300-13A, *Airport Design*, as amended (FAA 2014a)

¹¹Class I airports are certified to serve scheduled operations of large air carrier aircraft (31 passenger seats or more), unscheduled passenger operations of large air carrier aircraft, and/or scheduled operations of small air carrier aircraft (10 to 20 passenger seats).

- AC 150/5320-5D, *Airport Drainage Design* (FAA 2013a)
- AC 150/5340-1L, *Standards for Airport Markings* (FAA 2013b)
- AC 150/5360-9, *Planning and Design Guidelines for Airport Terminal Building Facilities at Nonhub Locations* (FAA 1980)¹²
- AC 150/5360-13, *Planning and Design Guidelines for Airport Terminal Facilities* (FAA 1988)¹³
- AC 150/5370-10G, *Standards for Specifying Construction of Airports* (FAA 2014b)¹⁴

In addition, FAA Order 5100.38D, *Airport Improvement Program Handbook* (FAA 2014d), and FAA Order 5190.6B, *FAA Airport Compliance Manual* (FAA 2017), require that federal grant assurances be met as a condition of the acceptance of federal monies for airport maintenance and development projects. The federal grant assurances include Grant Assurance 19, Operation and Maintenance:

“The airport and all facilities which are necessary to serve the aeronautical users of the airport, other than facilities owned and controlled by the United States, shall be operated at all times in a safe and serviceable condition and in accordance with the minimum standards as may be required or prescribed by applicable federal, state and local agencies for maintenance and operation...”

As part of the Proposed AMP process, an inventory was made of the Airport with respect to the various applicable design standards. These items are discussed in detail in Chapter Four of the Proposed AMP. FAA’s standards are revised and updated periodically to remain current with modern aircraft design and technology. **Exhibit 1D** presents the most up-to-date runway design standards for the Airport and identifies those conditions that are currently below standard using bolded type. Proposed solutions to some of these conditions are discussed further in Chapter Two, Project Description and Chapter Three, Alternatives of this EIR.

1.7 INITIAL STUDY FINDINGS AND ENVIRONMENTAL SCOPING

An Initial Study was completed for the Proposed Project in December 2015. The Initial Study concluded that potentially significant impacts could occur as a result of the Proposed Project. The scope of the EIR is based on the findings of the Initial Study and input received from the agencies and the public as part of the scoping process (see Section 1.3 and **Appendix A**). The Draft EIR addresses all potential significant effects identified in the Environmental Checklist. Based on the Initial Study and related Checklist, as well as the comments received, this EIR analyzes the following environmental topics:

- | | |
|------------------------------------|-----------------------------------|
| • Aesthetics | • Geology/Soils |
| • Agriculture and Forest Resources | • Greenhouse Gas Emissions |
| • Air Quality | • Hazards and Hazardous Materials |
| • Biological Resources | • Hydrology/Water Quality |
| • Cultural Resources | • Land Use/Planning |
| • Energy | • Noise |

¹² A draft AC 150/5360-13A is under FAA review. When published, it will cancel both AC 150/5360-9 and AC 150/5360-13A.

¹³ Ibid.

¹⁴ A draft AC 150/5370-10H is under FAA review. When published, it will cancel AC 150/5370-10G.

	Runway 10R-28L	Runway 10L-28R
Design Aircraft	D-III-4	B-I-1A (small)
Example Aircraft	MD-88	King Air 200
Runway Design Code (RDC)	D-III-2400	B-I-5000 (small)
Approach Reference Code (APRC)	B-I-2400	B-I-5000 (small)
Departure Reference Code (DPRC)	B-II	B-I (small)
Visibility Minimums	½-Mile (10R)/1-Mile(28L)	1¼-Mile
RUNWAY DESIGN		
Runway Width	150	60
Runway Shoulder Width	25	10
RUNWAY PROTECTION		
<i>Runway Safety Area (RSA)</i>		
Width	500 ¹	120
Length Beyond Departure End	600 ²	240
Length Prior to Threshold	600	240
<i>Runway Object Free Area (ROFA)</i>		
Width	800	250
Length Beyond Departure End	600 ²	240
Length Prior to Threshold	600	240
<i>Runway Obstacle Free Zone (ROFZ)</i>		
Width	400	250
Length Beyond End	200	200
<i>Precision Obstacle Free Zone (POFZ)</i>		
Width	800	NA
Length	200	NA
<i>Approach Runway Protection Zone (RPZ)</i>		
Length	2,500 (10R) / 1,700 (28L)	1,000
Inner Width	1,000 (10R) / 1,000 (28L)	250
Outer Width	1,700 (10R) / 1,510 (28L)	450
<i>Departure Runway Protection Zone (RPZ)</i>		
Length	1,700	1,000
Inner Width	500	250
Outer Width	1,010	450
RUNWAY SEPARATION		
<i>Runway Centerline to:</i>		
Parallel Runway ³	700 (500)	Same
Holding Position	250 (200)	125
Parallel Taxiway	400 (275) ⁴	150
Aircraft Parking Area	500 (330)	125

Design Aircraft is comprised of the Aircraft Approach Category (AAC), the Airplane Design Group (ADG), and the Taxiway Design Group (TDG).

RDC is comprised of the AAC, the ADG, and the Runway Visibility Range (RVR).

APRC is comprised of the AAC, ADG, and RVR and is based on the existing runway/taxiway separation.

DPRC is comprised of the AAC and ADG and is based on the existing runway/taxiway separation.

¹ Hold lines on taxiways F,G,H, and K are within the RSA south of Runway 10R-28L.

² Standard EMAS was installed on both runway ends.

³ For simultaneous visual operations (does not consider wake turbulence).

⁴ At its narrowest point, Taxiway A is 275 feet from the runway.

All dimensions in feet

BOLD TYPE indicates current condition.

Source: FAA AC 150/5300-13A, *Airport Design*



- Population/Housing
- Public Services
- Recreation
- Transportation/Traffic
- Tribal Cultural Resources
- Utilities/Service Systems

Agencies or organizations that submitted comment letters or emails during the official EIR scoping period included (in the order received): California State Parks; Ohlone/Costanoan-Esselen Nation; Michael Weaver on behalf of the Highway 68 Coalition; U.S. Army Corps of Engineers (USACE); Casanova Oak Knoll Neighborhood Association (CONA); Elizabeth Stacey (Del Rey Oaks resident); Monterey Bay Air Resources Board (MBARD) (formerly, Monterey Bay Unified Air Pollution Control District); State of California Native American Heritage Commission (NAHC); Monterey Peninsula Water Management District (MPWMD); Robert Talbott, Inc.; and Monterey-Salinas Transit (MST). The City of Monterey also submitted a comment letter, which was received on March 21, 2016, after the comment period was closed.

The following items were requested to be included in the EIR discussion:

- Air emissions, including jet fumes;
- Greenhouse gas emissions;
- Construction impacts;
- Known cultural lands;
- State-mandated tribal consultation processes;
- Noise;
- Neighborhood safety;
- Flight paths and early turn and take-off operations;
- Access to existing land uses in proximity to the Airport;
- North side development and access points;
- South side development and access points;
- Traffic impacts;
- Roundabouts as a mitigation measure;
- Transit opportunities;
- Hazardous materials, such as asbestos;
- *Clean Water Act*, Section 404 permits; and
- Water service, demand, and supply.

The following resource category was assessed as “No Impact” in the Initial Study; therefore, in accordance with Section 15128 of the CEQA Guidelines, it was identified in the Initial Study as a topical area that would not receive further evaluation in the EIR:

- **Mineral Resources**

Would the project:

- Result in the loss of availability of known mineral resources that would be of value to the region and the residents of the state?

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

No mineral extraction occurs on airport property nor is the Airport identified as an area of “Identified Mineral Resource Significance” within the county’s *2007 General Plan Draft EIR* (Monterey County 2008). There are several permitted aggregate sources within Monterey County, including one with 1.5 to 3.0 million tons of available material and several with 0.5 to 1.5 million tons of available material (California Geological Survey 2012).

In addition, it was also determined in the Initial Study that the Proposed Project would have No Impact or a Less than Significant Impact to specific questions within several of the various resource categories. Therefore, in accordance with Section 15128 of the CEQA Guidelines, the following questions have not received further evaluation in the EIR:

- **Agriculture and Forest Resources**

Would the project:

- Conflict with existing zoning for agricultural use, or a *Williamson Act* contract?
- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC, Section 12220(g)), timberland (as defined by PRC, Section 4526), or timberland zoned Timberland Production (as defined by Government Code, Section 51104(g))?
- Result in the loss of forest land or conversion of forest land to non-forest use?
- 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?

The Airport is not zoned for agriculture uses nor is it part of a *Williamson Act* contract. There is no forest land or timberland (as defined in the PRC or Government Code) located at, or in proximity to, the Airport.

- **Biological Resources**

Would the project:

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?¹⁵

¹⁵ Although there are no listed plans approved for, or near, the Airport, the Airport implements the *Habitat Conservation and Enhancement Plan for the Monterey Airport Runway Safety Area Improvement Project, Monterey, Monterey County, California* (HCEP) (FAA 2014c). Therefore, in spite of receiving a “Less than Significant” rating in the Initial Study, this threshold has been retained within the Biological Resources chapter (Section 4.4.4) to allow the discussion of impacts to the RSA Project’s HCEP.

The Airport actively implements a wildlife hazard management plan (WHMP) that reduces potential wildlife movement across the Airport (MPAD 2013). Since the Proposed Project is consistent with this WHMP, no significant changes to the movement of wildlife across the Airport would occur. In addition, there are no adopted habitat conservation plans, natural community conservation plans, or other approved local, regional, or state habitat conservation plans at the Airport.

- **Hazards and Hazardous Materials**

Would the project:

- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code, Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

There are no hazardous materials sites per Government Code, Section 65962.5 located at the Airport nor are there known hazardous materials site based on federal and state databases. The Airport is a commercial airport, and there are no private airstrips within 10 nautical miles. The Airport is not located within a known fire hazard severity zone.

- **Hydrology and Water Quality**

Would the project:

- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?
- Place within a 100-year flood hazard area structures which would impede or redirect flood flows?
- Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?
- Inundation by seiche, tsunami, or mudflow?

The only portion of the Airport within a mapped 100-year floodplain is the extreme southeastern corner of the Airport at the junction of Highways 68 and 218. No changes to this area of the Airport, including the construction of housing or structures that could impede the flow of floodwaters, would result from the Proposed Project. The remainder of the Airport is outside the mapped 500-year floodplain and is not subject to inundation due to seiches, tsunamis, or mudflows due to the Airport's location atop a plateau.

- **Land Use and Planning**

Would the project:

- Physically divide an established community?
- Conflict with any applicable habitat conservation plan or natural community conservation plan?

No physical intrusions into the surrounding areas around the Airport would occur, and there are no adopted habitat conservation plans,¹⁶ natural community conservation plans, or other approved local, regional, or state habitat conservation plans at the Airport.

- **Noise**

Would the project:

- For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

The Airport is a commercial airport, and there are no private airstrips within 10 nautical miles.

- **Population and Housing**

Would the project:

- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

The Proposed Project would not displace existing housing or people.

- **Public Services**

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

- Schools?
- Parks?
- Other public facilities?

¹⁶ See previous footnote.

The Proposed Project would not result in the development of any residential units or generate additional residents or students, nor would it create a demand of schools, parks, or other public facilities.

1.8 DOCUMENT ORGANIZATION

This Draft EIR is organized into nine chapters as well as an Executive Summary. A list of the Draft EIR chapters and a brief description of their contents is provided below to assist the reader in locating the information.

- **Chapter One:** This chapter introduces the EIR, including its purpose, the lead and responsible agencies who will use its information, and the environmental review process being followed for the Proposed Project. It also includes a discussion of the Proposed Project history, the existing environmental and regulatory setting for the Proposed Project, and the Initial Study findings and EIR scoping.
- **Chapter Two:** This chapter describes the Proposed Project in more detail including the project location, regional characteristics, and surrounding land uses. The project objectives, which project components are evaluated at a project-specific level and which are addressed programmatically, and the environmental baseline are also discussed. In addition, this chapter identifies the required discretionary actions and intended uses of the EIR, as well as other public agency approvals that may be required for Proposed AMP implementation.
- **Chapter Three:** This chapter addresses alternatives to the Proposed Project, consistent with CEQA requirements. The chapter provides the rationale for not further evaluating some alternatives and addresses other alternatives at a qualitative level. It describes in detail an alternative evaluated in-depth in the impact analysis (Chapter Four). It also summarizes the analysis used to identify one alternative as the “environmentally superior alternative.”
- **Chapter Four:** This chapter evaluates the environmental conditions, impacts, and required mitigation for the Proposed Project and Alternative 1. Each impact category identified in the Initial Study as “potentially significant” or as “less than significant with mitigation incorporated” is discussed based on identified thresholds of significance.
- **Chapter Five:** This chapter provides an analysis of potential cumulative impacts of the Proposed Project and Alternative 1 when considered with other past, present, or reasonably foreseeable projects within the 20-year planning horizon of the Proposed AMP.
- **Chapter Six:** This chapter contains other sections required by the CEQA Guidelines (Section 15126), including unavoidable significant environmental effects, significant irreversible environmental changes, and growth-inducing impacts of the Proposed Project and Alternative 1.
- **Chapter Seven:** This chapter lists the EIR’s preparers and the agencies and organizations consulted.
- **Chapter Eight:** This chapter contains references and websites used for report research.

- **Chapter Nine:** This chapter contains a list of acronyms or abbreviations used in the document.

Technical studies are appended to the EIR as identified specifically within the text of this EIR. The Proposed Airport Master Plan is hereby incorporated by reference and available for review at: <https://montereyairport.specialdistrict.org/planning-and-development>.



Chapter Two

PROJECT DESCRIPTION

Chapter Two

PROJECT DESCRIPTION

The purpose of the Project Description is to describe a proposed project in a way that allows for meaningful review by the public, reviewing agencies, and decision-makers. Section 15124 of the *California Environmental Quality Act* (CEQA) Guidelines requires that the project description for an Environmental Impact Report (EIR) contain: (1) the precise location and boundaries of a proposed project; (2) a statement of objectives sought by the proposed project, including the underlying purpose of the project; (3) a general description of the proposed project's technical, economic, and environmental characteristics; and (4) a statement briefly describing the intended uses of the EIR, including a list of the agencies that are expected to use the EIR in their decision-making, a list of the permits and other approvals required to implement the project, and a list of related environmental review and consultation requirements required by federal, state, or local laws, regulations, or policies. An adequate project description need not be exhaustive but should supply the detail necessary for project evaluation.

An EIR is the most comprehensive form of environmental documentation identified in CEQA and the CEQA Guidelines. The following project description provides the information needed to assess the environmental effects associated with the development, construction, and operation of the Proposed Project.

2.1 PROJECT LOCATION

Monterey Regional Airport (Airport) is centrally located between the cities in and around the Monterey Peninsula, in the northwest portion of Monterey County (county), California. The Airport encompasses approximately 498 acres of property and is bordered by the City of Monterey on the northwest, west, south and east, and the City of Del Rey Oaks to the northeast. The United States (U.S.) Navy also owns several parcels near the Airport, including most of the golf course located immediately to the west. Monterey Bay is slightly more than one mile to the west of the Airport. The Airport is not located within the California Coastal Zone (City of Monterey website 2018). The regional location and local vicinity have been previously provided in Chapter 1 (Exhibit 1A).

2.2 REGIONAL CHARACTERISTICS

The Monterey Bay area is situated south of the San Francisco Bay area along California's central coast. The diverse geography of the region encompasses mountains, forests, rolling hills, agricultural lands, sand dunes, and beaches. Within the Monterey area, Highways 1 and 68 are designated as scenic highways and provide scenic views of the ocean and wooded hills along their respective corridors.

The mainstays of the county's economy are agriculture, tourism, the military, and higher education. The following is a brief discussion of these key industries.

Agriculture

According to the Transportation Agency for Monterey County (TAMC), agricultural production in North Monterey County and the Salinas Valley represent more than \$4 billion to the Monterey County economy with approximately 1,210,000 acres devoted to irrigated cropland, dry farming, grazing, animal husbandry, and related agricultural services (TAMC 2018:6). The County grows approximately 80 percent of the nation's lettuce and artichokes. In addition, approximately 40,000 acres are devoted to wine grapes.

Tourism

The Monterey Peninsula's scenic cities and unincorporated rural areas have economies that are primarily tourist-driven. Second only to agriculture, hospitality is a \$2 billion plus per year industry and provides approximately 22,000 jobs (TAMC 2018:6). Major attractions include the Monterey Bay Aquarium, the Pebble Beach Concours D'Elegance and the AT&T Golf Pro-am, the Laguna Seca International Raceway, and numerous natural attractions.

Military

Monterey has historically been a key military outpost. Today, the area's military installations continue to provide support to the economy, particularly through their educational institutions. The U.S. Army's Defense Language Institute Foreign Language Center (DLIFLC) is located at the Presidio of Monterey and provides foreign language education, training, and evaluation to enhance the national security of the United States (DLIFLC website 2018). The Naval Postgraduate School offers advanced classroom training for military officers. The Fleet Numerical Meteorology and Oceanography Center, operated by the U.S. Navy, is one of the world's leading numerical weather prediction centers.

Higher Education

The Monterey Bay region is home to more than 20 higher education and research institutions, including three community colleges, two state universities, an international institute, a college of law, two specialized military institutions, and several research organizations. Educational institutions include the California State University at Monterey Bay, the aforementioned Naval Postgraduate School and DLIFLC, the Monterey Institute for International Studies, and two community colleges.

2.3 SURROUNDING LAND USES

The area surrounding the Airport is generally urban in character and is located within the cities of Monterey and Del Rey Oaks. The Monterey Pines Golf Course, which is owned and operated by the U.S. Navy,

is located adjacent to the Airport on the west. Also adjacent to the west is the U.S. Navy's Fleet Numerical Meteorology and Oceanography Center (FNMOOC), the Naval Research Laboratory, and the National Weather Service.

Most land surrounding the Airport is already developed, generally in accordance with the adopted land use plans and policies of the relevant local jurisdictions. Land uses surrounding the Airport include a mix of residential, commercial, and industrial properties. Directly north of the Airport is residential development located within the City of Del Rey Oaks. This area consists primarily of single-family residential dwellings and a multi-unit dwelling complex on the northeast side of the Airport. Work Memorial Park is also located north of the Airport, as is the Church of the Oaks and Del Rey Oaks Christian Preschool. There are also industrial and commercial developments located within the City of Del Rey Oaks east of the Airport along Canyon Del Rey Boulevard.

On the northwest side of the Airport is the City of Monterey's Casanova Oak Knoll (CONA) neighborhood, which includes single-family and multi-family residential properties. Community facilities in this area include the Casanova Oak Knoll Center and Park, the Festo do Divino Espírito Santo (F.D.E.S.) Portuguese Hall of Monterey, and the Monterey County Fairgrounds complex. The fairgrounds complex includes facilities built to host the County Fair and includes an arena, camping areas, and other buildings.

Immediately to the south of the Airport along Garden Road are industrial and commercial buildings that include offices and warehouses, as well as several churches and government offices. Highway 68, a state- and county-designated scenic highway, is adjacent to the Airport along portions of its southern boundary as well. Other land uses along the north side of Highway 68 include commercial, office, and light industrial development. South of Highway 68 are single-family residences and open space. The highway is one of the major thoroughfares between Salinas and Monterey and is also known as the Monterey Salinas Highway or the Old Salinas Highway.

Farther east of the Airport along Highway 68 is the Ryan Ranch development, which consists of industrial and commercial land uses as well as a preschool. Farther south is county land with large-lot residences or open space.

2.4 PURPOSE OF THE PROJECT

The purpose of the Proposed Airport Master Plan (Proposed AMP) (Proposed Project) is to address Federal Aviation Administration (FAA) airport design standards and to plan for projected aviation demand within a 20-year planning period, while considering safety, cost-effectiveness, and potential environmental and socioeconomic issues. The Proposed AMP process was guided by FAA's Advisory Circular (AC) 150/5070-6B, *Airport Master Plans*, as amended (FAA 2015a), as previously discussed in Section 1.6 of this EIR.

2.5 PROJECT OBJECTIVES

Section 15124(b) of the CEQA Guidelines requires: "[a] statement of objectives sought by the proposed project. A clearly written statement of objectives will help the Lead Agency develop a reasonable range

of alternatives to evaluate in the EIR and will aid the decision-makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project.” Not only is a project analyzed in light of its objectives, compatibility with project objectives is one of the criteria used in selecting and evaluating a reasonable range of project alternatives. Clear project objectives simplify the selection process by providing a standard against which to measure project alternatives.

The Proposed Project objectives are summarized below and discussed in more detail in the following subsections:

- **Enhance Airport Safety** - Provide improvements that will enhance the Airport’s safety by meeting FAA design standards to the maximum extent feasible;
- **Prepare for Future Aviation Demand** - Provide improvements safely and adequately prepare for forecasted aviation operations and demand through the year 2033 consistent with new Code requirements and passenger expectations for airport functionality;
- **Incorporate Airport Sustainability Goals** - Incorporate the Airport’s goals, objectives, and performance targets for sustainability within proposed development projects;
- **Increase Airport Self-Sufficiency** - Provide opportunities for additional revenue-producing uses of the Airport to enhance its economic viability and self-sufficiency.

2.5.1 Enhance Airport Safety

Currently, there are non-standard conditions (i.e., existing facilities that do not comply with current FAA design standards) present at the Airport. The Proposed Project (Sections 2.6.1 and 2.6.2) provides solutions to the following design and operational issues:

- **Runway 10R-28L to Taxiway “A” Centerline to Centerline Separation** - FAA provides design standards for runways and parallel taxiways based on an airport’s critical design aircraft¹ and its instrument approach visibility minimums (FAA 2014a). The FAA design standard for runway-taxiway separation for Runway 10R-28L is 400 feet from the runway centerline to the parallel taxiway centerline.² However, Taxiway “A” is separated from Runway 10R-28L (centerline to centerline) by only 327 feet on the west end, 327.5 feet on the east end, and by 275 feet in front of the terminal building area.

¹ The critical design aircraft is the most demanding aircraft type, or grouping of aircraft with similar characteristics, that make regular use of an airport (i.e., 500 annual operations) (excluding touch-and-go operations, which is an operation by an aircraft that lands and departs on a runway without stopping or exiting the runway) (FAA AC 150/5300-13A, *Airport Design*, as amended [2014]).

² Based on a Runway Design Code [RDC] D-III aircraft with ½-mile visibility minimums. FAA has established the Airport Reference Code (ARC) to relate critical design aircraft factors to airfield design standards. When an airport has more than one runway, the RDC signifies the design standards to which each runway should be built. It is analogous to the ARC for the fleet of aircraft using the designated runway.

- Hold Line Separation³ - The standard hold line position leading to Runway 10R-28L and parallel taxiways is 250 feet (centerline to centerline). However, south of the runway the hold lines on Taxiways “F,” “G,” “J,” and “K” are currently positioned at a separation distance of 200 feet from the runway centerline.
- Aircraft Parking Area - The design standard for separation between the centerline of Runway 10R-28L and aircraft parking areas is 500 feet. On the south side of the runway, aircraft parking areas are 330 feet from the runway centerline.
- High Energy Runway Crossings - Due to only a partial parallel runway on the north side of Runway 10R-28L (Taxiway “B”), aircraft north of the runway that need to access the Runway 28L end must cross the runway using Taxiways “J,” “K,” or “L.” These crossings are in the middle third of the runway, which is considered by FAA to be the “high energy” area (FAA AC 150/5300-13A, Section 401b[4]). FAA recommends limiting crossings to the outer thirds of a runway so the portion of the runway where a pilot can least maneuver is kept clear to minimize the risk of a collision.
- Taxiway Connector Geometry - Taxiways “G,” “K,” and “L” do not connect to the smaller runway (Runway 10L-28R) with standard 90-degree angles. FAA AC 150/5300-13A, Section 401 b(4) recommends that design turns for taxiway intersections be 90 degrees whenever possible. Taxiway “M” allows direct access from the north GA apron to Runway 10L-28R.
- Code of Federal Regulations (CFR), Title 14, Part 77 (Part 77)⁴ - The existing commercial terminal building is located 500 feet from the Runway 10R-28L centerline and penetrates the Part 77 transitional surface. There is currently obstruction lighting in place. The existing aircraft rescue and firefighting (ARFF) building is also within the Part 77 transitional surface. In addition, a 5.5-acre privately-owned parcel area located off airport property approximately 800 feet east of the Highway 68/Olmsted Road intersection contains numerous obstructions to the Runway 10R-28L Part 77 transitional surface per FAA ACs 150/5300-16A, 17C, and 18B⁵ (**Exhibit 2A**).

³ Hold lines are used to indicate the position beyond which aircraft/vehicles require air traffic control tower (ATCT) authorization before proceeding on or across a runway. These markings are to prevent aircraft and vehicles from entering critical areas associated with a runway and navigational aids or to control traffic at the intersection of taxiways (FAA AC 150/5340-1L, *Standards for Airport Markings*, Para. 3.1 [2013]).

⁴ The Part 77 transitional surface is an imaginary airspace surface emanating from the edge of the primary surface at a 7:1 ratio. The primary surface is 1,000 feet wide, centered on the runway. Thus, the transition surface for an airport’s primary runway begins at 500 feet from the runway centerline (CFR, Title 14, Part 77).

⁵ FAA ACs 150/5300-16A, 17C, and 18B provide guidance for the collection and submission of aeronautical data and to identify the FAA’s Geospatial Information System (GIS) model for airport-related data. The data will be used to develop satellite-based approach procedures and to better utilize and manage the National Airspace System.

See https://www.faa.gov/airports/planning_capacity/airports_gis_electronic_alp/ for additional information.

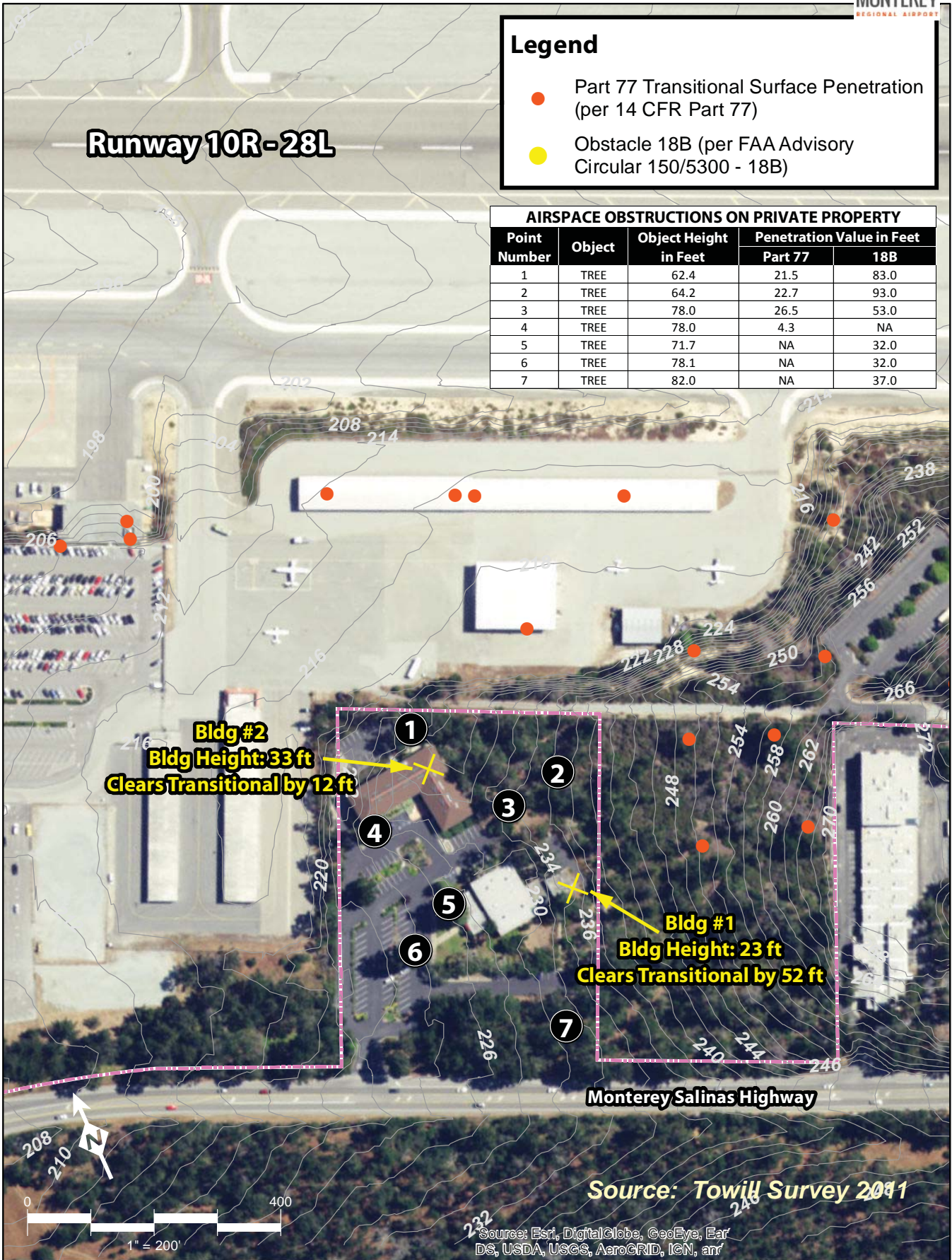
Runway 10R-28L

Legend

- Part 77 Transitional Surface Penetration (per 14 CFR Part 77)
- Obstacle 18B (per FAA Advisory Circular 150/5300 - 18B)

AIRSPACE OBSTRUCTIONS ON PRIVATE PROPERTY

Point Number	Object	Object Height in Feet	Penetration Value in Feet	
			Part 77	18B
1	TREE	62.4	21.5	83.0
2	TREE	64.2	22.7	93.0
3	TREE	78.0	26.5	53.0
4	TREE	78.0	4.3	NA
5	TREE	71.7	NA	32.0
6	TREE	78.1	NA	32.0
7	TREE	82.0	NA	37.0



Bldg #1
Bldg Height: 23 ft
Clears Transitional by 52 ft

Bldg #2
Bldg Height: 33 ft
Clears Transitional by 12 ft

Monterey Salinas Highway

Source: Towill Survey 2011

Source: Esri, DigitalGlobe, GeoEye, Earthstar, USGS, AeroGRID, IGN, and the

- Runway protection zones (RPZs)⁶ - RPZs established off the eastern ends of both runways extend off airport property and include incompatibilities, such as commercial buildings. Under FAA standards, these RPZs should be under the Airport’s control either through avigation easements to prevent land use incompatibilities or by owning the property outright. FAA’s *Interim Guidance of Land Uses within a Runway Protection Zone* (FAA 2012) states,

“Airport owner control over the RPZ land is emphasized to achieve the desirable protection of people and property on the ground. Although FAA recognizes that in certain situations the airport sponsor may not fully control land within an RPZ, the FAA expects the airport sponsor to take all possible measures to protect against and remove or mitigate incompatible land uses.”

- Wildlife Hazards - FAA requires airport sponsors to maintain a safe operating environment, which means they must conduct a wildlife hazard assessment (WHA) and prepare a wildlife hazard management plan (WHMP) when there has been a wildlife strike (FAA 2016b, Fact Sheet - FAA Wildlife Hazard Mitigation Program). The WHMP identifies the specific actions an airport will take to mitigate the risk of wildlife strikes on or near the Airport. The Airport’s WHMP contains numerous strategies and techniques that are to be implemented for wildlife management at the Airport (MPAD 2013).

2.5.2 Prepare for Future Aviation Demand

A second objective of the Proposed Project is to provide facility improvements that will meet future projected aviation demand within the 20-year planning period. As discussed in Section 1.4, FAA has reviewed and approved the aviation forecasts developed in conjunction with the Proposed AMP (**Appendix B**). These forecasts have been used as a basis for planning and development of the Proposed Project. Based on the FAA-approved aviation activity forecasts (Table 1A) and the aviation facility requirements analyzed in Chapter Four of the Proposed AMP, several areas and functions of the Airport are already undersized or will be in the future if the AMP planning forecasts are realized.

The Proposed AMP (Chapter Three) provides a demand/capacity analysis based on established guidelines and methodologies for airport planning and design and utilizes information obtained from the Airport and users/tenants, to the extent possible. This allows the Monterey Peninsula Airport District (MPAD) to have an understanding of the basic parameters required for future facilities to function effectively. Among other things, the Proposed AMP identifies the following:

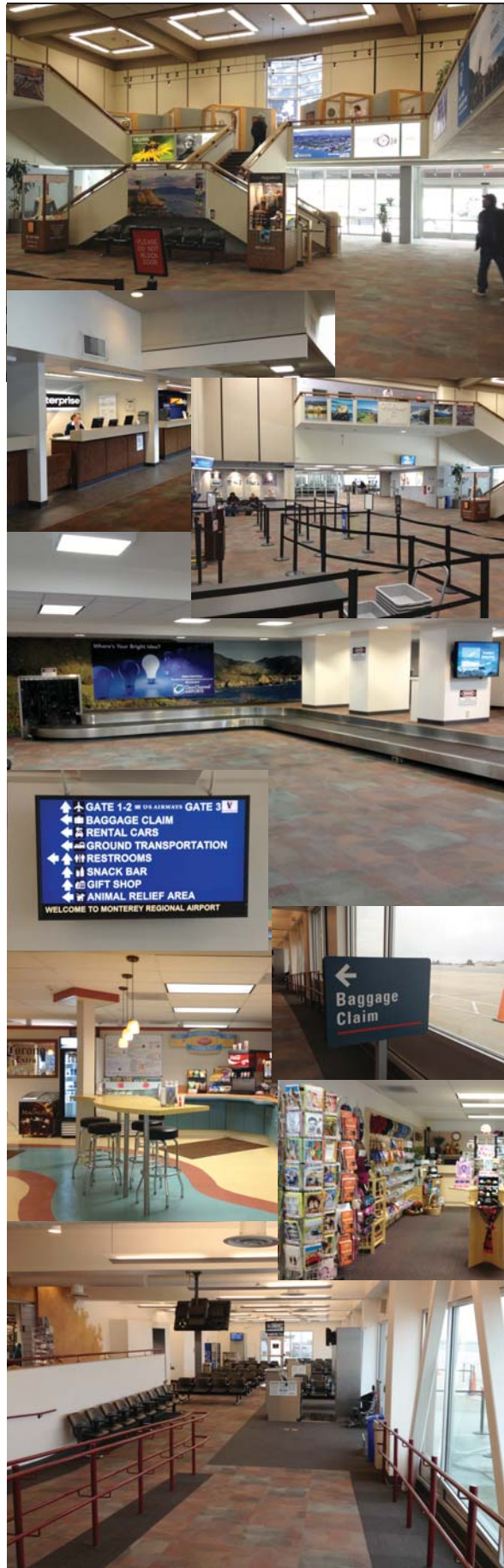
⁶The RPZ is a trapezoidal area centered on the runway, typically beginning 200 feet beyond the runway end. RPZs have been established by FAA to provide an area clear of obstructions and incompatible land uses to enhance the protection of people and property on the ground. The dimensions of the RPZ vary according to the visibility minimums and the type of aircraft operation on the runway.

- The Airport’s annual service volume (ASV)⁷ is currently at 43 percent; by the end of the long-term planning horizon (20 years), total annual operations are anticipated to reach 66 percent of the Airport’s ASV (Coffman Associates 2015:Table 3E). Therefore, major airfield capacity improvements are not considered necessary within the scope of the Proposed AMP.
- The commercial terminal is currently operating at 100 percent of its gate capacity and 60 percent of its parking capacity when demand for “remain overnight” (RON) space is included.
- The commercial terminal currently operates at 92 percent of its gross existing capacity with several aspects of the building at or over capacity (**Exhibit 2B**):
 - Ticket counter kiosk positions (at capacity)
 - Transportation Security Administration (TSA) baggage check (over capacity)
 - Claim lobby (over capacity)
 - Concourse circulation area (over capacity)
 - Retail concessions (over capacity)
 - Rental car counter queue area (over capacity)
 - Building systems and support areas - stairwells, storage, general circulation, and mechanical/heating, ventilation, and air conditioning (HVAC) (over capacity)
- Public vehicular parking lots associated with the commercial terminal currently operate over capacity. In the long-term, a shortfall of approximately 446 spaces is anticipated.

The review of the various terminal complex requirements was performed with the guidance of FAA AC 150/5360-13, *Planning and Design Guidelines for Airport Terminal Facilities* (FAA 1988), the *TSA Recommended Security Guidelines for Airport Planning, Design and Construction* (revised 2011), International Air Transport Association’s (IATA) *Airport Development Reference Manual* (Level of Service Standards) 9th Edition (2004), and the Airport Cooperative Research Program’s (ACRP) *Report 25: Airport Passenger Terminal Planning and Design*, Volumes 1 and 2 (2007).

Preliminary 2017 enplanement numbers provided by the Airlines to the Airport were approximately 203,117, which is an approximate 10,000 annual average enplanement increase since 2015 (Table 1A). As the construction of a relocated terminal building will be in approximately 2024, annual enplanement increases need to be considered. Thus, to properly plan for the future needs of the Airport, it is necessary to examine the construction schedule timeframe of 2024, along with the current trend of strong and increasing passenger demand. Based on the projections contained in the Proposed AMP (**Exhibit 2B**), by 2024, the minimum size requirements for the terminal will be approximately 80,000 square feet (sf) and the minimum size requirements for the terminal in 2033 will be approximately 92,000 sf.

⁷ ASV accounts for the hourly capacity of each runway configuration as defined in FAA AC 150/5060-5, *Airport Capacity and Delay* (FAA 1983), as well as the ratio of annual demand to average daily demand and the ratio of average daily demand to average peak hour demand during the peak month.



FUNCTIONAL AREA	Unit	Available	Current Need	Current % Capacity	ENPLANEMENT MILESTONES		
					Short Term 223,000	Intermediate Term 245,000	Long Term 275,000
DEPARTURES PROCESSING							
<i>Ticket Counters</i>							
Passengers Using counter (Utilization Factor)	85%	-	156	-	184	203	228
Agent Positions	#	9	6	67%	7	8	9
Kiosk Positions	#	5	5	100%	5	6	6
Frontage	LF	92	60	65%	71	78	88
Area	SF	920	630	68%	740	820	920
<i>Ticket Lobby</i>							
Queuing Area	SF	1,640	1,510	92%	1,790	1,970	2,210
TSA Baggage Check	SF	1,500	1,740	116%	1,740	1,740	2,540
Outbound Baggage	SF	6,790	3,410	50%	4,044	4,454	4,994
Airline Ticket Office	SF	4,320	2,990	69%	3,547	3,907	4,381
Ticket Lobby Circulation	SF	2,870	1,860	65%	2,199	2,422	2,716
<i>Public Area</i>							
Circulation	SF	6,670	5,490	82%	6,510	7,170	8,040
<i>Security Stations</i>							
Number	#	2	2	100%	2	2	3
Queuing Area	SF	540	440	81%	524	577	647
Station Area	SF	1,690	1,600	95%	1,600	1,600	2,400
TSA Administration/Operations	SF	990	800	81%	900	1,000	1,100
ARRIVALS PROCESSING							
<i>Baggage Claim</i>							
Passengers Claiming Bags (Utilization Factor)	75%	-	137	-	163	179	201
Claim Display Frontage	LF	85	82	96%	98	108	121
Inbound Baggage	SF	1,870	1,320	71%	1,562	1,721	1,930
Baggage Service Office	SF	250	170	68%	195	215	241
<i>Claim Lobby</i>							
Claim Area	SF	1,280	2,510	196%	2,978	3,280	3,678
Circulation Area	SF	1,250	1,960	157%	2,327	2,563	2,874
CONCOURSE FACILITIES							
<i>Passenger Holdrooms</i>							
Gates	#	5	5	100%	5	5	5
Holdroom Area	SF	5,050	4,500	89%	5,000	6,600	9,100
<i>Concourse Circulation</i>							
Circulation Area	SF	1,330	4,140	311%	4,904	5,401	6,057
PUBLIC SPACES							
<i>Restrooms</i>							
Area	SF	2,850	2,200	77%	2,604	2,868	3,216
<i>Concessions</i>							
Food & Beverage	SF	5,390	2,890	54%	3,345	3,675	4,125
Retail	SF	670	1,540	230%	1,784	1,960	2,200
<i>Rental Car</i>							
Counter Frontage	LF	94	92	98%	109	120	134
Counter and Office Area	SF	2,210	1,370	62%	1,628	1,793	2,010
Counter Queue Area	SF	710	920	130%	1,085	1,195	1,340
ADMINISTRATIVE SPACES							
Administration/Operations	SF	4,680	5,732	82%	5,868	5,956	6,072
Conference Center	SF	960	960	100%	960	960	960
FUNCTIONAL AREA TOTAL							
Total Programmed Functional Area	SF	56,430	50,682	90%	57,835	63,847	73,751
BUILDING SYSTEMS/SUPPORT							
Mechanical/HVAC	SF	1,640	2,030	124%	2,313	2,554	2,950
General Circulation/Stairwells/Storage	SF	10,800	10,680	99%	12,145	13,408	15,488
TOTAL TERMINAL							
Gross Building Area (Rounded)	SF	68,900	63,400	92%	72,300	79,800	92,200

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In addition to the potential long-term shortfall in the functional areas of the existing commercial terminal, portions of the terminal are over 60 years old and alterations to the original structure have created inefficiencies, especially on the secure side of the building. For example, in the secure concourse area, the circulation areas are undersized by almost 70 percent using methodologies detailed in FAA AC 150/5360-13. In the baggage claim area, both the floor area and the circulation area are undersized, especially when multiple aircraft are deplaning. The rental car area also has an inadequate queuing area. The existing commercial apron is long and narrow, necessitating parallel aircraft parking for larger aircraft (including the critical design aircraft, the MD-80 series) and operating restrictions on Taxiway “A.”

Other areas of the Airport are also projected to operate above capacity during one or more of the planning horizons of the Proposed AMP:

- T-hangar space (potential long-term shortfall - 31,100 sf)
- General Aviation (GA) apron area (potential long-term shortfall - 3,600 square yards [sy])
- Commercial terminal vehicular parking (based on an 85 percent utilization rate) (potential intermediate shortfall - 248 spaces; potential long-term shortfall - 376 spaces)
- Commercial terminal curb area (potential long-term shortfall - 73 linear feet [lf])

2.5.3 Incorporate Airport Sustainability Goals

A third objective of the Proposed Project is to incorporate measures into future proposed projects to meet the Airport’s sustainability goals. The Airport has already incorporated several successful sustainability initiatives, for example, energy-saving lighting projects, the installation of electric vehicle (EV) charging stations, the purchase of electric vehicles, a terminal recycling program, the installation of low-water use terminal fixtures, and use of an energy-efficient film on the windows and doors along the airfield side of the terminal. The Proposed Project includes the use of energy-efficient and low-flow water fixtures in new buildings and the construction of a new passenger terminal building to Leadership in Energy and Environmental Design (LEED) standards (Section 2.6.3). LEED is a widely used rating and certification system for a building’s “green,” (i.e., resource-efficient or sustainable) features.

In addition, the proposed consolidation of GA facilities on the north side of the Airport will reduce taxiing time and related aviation emissions (Sections 2.6.1 and 2.6.2).

2.5.4 Increase Airport Self-Sufficiency

A fourth objective of the Proposed Project is to plan for additional revenue-producing opportunities so the Airport can continue to provide its share of matching funds for its federal- and state-provided grants. As previously discussed in Section 1.6, the Airport has federal grant assurances that must be met as a condition of the acceptance of federal monies for maintenance and development projects. The federal grant assurances include Grant Assurance 3, Sponsor Fund Availability. This grant assurance requires that the airport sponsor have “sufficient funds available for that portion of the project costs which are not to be paid by the United States.” It also requires that the sponsor have “sufficient funds to assure operation and maintenance of items funded under this grant agreement which it will own or control.”

The Proposed AMP's on-airport land use plan includes areas of the Airport not needed for aviation purposes that can be developed or redeveloped for revenue-generating purposes (Sections 2.6.1.2, 2.6.1.3, and 2.6.2.7).

2.6 PROJECT DESCRIPTION

The Proposed Project provides a framework for improvements at the Airport that maximizes the efficiency and safety of facilities and is shown in **Exhibit 2C**. The Proposed Project has been developed based on the Proposed AMP (Coffman Associates 2015: Exhibit 5A) which contains a recommended development concept plan that shows various improvements proposed for the Airport through 2033.⁸

The Proposed Project includes a safety enhancement component that addresses the non-standard runway-taxiway separation and hold line placement that exists on the south side of the primary runway (Runway 10R-28L) (see Section 2.6.1.1 for more detail). This Proposed Project component includes the following and would be phased over approximately 10 years:

- Relocate 44 GA hangars and a fuel tank from the southeast side of the Airport to the north side of the Airport
- Add up to seven new GA hangars on the north side of the Airport
- Relocate the existing ARFF building and construct an ARFF service road
- Relocate the existing commercial terminal and necessary apron pavement (and associated parking and roadway improvements)
- Close Taxiway "K" at its connection with the new commercial terminal apron
- Implement a 52.5-foot southerly shift of 1,850 linear feet of Taxiway "A" and associated lighting, signage, and markings
- Remark hold lines on Taxiway "A" at Taxiway Connectors "G" and "J" to a 250-foot separation from the Runway 10L-28R centerline
- Install taxiway "islands" at Taxiway Connectors "G" and "J"
- Construct replacement vehicular parking along Fred Kane Drive

⁸ An adjustment was made to this concept during the preliminary engineering for this environmental process to abut the proposed terminal apron with parallel Taxiway "A." This would create additional depth in the apron to provide larger aircraft the necessary space to access the relocated terminal. To prevent direct access from the new commercial apron to Runway 10R-28L, the existing Taxiway "K" between Taxiway "A" and Runway 10R-28L would be closed per FAA AC 150/5300-13A, Section 401g.



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Other proposed projects include a 5.5-acre land acquisition, construction of a Highway 68 frontage road, construction of an on-airport “north side” road, redevelopment of the former industrial area on the northwest corner of the Airport, future expansion of GA facilities north of the airfield, the extension of Taxiway “B” and taxiway geometry improvements related to the secondary runway (Runway 10L-28R), potential non-aviation development on both the north and south sides of the airfield, and acquisition of property or avigation easements within the Runway 28L and Runway 28R RPZs.

As previously discussed in Section 1.3, all proposed projects are addressed and analyzed at one of two levels within this EIR:

- 1) Development projects anticipated to be implemented within the next 10 years, that have project funding identified, and for which basic project details are available and adequate to analyze the potential environmental impacts, are evaluated at a project-specific level and are considered short-term projects for purposes of this EIR and encompass both short and intermediate-term projects listed in the Proposed AMP for the first 10 years of implementation; and
- 2) Development projects for which project funding⁹, and thus construction and buildout schedules, is unknown or for which project details are not known at a sufficient level of detail to provide a project-specific analysis are addressed at a programmatic level (i.e., based on their general land use) and are considered long-term projects for purposes of this EIR. The projects evaluated at the programmatic level may require additional environmental review at the time that project approvals are requested, and additional project-specific details are known.

2.6.1 Proposed Short-Term Projects Evaluated at a Project-Specific Level

2.6.1.1 Proposed Safety Enhancement Component of the Proposed Project Related to Taxiway “A” Relocation and Associated Building Relocations

As discussed previously in Section 2.5.1, based on FAA design standards for the critical aircraft operating at the Airport, the existing separation between Taxiway “A” and Runway 10R-28L does not meet FAA design standards. However, creating the entire 400-foot separation needed to fully meet design standards is not feasible due to the constrained dimensions and topography of the Airport (Section 3.2 and Exhibit 3A).¹⁰ Therefore, FAA has agreed that a reasonable approach is to shift Taxiway “A” a consistent 327.5 feet (centerline to centerline) from Runway 10R-28L and has approved the ALP with this ultimate configuration shown (pending satisfactory *National Environmental Policy Act* [NEPA]

⁹ Public use airports rely on federal Airport Improvement Program (AIP) funding for a significant number of their capital improvement projects, especially those related to airport safety enhancement. Each year the Airport submits a proposed five-year capital improvement program to FAA for future funding consideration.

¹⁰ If Taxiway “A” is moved to accommodate the entire 400-foot separation standard distance from Runway 10R-28L, it would leave approximately seven feet between the existing commercial terminal building and the taxiway, effectively eliminating any commercial apron in front of the terminal building. In addition, the taxiway would impact several hangars and fixed base operator (FBO) aprons. Further, even if the existing terminal is relocated, much of the Airport’s south side apron would be rendered unusable due to the elimination of existing hangar apron frontage. Also, some of the hillside that runs parallel to Taxiway “A” on the east end of the runway would penetrate the taxiway object free area by approximately 150 feet.

compliance).¹¹ It would ensure that Airplane Design Group (ADG) III aircraft (wingspans less than 118 feet) could taxi the full length of Taxiway “A” without any wingtip penetrations of the runway safety area (RSA). In addition, it would allow the relocation of hold lines on connector taxiways to the required standard of 250 feet, which would be outside the RSA. The taxiway separation between Taxiway “A” and Runway 10R-28L currently varies from 275 feet to 327.5 feet with the 275-foot separation occurring along the existing commercial apron and passenger terminal.¹²

A series of subtasks are proposed to carry out the safety enhancement component of the Proposed Project. These safety enhancement components are proposed to be phased over approximately 11 years as listed below (**Exhibit 2D**):

- Phase 1 (Years 1-3): Construct the necessary pavement and infrastructure to relocate approximately 44 GA tenants from the southeast part of the Airport to north of the airfield. Install a temporary ARFF facility on the Navy Flying Club apron.
- Phase 2 (Years 4-8): Demolish the existing ARFF building and demolish or relocate the southeast GA facilities. Construct a new commercial terminal complex (including apron, terminal loop road and roundabout, and vehicular parking lots and garage). Close Taxiway “K” between Runway 10R-28L and Taxiway “A.”
- Phase 3 (Years 9-10): Demolish the existing terminal building. Construct a relocated permanent ARFF building. Realign Fred Kane Drive and construct a second parking structure and surface parking lots, as needed.
- Phase 4 (Year 11): Remark an approximate 1,850-lf portion of Taxiway “A” to 327.5 feet from Runway 10R-28L and relocate taxiway signage and lighting. Remark hold lines on Taxiways “G” and “J” at 250 feet from the Runway 10R-28L centerline. Provide apron islands at Taxiways “G” and “J” to prevent direct access from apron areas to Runway 10R-28L.

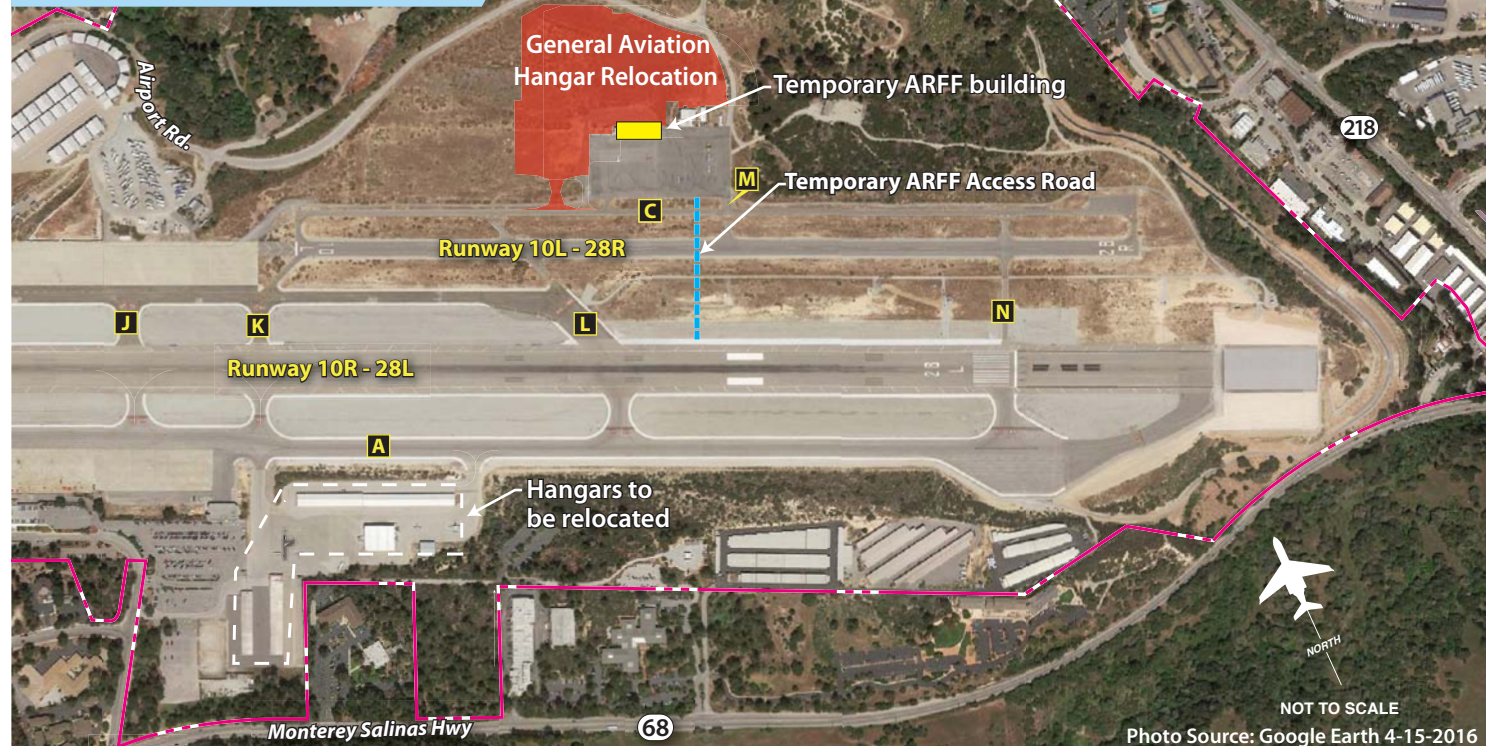
Project-specific details of the proposed safety enhancement component of the Proposed Project are discussed below:

GA Hangar Improvements and Relocation. The existing north side GA area currently contains six portable (Port-a-Port) T-hangars, an above-ground fuel tank for aviation gasoline (AvGas), several buildings associated with the Navy Flying Club, and approximately 3.6 acres of apron. The Airport’s existing southeast GA area has one conventional hangar, one box hangar, and 42 T-hangars. All 42 T-hangars are

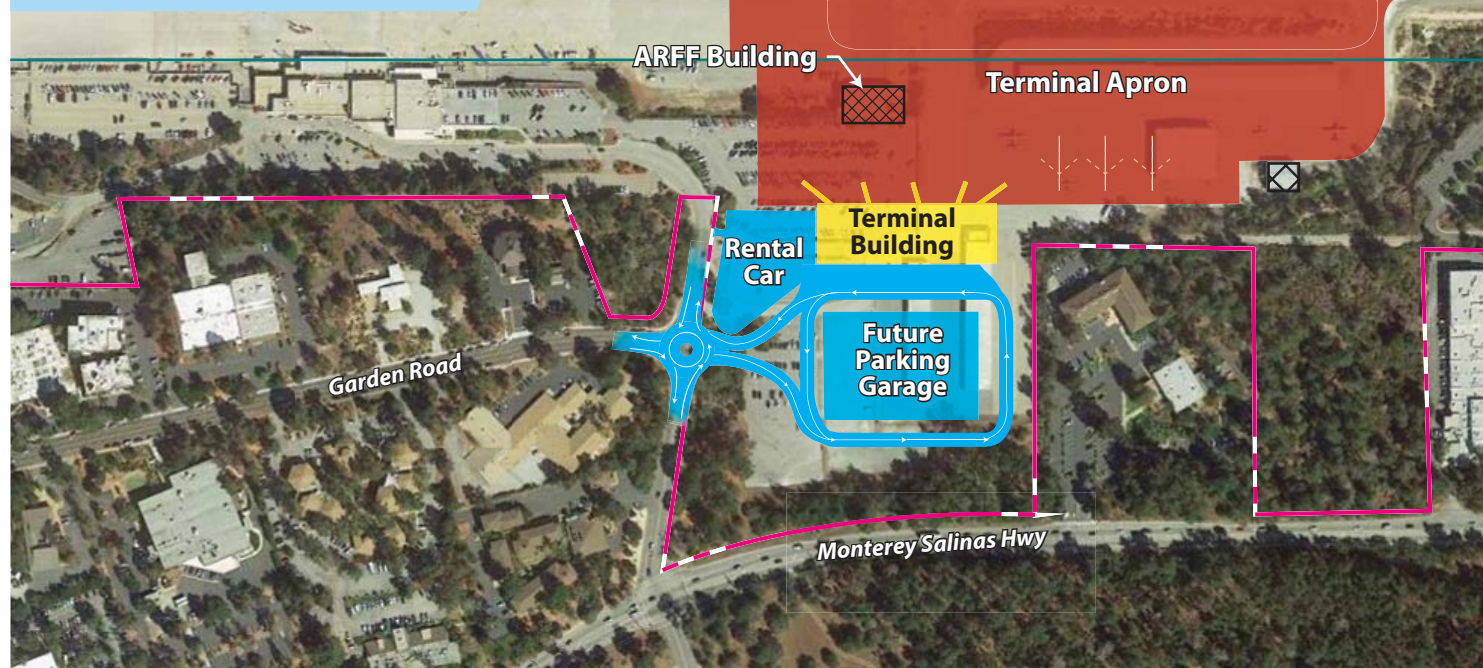
¹¹ A risk assessment completed for FAA during the Proposed AMP evaluation process indicates that Airport safety would be enhanced significantly by providing a uniform 327.5-foot separation along the entire length of Taxiway “A” (**Appendix C**). Based on the assessment results, increasing the separation distance under the Proposed Project reduces the probability of an accident during the airborne (approach) phase by approximately 127 percent and during the landing rollout phase by approximately 57 percent. This assessment will be used to support the Airport’s request for a Modification to Standard.

¹² The Airport has been operating under a conditional waiver of this standard from FAA (granted on August 4, 1976, and reaffirmed on June 19, 1978 [**Appendix D**]), which stipulates that a large aircraft (B-737 or higher) may not use Taxiway “A” when another large aircraft is operating on the runway.

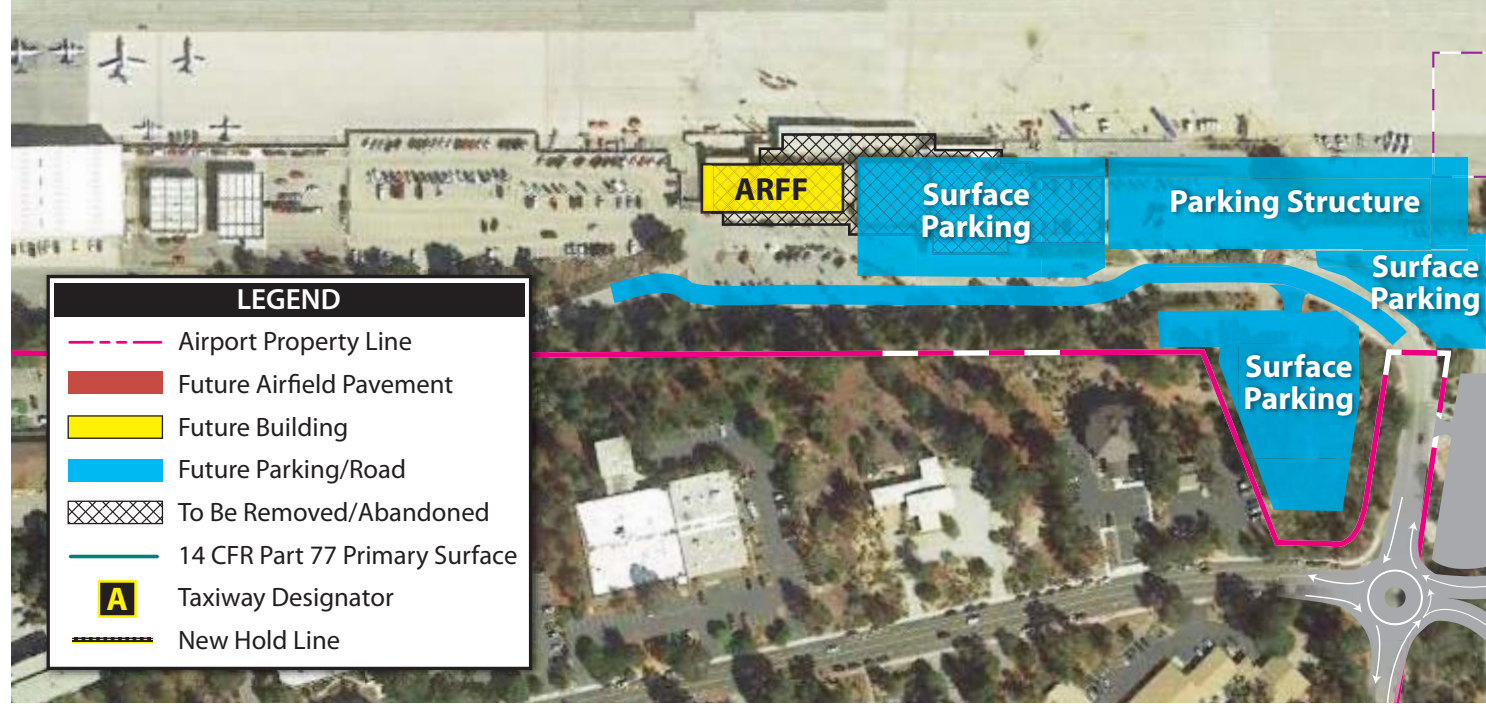
PHASE 1
Build out north side general aviation
Construct temporary ARFF building



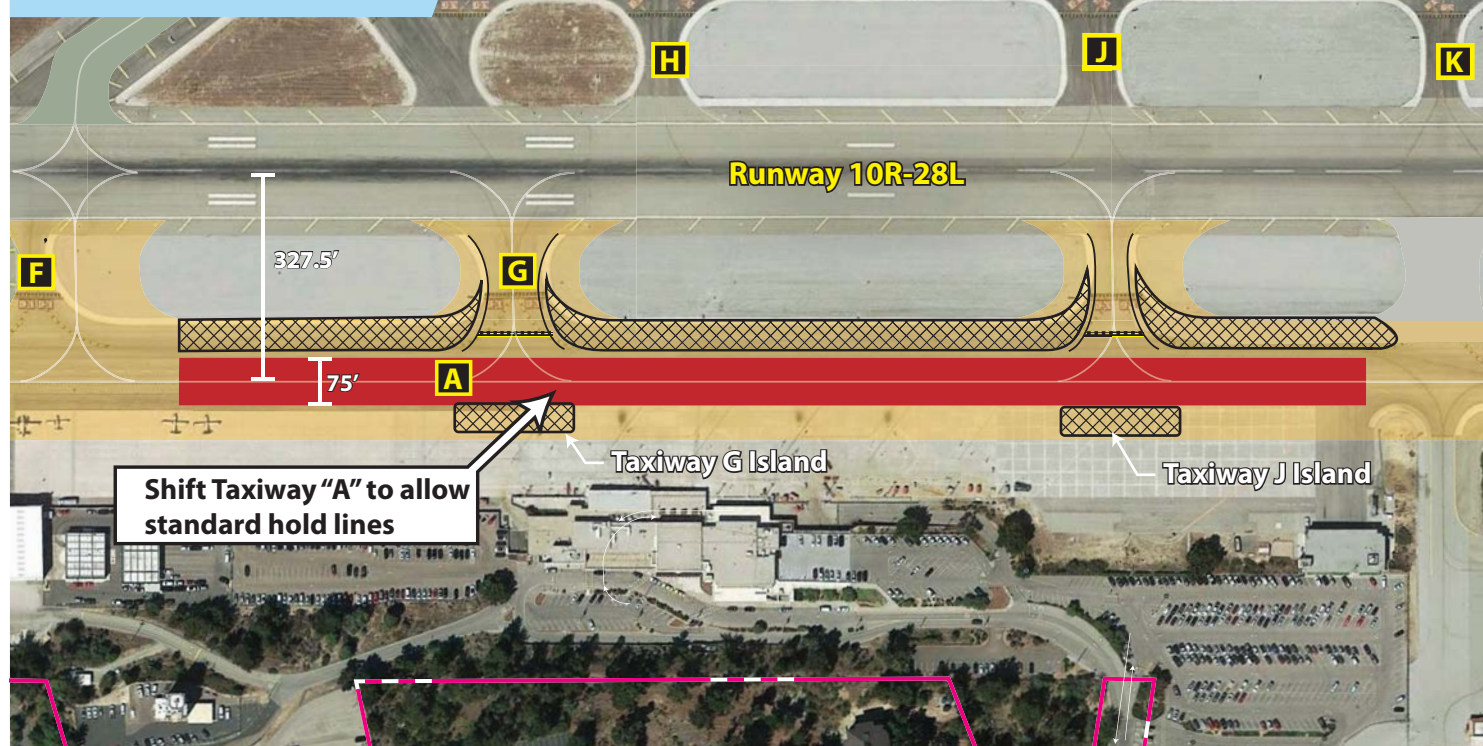
PHASE 2
Demolish ARFF
Construct apron and parking areas
Construct new terminal building
Close Taxiway K



PHASE 3
Demolish old terminal building
Construct surface parking
Construct permanent ARFF building
Realign Fred Kane Drive



PHASE 4
Shift Taxiway "A"
Remark hold lines
Install Taxiway "G" and "J" islands



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currently occupied and, since 2014, a flight school has operated from the area. An 8,000-gallon self-serve AvGas fuel tank is also located in the southeast GA area. The southeast GA uses to be relocated include approximately 126,000 sf of aircraft hangar space.

To allow for the relocation of GA tenants from the southeast part of the Airport to its north side, construction in the existing north GA area would include additional apron and taxiway pavement, utilities, fencing, interior access roads, and vehicular parking. One new taxiway connector to Taxiway "C" is also proposed. Pavement and infrastructure for one row of 25 T-hangars, two rows of 50-foot by 50-foot box hangars (18 total), and two executive box hangars are proposed to be installed to increase the number of hangars on the north side by 45 (**Exhibit 2E**). The existing north side Port-a-Port hangars would be moved to the western edge of the proposed new pavement to provide additional hangar space. In addition, six buildable hangar pads are proposed to allow for additional hangars and ancillary structures, such as a wash rack or maintenance bay. Thus, the total number of new hangars on the north GA area would be a maximum of 51. The existing 8,000-gallon AvGas tank is also proposed to be relocated from the southeast GA area to the north side.

Grading for the proposed north side GA improvements would require up to seven feet of fill material since the existing ground surface falls off to the north towards the Air Operations Area¹³ (AOA) fence and Airport Road. Approximately 23,000 cubic yards (cy) of fill material is needed to level out the area prior to construction. Although fill material is proposed to be generated through later phases of the safety enhancement component of the Proposed Project (see later discussion of Grading, Stockpile/Disposal Sites, and Haul Roads), an intermediate source of fill material would be required since the proposed north side GA improvements are the first phase of the safety enhancement component of the Proposed Project.

The proposed source of fill for the initial north side GA improvements is to regrade the area immediately to the west. This area is planned for future GA hangar development (long term) in the Proposed Project. In the short term, however, no improvements are planned, and the area can be used as a borrow site for the initial north side GA improvements. After the 23,000 cy of material has been removed, the borrow site would remain unused. Eventually, the proposed commercial terminal apron construction, as well as other aspects of the Proposed Project, would generate soil material to re-fill the borrow site in preparation for future long-term development (Section 2.6.2.2).

Future improvements, such as the construction of hangars or an additional fuel farm, are not currently programmed for funding. However, private hangars located at the Airport's existing southeast GA area may be purchased (at fair-market value) and relocated to the new area or new hangars constructed. Investors, such as FBOs, or other means of financing revenue-producing facilities would be necessary to construct these facilities. Although specific construction details are not known at this time, traffic (and related air quality and noise impacts) from the new hangars' vehicular traffic have been included in this EIR analysis. Review of any private hangar proposals would be conducted by airport planning staff at the time of the proposal to determine whether additional environmental review is necessary, based on the actual construction proposed.

¹³ The AOA is defined by FAA (2009) as, "All airport areas where aircraft can operate, either under their own power or while in tow. The AOA includes runways, taxiways, and apron areas."

The improved GA area would tie in to existing apron pavement on the north and west sides with new taxilanes provided to access the new hangars and hangar pads. One new taxiway connector to Taxiway “C” is proposed. The Taxiway Design Group (TDG) for the north side GA area is Group 1A.¹⁴ The new taxiway connector would be 25 feet wide with ten-foot-wide shoulders. Pavement for the new taxiway, taxilanes, and hangar apron would comply with applicable FAA design standards for pavement grades and pavement sections for the category of airplanes weighing less than 12,500 pounds.

The existing north side GA area does not have drainage structures but drains by sheet flow to the north towards Airport Road and west, where an existing storm drain system north of Taxiway “C,” captures the run-off and conveys it into a detention basin that leads to Canyon Del Rey Creek. The proposed north side GA improvements would utilize trench drains and catch basins to capture run-off generated by the project. Based on the conceptual design criteria report, the north side GA area is proposed to tie-in to an existing 24-inch-diameter storm drain pipe that outfalls to the detention basin north of Airport Road, as well as installing new 18-inch and 24-inch pipe in the north side GA area with connection points to the existing storm drains adjacent to Airport Road and Taxiway “C” (KHA 2018).

Utilities at the north side GA area include an existing 21-kilovolt (kV) underground electric line from Del Rey Gardens Drive to the existing Navy Flying Club apron and a fire suppression water line that runs along Airport Road to the Navy Flying Club. Both the existing electric line and the water line are proposed to be extended to provide electricity and water to the new hangars, pending proper coordination with the utility providers. In addition, a solar farm has been constructed immediately north of the GA area. Future tie-ins to this facility would be available via airport-owned meters.

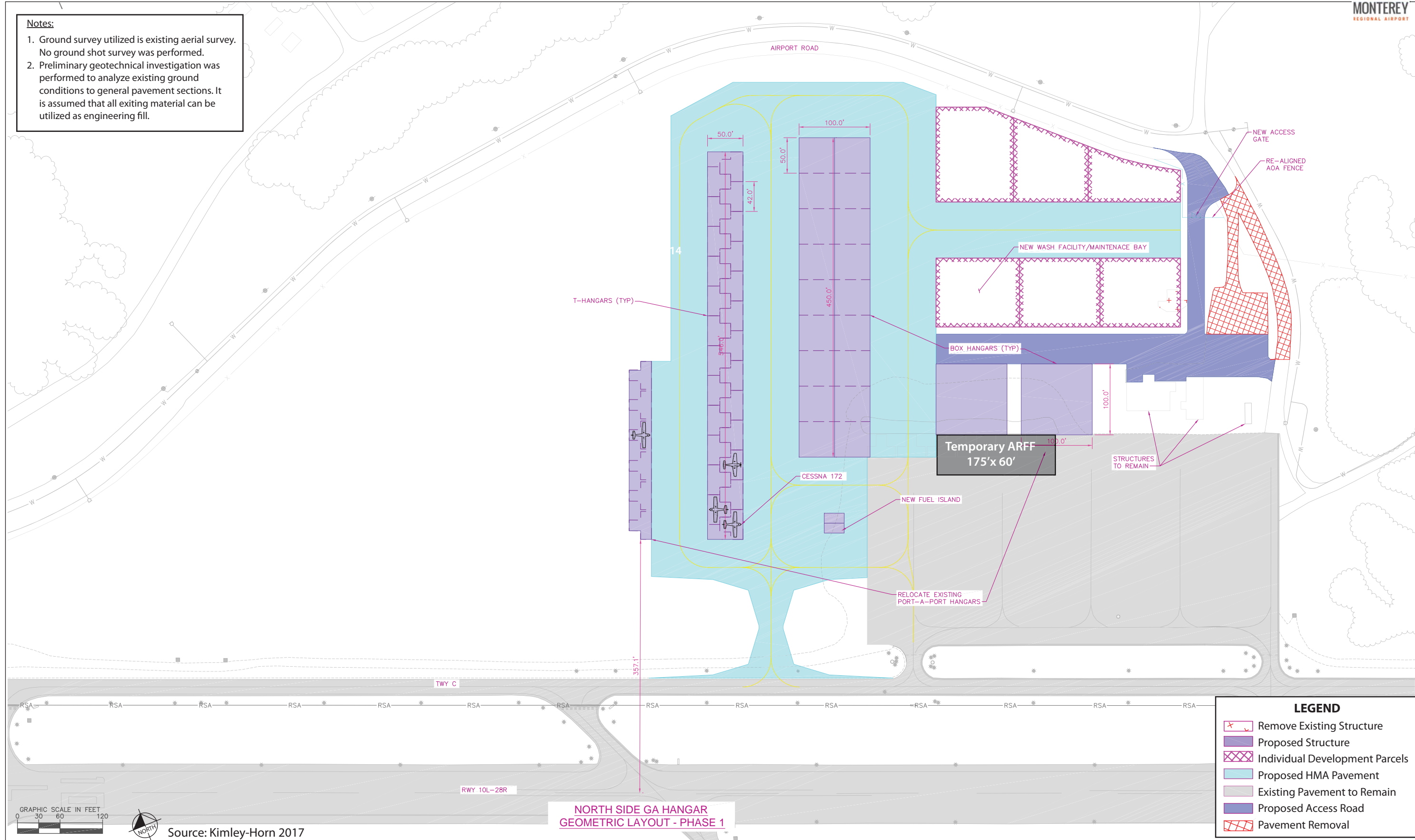
Temporary ARFF Building. A temporary ARFF building would be located north of the airfield on the apron by the Navy Flying Club. This building would take access from Airport Road west to Fremont Street until a new “north side” road is constructed or until a new permanent ARFF building is constructed in the location of the existing terminal building. An approximate 12-foot-wide, 630-foot-long ARFF service road would be constructed from the edge of the GA apron to the primary runway to provide acceptable response times from the building to the midpoint of Runway 10R-28L. Minimal grading would be required for this service road, which would involve the laying of asphalt over the existing infield grades.

Relocated Commercial Terminal Building. By relocating the existing ARFF building and southeast GA users, there would be room to relocate the commercial terminal (and terminal apron) approximately 1,000 feet east of the existing terminal building, as well as farther south to allow for an expanded aircraft parking apron (**Exhibit 2F**). The relocated terminal is proposed to be a 45- to 60-foot-high, two-level, building with approximately 100,000 sf of physical space to meet the Airport’s existing operational needs. (For purposes of comparison, the existing passenger terminal contains approximately 70,000 sf.)

The existing commercial terminal building was originally constructed in 1950. Since then, numerous additions and reconfigurations have taken place to address changes in aviation demand and passenger

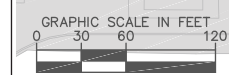
¹⁴ FAA dictates taxiway geometry based on two factors: the main gear width of the aircraft using the taxiway; and the cockpit to main gear distance (FAA AC 150/5300-13A, Figure 4-16). Smaller GA aircraft use Runway 10L-28R and the associated taxiway geometry to the north. A typical TDG-1A aircraft is a Cessna 172.

Notes:
 1. Ground survey utilized is existing aerial survey. No ground shot survey was performed.
 2. Preliminary geotechnical investigation was performed to analyze existing ground conditions to general pavement sections. It is assumed that all exiting material can be utilized as engineering fill.



LEGEND

	Remove Existing Structure
	Proposed Structure
	Individual Development Parcels
	Proposed HMA Pavement
	Existing Pavement to Remain
	Proposed Access Road
	Pavement Removal

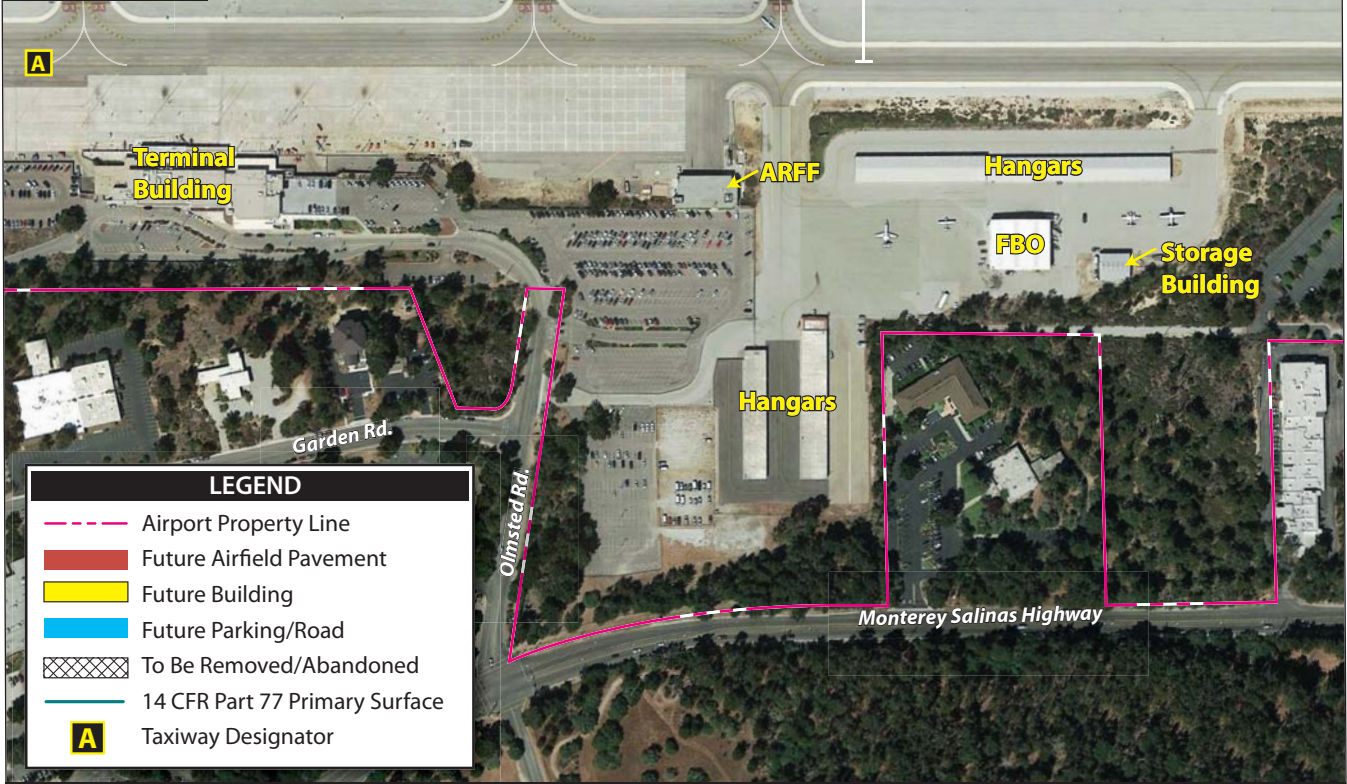


Source: Kimley-Horn 2017

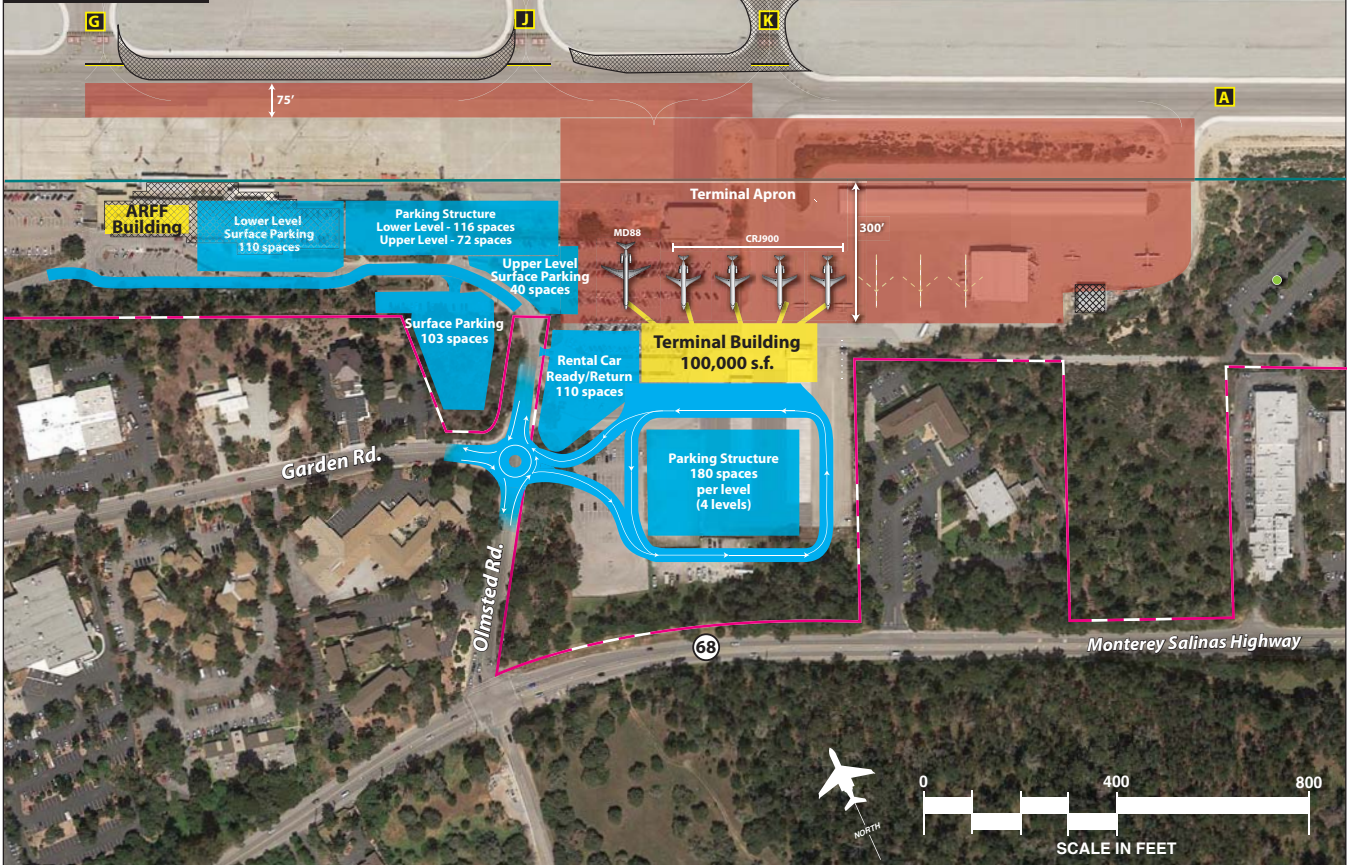
**NORTH SIDE GA HANGAR
 GEOMETRIC LAYOUT - PHASE 1**

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EXISTING



PROPOSED

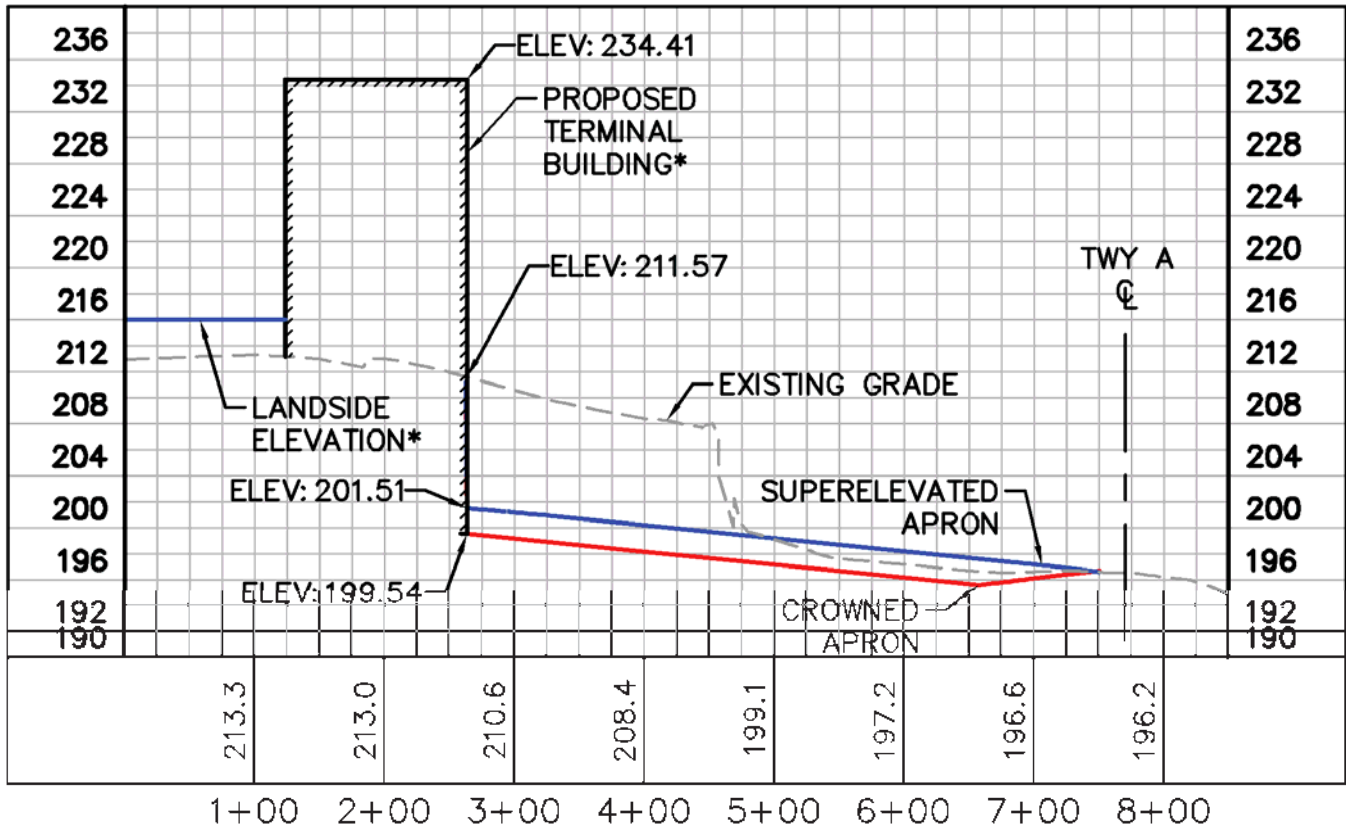


preference for terminal facilities. Today, the facility is comprised of a two-story structure with primary passenger functions taking place on the ground level (including loading and unloading of aircraft), and administrative and restaurant functions taking place on the second floor. Existing functional spaces are not provided in ideal or efficient configurations/locations nor do they meet current passenger expectations for a desired flight experience. Based on preliminary analysis of the relocated commercial building's functional spaces, approximately eight percent of the building would be used for administrative functions and 16 percent for building systems and support areas. The remaining 76 percent of the building would be used for arrival and departure functions, the main concourse, and other public spaces (DWL Architects 2017). The relocated terminal would be constructed using LEED certification practices in keeping with the Airport's sustainability goals and objectives (Section 2.5.3). Thus, the proposed relocated terminal building would provide enough additional building space to meet both the existing and potential long-term shortfall indicated in the Proposed AMP analysis (Section 2.5.2) and enhance the customer experience.

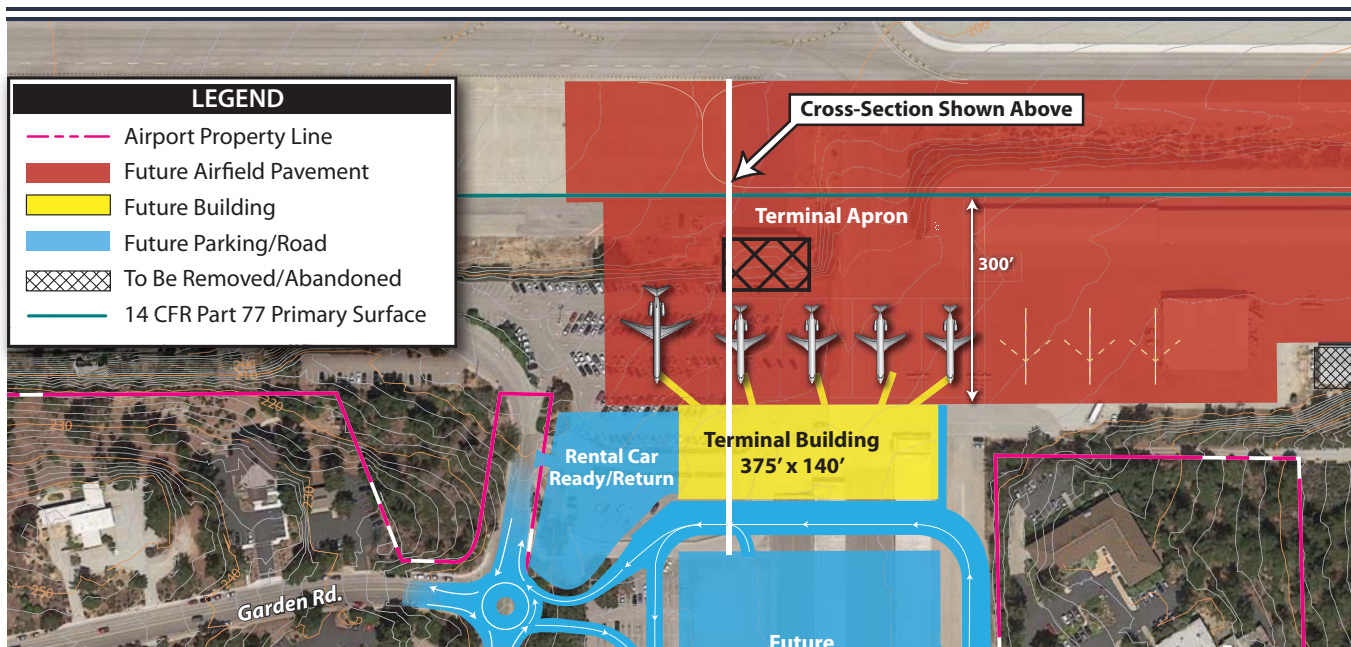
The proposed building would provide for jetways (up to five gate positions) with a landside entrance to the south stepped up a level from the apron. This configuration would adapt to the existing topography to minimize the amount of earthwork. Retaining walls are proposed on the west and east ends of the terminal building to allow for the differences in topography between the landside surface parking lots, roadways, and terminal entrance, and the terminal apron and airfield (**Exhibit 2G**). The Proposed Project includes a retaining wall west of the relocated terminal that would be 10 to 12 feet tall, while the retaining wall east of the terminal would taper down in height to three feet tall (KHA 2018). Approximately 10 feet of over-excavation for the building's foundation and utilities is proposed.

Relocated Commercial Apron. The safety enhancement component of the Proposed Project would include the construction of a new commercial apron north of the relocated terminal building (**Exhibit 2F**). The approximate dimensions of the new commercial apron would be 487 feet deep (except for the southeastern corner where a steep slope is a topographical constraint) by 1,350 feet long. The apron would be designed to abut parallel Taxiway "A," which would provide enough apron depth for larger aircraft currently operating at the Airport to maneuver easily to the optimum gate positions (i.e., the proposed apron would need to accommodate several large aircraft, including ones from the MD-80 series). The abutted portion of Taxiway "A" is already located 327.5 feet, centerline to centerline, from Runway 10R-28L and is not proposed to be moved from its existing position. To meet FAA design standards restricting direct access from aprons to a runway, existing Taxiway "K" is proposed to be closed and remarked with an island.

Approximately five acres of Portland concrete cement (PCC) is proposed to be installed immediately in front of the new commercial terminal with another approximate eight acres of ramp between the concrete apron and Taxiway "A." Pavement depths between 15 to 17 inches are proposed, depending on the type of ramp pavement selected. The upper 18 inches of existing subgrade material below the pavement sections would be treated to help stabilize the existing soils. The conceptual design criteria report evaluates two types of pavement (rigid or flexible) (KHA 2018). The pavement sections are proposed to be designed in accordance with FAA AC 150/5320-6F, *Airport Pavement Design and Evaluation* (2016a) for the category of airplanes weighing greater than 100,000 pounds.



* LANDSIDE FUTURE GROUND ELEVATION AND TERMINAL BUILDING ELEVATION TO BE DETERMINED BY OTHERS.



Source: Kimley Horn, April 2017

The existing terrain to the south of the airfield rises sharply at a slope of 4:1 or greater (25 percent or more) from the airfield to the nearby vehicle parking lot, which will require the removal of soil and the use of retaining walls to create a level apron surface with no more than a one percent grade (**Exhibit 2G**). It is estimated that a maximum of 209,000 cy of excess material would be generated, inclusive of the terminal footprint (KHA 2018). This soil is proposed to be deposited on the north side of the Airport (see later discussion of Grading, Stockpile/Disposal Sites, and Haul Roads).

The proposed apron grading would direct runoff flow to the north away from the relocated terminal building. Trench drains and catch basins are proposed to direct the flow into the existing storm drain line in the infield between Taxiway "A" and Runway 10R-28L. In addition, taxiway lighting, electrical systems and signage would be relocated, as necessary, based on final design. For example, an existing FAA duct bank that runs from the ATCT across the southeast hangar area to the radar site is proposed to be relocated prior to construction of a relocated terminal apron.

Commercial Terminal Parking Garage A four-story parking garage (approximately 720 spaces) within a terminal loop road is proposed to be constructed to replace approximately 457 existing spaces being removed by the relocated commercial terminal complex (**Exhibit 2F**). Each level is proposed to provide approximately 180 parking spaces. Assuming 12 feet per level, the total building height would be approximately 48 feet in height. The total building footprint is proposed to be approximately 73,700 sf and would be located approximately 185 feet from the Highway 68 right-of-way. Similar to the proposed relocated ARFF building, over-excavation for the building's foundation and utilities is proposed to be approximately 10 feet.

Ready Return/Rental Car Lot. An approximate 110-space ready return/rental car lot is proposed to be constructed adjacent to the west end of the terminal building off Olmsted Road (**Exhibit 2F**). Rental car employees would shuttle returned rental cars to the existing rental car lot west of the current terminal building for maintenance, pick-up, and long-term storage.

Surface Roadway Improvements. The terminal loop road is proposed to be 24 feet wide to accommodate two lanes of one-way traffic per county standards. Additional 10-foot-wide curbside parking lanes are proposed to include taxi cab and transportation network companies (TNCs)¹⁵ waiting areas (310 lf), curbside pick-up/drop-off (390 lf), and a designated transit bus stop (65 lf). A roundabout at the intersection of Olmsted and Garden Roads is proposed to be constructed at the entrance to the terminal area (**Exhibit 2F**). The terminal loop road would exit the roundabout in a southeasterly direction, loop around the terminal parking lot and in front of the relocated terminal and reconnect back to the roundabout intersection.

Existing gas, electric, and water service lines within the southeast hangar areas where the new parking lot and terminal loop road are proposed would be demolished and new service lines extended from existing gas, electric, and water mains located within Olmsted Road.

¹⁵ Transportation network companies (TNCs) are ride-share companies that pair passengers with drivers using non-commercial vehicles via websites and mobile apps.

Permanent ARFF Building. Once the commercial terminal building has been relocated, the existing terminal building is proposed to be demolished and a permanent ARFF building constructed in the same location (**Exhibit 2D**). Preliminary site layouts indicate a two-story ARFF structure with approximately 13,400 sf (6,000 sf for five apparatus bays, 6,400 sf for living quarters [2 floors], and 1,000 sf for service functions). A building footprint of approximately 175 feet by 60 feet is proposed. The relocated ARFF would be constructed using LEED certification practices in keeping with the Airport's sustainability goals and objectives (Section 2.5.3). Approximately 3,700 cy of excess soil would be created based on 10 feet of over-excavation for the building's foundation and utilities and is proposed to be deposited on the north side of the Airport.

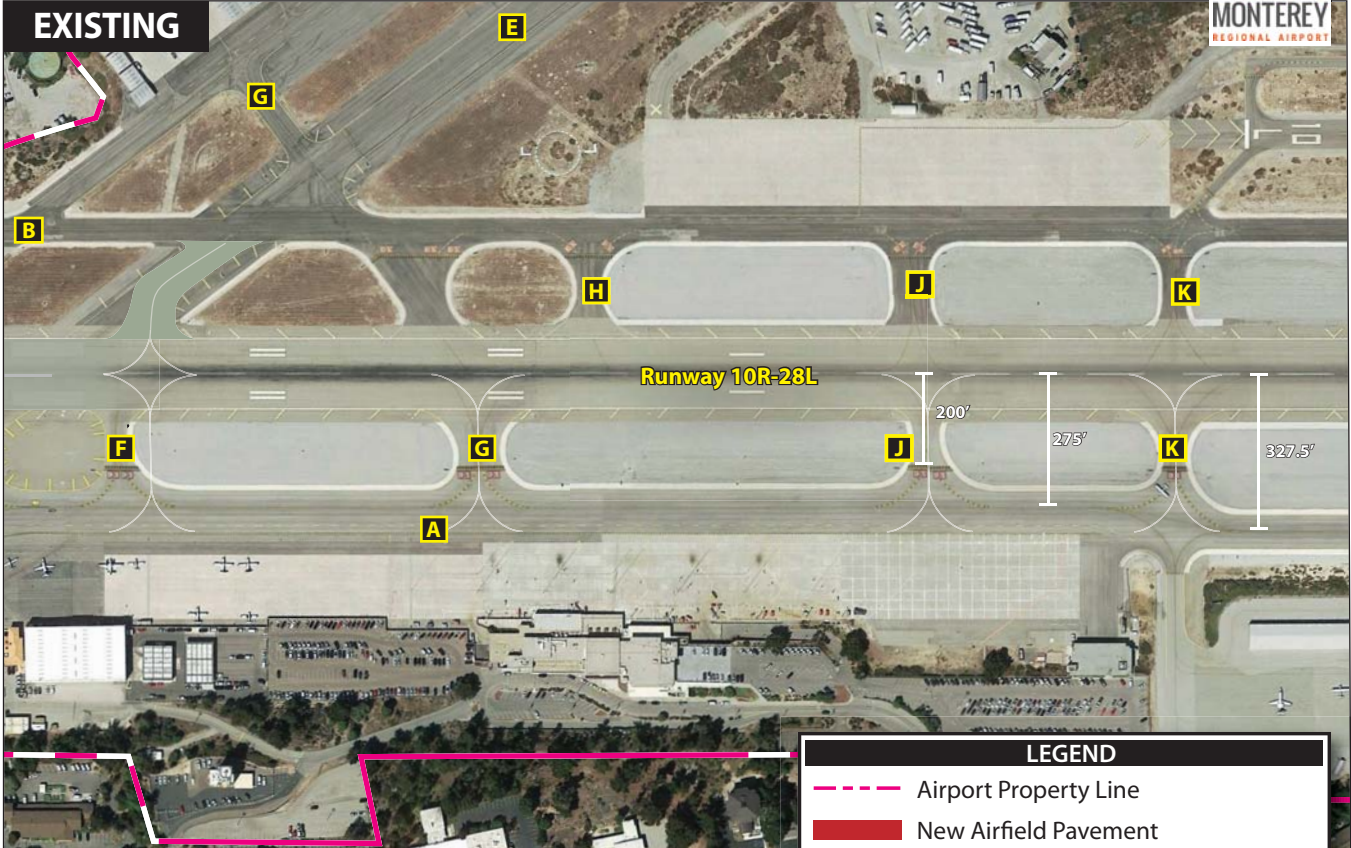
Taxiway "A" Shift. The remaining portions of Taxiway "A" located only 275 feet (centerline to centerline) from Runway 10R-28L (approximately 1,850 lf) are proposed to be shifted to 327.5 feet to provide a uniform separation for the entire length of Taxiway "A" (**Exhibit 2H**). Since Taxiway "A" is already abutted by pavement on its south side (the existing terminal apron), the taxiway shift is proposed to be accomplished by remarking the existing pavement and relocating the taxiway lighting, signage, and vehicle service road.

Other proposed taxiway improvements associated with the Taxiway "A" shift include apron "islands," which would prevent direct access from the apron areas to the runway at Taxiways "G" and "J," and the relocation of the Taxiway "G" and "J" hold lines to 250 feet from the runway centerline.

Future Parking Areas. A surface vehicular parking lot (103 spaces) is proposed northwest of the Olmsted Road/Garden Road intersection where an existing small employee parking lot is currently located. Along Fred Kane Drive at the existing terminal building and parking lot site, a two-story, 188-space, parking structure and additional 110-space and 40-space surface lots would be constructed, as necessary, based on future demand. These additional 441 parking spaces (along with the additional spaces within the main parking garage) (**Exhibit 2F**) would be provided to meet the potential long-term shortfall indicated in the Proposed AMP analysis (Section 2.5.2) (as well as provide room for future growth beyond the 20-year planning horizon of the Proposed AMP). A minor realignment of Fred Kane Drive would occur to maximize the area for parking. In total, 1,271 new vehicular parking spaces would replace 602 existing spaces for a net increase of an estimated 669 vehicular parking spaces (**Table 2A**). This would fully meet the anticipated long-term shortfall in commercial terminal parking (Section 2.5.2).¹⁶

¹⁶ Based on parking data from the Airport from 2015 through mid-2018, enplanements have continued to grow, but parking demand has not. This may indicate a trend due to TNCs. The Airport will continue to monitor the parking demand throughout implementation of the Proposed Project.

EXISTING



LEGEND

- Airport Property Line
- New Airfield Pavement
- Pavement to be Removed/Abandoned
- Taxiway Object Free Area (TOFA)
- Taxiway Identifier
- New Hold Line

PROPOSED

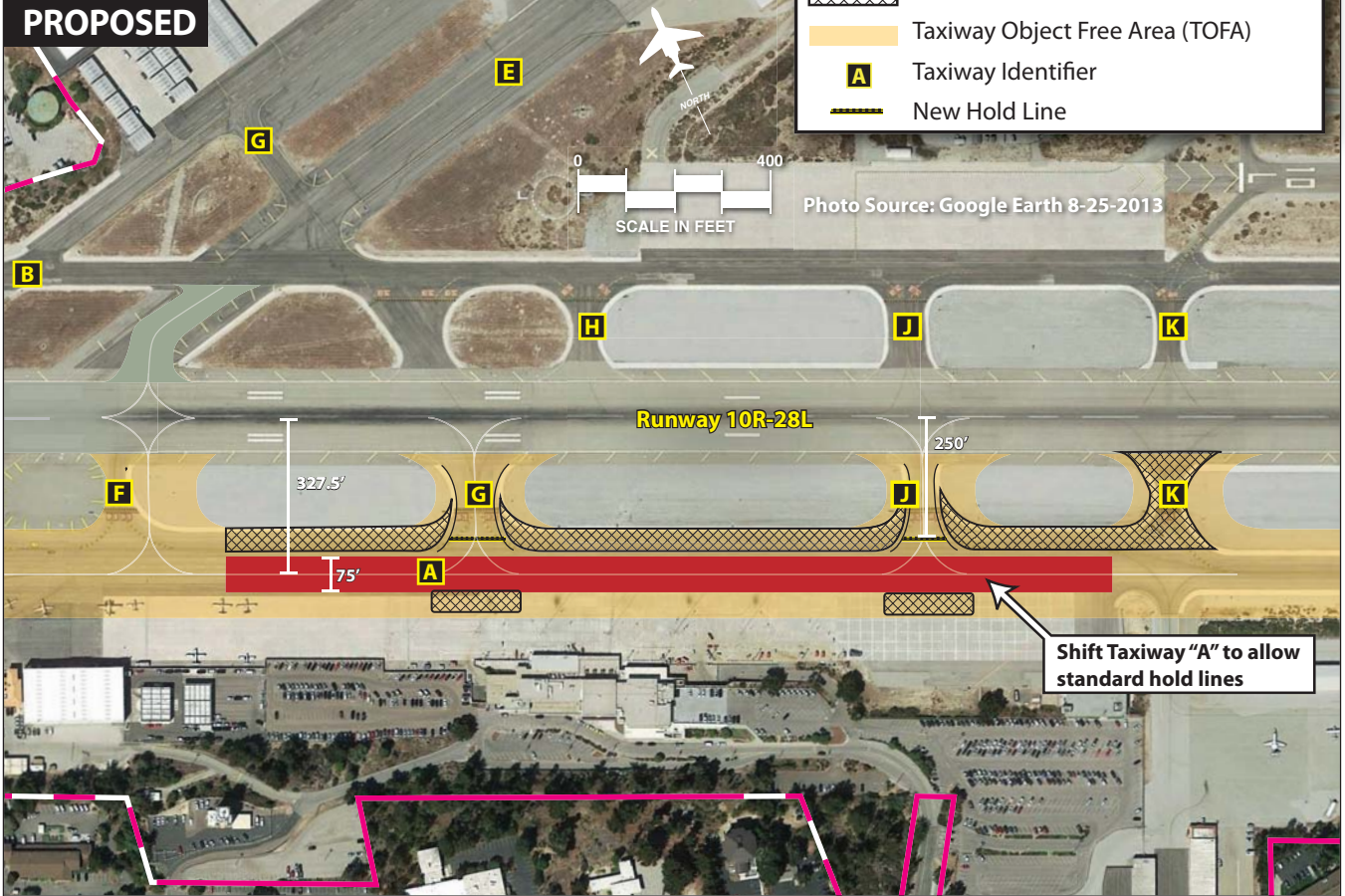


TABLE 2A
Existing and Future Vehicular Parking for Commercial Terminal Complex
Proposed Project

Parking Area	Existing	Proposed Project (Short Term)	Proposed Project (Long Term)
East of Olmsted Road	457 spaces	830 spaces	
Northwest of Olmsted Road/Garden Road Intersection	26 spaces		103 spaces
North of Fred Kane Drive	119 spaces		338 spaces
TOTAL:	602 spaces	830 spaces	441 spaces

Grading, Stockpile/Disposal Sites, and Haul Routes. **Table 2B** shows estimated quantities of material (soil) export for the various phases of the safety enhancement component of the Proposed Project. **Exhibit 2I** shows on-airport locations where approximately 248,800 cy of excess material could be deposited: Area 1 - an existing recreational vehicle (RV) storage area;¹⁷ Area 2 - the location of future phases of GA development; Area 3 - several disturbed areas north of Airport Road and the future north side GA area; and Area 4 - an existing berm and a depressed area south of the berm. Area 1, the RV storage area, would be graded out to a flat footprint (an approximate one percent slope). The site currently falls away to the north at slopes of more than five percent. Area 2, the north side GA, would be graded out to its ultimate proposed limits (**Exhibit 2C**). (The first phase of the north side GA improvements requires approximately 23,000 cy, while ultimate buildout would require an additional 43,000 cy for a total deposit area of 66,000 cy.) Area 3 is comprised of three depressed areas that would be used to stockpile material. Piles could be up to 25 feet high with stabilized side slopes no steeper than three feet of length to one foot of height (3:1). Area 4 consists of an existing berm that ranges between 55 feet and 160 feet from the Airport’s northern property line. The berm would have its horizontal footprint widened to approximately 30 feet and would be raised approximately six feet to act as an additional visual barrier for the homes to the north. The berm would also be extended south and west.

TABLE 2B
Estimated Material Export for Safety Enhancement Component of Proposed Project

Proposed Action Activity	Amount of Material Export (cubic yards)
Terminal Apron (crowned surface) ¹	170,000
Terminal Building (assumes 20 feet of over-excavation)	39,000
ARFF Building (assumes 10 feet of over-excavation)	3,700
Terminal Parking/Roads	48,500
TOTAL	261,200

Sources: KHA 2018; Neill Engineers 2017,02018
 ARFF = aircraft rescue and firefighting
¹ Another apron design option is a super-elevated transverse grading design, which would generate less material than a crowned surface. FAA will make the final determination regarding the terminal apron design.

¹⁷ The RVs currently stored in this area are on month-to-month leases.

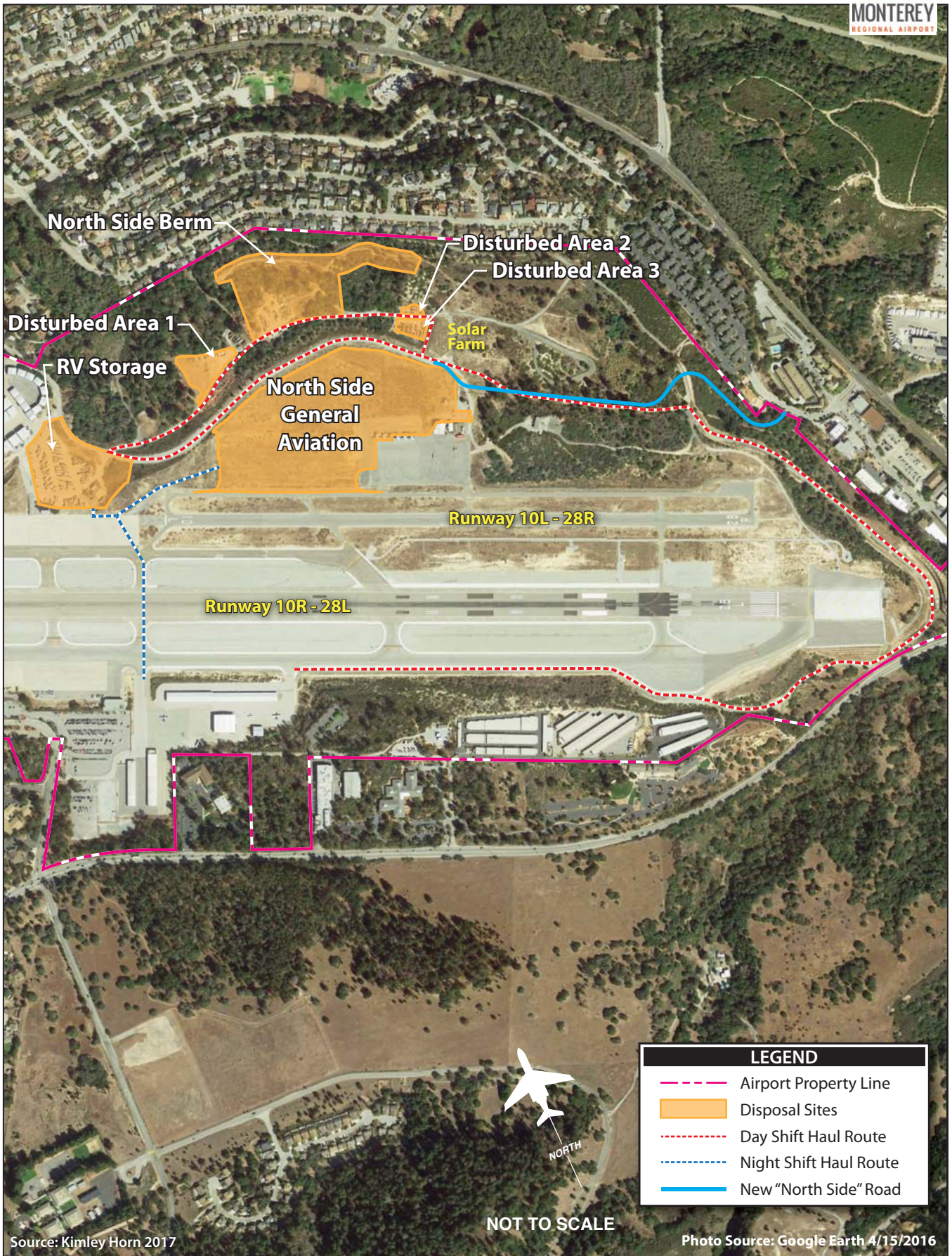


Table 2C shows the estimated amounts of material that could be deposited in each location. The Proposed Project identifies the RV storage site and disturbed areas north of Airport Road as future non-aviation, revenue-support, while the GA areas would be reserved for future phases of hangar development (**Exhibit 2C**).

TABLE 2C Proposed On-Airport Material Stockpile/Disposal Sites Monterey Regional Airport	
Disposal Area	Quantity of Material (cubic yards)
Area 1 - RV Storage	39,000
Area 2 - GA Area	66,000
Area 3 - Disturbed Areas (assumes 25-foot-high piles with 4:1 side slopes)	18,000
Area 4 – Berm	125,800
TOTAL	248,800
Source: KHA 2018	

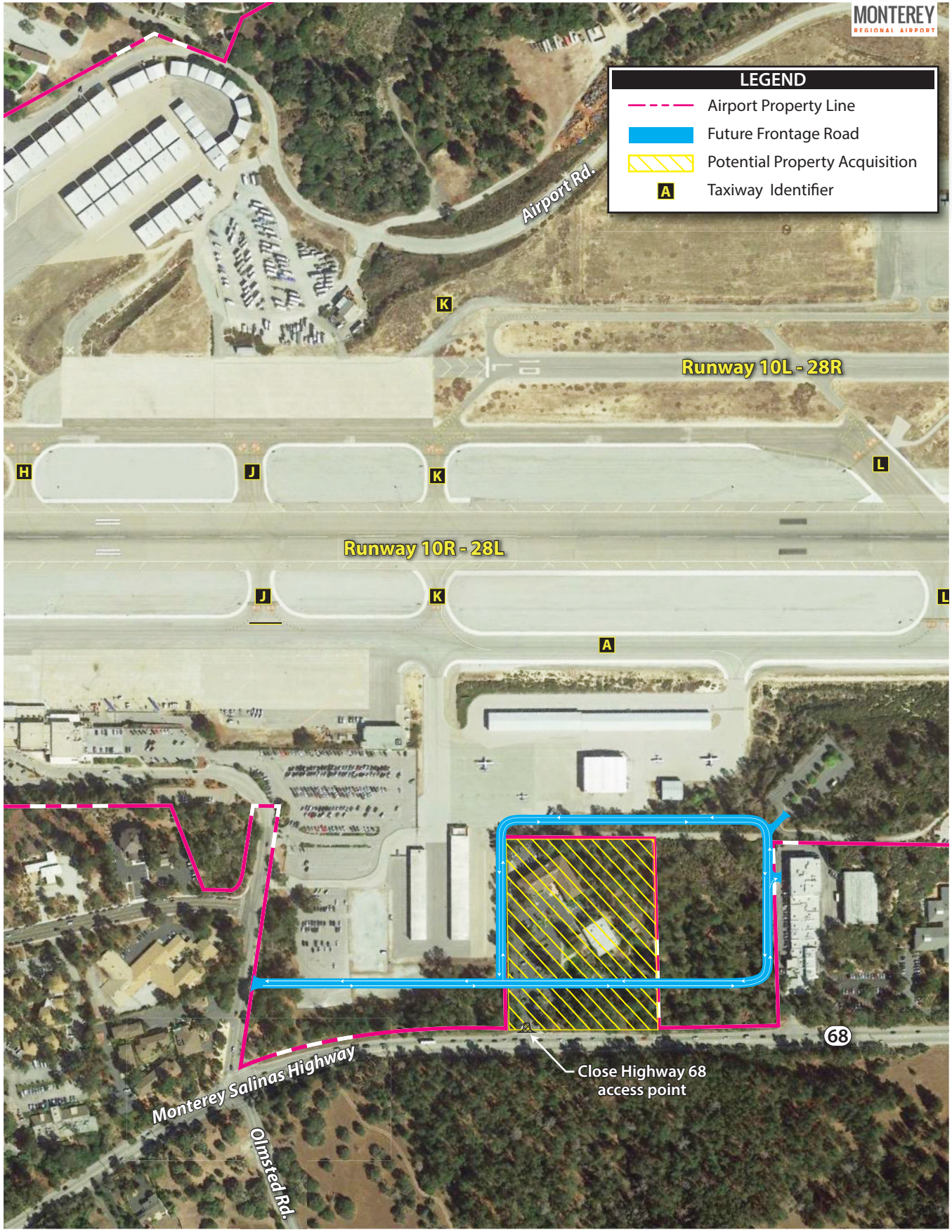
To avoid truck traffic within neighborhoods surrounding the Airport, any material produced from the south side of the Airport is proposed to be hauled to the north side using one or two, or a combination of, methods: 1) use of the paved east vehicle service road and on-airport dirt roads; or 2) nightly closures of the runway to haul material across the movement area pavements. Assuming 25-cubic yard capacity haul trucks, approximately 10,000 on-airport round trips could occur over the lifetime of the safety enhancement component of the Proposed Project. Hauling on the east vehicle service road would allow day-time operations but could require flaggers or other traffic control measures. Hauling across the aircraft movement areas would be restricted to late nighttime closures to minimize runway closure; commercial flights are not scheduled during the late nighttime hours, therefore, creating less impact to airport operations. Repaving the east vehicle service road is likely to be necessary once the construction phase is over. The remainder of the excess dirt, as well as miscellaneous construction debris and other construction waste, would be hauled to the local landfill.

If the proposed “north side” road is constructed (Section 2.6.1.4), the on-airport portion of the new road could be used for the movement of dirt from the east service vehicle road to the stockpile/disposal sites instead of the north side dirt roads.

2.6.1.2 Proposed Land Acquisition of a 5.5-Acre Parcel

A 5.5-acre area located off airport property approximately 800 feet east of the Highway 68/Olmsted Road intersection is proposed to be acquired to allow the Airport to control existing and future obstructions to the Runway 10R-28L Part 77 transitional surface and to control obstacles per FAA ACs 150/5300-16A, -17C, and -18B (refer to **Exhibit 2A**). The 5.5-acre parcel is already surrounded by airport property on three sides and its acquisition has been deemed compliant with NEPA by FAA through use of a Categorical Exclusion.

This property is also proposed to be used to construct a portion of a 24-foot-wide frontage road to Highway 68 (**Exhibit 2J**) (see Section 2.6.1.3). The proposed frontage road would be located outside of a 100-foot setback from Highway 68, which would contain existing and proposed landscaping to buffer



LEGEND

- Airport Property Line
- ▬ Future Frontage Road
- ▨ Potential Property Acquisition
- A Taxiway Identifier

existing buildings, parking areas, and the proposed frontage road from Highway 68. The buffer area may also be used for onsite drainage detention, as necessary. If the acquisition of the 5.5-acre parcel is not approved, the frontage road is proposed to be constructed under an easement negotiated with the existing landowner.

2.6.1.3 Proposed Highway 68 Frontage Road

An approximate 3,200-foot-long proposed loop road would provide a frontage road to Highway 68 east from Olmsted Road for approximately 1,500 feet before turning north, west, and then back south along the Airport's existing property line. A proposed service road to the new commercial terminal would be provided in the northwestern corner of the loop (**Exhibit 2J**). The proposed Highway 68 frontage road would connect with Olmsted Road approximately 300 feet north of the Highway 68/Olmsted Road intersection.

The proposed frontage road would be one lane in each direction and would be constructed to county standards of 24 feet wide, including curbs and gutters, with estimated excavation quantities of approximately 3,500 cy (Neill Engineers 2017). The excavated material could be stockpiled on the north side of the Airport in one of the areas listed in **Table 2C**. Assuming 25-cy capacity haul trucks, approximately 140 truck round trips would be required to move the dirt to the north side.

This frontage road would provide access to 3.6 acres of airport property that currently lacks vehicular access for the development of non-aviation uses. It would also allow for the potential closure of two access drives off Highway 68 that serve private property located at 2801 and 2901 Salinas Highway (Highway 68). Construction and use of the frontage road would require the acquisition of a roadway easement across private property, or the acquisition of the property itself (approximately 5.5 acres) (see Section 2.6.1.2).

2.6.1.4 Proposed "North Side" Road

The north side of the Airport is relatively undeveloped. The existing facilities that are present on the north side are accessed via Airport Road from the west, which is through a residential neighborhood (Casanova Oak Knolls). As additional development occurs on the north side of the Airport, which increases vehicular traffic to the Airport's north side, a different route is proposed. This access would be located through an industrial area of Del Rey Oaks.

A 24-foot-wide road, one lane in each direction and complete with curbs and gutters per county standards, is proposed to connect the north side GA area to the existing east service vehicle road, as well as to Del Rey Gardens Drive immediately east of the Airport's property line. The existing *General Plan Update for the City of Del Rey Oaks* (1997), Policy C-17, states that, "The City will not support the potential north side access from Highway 218 and Del Rey Gardens Drive or any airport access road through the City of Del Rey Oaks." However, the Airport has initiated discussions with the City regarding a possible general plan amendment from the City of Del Rey Oaks to remove this prohibition so that the Airport can consider this potential access. Future coordination efforts will be necessary. The new road is proposed to end at the western end of the north side GA area. Upon completion of this "north side"

road, existing Airport Road pavement would be removed just west of the end of the new “north side” road to prevent through access from the new “north side” road to the residential neighborhood to the west via existing Airport Road (**Exhibit 2K**).

Steep terrain will require a significant level of design and engineering for the new road. Approximately 57,000 cy of excavated material would be removed, with roughly 20,600 cy of this material stored on the Airport at one of the soil deposit areas listed in **Table 2C**. The remaining 36,400 cy of material is proposed to be hauled off the Airport for deposit offsite, resulting in approximately 1,450 round trips by heavy-duty trucks (25 cy/load).

The segment of the new road between Del Rey Gardens Drive and the east vehicle service road is proposed to traverse a portion of a habitat conservation area (HCA) established as mitigation for the Airport’s RSA Improvement project. Therefore, the northern boundary of the HCA would be extended north along the Airport’s property line with the City of Del Rey Oaks. This would have the added benefit of not only protecting sensitive biological resources, but of providing an open space buffer between future airport development on the north side and the neighboring condominiums (The Oaks), in keeping with Policy L-3 of the *General Plan Update for the City of Del Rey Oaks* (1997), which states in part, “... The City shall work with the Airport District to ensure that the District will implement a buffer/open space area that reduces the impact on the adjoining residential units in the City.”

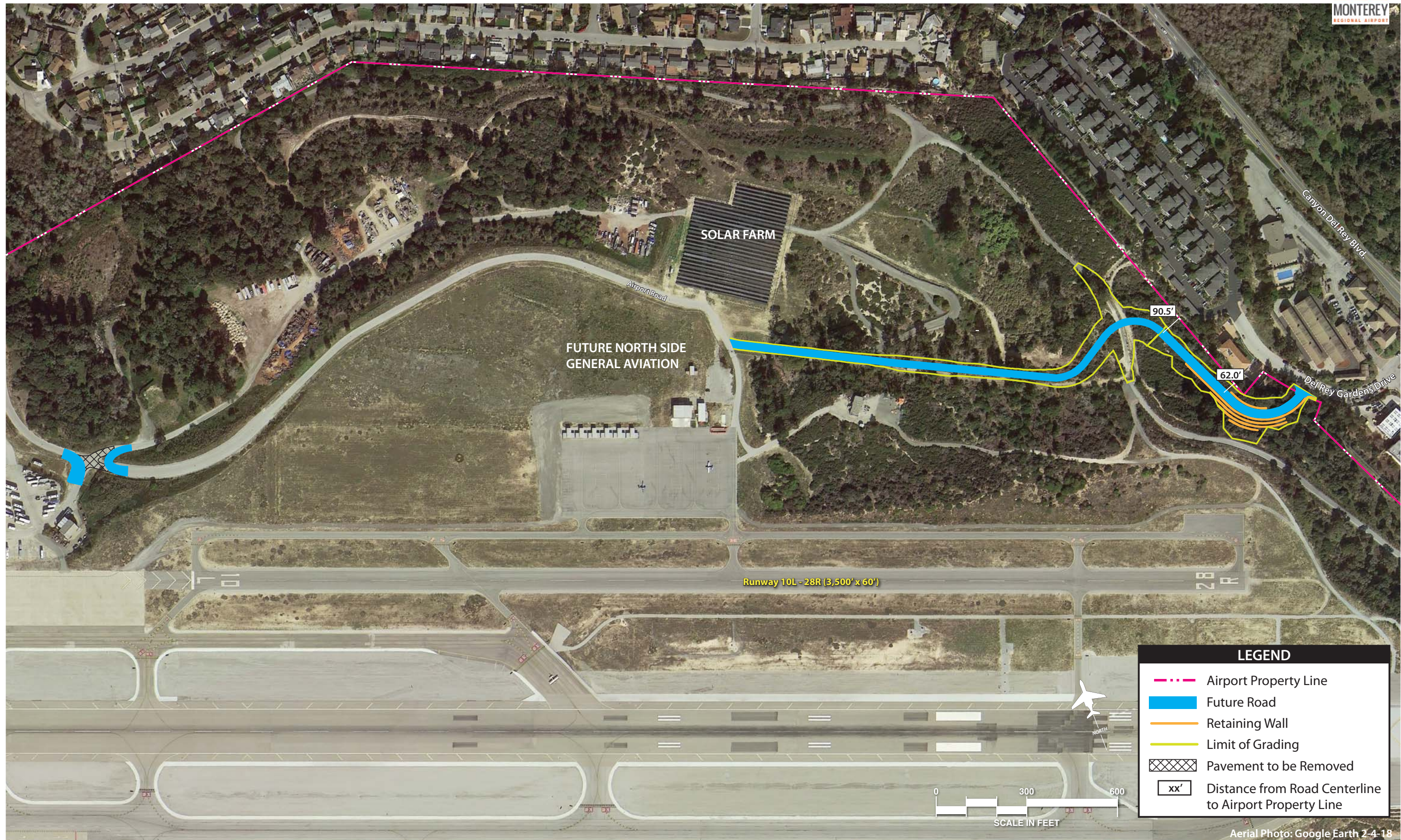
A proposed new “north side” road could be constructed in conjunction with the safety enhancement components of the Proposed Project described in Section 2.6.1.1 (if approved and partially funded by FAA). Another option would be to fund the construction of the new “north side” road in conjunction with future non-aviation development of the north side as discussed in Section 2.6.2.7.

2.6.1.5 Proposed Construction Staging and Materials Laydown Areas

Several areas have been designated by the airport management for construction staging and laydown areas for the proposed short-term project components. A construction staging area is a physical location used for the storage of construction-related equipment and materials such as vehicles and stockpiles; a construction laydown area is a space of ground or pavement located near or at the construction site that is for the temporary receipt, storage and partial assembly of the project equipment and materials to be installed or constructed. These areas are required to be clearly indicated on approved site plans as well as be included in a construction stormwater pollution prevention plan (SWPPP). FAA requires that a construction safety and phasing plan (CSPP) be implemented for all construction activity on a CFR, Title 14, Part 139 certificated airport such as Monterey Regional Airport (per FAA AC 150/5370-2, *Operational Safety on Airports during Construction* [FAA 2014b]).

Three construction staging and laydown areas have been identified for the short-term project components:

1. West of the north GA hangar relocation area between existing Airport Road and Taxiway “C”
2. Site of the proposed commercial terminal parking garage
3. Site of future parking along Fred Kane Drive east of the existing commercial terminal building



LEGEND

- - - Airport Property Line
- Future Road
- Retaining Wall
- Limit of Grading
- Pavement to be Removed
- xx' Distance from Road Centerline to Airport Property Line

Aerial Photo: Google Earth 2-4-18

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2.6.2 Proposed Long-Term Projects Evaluated at a Programmatic Level

Long-term Proposed Project components are those that are anticipated to occur in years 11-20 of the Proposed AMP's implementation (refer to Footnote 10). These Proposed Project components are not tied to specific years; instead, they have been prioritized so that airport management has the flexibility to determine when, or if, they need to be pursued based on future conditions. It is not unusual for certain master plan projects to be delayed or advanced based on changing conditions, such as funding availability or changes in the aviation industry. Other proposed land use changes or projects at the Airport could be privately funded and are, thus, subject to future market conditions. Therefore, the following Proposed Project components are considered at a programmatic level only in this EIR due to the tentative nature of the recommendations and the lack of funding and project detail at this time necessary to conduct a project specific environmental analysis (**Exhibit 2L**).

2.6.2.1 Proposed Perimeter Fence Improvements

The Airport's WHMP (MPAD 2013) includes an implementation measure entitled, "Pursue the Implementation of Perimeter Fence Modification and Improvements." The purpose of this recommendation is to improve the Airport's control over coyotes, black-tailed deer, and other animals from encroaching upon the Airport. The proposed perimeter fence would increase certain portions of existing six-foot-high fencing to a 12-foot-high fence with three-strand barbed wire outriggers to prevent deer from jumping the fence and entering the AOA. Furthermore, a four-foot skirt of chain-link fence material, attached to the bottom of the fence and buried at a 45-degree angle on the outside of the fence, is proposed to prevent coyotes and other animals from digging under the fence, and to prevent washout from rain events. More than 10,000 lf of fence could need improvement around the southeastern, eastern, and central eastern portions of the airport property. Although this project was originally shown in the Proposed AMP as a short-term project component of the Proposed Project, due to the lack of an established funding source, it is now proposed as a long-term project component and will be treated at a programmatic level in this analysis.

2.6.2.2 Proposed Phase 2 North Side GA Development

Future construction of an expanded GA area on the northeast side is considered in the Proposed Project to accommodate potential long-term growth in fixed-based aircraft at the Airport (see Section 2.5.2, which identifies potential long-term shortfalls anticipated in the Airport's GA facilities). The Proposed Project reserves space for an additional 106 nested T-hangars and a second taxiway connector to Taxiway "C." Investors, such as FBO operators, or other means of financing revenue-producing facilities may be necessary to construct these facilities. No project details are available at this time; however, buildout of the area has been considered in the long-term traffic analysis of this EIR.

2.6.2.3 Proposed Airport Maintenance Building and Yard

A consolidated airport maintenance building and yard is recommended for the northeast side of the Airport. The location of this facility is tentative and will depend partly on other proposed development

for the north side. Future environmental analysis will be required when a site is selected, and project details are known.

2.6.2.4 Proposed Taxiway “B” Extension and Geometry Improvements for Taxiways “G,” “K,” “L,” and “M”

The Proposed Project recommends the extension of Taxiway “B” to the Runway 28 thresholds. This improvement would reduce the need for runway crossings in the high energy area of Runway 10R-28L by aircraft on the north side desiring to depart Runway 28L. As discussed in Section 2.5.1, aircraft north of Runway 10R-28L (for example, in the north GA area) must cross the runway to use Taxiway “A” to reach the 28L end. Concurrent with the extension of Taxiway “B,” connecting Taxiways “K” and “L” between Runway 10L-28R and Taxiway “B” would be reconstructed to the FAA’s standard 90-degree angle. Their current 45-degree position makes them appear to be high-speed exits and can cause confusion for pilots.

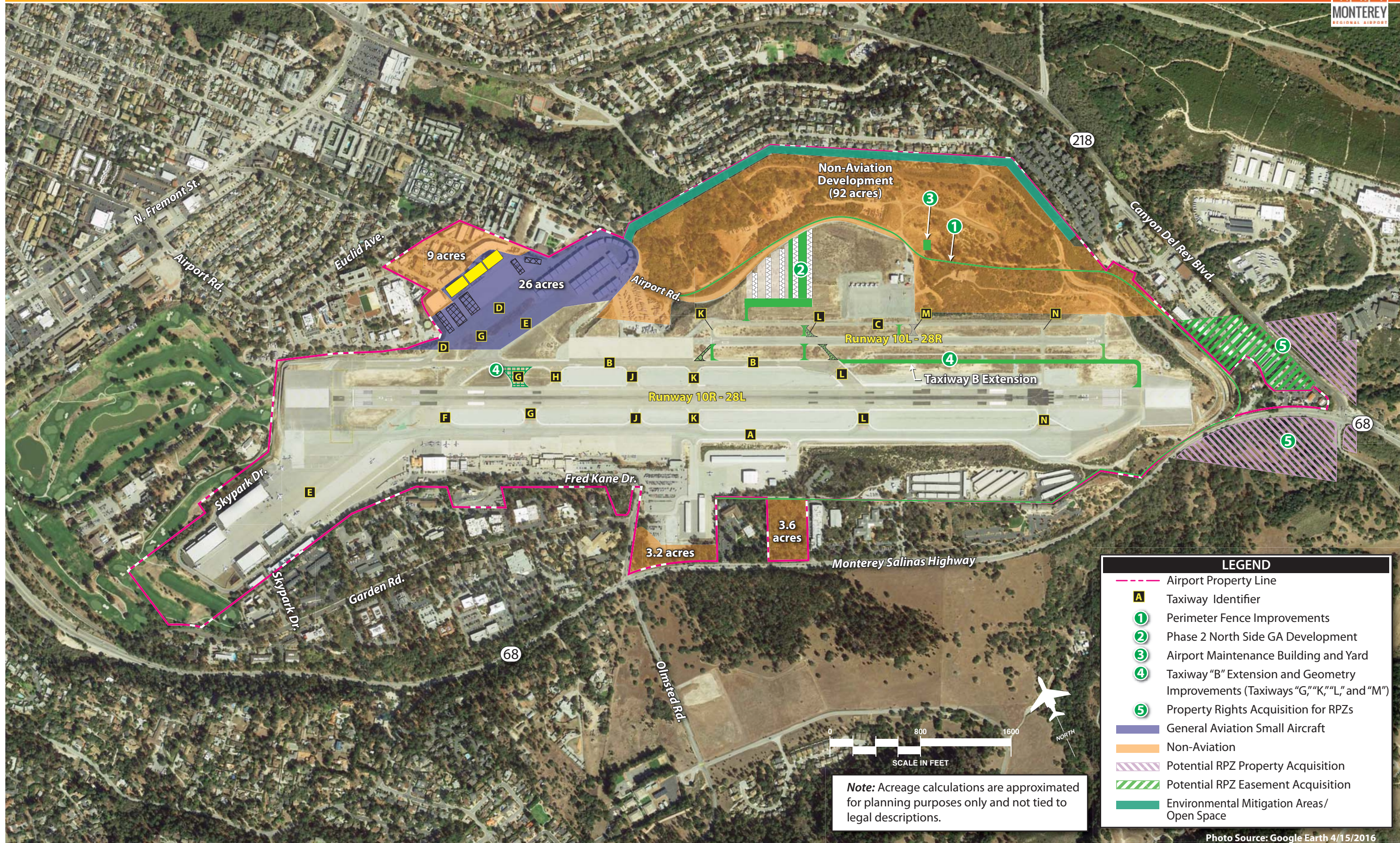
Connecting Taxiway “G” located between Taxiway “B” and Runway 10R-28L is also at a non-standard angle and is proposed to be removed. In addition, Taxiway “M” south of Taxiway “C” would be shifted west approximately 125 feet to prevent direct access from the north GA apron to Runway 10L-28R. Future environmental analysis will be required when project details are known.

2.6.2.5 Proposed Property Rights Acquisition for Runway 28 Runway Protection Zones

The Proposed Project recommends the acquisition of controlling rights for off-airport lands that fall within the Runway 28 RPZs. The FAA directs airports to own or control their RPZ areas and, if possible, maintain them clear of incompatibilities, such as roads, structures, and places of gathering. However, the Airport does not currently own or control all the Runway 28 RPZ lands. Approximately 20 acres are currently undeveloped and identified for fee simple acquisition as part of the Proposed Project. Approximately 14 acres are developed lands that are identified for avigation easements. In lieu of fee-simple acquisition, avigation easements can also have the desired result of protecting the Airport from encroachment.

2.6.2.6 Proposed General Aviation (Small Aircraft) Hangar Redevelopment

The northwest side of the Airport is used primarily for small aircraft GA hangars (Section 2.5.2), which identifies potential long-term shortfalls anticipated in the Airport’s GA facilities). There are three conventional hangars in this area that are not currently utilized for aviation purposes. Two of the hangars are located outside the AOA fence and are in a state of disrepair. The Proposed Project recommends removing these two structures and replacing them with modern aviation hangars in the same location. The third hangar is in better condition and could be used for aviation purposes in the future. There are numerous box hangars in this part of the Airport as well. Eight of these hangars are in front of one of the conventional hangars, blocking its aviation access. The Proposed Project calls for the removal of at least these eight box hangars, if not all the box hangars, to open the area to aviation uses. The box hangars could be relocated to the north side GA development during one of its future phases.



Note: Acreage calculations are approximated for planning purposes only and not tied to legal descriptions.

LEGEND	
	Airport Property Line
	Taxiway Identifier
	Perimeter Fence Improvements
	Phase 2 North Side GA Development
	Airport Maintenance Building and Yard
	Taxiway "B" Extension and Geometry Improvements (Taxiways "G," "K," "L," and "M")
	Property Rights Acquisition for RPZs
	General Aviation Small Aircraft
	Non-Aviation
	Potential RPZ Property Acquisition
	Potential RPZ Easement Acquisition
	Environmental Mitigation Areas/ Open Space

Photo Source: Google Earth 4/15/2016

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In the future, a redevelopment concept for this area will be required. At that time, additional environmental analysis will be necessary.

2.6.2.7 Proposed Non-Aeronautical Development

As discussed in Section 2.5.4, one of the objectives of the Proposed Project is to plan for additional revenue-producing opportunities so the Airport can continue to provide for its share of matching funds for its federal- and state-provided grants. The following Proposed Project components are proposed in the long-term to help meet this objective.

South Non-Aviation Development Areas. Two areas of non-aviation development are proposed along the planned frontage road to Highway 68 (**Exhibit 2L**). The first is 3.2 acres on the northeastern corner of Highway 68 and Olmsted Road. This area would be accessed by the proposed Highway 68 frontage road discussed in Section 2.6.1.3. For purposes of this EIR, it is assumed that the area could be developed, based on the applicable City of Monterey zoning,¹⁸ with a one-story building(s) covering approximately 40 percent of the site (i.e., approximately 1.25 acres). Based on this assumption, approximately 55,000 sf of development (as identified in the City of Monterey zoning code for its I-R, Industrial, Administration, and Research District) could occur. A 100-foot setback from Highway 68 would be required for any buildings per the City of Monterey development criteria for the Highway 68 corridor.

The second area is the 3.6-acre airport parcel previously discussed in Section 2.6.1.3. Approximately 30 percent of the site (i.e., 1.1 acre) could be developed with a two-story office building(s) based on the applicable City of Monterey zoning. Based on this assumption, approximately 94,000 sf of I-R development could occur. The Airport plans to place the building(s) on the southerly half of the parcel; the northerly half of the parcel would be left undisturbed, except for construction of the frontage road, to minimize impacts to sensitive plant species. Again, a 100-foot setback from Highway 68 would be required for any buildings per the City of Monterey development criteria for the Highway 68 corridor.

Redevelopment of Old Industrial Area. The Proposed Project designates an area as non-aviation development to allow for the redevelopment of approximately nine acres of an old industrial area of the Old North Side military complex (**Exhibit 2L**). The area is located between the existing (off-airport) Fleet Numerical Meteorology and Oceanography Center and an on-airport hangar area (described in Section 2.6.2.6) and contains twelve permanent buildings of varying sizes and ages, as well as four temporary buildings. To facilitate the redevelopment, approximately 65,000 sf of permanent building space (**Table 2D**) and approximately 4,400 sf of modular building space (Building Nos. 1102, 1106, 1110, and 1114) could be replaced, with one newer building with an approximate 20,500-sf building footprint (No. 1118) remaining. None of the buildings to be removed are considered historic resources, based on a 2014 Historic Resources Assessment (SWCA 2014). For purposes of this EIR, it is assumed that the area would not be developed with land uses that would increase the amount of traffic in terms of passenger car

¹⁸ The proposed development areas along the north side of Highway 68 were purchased by MPAD after the California legislature established the Airport boundaries and remain under the land use control of the City of Monterey. These areas are zoned I-R-130-D2 (Industrial, Administration, Research District – 130,000 sf minimum – Development Control Overlay District) (City of Monterey 2017).

equivalents over what currently occurs from the area. Future redevelopment proposals would be conditioned with the requirement to perform a building specific analysis that compares the existing traffic with the anticipated traffic to ensure that this assumption is met.

**TABLE 2D
Existing Permanent Buildings to be Potentially Replaced
Monterey Regional Airport**

Building No. ¹	Description of Building	Year Built	Year Modified	Building Size (Square Feet)
117/105A	Tenant Building	1949	1968	4,020
505	Tenant Building	Pre-1961	N/I	7,000 ²
1101	Tenant Building	Circa 1985	N/A	3,200
1105	Tenant Building	1943	1950	7,754
1109	Tenant Building	1943	1991	480
113, 105, 109	Two tenant buildings (Quonset huts) with connector	1944	2001	8,600
102	Tenant Building	1970	1980	6,900
104	Tenant Building	1970	1980	7,350
106	Tenant Building	1970	N/A	3,000 ²
517/1174 ³	Tenant Building	After 1998	N/I	16,500 ²
TOTAL				64,804

Source: SWCA 2014. *Historic Resources Assessment and Survey Report, Monterey Regional Airport, Monterey, California.*
 N/I = no information available; N/A = not applicable
¹ Building numbers correspond to the numbering system shown in the 2014 Historic Resources Assessment.
² Estimated building footprint using Google Earth.
³ Two building numbers denote separate floors of the same building.

Non-Aviation North Side Reserve. Areas on the north side of the airfield not identified for aviation development are reserved for future non-aviation development by the Proposed Project. The Airport has approximately 92.4 acres of undeveloped land in this area, some of which could accommodate light industrial, office, or flex space,¹⁹ as well as less intense land uses. (A three-acre solar farm has already been constructed in this area. A Notice of Determination for approval of a Negative Declaration for the solar farm project was filed with the Monterey County Clerk on January 11, 2017.)

Preliminary land use and marketing analyses have identified possible site plans for an approximate 25-acre area located between the north side GA area and an existing berm, which include office, light industrial, or flex space in one- or two-story buildings. Access would occur via the proposed “north side” road to Highway 218 (Section 2.6.1.4). Based on the preliminary land use analysis, this EIR considers a maximum of 400,000 sf of light industrial and 325,000 sf of office development for purposes of analyzing future traffic, air quality, greenhouse gases, and vehicular noise.

Other areas of the north side reserve are proposed to be designated as open space, including the expanded berm (Section 2.6.1.1) and the relocated portion of the HCA (Section 2.6.1.4) (**Exhibit 2C**).

¹⁹ Flex space refers to industrial space that allows other types of compatible uses.

2.6.3 Proposed Energy Conservation Features of Proposed Projects

Appendix F (Energy Conservation) of the CEQA Guidelines requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy (Public Resources Code [PRC], Section 21100(b)(3)).

Several aspects of the components within the Proposed AMP would require the consumption of energy both during construction activities and for the regular operation of the completed facilities. However, there are both existing and proposed projects that would reduce the amount of energy consumed by the Airport during construction and long-term operation. An onsite solar farm, which generates 1.4 million kilowatt hours (kWh) of energy annually, was recently constructed. The energy offset benefit provided by the solar farm will be analyzed in the Energy section (Section 4.6). Additional roof-mounted solar systems on new buildings and/or parking canopy solar systems will also be considered to offset energy consumption from offsite sources. The Proposed Project would introduce new energy users to the Airport, but because of the current aging infrastructure, there will be multiple energy savings opportunities within these projects, as well.

The proposed relocated commercial terminal and ARFF buildings (as well as all other major facilities in the future) are committed to achieving LEED certification, which would incorporate mandatory energy efficiency measures into the design and construction features. In addition to energy efficiency commitments, the proposed terminal building would mindfully source materials, incorporate water conservation strategies, and focus on a healthy indoor air quality environment. Specifically, for energy requirements, there are four LEED prerequisites, or required credits, that the proposed relocated commercial terminal and permanent ARFF buildings would adhere to: fundamental commissioning and verification, minimum energy performance, building-level energy metering, and fundamental refrigerant management.

- **Fundamental commissioning and verification:** The intent of this credit is to ensure the overall building – from design and construction to ultimate operation – meets the energy, water, indoor environmental quality, and durability requirements.
- **Minimum energy performance:** This credit reduces the environmental and economic harms of buildings by setting a baseline of how much energy they can use. There are several ways to meet the requirements of this credit, all of which rely on the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) Standard 90.1-2010 as the baseline energy performance standard.
- **Building-level energy metering:** This credit requires constant monitoring of the building over time and supports positive energy management and ways to constantly identify opportunities for saving energy.
- **Fundamental refrigerant management:** A complete phase-out of chlorofluorocarbon (CFC)-based refrigerants in HVAC systems are required by this credit to reduce stratospheric ozone depletion.

Utilizing the energy generated by the on-airport solar farm, as well as obtaining LEED certification for the proposed relocated commercial terminal and ARFF buildings, will address potential energy impacts of the Proposed Project by reducing the inefficient, wasteful, and unnecessary consumption of energy per PRC, Section 21100(b)(3).

2.7 ENVIRONMENTAL BASELINE AND PHASING

2.7.1 CEQA Baseline

The baseline for the Proposed Project, in terms of the environmental analysis contained in this EIR, is existing conditions as they occurred in 2015, which is when the Notice of Preparation for this Draft EIR was published. However, additional field work, including traffic counts, biological and cultural resource surveys, and inventories, such as the calculation of existing emissions and documentation of the existing noise environment, have occurred from 2016 through 2018 to revalidate the previous baseline data. As shown previously in Table 1A, the 2015 operational conditions at the Airport included 182,533 enplaned passengers, 67,292 total airport operations, and 113 based aircraft. Essentially then, the project-related impacts plus existing conditions is compared to existing conditions to determine the Proposed Project environmental impacts.

As previously discussed in Section 1.4 and shown in Table 1A, as part of the Proposed AMP effort, an unconstrained forecast for aviation activity at the Airport was developed. This analysis, which is contained in the Proposed AMP (Chapter Two), takes into consideration data on a variety of indicators, including commercial passenger service projections, based aircraft projections, and aircraft operational activity projections.²⁰ The 20-year aviation forecasts (2013-2033) were approved by FAA for use in the Proposed AMP in 2014 (**Appendix B**). The 20-year aviation forecasts are included in the cumulative future project and future no project of this EIR for the long-term as are other regional growth forecasts unrelated to the Airport. For noise (Chapter 4, Section 4.12), the future proposed project and future no project, both of which include the projected regional aircraft growth forecasts, are compared to existing conditions).

Since, for the purposes of this EIR, 2015 has been established as the existing conditions, information from the FAA's Air Traffic Activity Data System (ATADS) system has also been used (FAA 2015b). Project buildout years for this EIR are 2025 (short-term projects) and 2035 (long-term projects), which generally align with Proposed Project implementation phases. The 2025-year forecast activity (for purposes of analysis) has been interpolated between the Proposed AMP forecast activity for years 2023 and 2033, which are shown in Table 1A. The 2035-year forecast activity (for purposes of analysis) has been

²⁰ Within the next eight to 10 years, annual enplaned passengers are expected to increase from 182,553 in 2015, to 245,000 by 2023. In the long-term, the annual enplaned passengers are anticipated to increase to 275,000 by 2033. This forecast assumes that annual commercial airline operations at the Airport will remain relative flat at approximately 11,800 annual operations through the long-term planning period. However, the mix of aircraft is projected to include a larger percentage of 70- to 90-seat regional jets. In addition, chartered aircraft and itinerant GA operations are projected to continue to see moderate growth (**Exhibit 2M**).



AVIATION DEMAND FORECAST SUMMARY

	Base Year	Forecast		
	2013	2018	2023	2033
ENPLANEMENTS AND AIR CARGO				
Annual Enplanements	200,651	223,000	245,000	275,000
Air Cargo (lbs.)	1,021,856	1,124,000	1,196,000	1,339,000
ANNUAL OPERATIONS				
<i>Commercial Operations (Itinerant)</i>				
Air Carrier (>59 seats)	1,062	1,400	2,200	3,500
Commuter Airline (<60 seats)	10,724	10,400	9,800	8,300
Air Cargo	568	600	700	800
Total Commercial Operations	12,354	12,400	12,700	12,600
<i>General Aviation Operations</i>				
Itinerant	25,270	28,100	31,300	40,400
Local	10,876	11,800	12,800	15,900
Total General Aviation Operations	36,146	39,900	44,100	56,300
<i>Military and Other Air Taxi Operations</i>				
Other Air Taxi	3,610	4,300	6,300	10,200
Military Itinerant	803	900	900	900
Military Local	914	600	600	600
Total Military and Other Air Taxi Operations	5,327	5,800	7,800	11,700
Total Local Operations	11,790	12,400	13,400	16,500
Total Itinerant Operations	42,037	45,700	51,200	64,100
TOTAL ANNUAL OPERATIONS	53,827	58,100	64,600	80,600
BASED AIRCRAFT				
Single Engine	126	129	138	152
Multi-engine	9	9	9	8
Turboprop	6	8	10	14
Business Jet	7	9	12	18
Helicopter	4	5	6	8
TOTAL BASED AIRCRAFT	152	160	175	200
PEAKING ACTIVITY PROJECTIONS				
	Base Year	Forecast		
	2013	2018	2023	2033
AIRLINE ENPLANEMENTS				
Annual Enplanements	200,651	223,000	245,000	275,000
Peak Month	18,246	21,496	23,617	26,509
Design Day	589	699	768	862
Design Hour	183	217	239	268
AIRLINE OPERATIONS				
Annual Operations	11,786	11,800	12,000	11,800
Peak Month	1,088	1,092	1,111	1,092
Design Day	30	32	32	32
Design Hour	5	5	5	5
GENERAL AVIATION OPERATIONS				
Annual Operations	36,146	39,900	44,100	56,300
Peak Month	3,478	3,976	4,395	5,611
Design Day	112	128	142	181
Design Hour	16	18	20	25
TOTAL AIRPORT OPERATIONS				
Annual Operations	53,827	58,100	64,600	80,600
Peak Month	5,177	5,695	6,332	7,900
Design Day	167	184	204	255
Design Hour	23	25	28	35

calculated using the average annual growth rate for 2033 from Chapter Two of the Proposed AMP (**Appendix B**).

2.7.2 Phasing

The Proposed Project is the implementation of a 20-year airport master plan that seeks to address FAA airport design and safety areas standards, plan for projected aviation demand, advance the Airport's sustainability performance targets, and help meet the Airport's grant assurances. Most airport development or improvement projects will be funded through the federal Airport Improvement Program (AIP) administered by FAA. FAA requires the Airport to provide five-year Airport Capital Improvement Programs (ACIPs) that are updated annually. Based on an approved ACIP, FAA issues federal grants for airport improvements subject to compliance with the NEPA and any other applicable federal special purpose laws. Federal grants are matched by state/local dollars at a specified rate.

Phasing specific to the safety enhancement component of the Proposed Project has previously been described in Section 2.6.1.1 and identifies four construction phases as depicted on **Exhibit 2D**. However, the specific timeframe of the individual components of this project is dependent upon federal funding, and, for private hangar development of the north side, market conditions and the availability of a private development proposal. Also, and importantly, implementation of the improvements for the safety enhancement component of the Proposed Project would be phased to minimize disruption to airport operations. If approved, the construction phases are anticipated to take approximately seven years and are projected to start in 2020 and be completed in 2027.

If approved, MPAD would move forward with the proposed acquisition of 5.5 acres of private property next to the proposed relocated commercial terminal complex as soon as possible as it is currently being offered for sale. Most of the other projects considered by this EIR, either in the project-specific or programmatic analysis, have not been included in the Airport's federal funding program. Therefore, the phasing of these projects is unknown. For all projects listed in the Proposed AMP as short- or intermediate-term projects, it has been assumed that they would occur in the first ten years of the Proposed Project. These Proposed Project components are considered "short-term" projects for purposes of the EIR analysis. The one exception is the extension of Taxiway "B," the removal of a portion of Taxiway "G," and the reconfiguring of connecting Taxiways "K," "L," and "M" along Runway 10L-28R. This project is currently listed as a future Fiscal Year 2028 project in terms of federal funding. However, since it would not be constructed within the first 10 years of the Proposed Project, it is analyzed as a long-term project for purposes of the EIR.

Future parking lots and/or garages associated with the proposed relocated commercial terminal complex would be constructed, as necessary, based on future growth in enplanements and vehicular parking demand. It is acknowledged that parking demand as discussed in the Proposed AMP may not actually be realized in the future due to the growth of TNCs or other forms of transportation demand management (TDM).

2.8 REQUIRED DISCRETIONARY ACTIONS AND INTENDED USES OF EIR

The intent of this EIR is to provide the environmental analysis necessary to assist decision-makers in considering all actions and permits necessary to approve and implement the Proposed Project. The EIR will inform public agency decision-makers and the public generally of the significant environmental effects of the project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project (CEQA Guidelines, Section 15121[a]).

The MPAD is required to formally adopt the Proposed AMP, which qualifies as a project under CEQA. Per CEQA Guidelines, Section 15090, prior to approving the Proposed AMP, the MPAD, as Lead Agency, must certify that (1) The Final EIR has been completed in compliance with CEQA; (2) the Final EIR was presented to the decision-making body of the Lead Agency, and that the decision-making body reviewed and considered the information contained in the Final EIR prior to approving the project; and (3) the Final EIR reflects the Lead Agency's independent judgment and analysis.

Because the Proposed Project would be implemented over a period of years, and because some of the project components have only been analyzed at a programmatic level of detail and analysis, subsequent activities would be examined in light of the Final EIR to determine whether additional CEQA documentation would be required pursuant to the requirements of CEQA and the CEQA Guidelines.

The Final EIR would also provide environmental information to responsible agencies and other public agencies that may be required to grant approvals and permits or coordinate with MPAD as a part of project implementation. These agencies include, but are not limited to, those listed below.

- California Department of Fish and Wildlife. As a Responsible Agency, the California Department of Fish and Wildlife (CDFW) may use this EIR as the CEQA document needed to inform its decisions on any requested Section 2081 Incidental Take Permits for actions included within the Proposed Project.
- City of Del Rey Oaks. The City of Del Rey Oaks may use the information in this EIR to inform its decisions on general plan policy amendments related to airport access via streets within its jurisdiction (Section 2.6.1.4).
- City of Monterey. The City of Monterey may use this EIR to inform its decisions on development permits for land uses on the Airport that are within its jurisdiction (Section 2.6.2.7).

2.9 OTHER PUBLIC AGENCY APPROVALS REQUIRED

The FAA is involved in the AMP approval process through its acceptance of the 20-year aviation forecasts and an updated ALP per AC 150/5070-6B, as amended (Section 1.6). However, individual components of the Proposed Project could involve design approval by FAA and/or the California Department of Transportation (Caltrans), depending on the type of improvements and funding. Federal environmental compliance review under NEPA is conducted by FAA for those individual components of the Proposed Project that require a federal discretionary action, including funding or revisions to the ALP.

Other federal, state, or local permits or approvals that may be required for individual components of the Proposed Project are listed below:

- Construction traffic phasing plan approval from Caltrans for haul routes with direct access to Highways 68 or 218.
- City of Del Rey Oaks approval for improvements to Del Rey Garden Drive.
- City of Monterey approval for improvements to Olmsted Road or Garden Road.
- U.S. Fish and Wildlife Service (USFWS) Incidental Take Permits under Section 7 or Section 10 of the *Endangered Species Act*.
- Approval from the California Regional Water Quality Control Board (RWQCB) for modifications to the Airport's SWPPP.
- Construction permit from the RWQCB related to applicable National Pollutant Discharge Elimination System (NPDES) General Construction permitting requirements.
- Monterey Peninsula Water Management District (MPWMD) permits would be required for proposed long-term projects requiring water above the Airport's existing California American Water (CalAm) water allocation.



Chapter Three

PROJECT ALTERNATIVES

Chapter Three

PROJECT ALTERNATIVES

3.1 INTRODUCTION

Section 15126.6 of the *California Environmental Quality Act (CEQA) Guidelines* provides guidance on the range of alternatives to a proposed project that must be evaluated. The CEQA Guidelines state:

- (a) **Alternatives to the Proposed Project.** An Environmental Impact Report (EIR) shall describe a range of reasonable alternatives to the project, or to the location of the project, which could feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation. An EIR is not required to consider alternatives which are infeasible. The Lead Agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.
- (b) **Purpose.** Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code [PRC], Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location, which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the Project Objectives, or would be more costly.

Pursuant to the CEQA Guidelines, a range of alternatives to the Proposed Project is considered and evaluated in this EIR. These alternatives were developed in the course of project planning and environmental review. The discussion in this section provides:

1. A description of alternatives considered.
2. An analysis of whether the alternatives meet most of the objectives of the Proposed Project.
3. An analysis comparing the alternatives under consideration and the Proposed Project. The focus of this analysis is to determine if alternatives are capable of eliminating or reducing the significant environmental effects of the Proposed Project to a Less than Significant level.

The CEQA Guidelines also require that a “no project” alternative be evaluated, and that an environmentally superior alternative be designated. If the alternative with the fewest or least severe environmental

impacts is the “no project” alternative, one of the other alternatives should be designated environmentally superior. Alternative locations to a project must also be considered; however, if the Lead Agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion in the EIR.

3.2 CRITERIA FOR SELECTING ALTERNATIVES

The EIR should briefly describe the rationale for selecting the alternatives to be discussed. The EIR should also identify any alternatives that were considered by the Lead Agency but were rejected as infeasible during the scoping process, and briefly explain the reasons underlying the Lead Agency's determination. Additional information explaining the choice of alternatives may be included in the administrative record.

Several criteria were used to select alternatives to the Proposed Project. These criteria are described below:

3.2.1 Ability to Achieve Project Objectives

The ability of an alternative to meet most of the Project Objectives is an important component when evaluating alternatives. When an alternative is selected, not only are the environmental impacts considered but so is the alternative's ability to meet the Proposed Project's intended objectives. Section 15126.6(f) of the CEQA Guidelines states:

The range of alternatives required in an EIR is governed by a ‘rule of reason’ that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the Lead Agency determines could feasibly attain most of the basic objectives of the project.

The Project Objectives of the Proposed Airport Master Plan (Proposed AMP) (Proposed Project) are discussed in Section 2.5 and have been defined as follows:

- **Enhance Airport Safety** - Provide improvements that will enhance the Airport's safety by meeting Federal Aviation Administration (FAA) design standards to the maximum extent feasible;
- **Prepare for Future Aviation Demand** - Provide improvements to safely and adequately prepare for forecasted aviation operations and demand through the year 2033 consistent with new code requirements and passenger expectations for airport functionality;¹

¹ For the purposes of this EIR, 2015 has been established as the base year (existing conditions) and information from the FAA's Air Traffic Activity Data System (ATADS) system has been used (FAA 2015). Proposed Project buildout years for this EIR are 2025 (short-term projects) and 2035 (long-term projects), which generally align with Proposed Project implementation phases. The 2025-year forecast activity (for purposes of analysis) has been interpolated between the Proposed AMP forecast activity for years 2023 and 2033, which are shown in Table 1A. The 2035-year forecast activity (for purposes of analysis) has been calculated using the average annual growth rate for 2033 from Chapter Two of the Proposed AMP (**Appendix B**).

- **Incorporate Airport Sustainability Goals** - Incorporate the Airport's goals, objectives, and performance targets for sustainability within the proposed development projects;
- **Increase Airport Self-Sufficiency** - Provide opportunities for additional revenue-producing uses of the Airport to enhance its economic viability and self-sufficiency.

3.2.2 Feasibility

When developing alternatives for evaluation in an EIR, the feasibility of implementing the alternative must be considered. If a range of alternatives are developed but, due to regulatory restrictions, cannot be implemented, the analysis would not meet the intent of CEQA of providing a reasonable range of feasible alternatives. Section 15126.6(f)(1) of the CEQA Guidelines states:

Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives (*Citizens of Goleta Valley v. Board of Supervisors* [1990] 52 Cal.3d 552).

It has been recognized that, for purposes of CEQA, "feasibility" encompasses "desirability," to the extent that the latter is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors (*California Native Plant Society v. City of Santa Cruz* [2009] 177 Cal.App.4th 957, 1001). This balancing is harmonized with CEQA's fundamental recognition that policy considerations may render alternatives impractical or undesirable (CEQA, Section 21081; CEQA Guidelines, Sections 15126.6(c), 15364).

3.2.3 Elimination/Reduction of Significant Impacts

Section 15126.6(b) of the CEQA Guidelines states that "[b]ecause an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (CEQA, Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the Project Objectives, or would be more costly."

The Proposed Project results in a range of impacts. The alternatives evaluated later in this section have been developed in an effort to reduce and/or eliminate one or more significant impacts associated with the Proposed Project. The Proposed Project would result in Significant Unavoidable impacts with respect to:

- Potentially significant impacts to the scenic resources of Highway 68 due to grading and tree removal during construction of the proposed Highway 68 frontage road, south side drainage improvements, and long-term non-aeronautical development (Impact AES-1);

- Aesthetic impacts related to the proposed commercial terminal complex parking garage, the scale of which would be bigger than other existing buildings located a similar distance from Highway 68 (Impact AES-3);
- Potentially unmitigable impacts to Monterey pine trees (*Pinus radiata*)/Monterey pine forest, a California Native Plant Society (CNPS) Rank 1B.1 plant and Sensitive Natural Community (Impacts BIO-4, BIO-20, BIO-28, and BIO-34) (323 trees and 5.27 acres in the short-term; unknown in the long-term);
- Potentially unmitigable impacts to Yadon’s piperia (*Piperia yadonii*), a federal endangered plant (Impacts BIO-9 and BIO-25) (460 individuals in the short-term; unknown in the long-term);
- Future greenhouse gas (GHG) emissions above 2015 levels (a projected long-term increase of 15,191.7 metric tons/year (CO₂e²) (Impact GHG-1);
- A decline in off-airport emergency response times in the short term (i.e., until a new “north side” road is constructed) (Impact HAZ-5);
- Inconsistencies with *General Plan Update for the City of Del Rey Oaks* (1997), Policies C-3 and 13 related to anticipated traffic impacts if proposed mitigation proves infeasible (Impact LU-1);
- Inconsistency with *General Plan Update for the City of Del Rey Oaks*, Policy C-17 related to the proposed “north side” road (Impact LU-2);
- Inconsistency with *City of Monterey General Plan* (2016), Policy b.4 of its Noise Element, which states, “Support limiting the number of fixed-base general aviation aircraft at the airport to the existing number.” (Impact LU-3);
- Inconsistency with *City of Monterey General Plan*, Goal j, Policy j.2, and Programs j.1.1 and j.2.3 of its Circulation Element, which establish level of service (LOS) D as an acceptable automobile LOS standard for roadway segments that are not within a multi-modal corridor and require a traffic analysis to determine appropriate mitigation and the funding of a pro-rata share toward improvements, if proposed mitigation proves infeasible (Impact LU-4);
- Inconsistency with the City of Monterey’s *Casanova-Oak Knoll Neighborhood Plan* (CONA Neighborhood Plan) (1985) goals and policies (Public Works Policies 15 and 16, and Airport Noise Policies 29, 34, and Program 34b) related to restricting the use of Airport Road for airport-related uses in the short-term until the proposed “north side” road is constructed (Impact LU-5);

² Different types of greenhouse gases (GHGs) have varying global warming potentials (GWPs). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO₂) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as “carbon dioxide equivalent” (CO₂e) and is the amount of a GHG emitted multiplied by its GWP.

- Inconsistency with CONA Neighborhood Plan, Airport Noise Policy 34, which states that the neighborhood is opposed to the use of neighborhood residential streets by automobile and truck traffic going to and from the Airport and businesses on the Airport property as Airport Road would remain in use for existing or replacement airport land uses located west of Gate V22 (Impact LU-6);
- Inconsistencies with CONA Neighborhood Plan, Noise Goals 2, 3 and 4 (Impact LU-7) (see Impact NOI-1 and NOI-2 below);
- Inconsistency with the Monterey County’s *Comprehensive Land Use Plan for Monterey Peninsula Airport*³ (CLUP) (1987) until the airport land use commission (ALUC) updates the CLUP consistent with the Proposed Project (Impact LU-8);
- By 2025, exterior noise levels would be above the acceptable 65 Community Noise Equivalent Level (CNEL) standard for one residence based on anticipated increases in aircraft operations (although this residence has been sound attenuated for interior noise impacts) (Impact NOI-1);
- By 2035, exterior noise levels would be above the acceptable 65 CNEL noise standard for four residences based on anticipated increases in aircraft operations (although these residences have been sound attenuated for interior noise impacts) (Impact NOI-2);
- Reduced aircraft rescue and firefighting (ARFF) response times to areas off-airport below the recommended five-minute response time until the ARFF facility is permanently located on the south side or until the proposed “north side” road is constructed (Impact PS-1);
- Contributing project-related peak hour trips to five intersections located along Highway 68 or Highway 218 that are currently operating at unacceptable levels of service (Impact TR-1);
- Contributing project-related peak hour trips in the long term to intersections and highway segments that are projected to operate deficiently under future conditions (Impact TR-2);
- Future impacts related to increases in vehicle miles traveled (VMT), which are unknown and speculative at this time (Impact TR-7); and
- The following cumulative impacts as discussed in Chapter Five (see Section 5.6):
 - Impacts to the scenic viewshed and resources of Highway 68;
 - Additional criteria pollutants;
 - Yadon’s piperia, sandmat manzanita (*Arctostaphylos pumila*), Monterey spineflower (*Chorizanthe pungens*), coast live oak (*Quercus agrifolia*), and Monterey pine experience loss and on-

³ In 2011, the Monterey Peninsula Airport District (MPAD) changed the name of the Airport from Monterey Peninsula Airport to Monterey Regional Airport.

going pressure from cumulative development including, loss of habitat and habitat fragmentation, erosion/sedimentation, manmade intrusions such as light, noise and overall activity, and the introduction of nonnative invasive species;

- Additional GHG emissions;
- Policy inconsistencies with the cities of Del Rey Oaks and Monterey regarding traffic LOS and non-vehicular modes of transportation;
- Policy inconsistencies with the *City of Monterey General Plan* and CONA Neighborhood Plan regarding restricting future aircraft growth;
- Exterior noise levels that would be above the acceptable noise standards for four residences by 2035 based on anticipated increases in aircraft operations; and
- The level of potential short-term and long-term cumulative development that could occur by 2025 and by 2035, respectively, would require major improvements to the local and regional road network

3.3 ALTERNATIVES CONSIDERED, BUT NOT CARRIED FORWARD

Section 15126.6(c) of the CEQA Guidelines provides that an “EIR should also identify any alternatives that were considered by the Lead Agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the Lead Agency’s determination Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts.”

The Proposed AMP discusses numerous alternatives to achieving the main objectives listed above. Chapter Six of the Proposed AMP identifies each set of airfield improvements, the issue at stake, alternative solutions, and the recommended alternative. The Proposed AMP is available for review at: <https://montereyairport.specialdistrict.org/>, and is incorporated by this reference in its entirety. The following alternatives address various aspects of the Proposed Project that would meet some, or all, of the Project Objectives, but were rejected because they were infeasible, would have adverse operational impacts on the Airport, and/or had more environmental concerns than other feasible alternatives.

3.3.1 Shift Taxiway “A” 400 Feet from the Runway 10R-28L Centerline

The primary action of the Proposed Project to enhance airfield safety is to shift Taxiway “A” farther from the centerline of Runway 10R-28L. This would allow larger aircraft to co-operate on the taxiway system of the primary runway and to hold at the standard 250-foot distance from the runway centerline. Additional commercial apron depth would be provided to allow the proper parking of the larger aircraft currently operating at the Airport without penetrations of the airfield’s safety areas. The commercial apron depth does not meet standards. No increases in the number of aircraft accessing the terminal (i.e., terminal gate positions) or “remain overnight” (RON) parking positions are associated with the increased apron depth or the shifting of Taxiway “A” farther from the centerline of Runway 10R-28L.

One alternative discussed in the Proposed AMP, and rejected as infeasible, would be to shift Taxiway “A” 400 feet from the Runway 10R-28L centerline to fully meet FAA design standards (**Exhibit 3A**). This would provide adequate taxiway/runway separation from Runway 10R-28L to completely resolve existing runway safety area (RSA) penetrations and hold line safety issues. However, by shifting Taxiway “A” south 400 feet, the taxiway object free area (OFA) would also be shifted. The taxiway and taxilane OFA clearing standards in FAA Advisory Circular (AC) 150/5300-13A, *Airport Design*, as amended (FAA 2014) prohibit service vehicle roads, parked aircraft, and other objects, except for objects that need to be in the OFA for air navigation or aircraft ground maneuvering purposes. Vehicles may operate within the OFA provided they give right-of-way to oncoming aircraft by either maintaining a safe distance ahead or behind the aircraft or by exiting the OFA to let the aircraft pass. Table 4-1 of AC 150/5300-13A specifies the standard dimensions for OFAs. Due to the existing topography and built environment of the Airport, several penetrations of the taxiway OFA would occur if Taxiway “A” was shifted to 400 feet from the runway centerline, including approximately 150 feet of an existing hillside, apron areas in front of the Del Monte Aviation hangar, Hangar No. 124 on the southwest apron, and the existing commercial terminal.

Moving Taxiway “A” to 400 feet from the Runway 10R-28L centerline would have a substantial impact on Airport operations. Essentially, all the south side apron area would be unusable, including the apron in front of the commercial terminal and the fixed base operator (FBO) apron. The relocation of the existing commercial terminal would be required, as well as the restructuring of the FBO areas, to provide for apron areas outside the Taxiway “A” OFA. An existing vehicle service road located south of Taxiway “A” would need to be shifted south causing even more disruption to the south side FBO areas.

If the part of the hillside that would penetrate the new taxiway OFA was removed, this would have impacts on sensitive habitat that is currently protected by the Airport. These areas are part of environmental mitigation areas for previous Airport projects (i.e., the Design Professional Insurance Company [DPIC] Parking Lot Habitat Restoration Area and the Flight Way Self-Storage Habitat Restoration Area) (**Exhibit 3A**).

3.3.2 Expand or Replace the Existing Commercial Terminal

In addition to enhancing airfield safety, two objectives of the Proposed Project are to safely and adequately prepare for future anticipated aviation demand and to incorporate Airport sustainability goals (Sections 2.5.2 and 2.5.3). One main component of the Proposed Project to meet these objectives is to replace the existing commercial terminal with an updated, more efficient, and sustainable building. The following alternatives to expand or replace the existing commercial terminal building were considered but rejected.

3.3.2.1 Expand the Existing Commercial Terminal and Apron

This alternative would expand the existing commercial terminal to the south or east. This would have a substantial adverse short-term impact on Airport operations because the old terminal building would need to remain operational during the terminal expansion or relocation. Two options were examined for expanding/remodeling the existing terminal building: expanding a concourse to the west and expanding a concourse to the east (**Exhibit 3B**). A significant constraining factor to either option is the lack of

available apron depth from Taxiway “A” to the terminal. Currently, some aircraft that utilize the Airport regularly, such as the Allegiant Air MD-80 aircraft, must park parallel to the side of the terminal. Once Taxiway “A” is shifted to a separation distance of 327.5 feet, then only small aircraft (less than approximately 80 feet in length) could park on the commercial apron without penetrating the taxiway OFA. This would make the existing terminal in either scenario unusable for many of the commercial passenger aircraft that currently use the facility. For these reasons, as well as the ones stated in following subsections, an expansion to the existing terminal building was considered, but rejected.

Expand the Existing Commercial Terminal and Apron to the West. This alternative considered utilizing the current rental car lot and preparation facility for a relocated terminal concourse and apron. This would present an operational challenge as the rental car operations would have to be relocated and parking space is already constrained at the Airport. Much of the FBO apron currently adjacent to the commercial apron would have to be utilized for the rental car operations, which would negatively impact the FBO apron. A relocated concourse would be approximately 800 feet long and would add to the existing inefficiency (including additional staff and communication inefficiencies) and passenger inconvenience of the current structure.

Expand the Existing Commercial Terminal and Apron to the East. This alternative considered extending the terminal concourse to the east. This concourse would be approximately 400 feet long, thus also adding to the inefficiency of the overall terminal layout. This alternative would absorb approximately half the existing long-term parking lot, adding to the challenges of meeting parking demand.

In addition, expanding the existing terminal building is not considered prudent from an efficiency standpoint. The original structure is over 60 years old and is not up to modern standards for terminal buildings. Therefore, expansion/remodel efforts may not efficiently accommodate future activity levels, meet best practices for safety and security, conform to applicable FAA design standards and other appropriate planning guidelines, satisfy user needs, meet the Airport’s sustainability goals, or conform to the Airport sponsor’s strategic vision. For example, if the existing terminal were to be incrementally expanded, elements, such as load bearing walls, heating, ventilation, and air conditioning (HVAC) capacity, and the future size of each functional area, would need to be analyzed to determine if the building is capable of being expanded to the degree needed to meet future forecast demand. Thus, the feasibility of expanding the existing commercial terminal from a building safety perspective is not certain.

3.3.2.2 Relocate the Existing Commercial Terminal and Apron to the South

This alternative would relocate the terminal building south of its existing location to accommodate the Taxiway “A” shift to a uniform 327.5 feet centerline to centerline from Runway 10R-28L (**Exhibit 3C**). Due to a lack of intervening space between the old and relocated buildings, the existing building would be demolished, and all commercial operations would be temporarily relocated. There are no existing facilities at the Airport that could accommodate continued commercial passenger activity, even on a temporary basis. If commercial passenger operations cease for a time, perhaps as much as a year, the airlines might choose not to return. Even the use of temporary modular structures could have substantial adverse effects on the marketability of the Airport.



Source: Draft Final Monterey Regional Airport Master Plan 2015

Photo Source: Google Earth 10-20-16

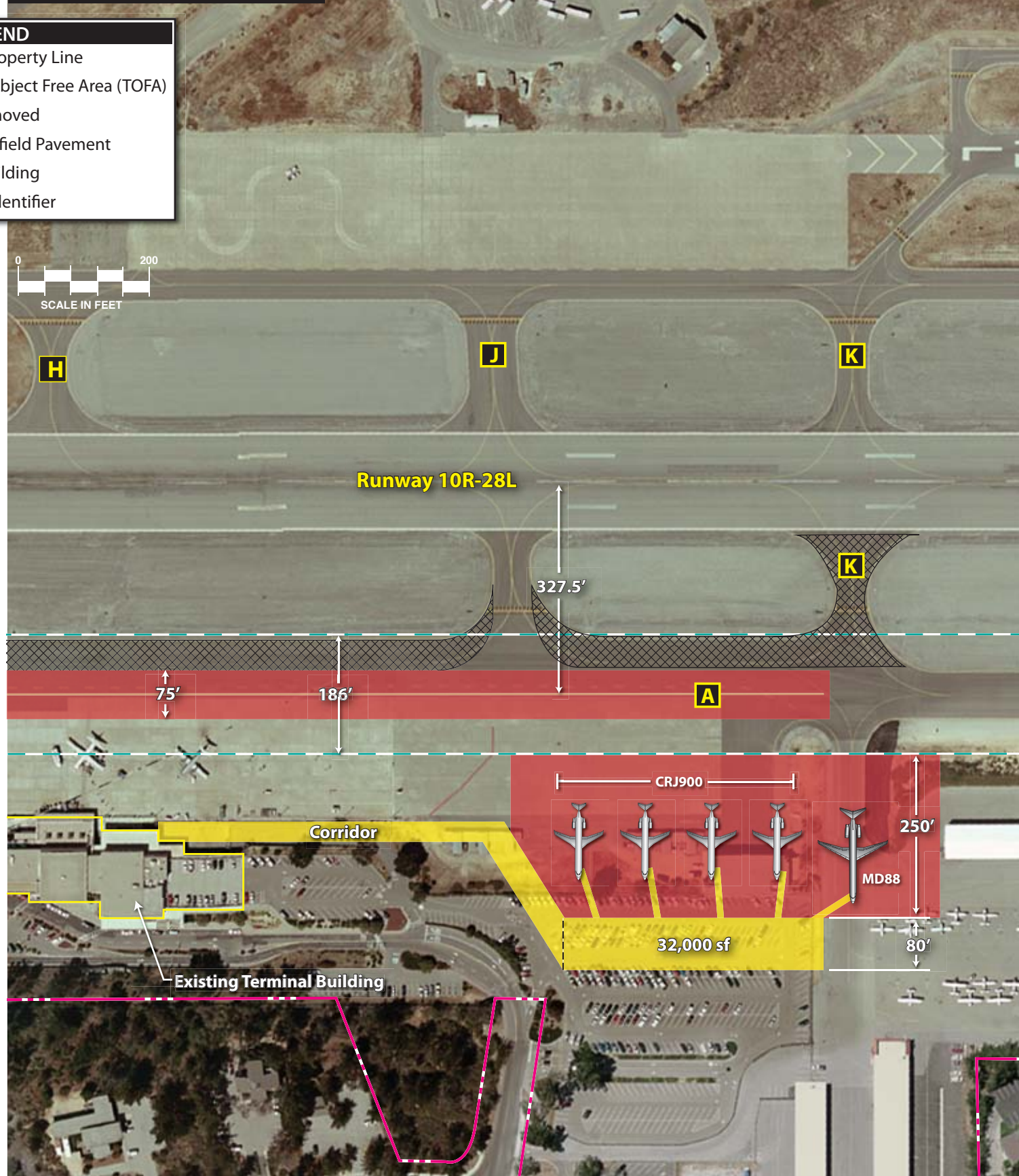
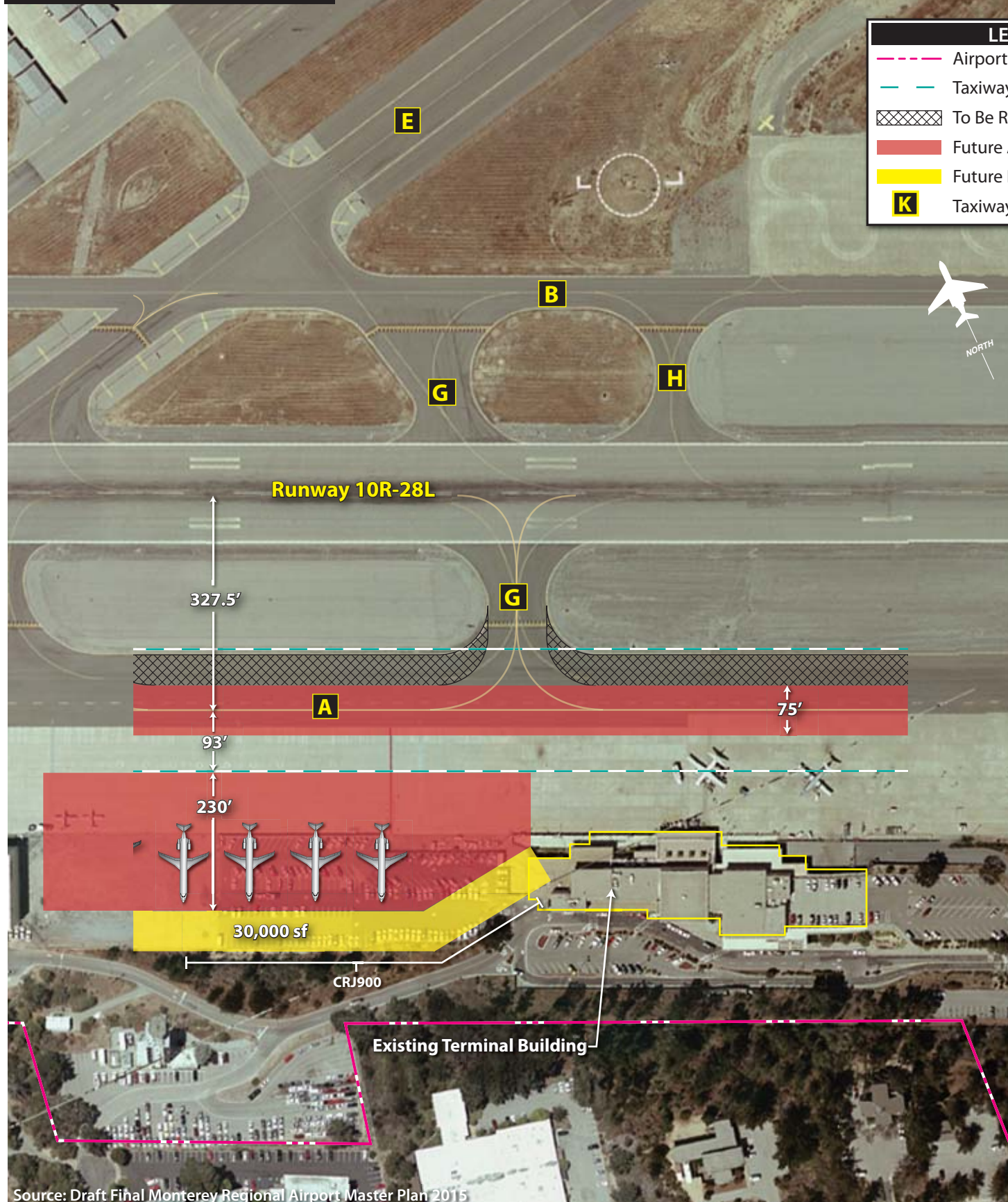
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TERMINAL EXPANSION WEST

TERMINAL EXPANSION EAST

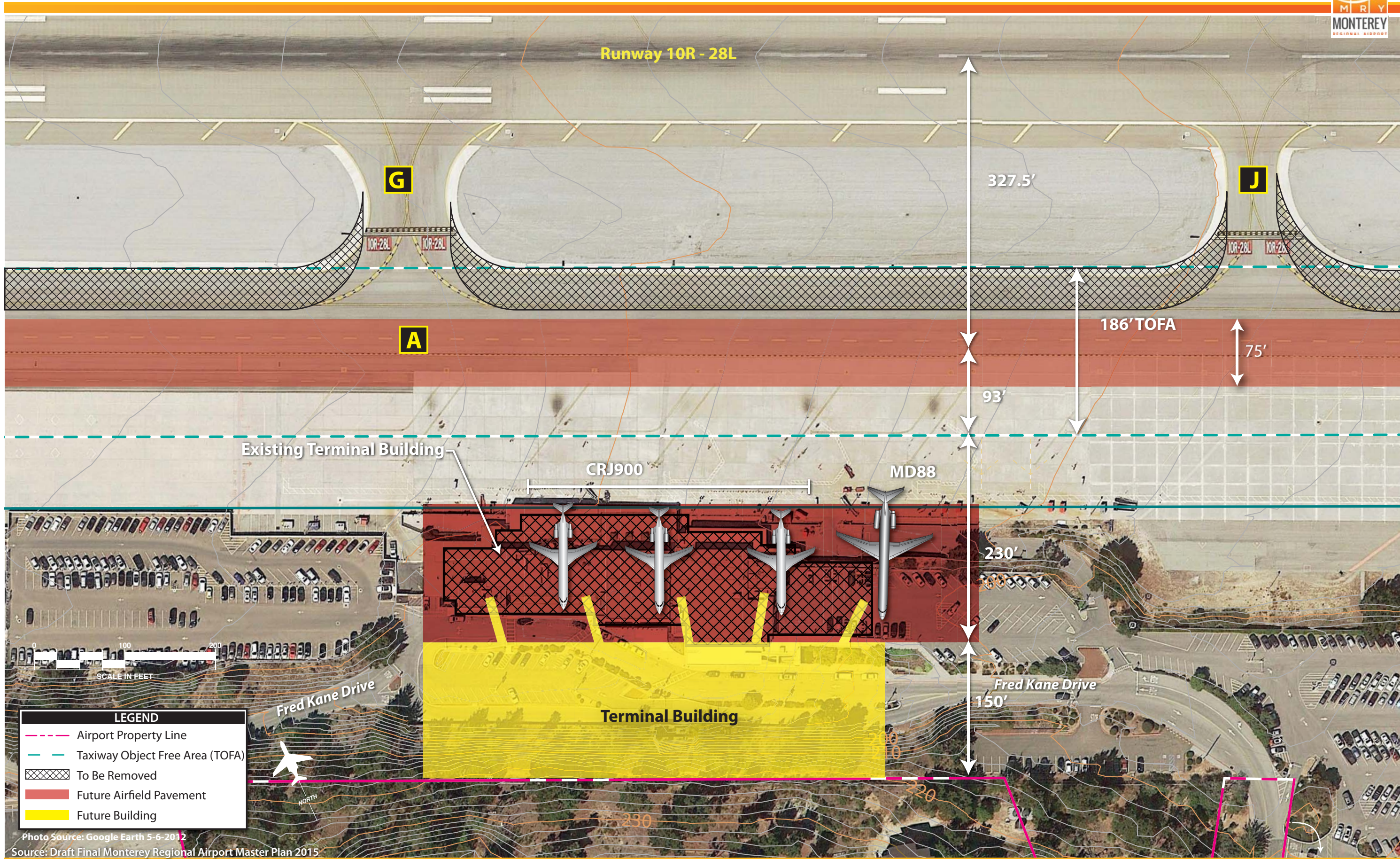
LEGEND

- Airport Property Line
- Taxiway Object Free Area (TOFA)
- To Be Removed
- Future Airfield Pavement
- Future Building
- K Taxiway Identifier



Source: Draft Fihal Monterey Regional Airport Master Plan 2015

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Moving the commercial terminal south of its existing location would require construction into the adjacent hillside. This would present engineering challenges, including significant cuts supported by retaining walls. The relocated building would need to be constructed over the top of Fred Kane Drive to preserve the existing airport entrance/exit road configuration. This would add significantly to both the cost and the duration of the construction.

The hillside south of the existing terminal has been surveyed for biological resources as part of this EIR. This alternative would impact sensitive biological resources, including Yadon's piperia, sandmat manzanita, and Eastwood's golden bush (*Ericameria fasciculata*). All three plants are ranked as rare, threatened, or endangered in California and elsewhere (CNPS Rank 1.B). Yadon's piperia is also listed as endangered on the federal *Endangered Species Act*.

3.3.2.3 Relocate the Existing Commercial Terminal and Apron North of the Airfield

This alternative would shift Taxiway "A" to a uniform 327.5 feet centerline to centerline from Runway 10R-28L and relocate the commercial terminal to the north side of the airfield. This alternative was rejected due to the increased impacts to Airport operations that would occur by having a commercial terminal on the north side of the airfield. The taxiway infrastructure on the north side of the Airport is not designed to handle frequent movements by heavier commercial service aircraft, and there is not a full parallel taxiway on the north side. This would mean a substantial increase in crossings of both runways.

This alternative would also not meet the Proposed Project's sustainability objective (Section 2.5.3) since the additional taxiing of aircraft would increase aircraft emissions. Commercial aircraft landing on Runway 10R-28L, the southerly runway, would have to cross the smaller, northerly runway (Runway 10L-28R) to get to the relocated commercial terminal, while smaller general aviation (GA) aircraft landing on Runway 10L-28R would have to taxi to the south side to get to the GA areas. Relocating the main commercial terminal, aircraft, and ground support to the north side of the Airport would move associated noise closer to adjacent residential neighbors.

In addition, while there is considerably more development space on the north side, there is a lack of existing surface access roads. The only public road on the north side (Airport Road) is circuitous and passes through a residential neighborhood. Improvement of this road to a level that could accommodate the passenger terminal road is not considered reasonable. A new public road was considered which would utilize Olmsted Road by tunneling under the runways. This would keep the traffic associated with commercial operations using the existing terminal access from Olmsted Road and Highway 68. However, a tunnel would be expensive and challenging while maintaining an active runway. (Other alternatives for providing a "north side" road are presented in Section 3.3.3. However, these alternatives are not considered suitable to handle the amount of traffic that is associated with a commercial passenger terminal. They involve steep grades and/or access through, or adjacent to, residential neighborhoods.)

3.3.2.4 Relocate the Existing Commercial Terminal to the East, but Keep the Southeast General Aviation South of the Airfield

There are only two undeveloped parcels left on the south side of the Airport within Airport property. The first is a 3.6-acre parcel located between two private parcels just north of Highway 68. It is separated from the rest of the Airport by an approximate 30-foot-high, heavily vegetated, upward slope. The amount of earthwork that would be required to provide access from this parcel to the airfield would be substantial and would impact existing biological resources. The second is a 3.2-acre parcel on the north-east corner of Highway 68 and Olmsted Road. In addition to not having access to the airfield, this parcel is located within the viewshed of a designated scenic highway (Highway 68). Neither parcel is large enough to fully accommodate the GA land uses that are proposed to be displaced. Therefore, this alternative was rejected as infeasible.

3.3.3 “North Side” Road Alternatives

A new “north side” road would meet the objectives for the Proposed Project from several stand points. It would enhance airport safety by providing an additional emergency access point to the north GA area. This, in turn, would facilitate the relocation of the commercial terminal and apron, which would allow the shifting of Taxiway “A” further from Runway 10R-28L. A “north side” road would also allow the Airport to prepare for future aviation demand by providing access to additional GA hangars in the long term, and would increase the Airport’s self-sufficiency through non-aviation, revenue-producing opportunities.

Currently, access to the north side of the Airport is only available via Airport Road from the west through a residential neighborhood (Casanova Oak Knoll Association [CONA]), and from the south via on-airport service roads around the east and west ends of the runways. Alternatives that were considered for a new “north side” road, but rejected, are shown on **Exhibit 3D** and include: creating an access point from Highway 68 at the eastern end of the Airport near Tarpy’s Roadhouse; connecting the Airport to an existing signalized intersection at Highway 218 and Ryan Ranch Road; connecting the Airport to an existing signalized intersection at Highway 218 and General Jim Moore Boulevard; extending Rosita Road through a residential area north of the Airport; extending Casanova Avenue approximately 50 feet from CONA to the west of the Airport; or tunneling under the airfield and connecting to Olmsted Road on the south side of the Airport. The alternative of no “north side” road is considered separately in Section 3.5.2.

3.3.3.1 Southeasterly Connection from Highway 68

This alternative considered a new road that would begin at Highway 68, in proximity to the Runway 28L end, and extend around the east end of the runways to the north side. During the design of the recent RSA Improvements Project (RSA Project), an emergency/service access road was considered in this general location. Following the resolution of legal challenges, based in part on concerns about additional traffic on Highway 68, plans were changed and access from Highway 68 for an emergency/service road did not occur. The east vehicle service road now extends around the east runway ends but remains entirely on airport property.



Source: Draft Final Monterey Regional Airport Master Plan 2015

Photo Source: Google Earth 4/15/2016

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In this alternative, a public entrance road extending from Highway 68 would connect to the existing east vehicle service road and could face similar legal challenges as additional traffic on Highway 68 would be a concern. The east vehicle service road is narrow and has a relatively steep grade. It would have to be widened to serve as a public road to the north side; this may not be feasible due to its current design.

In addition, this alternative would locate a public road within the runway protection zones (RPZ) for both runways. FAA strongly discourages the introduction of new public roadways in RPZs. While existing roadways in RPZs are currently “grandfathered,” FAA’s “Interim Guidance on Land Uses Within a Runway Protection Zone” states that a proposal for a public roadway in an RPZ requires coordination with FAA Headquarters, as opposed to the local FAA Airports District Office (ADO) (FAA 2012). FAA approval is contingent on there being no other alternatives available that would locate the roadway outside the RPZ. Therefore, FAA most likely would not support this alternative because there are alternatives available outside the RPZ.

Pursuing a new public roadway in the Airport’s RPZ could also be viewed by FAA as a Grant Assurance violation. As part of the Airport’s Grant Assurances associated with the receipt of FAA Airport Improvement Program (AIP) Grants, Grant Assurance 21 (Compatible Land Use) states in part the following: *“It will take appropriate action, to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft.”*

3.3.3.2 Easterly Connection from Ryan Ranch Road

This alternative considered a road extending from Highway 218 at the intersection with Ryan Ranch Road. This is currently a signalized three-way intersection. An airport entrance road here would require the removal of three office/storage buildings located in the City of Del Rey Oaks. The road would then continue up a steep grade to access the north side. The proposed road would parallel the existing east vehicle service road but would sit approximately 40 feet below it due to the extreme steepness of the slope between the two roadway alignments. This alternative would require an estimated 140,000 square feet (sf) of additional retaining walls.

This alternative would impact a significant amount of the habitat conservation areas (HCAs) that were established as mitigation for the RSA Project. These HCAs would have to be removed and relocated. Additional impacts to sensitive plants would also occur, contributing to more project-specific and cumulative biological impacts (and related mitigation costs) than would otherwise occur.

This alternative would cross both a floodway and a 100-year floodplain located on the east side of Highway 218. When a floodplain encroachment is anticipated, the California Department of Transportation (Caltrans) or the local agency/project sponsor must prepare a Location Hydraulic Study. The Location Hydraulic Study is a preliminary study of base floodplain encroachments and is prepared by a registered engineer with hydraulic expertise. Since this alternative would potentially alter the existing drainage pattern of the Canyon Del Rey Drainageway (floodway), impacts to the existing floodway and 100-year floodplain would need to be mitigated.

Similar to a southeasterly connection to Highway 68, this alternative would locate a public road within the RPZs for both runways, and FAA is not likely to support it given the alternatives available outside the RPZ. As discussed in Section 3.3.3.1, pursuing a new public roadway in the Airport's RPZ could also be viewed by FAA as a Grant Assurance violation.

3.3.3.3 Northeastly Connection from General Jim Moore Boulevard

This alternative considered utilizing the signalized three-way intersection at Highway 218 and General Jim Moore Boulevard. A north side public road from this location would require acquisition and removal of two homes and an athletic court associated with an adjacent condominium complex. The terrain is quite steep, with nearly 120 feet of elevation change over 600 feet. The related engineering and construction costs make this alternative infeasible given that there are other alternatives with fewer impacts.

3.3.3.4 Northwesterly Connection from Rosita Road

This alternative considered utilizing the existing Rosita Road that extends from an intersection with Highway 218. A 200-foot extension of this road would be needed to reach Airport property. A storm water detention pond is in the path of such an alignment and would likely need to be reengineered. The detention pond may also be an environmental constraint as it is mapped as a freshwater emergent wetland on the National Wetland Inventory maintained by the United States Fish and Wildlife Service (USFWS). The east side of Rosita Road is lined with homes. Thus, this alternative would introduce additional traffic to a residential neighborhood.

3.3.3.5 Westerly Connection from Casanova Avenue

This alternative would utilize a portion of existing Airport Road but would create a more direct route by connecting Airport Road to Casanova Avenue. This route would introduce vehicular traffic desiring to access the Airport onto Casanova Avenue, rather than Euclid Avenue. The City of Monterey and the CONA neighborhood are strongly opposed to more Airport-related traffic being introduced into the area.

3.3.3.6 Southerly Connection via a Tunnel from Olmsted Road

This alternative considered, but rejected, a tunnel under the runway from Olmsted Road. Challenges to this alternative would be the additional construction impacts associated with excess dirt removal and disposal, such as construction traffic, noise, and emissions. Due to the need to maintain an operational runway during construction, all construction activity would occur during late night-time hours to minimize runway closure; commercial flights are not scheduled during the late night-time hours, therefore, creating less impact to operations. This would add to both the cost and the duration of the project. The related engineering and construction costs make this alternative infeasible given that there are other alternatives with fewer impacts.

3.4 ALTERNATIVE LOCATIONS FOR MONTEREY REGIONAL AIRPORT

Although the CEQA Guidelines require consideration of alternative locations, in the case of the Proposed Project, it is a 20-year planning document for an existing federally-regulated airport facility. The relocation of services to another airport or the development of a new airport site is a very complex and expensive alternative. A new site would require the duplication of federal, state, and local investment dollars in airport facilities and the installation of supporting infrastructure that is already available at the existing site. This alternative has an unknown potential for negative impacts to natural, biological, and cultural resources, as well as the manmade environment. Moving the Airport to an alternative location is beyond the planning horizon of the Proposed Project and, thus, outside the scope of this environmental study.

In addition, the Airport's grant assurances require its continued existence as an airport at its current location. As discussed in Section 1.6, grant assurances are specific conditions required by FAA to be submitted as part of a project application by airport sponsors requesting funds under the provisions of United States Code (USC), Title 49, Subtitle VII, as amended. The terms, conditions, and assurances of any associated grant agreement remain in full force through the useful life of the facilities developed or equipment acquired for an airport development, or through the useful life of the project items installed, but in any event not to exceed 20 years from the date of acceptance of a grant offer of federal funds for the project.

Grant Assurance 19, Operation and Maintenance states, in part, "The airport and all facilities which are necessary to serve the aeronautical users of the airport, ..., shall be operated at all times in a safe and serviceable condition... It will not cause or permit any activity or action thereon which would interfere with its use for airport purposes..."

3.5 ALTERNATIVES FOR ANALYSIS

In accordance with Section 15126.6(a) of the CEQA Guidelines, the discussion in this section of the EIR focuses on a reasonable range of alternatives. The analysis provides a comparison of their feasibility and ability to achieve Project Objectives. The alternatives' varying environmental effects and their merits and/or disadvantages in relation to the Proposed Project and to each other are also discussed. The following alternatives are described in this section:

- **Alternative 1 (Environmentally Superior).** This alternative retains all the major projects of the Proposed Project. However, several components have been redesigned to reduce the environmental impacts, as described in Section 3.5.1. Detailed environmental analysis is contained in Chapter Four and compared to the environmental impacts of the Proposed Project in a commensurate level of detail. This alternative meets all four Project Objectives.
- **Alternative 2 (No "North Side" Road).** This alternative retains all the projects of the Proposed Project, except for the construction of a new "north side" road. Instead, the Airport's north side would continue to be accessed via Fremont Street and Airport Road in the City of Monterey. Analysis of this alternative is included in Section 3.5.2 and is compared qualitatively to the Proposed Project. This alternative could potentially meet all four Project Objectives.

- **Alternative 3 (No Project).** Under Alternative 3, no modifications to the Airport’s existing facilities would be made. Analysis of this alternative is included in Section 3.5.3 and is compared qualitatively to the Proposed Project. This alternative does not meet the stated Project Objectives.

Table 3A provides a matrix that compares each alternative’s ability to meet the various Project Objectives. It should be noted that any of the above alternatives could serve the 20-year forecasts shown in Table 1A and Exhibit 2L. The Proposed Project and its alternatives do not involve capacity improvements to the airfield itself. Proposed improvements to support facilities at the Airport, including a relocated commercial terminal and additional hangars, are ancillary to the airfield and do not affect its capacity. Future impacts of the 20-year forecasts are, therefore, correctly accounted for in the cumulative baseline of any of the alternatives presented in this EIR, including Alternative 3 (Section 2.7.1).

Would the Alternative Meet the Following Project Objectives?	Alternative 1	Alternative 2	Alternative 3
Enhance Airport Safety	Yes	Yes	No
Accommodate Future Aviation Demand	Yes	Yes	No
Incorporate Airport Sustainability Goals	Yes	Yes	No
Increase Airport Self-Sufficiency	Yes	Yes	No

In accordance with Section 15126.6(a) of the CEQA Guidelines, the EIR provides a comparison of the environmental effects and their merits and/or disadvantages of the alternative in relation to the Proposed Project, as well as its ability to achieve the Project Objectives.

An evaluation of potential environmental impacts of Alternatives 2 and 3 are provided in Sections 3.5.2 and 3.5.3, respectively, using the same thresholds of significance as identified in Chapter Four. As previously mentioned, in the case of Alternative 1, the impact analysis is contained in Chapter Four and is treated at the same level of detail as the Proposed Project. The level of environmental impact and ability to meet Project Objectives is considered as part of the identification of the environmentally superior alternative, as discussed in Section 3.5.1. A summary table comparing the environmental effects and other merits or disadvantages of Alternatives 1, 2, and 3 in comparison to each other and the Proposed Project are provided in Section 3.6.

3.5.1 Alternative 1 (Environmentally Superior)

Alternative 1 (**Exhibit 3E**) would meet all four of the stated Project Objectives. It includes several project components that are different than the Proposed Project described in Section 2.6 (and depicted in Exhibit 2B) in an effort to lessen environmental impacts, as well as due to other concerns. These proposed components are listed below along with the rationale for the change.

Relocation of the existing ARFF building to the north side GA area permanently. The ARFF location identified in the Proposed Project would require that a relocated ARFF building be constructed after the relocated terminal building is operational and the existing terminal building is demolished. This would necessitate the construction of a temporary ARFF building since the existing ARFF building would need to be removed prior to construction of the relocated terminal apron.



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It is environmentally preferable, as well as more cost-effective, to construct just one permanent ARFF building rather than constructing first a temporary building and then a permanent building in another location. Operationally, moving the ARFF to the north side would remove its emergency activity away from the commercial terminal and FBO areas, which would reduce the amount of congestion on the south side of the airfield. In addition, the ARFF location on the south side (Proposed Project) presents potential penetrations to the transitional Part 77 (see Code of Federal Regulations [CFR], Title 14, Part 77) surface of Runway 10R-28L. The north side location would eliminate this concern.

The permanent ARFF location on the north side under Alternative 1 meets FAA standards for response times on a CFR, Title, 14, Part 139-certificated airport. Existing water and electric service is available, including a connection to the on-airport solar farm, which would reduce the Airport’s off-airport energy requirements.

Prioritization of a “north side” road. Alternative 1 would construct a “north side” road in the first phase of the safety enhancement component, rather than as a separate project as planned in the Proposed Project, to remove the need for additional traffic to use Airport Road, even in the short term. Thus, prioritizing a “north side” road reflects the Airport’s desire to minimize impacts to the CONA neighborhood.

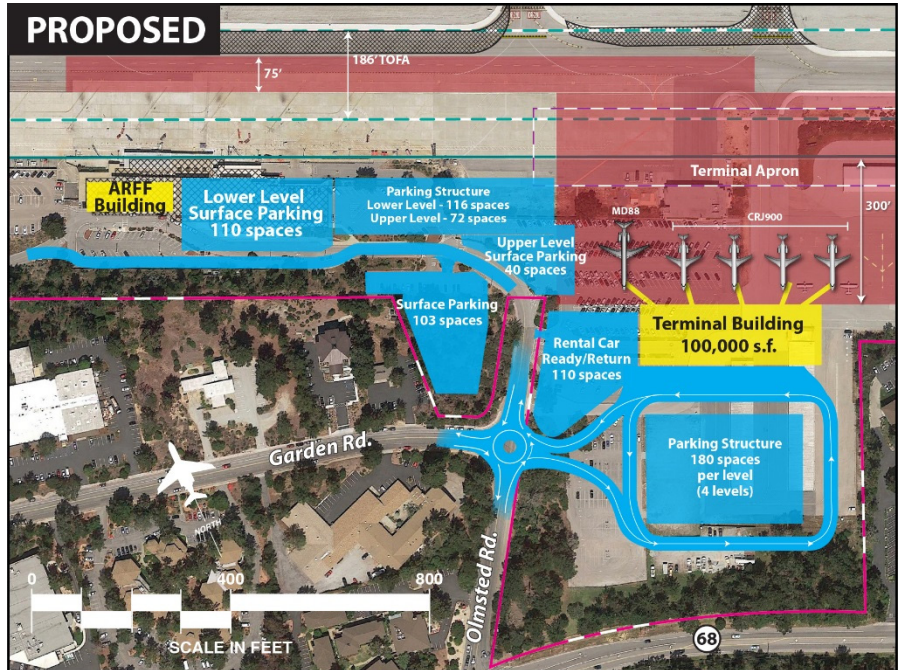
The relocation of the ARFF building to the north side of the Airport is another reason for this proposed change. If a north side ARFF facility was to respond to a call east of the Airport without a new “north side” road, the responding vehicle would have to first travel west on Airport Road to Fremont Street to ultimately reach regional highways, such as Highways 68 or 218, to get back east. The resulting response time would be longer (more than five minutes) than the response time from the existing ARFF building. Conversely, if a north side ARFF facility was to respond to a call east of the Airport via the proposed “north side” road, response times are estimated to be approximately eight minutes faster than the response time from the existing ARFF building.

Changes to vehicular parking associated with the relocated commercial terminal complex. **Table 3B** compares vehicular parking for the commercial terminal under existing conditions, the Proposed Project, and Alternative 1. During initial terminal complex construction under Alternative 1, an estimated 923 new vehicular parking spaces would replace 602 existing spaces for a net increase of 321 vehicular parking spaces. This would fully meet the anticipated intermediate-term shortfall in commercial terminal parking (248 spaces) and most of the anticipated long-term shortfall (376 spaces) (Section 2.5.2).

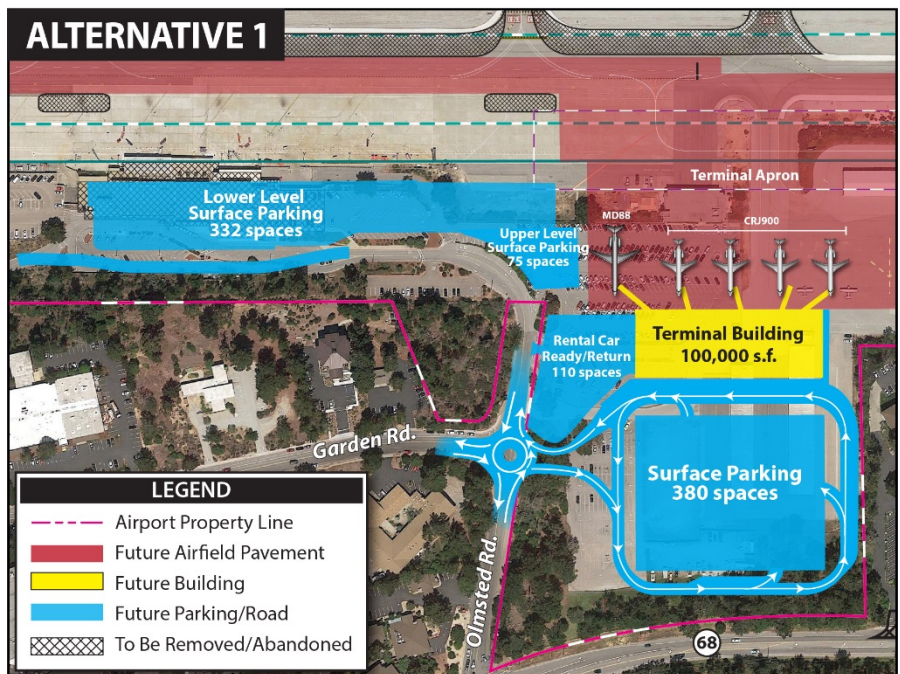
Parking Area	Existing	Proposed Project	Alternative 1
East of Olmsted Road	457 spaces	830 spaces	490 spaces
Northwest of Olmsted Road/Garden Road Intersection	26 spaces	103 spaces	26 spaces
North of Fred Kane Drive	119 spaces	338 spaces	407 spaces
TOTAL:	602 spaces	1,271 spaces	923 spaces

The following parking facilities are proposed in Alternative 1 for the commercial terminal complex (**Exhibit 3F**):

- *Construction of a parking lot south of the proposed relocated terminal building.* In Alternative 1, a four-story, 720-space parking structure planned under the Proposed Project would be changed to a 380-space surface lot to reduce potential impacts to the viewshed of Highway 68, a designated scenic highway. Construction of the 110-space ready-return rental car lot would be the same under either the Proposed Project or Alternative 1.



- *Construction of a surface parking lot north of Fred Kane Drive.* Under the Proposed Project, the area north of Fred Kane Drive is planned for two parking lots, as well as a two-story parking structure for a combined total of 338 spaces. Under Alternative 1, the proposed parking in this area would be changed to a two-level, 407-space surface lot where the existing terminal building/parking lot are currently located.



- *Removal of new parking north-west of Garden Road/Olmsted Road.* A new 103-space parking lot area northwest of the Garden Road/Olmsted Road intersection planned under the Proposed Project would no longer be constructed under Alternative 1 due to the amount of grading and the disturbance of sensitive plants that could occur if it were to be developed as a parking lot. This area has significant topography. The existing 26-space lot would remain.

Exhibit 3F: Comparison of parking between the Proposed Project and Alternative 1.

Construction of the Highway 68 frontage road as a cul-de-sac road. The loop frontage road in the Proposed Project would be changed to a cul-de-sac frontage road ending in the northeastern corner of the 3.6-acre Airport parcel to avoid sensitive plants along the northern and western parts of the loop (**Exhibit 3G**). The Proposed Project tie-in to the Talbott property, adjacent to the east near its entrance with Highway 68, would also not be constructed. This avoids impacts to sensitive plants located in the southeastern corner of the Airport parcel and removes the need to alter the former Talbot property’s driveway or entrance to Highway 68.

3.5.1.1 Short-Term Projects Evaluated at a Project-Specific Level (Alternative 1)

Proposed Safety Enhancement Component for Taxiway “A” Relocation and Associated Building Relocations

Under Alternative 1, Taxiway “A” would still be shifted a uniform distance of 327.5 feet, centerline to centerline, from Runway 10R-28L. However, due to the relocation of the ARFF building to the north side and the construction of a new “north side” road in the short term, the phasing under Alternative 1 would be different than the Proposed Project (**Exhibit 3H**). This change in phasing would allow the shifting of Taxiway “A” to occur in Year 8, rather than Year 10 as would occur under the Proposed Project (**Table 3C**). The entire safety enhancement component could be completed approximately a year quicker than the Proposed Project since two ARFF structures (first a temporary and then a permanent) and two parking garages would no longer be constructed.

Project-specific details of the proposed safety enhancement component under Alternative 1 are discussed below:

GA Hangar Improvements and Relocation. The GA area would be constructed in the same manner as the Proposed Project (**Exhibit 2D**). An expanded north side GA area would be constructed to facilitate the relocation of GA tenants from the southeast part of the Airport to north of the airfield, and would include site preparation, apron and taxilane pavement, utilities, fencing, interior access roads, and vehicular parking. One new taxiway connector to Taxiway “C” is also proposed. Pavement and infrastructure for one row of 25 T-hangars, two rows of 50-foot by 50-foot box hangars (18 total), and two executive box hangars would ultimately increase the number of hangars on the north side by 45. The existing north side Port-a-Port hangars would be moved to the western edge of the proposed new pavement to provide additional hangar space. In addition, six buildable pads are proposed to allow for additional



Exhibit 3G: Comparison of Highway 68 frontage road between Proposed Project and Alternative 1

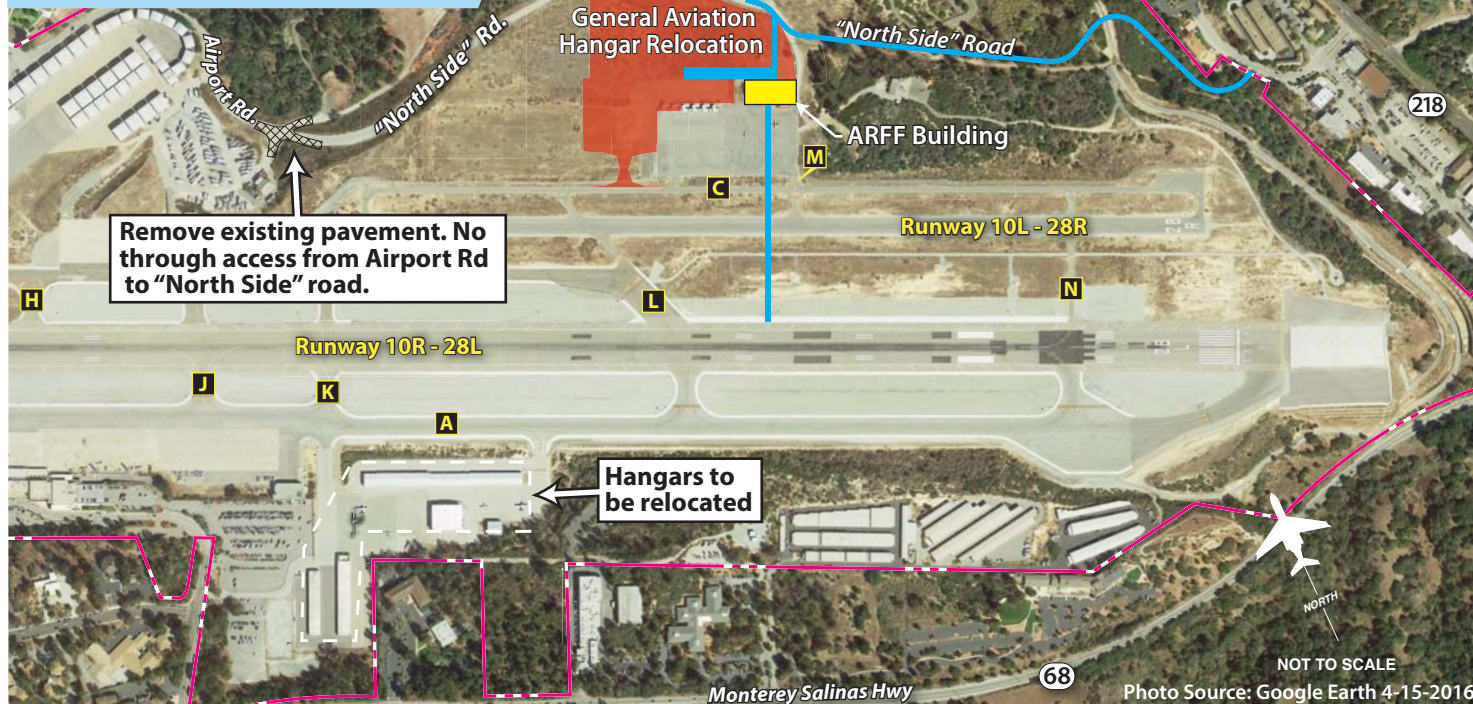
hangars and ancillary structures, such as a wash rack or maintenance bay. Thus, the total number of new hangars on the north GA area would be a maximum of 51. The existing 8,000-gallon aviation gasoline (AvGas) tank is proposed to be relocated from the southeast GA area to the north side. Approximately 23,000 cubic yards (cy) of required fill material would be obtained from construction of the “north side” road. The remaining details of the improvements would be the same as the Proposed Project (see Section 2.6.1.1).

TABLE 3C
Comparison of Phasing for the Safety Enhancement Component
Proposed Project vs. Alternative 1

Construction Phases	Proposed Project	Alternative 1
Phase 1	Years 1-3: Construct the necessary pavement and infrastructure to relocate approximately 44 GA tenants from the southeast part of the Airport to north of the airfield. Install a temporary ARFF facility on the Navy Flying Club apron.	Years 1-3: Construct the necessary pavement and infrastructure to relocate approximately 44 GA tenants from the southeast part of the Airport to north of the airfield. Concurrent with site preparation for the north side GA area, construct a 24-foot-wide “north side” road that would go from the north GA area to Highway 218 via a connection with Del Rey Gardens Drive. Construct a permanent ARFF building in the general location of the existing Navy Flying Club buildings.
Phase 2	Years 4-8: Demolish the existing ARFF building and demolish or relocate the southeast GA facilities. Construct a relocated commercial terminal complex (including apron, terminal loop road and roundabout, and vehicular parking lots and garage). Close Taxiway “K” between Runway 10R-28L and Taxiway “A.”	Years 4-7: Demolish the existing ARFF building and demolish or relocate southeast GA facilities. Construct a relocated commercial terminal complex (including apron, terminal loop road and roundabout, and vehicular parking lots). Close Taxiway “K” between Runway 10R-28L and Taxiway “A.”
Phase 3	Year 9: Demolish the existing terminal building. Construct a relocated permanent ARFF building.	Year 8: Remark 1,850-linear foot (lf) portion of Taxiway “A” to 327.5 feet from Runway 10R-28L and relocate taxiway signage and lighting. Remark hold lines on Taxiways “G” and “J” at 250 feet from the Runway 10R-28L centerline. Provide apron islands at Taxiways “G” and “J.” Demolish the existing terminal building.
Phase 4	Year 10: Remark 1,850-lf portion of Taxiway “A” to 327.5 feet from Runway 10R-28L and relocate taxiway signage and lighting. Remark hold lines on Taxiways “G” and “J” at 250 feet from the Runway 10R-28L centerline. Provide apron islands at Taxiways “G” and “J.” Realign Fred Kane Drive and construct a second parking structure and surface parking lots, as needed.	Year 9: Construct a two-level surface parking lot along Fred Kane Drive.

New “North Side” Road. A new “north side” road would provide access to the north side GA area. Steep terrain would require a significant level of design and engineering (**Exhibit 3I**). Preliminary engineering estimates indicate that a series of four retaining walls would be necessary in places and approximately 57,000 cy of material would need to be removed and reused at the north side GA area or stockpiled as discussed in Section 2.6.1.1, Grading, Stockpile/Disposal Sites, and Haul Routes. The road would be 24

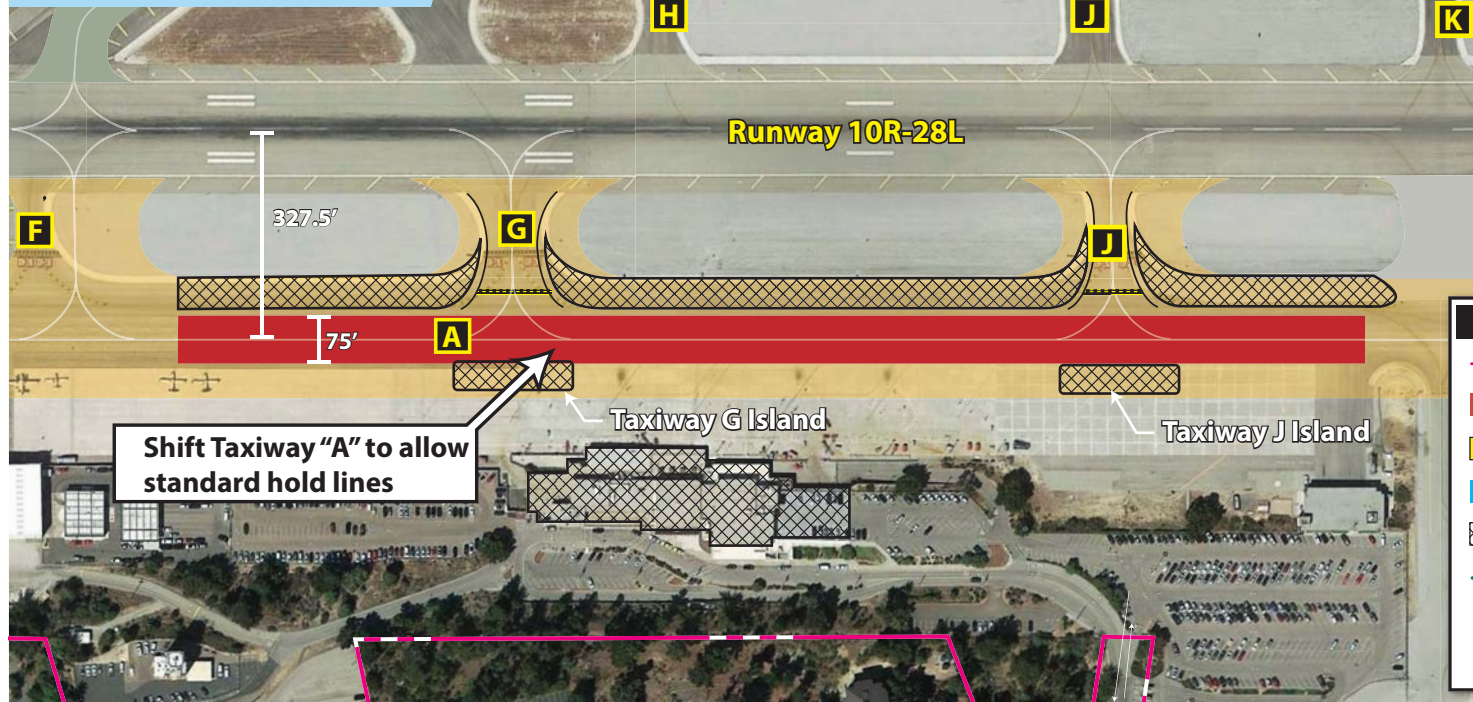
PHASE 1
 Build out north side general aviation
 Construct permanent ARFF building
 Construct "North Side" road



PHASE 2
 Demolish ARFF
 Construct apron and parking areas
 Construct new terminal building
 Close Taxiway K



PHASE 3
 Shift Taxiway "A"
 Remark hold lines
 Install Taxiway "G" and "J" islands
 Demolish old terminal building

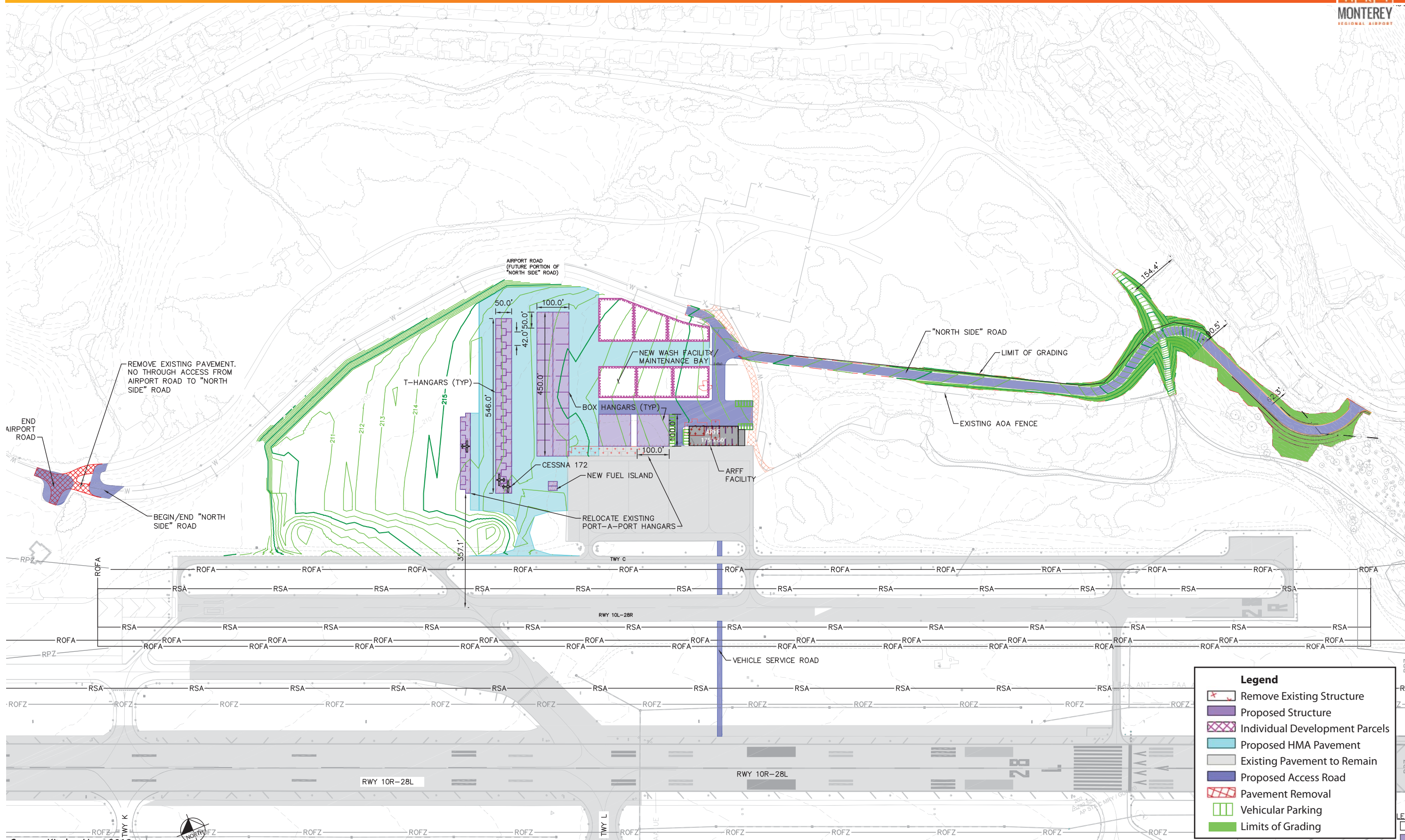


PHASE 4
 Construct surface parking
 Realign Fred Kane Drive



LEGEND	
	Airport Property Line
	Future Airfield Pavement
	Future Building
	Future Parking/Road
	To Be Removed/Abandoned
	14 CFR Part 77 Primary Surface
	Taxiway Designator
	New Hold Line

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Legend

- Remove Existing Structure
- Proposed Structure
- Individual Development Parcels
- Proposed HMA Pavement
- Existing Pavement to Remain
- Proposed Access Road
- Pavement Removal
- Vehicular Parking
- Limits of Grading

Source: Kimley-Horn 2018

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feet wide and include three-foot-wide gutters and three-foot-wide shoulders, consistent with county standards.

Upon completion of the “north side” road, existing Airport Road is proposed to end in a cul-de-sac at the western end of the north side GA area to prevent through access from the new north side road to the residential neighborhood to the west (CONA) via Airport Road (**Exhibit 3E**).

Permanent North Side ARFF Building. Preliminary site layouts indicate a two-story structure with approximately 13,400 sf (6,000 sf for five apparatus bays, 6,400 sf for living quarters, and 1,000 sf for service functions) to be located where the existing Navy Flying Club hangars and office sit on the north edge of the GA apron. A building footprint of approximately 175 feet by 60 feet is proposed. The relocated ARFF would be constructed using Leadership in Energy and Environmental Design (LEED) certification practices in keeping with the Airport’s sustainability goals and objectives (Section 2.5.3). The Navy Flying Club facilities would be relocated to one of the eight building pads discussed above under GA Hangar Improvements and Relocation. Approximately 3,700 cy of material would need to be removed from the site (assuming 10 feet of over excavation) and would be deposited as described in Section 2.6.1.1, Grading, Stockpile/Disposal Sites, and Haul Routes.

An approximate 12-foot-wide, 630-foot-long ARFF service road would be constructed from the edge of the GA apron to the primary runway to provide acceptable response times from the building to the midpoint of the runway. Minimal grading would be required for this service road, which would involve the laying of asphalt over the existing infield grades. Off-airport access would be provided via the proposed “north side” road to Highway 218, as discussed above under New “North Side” Road.

Relocated Commercial Terminal Building. Alternative 1 would be the same as the Proposed Project for this part of the safety enhancement component (Section 2.6.1.1). The relocated building would be constructed using LEED certification practices in keeping with the Airport’s sustainability goals and objectives (Section 2.5.3).

Relocated Commercial Apron. Alternative 1 would be the same as the Proposed Project for this part of the safety enhancement component (Section 2.6.1.1).

Commercial Terminal Parking and Surface Roadway Improvements. Under Alternative 1, a parking garage would only be constructed if needed in the future due to parking demand, and no parking structures would be constructed within the viewshed of Highway 68. A surface parking lot (380 spaces) within a terminal loop road is proposed to be constructed between the proposed commercial terminal and Highway 68, as well as an approximate 110-space ready return/rental car lot positioned adjacent to the west end of the terminal building off Olmsted Road (**Exhibit 3F**). Rental car employees would shuttle returned rental cars to the existing rental car lot west of the existing terminal building for maintenance, pick-up, and long-term storage.

Similar to the Proposed Project, the terminal loop road is proposed to be 24 feet wide to accommodate two lanes of one-way traffic per county standards. Additional ten-foot-wide curbside parking lanes are proposed to include taxi cab and transportation network companies (TNCs) waiting areas (310 linear feet [lf]), curbside pick-up/drop-off (390 lf), and a designated transit bus stop (65 lf). A roundabout at the intersection of Olmsted and Garden Roads is proposed to be constructed at the entrance to the terminal area. The terminal loop road would exit the roundabout in a southeasterly direction, loop around the terminal parking lot and in front of the relocated terminal and reconnect back to the roundabout intersection.

Existing gas, electric, and water service lines within the southeast hangar areas where the new parking lot and terminal loop road are proposed would be demolished and new service lines extended from existing gas, electric, and water mains located within Olmsted Road.

Taxiway “A” Shift and Taxiways “G’ and “J” Painted Islands. Alternative 1 would be the same as the Proposed Project for this part of the safety enhancement component (Section 2.6.1.1). However, since the ARFF building no longer needs to be constructed on the south side, this project component could be constructed prior to the demolition of the old terminal building and additional vehicular parking.

Demolish Existing Terminal Building and Construct Additional Surface Parking. An additional 407 surface parking spaces are proposed in two levels within the existing terminal building footprint and adjacent to parking areas once the existing terminal building is demolished.

Grading, Stockpile/Disposal Sites, and Haul Roads. For Alternative 1, the needed fill for the north side Phase 1 GA improvements (approximately 23,000 cy of fill) would come from the cut material created by the new “north side” road and the permanent ARFF building (approximately 60,700 cy). The remainder of the excess material from Phase 1 (37,700 cy) would be stockpiled at the RV storage site shown on Exhibit 2H. During Phase 2, approximately 249,000 cy of material could be removed due to the commercial apron and terminal building, as well as the terminal parking lot and terminal loop road.

The safety enhancement component under Alternative 1 would result in a total material export of 286,700 cy (**Table 3D**). As shown in Table 2B under the discussion of the Proposed Project (Section 2.6.1.1), Grading, Stockpile/Disposal Sites, and Haul Routes, the Airport can deposit approximately 248,800 cy of this dirt on the north side of the Airport using on-airport haul routes. The remainder of the excess dirt, as well as miscellaneous construction debris and other construction waste, would be hauled to the local landfill.

Proposed Action Activity	Proposed Project (cubic yards)	Alternative 1 (cubic yards)
PHASE 1 (North Side Activity):		
“North Side” Road	N/A	57,000
ARFF Building (assumes 10 feet of over-excavation)	3,700	3,700
PHASE 2 (South Side Activity):		
Terminal Apron (crowned surface) ¹	170,000	170,000
Terminal Building (assumes 20 feet of over-excavation)	39,000	39,000
Terminal Parking/Roads	48,500	40,000
TOTAL CUT MATERIAL	261,200	309,700
Less Dirt Used Onsite as Fill for Phase 1 GA Improvements	N/A	(23,000)
TOTAL MATERIAL EXPORT	261,200	286,700
Sources: Kimley-Horn Associates, Inc. (KHA) 2018; Neill Engineers Corp (Neill Engineers) 2017, 2018 ARFF = aircraft rescue and firefighting ¹ Another apron design option is a super-elevated transverse grading design, which would generate less material than a crowned surface. FAA will make the final determination regarding the terminal apron design. N/A = not applicable. The safety enhancement component does not include the “north side” road under the Proposed Project.		

Proposed Land Acquisition of a 5.5-Acre Parcel

Alternative 1 would be the same as the Proposed Project. This land acquisition would provide airport control over an adjacent parcel with Part 77 obstruction concerns.

Proposed Highway 68 Frontage Cul-de-Sac Road

Under Alternative 1, construction of a frontage road to Highway 68 is proposed that would parallel Highway 68 east from Olmsted Road for approximately 1,500 lf before turning north along the Airport property line for approximately 500 lf and ending in a cul-de-sac (**Exhibit 3G**). The new road would be 24 feet wide, including shoulders, per county standards, with estimated excavation quantities of approximately 2,500 cy (Neill Engineers 2017). The proposed Highway 68 frontage road would connect with Olmsted Road approximately 300 feet north of the Highway 68/Olmsted Road intersection; the southern portion of the road would be located within the 100-foot visual setback from Highway 68.

This frontage road would provide access to a 3.6-acre Airport parcel east of a 5.5-acre, privately owned parcel proposed for acquisition. This 3.6-acre parcel is planned for non-aeronautical development on the southerly half and for retention as open space for special-status plants on the northerly half. The cul-de-sac would provide access to a leased north parking lot located on Airport property. An existing Highway 68 connection from the 5.5-acre parcel would be closed and traffic directed to Olmsted Road and its intersection with Highway 68.

3.5.1.2 Long-Term Projects Evaluated at a Programmatic Level (Alternative 1)

Long-term components under Alternative 1 are the same as those discussed under the Proposed Project (Section 2.6.2 and Exhibit 2K) and are future projects that are anticipated to occur in years 11-20 of the Proposed AMP's overall capital improvement program. These components are not tied to specific years for implementation; instead, they have been prioritized so that Airport management has the flexibility to determine when, or if, they need to be pursued based on future conditions. It is not unusual for certain master plan projects to be delayed or advanced based on changing conditions, such as funding availability or changes in the aviation industry. Other proposed land use changes or projects at the Airport could be privately funded and are, thus, subject to future market conditions.

The following items are included in Alternative 1 (Sections 2.6.2.1 through 2.6.2.7):

- Perimeter fence improvements
- Phase 2 north side GA development
- Airport maintenance building and yard
- Taxiway "B" extension and geometry improvements for Taxiways "G," "K," "L," and "M"
- Property rights acquisition for Runway 28 RPZs
- Future GA (small aircraft) hangar redevelopment
- Future non-aeronautical development

3.5.2 Alternative 2 (No "North Side" Road)

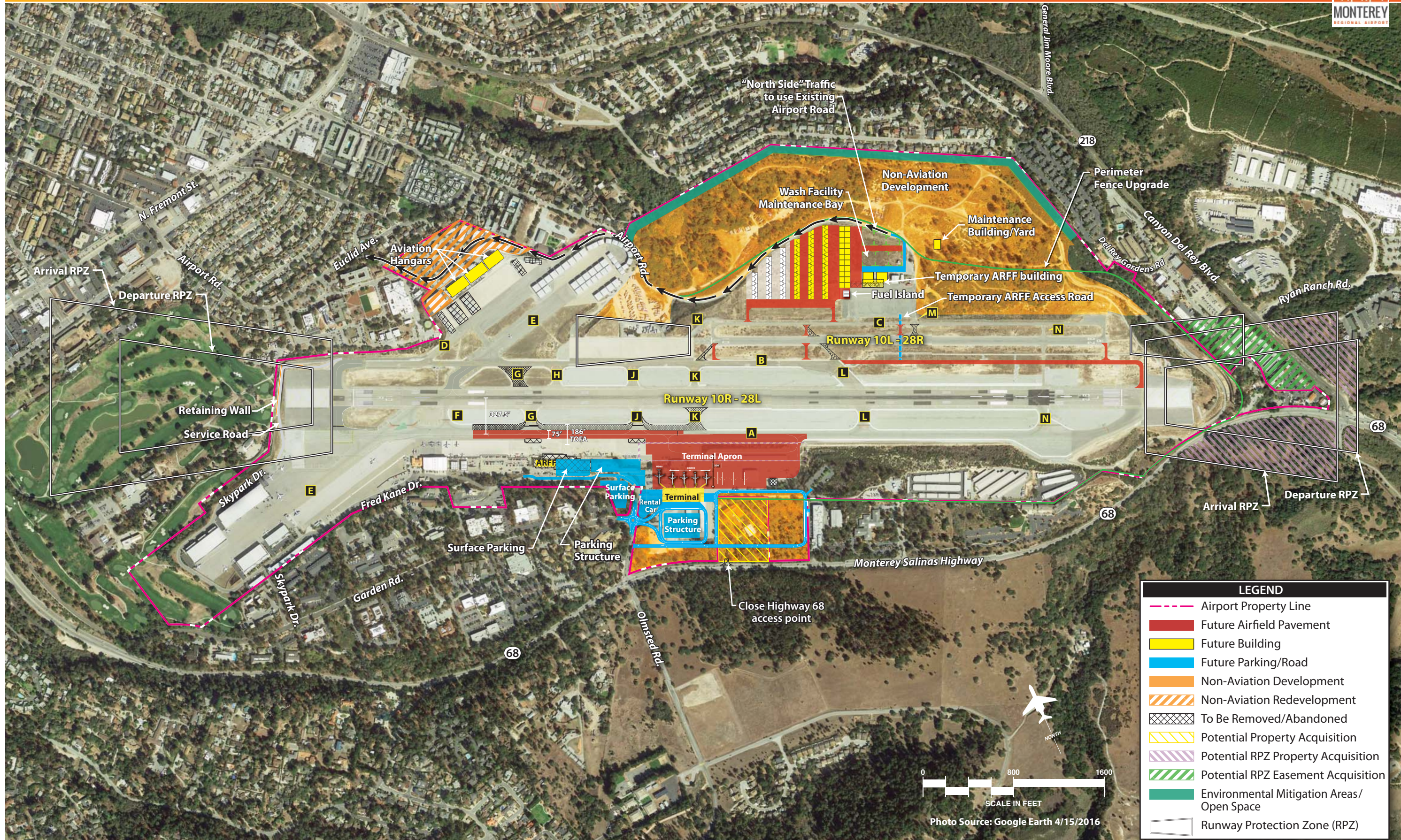
Alternative 2 would construct the Proposed Project with the exception of a new "north side" road (**Exhibit 3J**). All access to the north side development, including the relocation, and eventual buildout, of the GA hangars to the north side, the siting of a temporary ARFF facility, and future non-aviation development or redevelopment would continue to use the existing westerly airport access from Airport Road. Since the remainder of the Proposed Project components would still be constructed, Alternative 2 would meet all four of the Project Objectives.

3.5.2.1 Impact Analysis

Environmental effects of Alternative 2 are discussed in the following sections and compared with those impacts that would occur under the Proposed Project.

Aesthetics

This alternative would have similar impacts to aesthetics as the Proposed Project. Since views from or across the Airport are not available due to significant topography and thick vegetation, future development related to Alternative 2 would not have a substantial adverse effect on a scenic vista. In addition, no impacts, even less than significant ones, would occur related to a new "north side" road as one would not be constructed under Alternative 2. Alternative 2 would not change the overall visual character and visual quality of the Airport nor would it create significant lighting impacts on nighttime views due to the vegetative and topographical barriers that keep the airfield from being easily viewed from land beyond



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the airport property. Similar to the Proposed Project, potential impacts related to project sources of glare would be Less than Significant due to the distance, vegetation, and topography between existing residents and future development, as well as FAA oversight over the airport environment.

Potentially significant impacts to the scenic viewshed of Highway 68 could occur as a result of the Alternative 2's grading and tree removal along the highway during construction. Mitigation would be necessary to ensure that permanent impacts to Highway 68, a designated scenic highway, would not occur. In addition, the proposed commercial terminal parking garage would be bigger than other existing buildings located a similar distance from the highway. With implementation of the same mitigation as would be required for the Proposed Project (Section 4.1.6), some of the aesthetic impacts would remain and be Significant and Unavoidable.

Agriculture and Forest Resources

Similar to the Proposed Project, impacts to agricultural land, forest land, and timberland would not occur as a result of Alternative 2. The Airport is in an urbanized area and agricultural, forest land, or timberland operations do not occur at or near the Airport. The Airport, and the surrounding areas identified for acquisition, do not include lands under a *Williamson Act* contract. No mitigation is necessary as impacts No Impact would occur.

Air Quality

Alternative 2 would have fewer emissions related to constructed activities than would result under the Proposed Project since construction of a new "north side" road would not occur. However, during the operational phase of this alternative, emissions would be similar to the Proposed Project. Estimated emissions for Alternative 2 would not exceed the established mass daily construction or operational emissions thresholds of the Monterey Bay Air Resources District (MBARD) in either the short-term or long-term buildout scenarios nor would Alternative 2 conflict with or obstruct the implementation of an applicable air quality plan or violate any federal or state air quality standards. Similar to the Proposed Project, Alternative 2 would not expose a substantial number of persons to objectionable odors or other significant amounts of pollution. No mitigation is necessary as impacts would be Less than Significant.

Biological Resources

Alternative 2 would avoid impacts within sensitive natural communities (sandmat manzanita chaparral and coast live oak woodland) present in the "North Side" Road subarea (refer to Exhibit 4.4A), including the following quantities of special-status species when compared to the Proposed Project (see Table 4.4C): 716 sandmat manzanita, 32 Monterey pine, 6 Eastwood's goldenbush (*Ericameria fasciculata*), 8 Monterey ceanothus (*Ceanothus cuneatus* var. *rigidus*), 16 small-leaved lomatium (*Lomatium parvifolium*), and 15 Monterey spineflower. Approximately 128 coast live oak trees would also be avoided when compared to the Proposed Project. In addition, Alternative 2 would fully avoid impacts to previously established habitat conservation areas of the RSA Project.

Impacts related to local policies of the City of Monterey due to proposed short- and long-term development on the south side of the Airport along Highway 68 would remain the same as the Proposed Project. These impacts are related to potential inconsistencies with Monterey City Code, Chapter 37, Preservation of Trees and Shrubs and *City of Monterey General Plan* Conservation Element Goal d, “Protect the character and composition of existing native vegetative communities. Conserve, manage, and restore habitats for endangered species, and protect biological diversity represented by special-status plant and wildlife species.” Similar to the Proposed Project, potential inconsistencies would require mitigation (Section 4.4.6) to be Less than Significant.

Overall, Alternative 2 would have impacts to special-status species, including Potentially Significant and Unavoidable impacts related to loss of Yadon’s piperia and Monterey pine trees. Impacts to sensitive natural communities would include Potentially Significant and Unavoidable impacts related to loss of Monterey pine forest. Alternative 2’s biological impacts would require the implementation of the extensive mitigation program set forth in Section 4.4.6. Since a “north side” road would not be constructed under Alternative 2, Proposed Project impacts related to the potential loss of habitat conservation areas of the RSA Project would not occur.

Cultural Resources

Similar to the Proposed Project, unknown archaeological resources could be adversely impacted by proposed construction under Alternative 2. Mitigation would be necessary to ensure that impacts to any unknown resources would not occur (Section 4.5.6). Potential impacts related to an unanticipated encounter with human remains during construction activities would be Less than Significant, since the procedures required by federal and state laws are mandatory and would be followed. With implementation of the same mitigation as would be required for the Proposed Project, impacts would be Less than Significant.

Energy

Alternative 2 would have less energy demand related to construction activities than would result under the Proposed Project since construction of a new “north side” road would not occur. However, during the operational phase of this alternative, emissions would be the same as the Proposed Project. Similar to the Proposed Project, Alternative 2 would not result in the wasteful, inefficient, or unnecessary consumption of energy during construction or operation or require new or expanded energy facilities that could result in significant environmental effects. LEED certification would still be implemented in future buildings constructed on the Airport, including the proposed relocated ARFF and relocated commercial terminal. In addition, Alternative 2 would not conflict with or obstruct existing energy standards or regional or local energy goals and policies, including the *California Energy Action Plan* (California Energy Commission [CEC] 2008 update) and the *Monterey Bay Regional Energy Plan* (AMBAG 2008) for renewable energy or energy efficiency. No mitigation is necessary as impacts would be Less than Significant.

Geology and Soils

Alternative 2 would construct projects in the same geologic and soil conditions as the Proposed Project. This could result in substantial soil erosion, including a loss of topsoil, and building construction and design adjustments needed for geologic and soil instability in localized areas. Mitigation would be necessary to ensure that impacts related to these geologic and soil conditions would not occur (Section 4.7.6). Concerns of the Proposed Project related to construction of a new “north side” road, however, would no longer be applicable. With implementation of the same mitigation as would be required for the Proposed Project, impacts would be Less than Significant.

Greenhouse Gas Emissions

Alternative 2 would have fewer GHG emissions related to construction activities than would result under the Proposed Project since construction of a new “north side” road would not occur. In addition, an increase in GHGs due to a loss of carbon sequestration related to tree removal would be reduced from what would occur under the Proposed Project. Alternative 2 would avoid the need to remove approximately 166 trees (**Appendix F**). However, during the operational phase of this alternative, GHG emissions would be the same as the Proposed Project, and Alternative 2 would not conflict with the Association of Monterey Bay Area of Government’s (AMBAG) *2040 Metropolitan Transportation Plan and the Sustainable Communities Strategy* (MTP/SCS) goals or other local GHG reduction plans to reduce GHG emissions (AMBAG 2018).

Overall, projected future GHG emissions under Alternative 2 would be increased over the region’s 2015 levels of GHGs. A mitigation program similar to the Proposed Project would be required (Section 4.8.6); however, residual impacts are expected to remain Significant and Unavoidable.

Hazards and Hazardous Materials

Alternative 2 would have similar impacts as the Proposed Project regarding airport-related hazards associated with new development. Construction workers could be exposed to asbestos, lead paint, or hazardous air pollutants (HAPs) due to the demolition of older buildings and other construction activities. In addition, since ground disturbance is proposed during construction, there is a possibility that unknown hazardous sites could be disturbed. Mitigation would be necessary to ensure that impacts related to these conditions would not occur (Section 4.9.2.6). With implementation of the same mitigation as would be required for the Proposed Project, impacts would be Less than Significant.

Whether a “north side” road is constructed or not does not affect the potential that future non-aviation development could occur at intensities higher than those recommended within certain safety zones described within the Caltrans’ 2011 *California Airport Land Use Planning Handbook* (Handbook) (Caltrans 2011). Mitigation would be necessary to ensure that impacts related to these conditions would not occur (Section 4.9.1.6). With implementation of the same mitigation as would be required for the Proposed Project, impacts would be Less than Significant.

In addition, the Airport's emergency response/contingency plan would require an update to reflect any new development. Similar to the Proposed Project, Alternative 2 would have a short-term decline in off-airport emergency response times, while the temporary ARFF is located on the north side of the Airport as all off-airport emergency calls would need to go west on Airport Road, before going east of the Airport along Highway 68 or 218. This is a Significant and Unavoidable impact of both the Proposed Project and Alternative 2.

Hydrology and Water Quality

Alternative 2 would reduce the amount of impervious surface created by the project when compared to the Proposed Project by approximately 21,781 sf. However, without the construction of a new "north side" road, uncontrolled runoff from the airport property above Del Rey Gardens Drive would continue to flow down the hill and onto Del Rey Gardens Drive before ending up in the Canyon Del Rey Creek located along Highway 218. This is inconsistent with the City of Del Rey Oaks Open Space/Conservation Element goal (Goal 2) to protect the Canyon Del Rey drainage system water quality, runoff, and flow (City of Del Rey Oaks 1997). See the discussion under Land Use and Planning. For other areas of the Airport, hydrological impacts, such as changes to post-construction runoff quality/quantity and groundwater demand from short-term projects, would be similar to the Proposed Project and would be Less than Significant.

In the long term, future planned development could use an increase of approximately 1.18 acre-feet (AF) per year of groundwater (worst-case) more than the Airport's current potable water allotment from California American Water (CalAm). As this amount of water use exceeds the Airport's existing groundwater entitlement, significant adverse impacts on groundwater supplies under Alternative 2 (similar to the Proposed Project) could occur if future development were to proceed as planned. Mitigation would be necessary to ensure that impacts related to these conditions would not occur (Section 4.10.6).

Land Use and Planning

Similar to the Proposed Project, Alternative 2 would not result in significant land use compatibility impacts for either the Airport or for surrounding land uses. Proposed on-airport land use components on the north side of the Airport, which is bordered by residential land uses (i.e., single family houses along Rosita Road and The Oaks condominiums), would be buffered from these off-airport land uses by planned open space and habitat mitigation areas. On the south side of the Airport, the closest off-airport land uses are commercial, office, and light industrial development along Garden Road. These off-airport land uses are compatible with the Airport and have been co-located with the Airport for many years.

Under Alternative 2, a City of Del Rey Oaks general plan amendment related to Policy C-17 regarding a "north side" road with a connection through the city would not be necessary. In addition, without the proposed "north side" road impacts to intersections on Highway 218 may be lessened when compared to the Proposed Project, which would result in reduced inconsistencies with city circulation policies. As previously mentioned under Hydrology and Water Quality, the continuance of uncontrolled stormwater runoff would be inconsistent with City of Del Rey Oaks Open Space/Conservation Element Goal 2 to protect the Canyon Del Rey drainage system water quality, runoff, and flow.

Alternative 2 would have significant policy inconsistencies with applicable *City of Monterey General Plan* and CONA Neighborhood Plan goals and policies related to vehicular traffic from the Airport via the CONA neighborhood. The *City of Monterey General Plan* includes the following policies (City of Monterey 2016):

Circulation Element

Policy b-5. Do not support non-aviation uses within the Monterey Peninsula Airport District that create unnecessary traffic impacts in adjacent residential neighborhoods.

Policy c.8. Minimize truck traffic in residential neighborhoods by routing truck and through traffic onto highways and arterial streets, even where such routing is not the shortest distance between two points.

Policy i.7. Direct vehicular traffic generated by airport land uses to arterial streets and highways and away from residential neighborhoods.

- Program i.7.1. Work with the Airport District to implement alternatives to the use of Airport Road as an access road for non-aviation uses on the Airport grounds.

Goal j. Measure the effectiveness of the transportation system and its ability to safely and effectively move people and goods, not simply vehicles.

- Program j.1.1. Establish LOS (level of service) D as an acceptable automobile LOS standard for roadway segments that are not within a multi-modal corridor.

Noise Element

Goal a. Minimize traffic noise in predominantly residential areas and ensure noise in commercial areas is an acceptable level.

Casanova-Oak Knoll Neighborhood Area Plan (City of Monterey 1985)

Policy 15. Oppose the use of Casanova Avenue and Airport Road for any additional airport-related traffic.

Policy 16. Improve traffic flow and safety along Airport Road.

Policy 29. Airport Road should not be used as an access road for further development of the area at the north side of the Airport. It should be used by the Airport only as an emergency or service road.

Policy 34. Oppose the use of neighborhood residential streets by automobile and truck traffic going to and from the Airport and businesses on the Airport property.

- Program 34b. Complete the new roadway proposed on the Airport Master Plan from the north side of the Airport to Highway 68 and/or 218 prior to the construction of any additional development on the north side.
- Program 34c. Oppose the use of Airport Road and Casanova Avenue by construction traffic during development of the north side of the Airport and by business traffic after development is completed.

Alternative 2 would not be consistent with several of the above City of Monterey goals and policies (i.e., Circulation Element Policy b.5, Policy c.8, Policy i-7, and Program i.7.1, and CONA Neighborhood Plan Policy 15, 29, 35, and Programs 34b and 34c) as eliminating the new “north side” road would require that all existing and new vehicular traffic associated with the north side of the Airport would go west through CONA. These are Potentially Significant and Unavoidable impacts of Alternative 2.

Consistency with other of the above goals and policies would need to be evaluated when the amount and type of specific traffic-related impacts are known (i.e., Circulation Element Goal j and Program j.1.1, Noise Element Goal a, and CONA Neighborhood Plan Policy 16). Once the level of adverse impact is determined, mitigation, if available, could be necessary.

Noise

Alternative 2 would have similar impacts as the Proposed Project related to future aircraft noise impacts. Future planned development on the north side of the Airport under Alternative 2 could expose people working at the Airport to excessive noise levels under the existing CLUP (Monterey County ALUC 1987) if commercial offices are located within the existing or future 65 CNEL noise contour and adequate interior noise insulation is not incorporated into building design. Mitigation would be required (Section 4.12.1.6). In addition, exterior noise levels would be above the acceptable noise standards for one residence by 2025 and for four residences by 2035 based on anticipated increases in aircraft operations and would be a Significant and Unavoidable impact of Alternative 2.

Construction noise under Alternative 2 would be similar to the Proposed Project, except for noise that would result from construction of the new “north side” road. Mitigation measures provided in Section 4.12.2.6 for the Proposed Project would also be required for Alternative 2. In addition, to the extent that construction traffic would utilize Airport Road to access areas on the north side of the Airport, construction vehicular noise impacts within the CONA neighborhood would be greater under Alternative 2 than would occur under the Proposed Project.

Operational vehicular noise from traffic on Airport Road would be greater under Alternative 2 than would occur under the Proposed Project. An in-depth traffic analysis with the distribution of long-term traffic from the north side through the CONA neighborhood would be required to fully determine the extent and significance of this impact. As mentioned previously under Land Use and Planning, additional vehicular noise would be inconsistent with City of Monterey Noise Element and CONA neighborhood area goals, policies, and programs. Mitigation, if available, would be necessary.

Population/Housing

Similar to the Proposed Project, no substantial new housing and related population growth would be induced by Alternative 2 and direct or indirect population or housing impacts would be Less than Significant. No mitigation would be necessary.

Public Services (Fire Protection, Emergency Services, and Police Protection)

Impacts to fire protection, emergency services, and police protection under Alternative 2 would be similar to the Proposed Project. For example, due to FAA oversight regarding safety at the Airport during the construction phase, as well as mandated state and federal fire codes and emergency access regulations, potential impacts to fire protection, emergency services and police protection as a result of Alternative 2 would be avoided. With regards to the operational phases of the project, the Airport provides its own fire protection, emergency services, and police protection and impacts would be Less than Significant. No mitigation is necessary.

Recreation

Similar to the Proposed Project, since no substantial new housing and related population growth would be induced by Alternative 2, increased recreational demand would not result and impacts on recreational resources would be Less than Significant. No mitigation would be necessary.

Transportation/Traffic

Operational vehicular traffic on Airport Road would be greater under Alternative 2 than would occur under the Proposed Project. An in-depth traffic analysis with the distribution of long-term traffic from the north side through the CONA neighborhood would be required to fully determine the extent and significance of this impact. As mentioned previously under Land Use and Planning, additional vehicular traffic would be inconsistent with the City of Monterey Noise Element and CONA Neighborhood Plan goals, policies, and programs. In addition, to the extent that construction traffic could utilize Airport Road to access areas on the north side of the Airport, construction vehicular impacts within the CONA neighborhood would be greater under Alternative 2 than would occur under the Proposed Project. Mitigation, if available, would be necessary.

Short- and long-term operational impacts of Alternative 2 on existing and future deficient intersections and roadway segments along Highways 68 would be the same as the Proposed Project. However, without the proposed "north side" road, impacts to intersections on Highway 218 may be lessened. These impacts would be considered Significant and Unavoidable since the improvements are within the jurisdiction and control of another agency (Caltrans), implementation within the necessary timeframe cannot be assured. In addition, these impacts would be Significant and Unavoidable as any proposed mitigation measures are not considered feasible because FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measures.

Potential impacts related to increased VMT would also be considered Potentially Significant and Unavoidable since there is no way to determine the success of proposed mitigation (Section 4.16.6, TR/mm-10) until appropriate VMT significance thresholds have been developed.

Tribal Cultural Resources

Similar to the Proposed Project, unknown tribal cultural resources could be adversely impacted by proposed construction under Alternative 2, and mitigation would be necessary to ensure that impacts to any unknown resources would not occur (Section 4.17.6). With implementation of the same mitigation as would be required for the Proposed Project, impacts would be Less than Significant.

Utilities and Service Systems

During the operational phases of Alternative 2 (short term and long term), water supply/service, wastewater (sewer) disposal, and solid waste disposal would be the same as the Proposed Project. LEED certification would still be implemented in future buildings constructed on the Airport, including the relocated ARFF and relocated commercial terminal. In the short term, the Airport's remaining water entitlements of 62.37 AF per year could accommodate the development associated with Alternative 2. However, similar to the Proposed Project, long-term projects under Alternative 2 could demand water in excess of what the Airport currently has remaining in its allocation. Existing non-potable water sources from the Airport's wells would be used to meet construction, landscaping, and biological mitigation water needs. Mitigation measures listed in Section 4.18.1.6 would be required to reduce potential impacts to a Less than Significant level.

Similar to the Proposed Project, no significant impacts or exceedances of the wastewater treatment requirements of the Monterey One Water's (M1W) regional wastewater treatment plant would occur in either the short or long term under Alternative 2. However, evaluation of the City of Monterey's sewer line capacity would need to occur to determine if future development at the Airport would generate wastewater beyond the capacity of the available city sewer infrastructure. Mitigation measures listed in Section 4.18.2.6 would be required to reduce potential impacts to a Less than Significant level.

Similar to the Proposed Project, solid waste generated in the short or long term would not exceed the Monterey Peninsula Landfill's (MPL) permitted capacity. However, demolition of the existing commercial terminal and ARFF buildings, as well as older buildings in the Old North Side Industrial Area, would be likely to require special handling and disposal protocols related to the potential presence of asbestos and lead-based paint. Mitigation measures and regulatory requirements listed in Section 4.18.3.6 would be required to reduce potential impacts to a Less than Significant level.

Alternative 2 would have less demand for water and solid waste disposal related to construction activities than would occur under the Proposed Project since construction of a new "north side" road would not occur.

Cumulative Effects

The following cumulative impacts would occur as a result of Alternative 2 and are similar in scope to the Proposed Project:

- Impacts to the scenic viewshed and resources of Highway 68;
- Additional criteria pollutants;
- Yadon’s piperia, sandmat manzanita, Monterey spineflower, coast live oak, and Monterey pine experience loss and ongoing pressure from cumulative development including, loss of habitat and habitat fragmentation, erosion/sedimentation, manmade intrusions such as light, noise and overall activity, and the introduction of nonnative invasive species;
- Additional GHG emissions;
- Policy inconsistencies with the cities of Del Rey Oaks and Monterey regarding traffic LOS and non-vehicular modes of transportation;
- Policy inconsistencies with the City of Monterey and CONA regarding restricting future aircraft growth;
- Exterior noise levels would be above the acceptable noise standards for four residences by 2035 based on anticipated increases in aircraft operations; and
- The level of potential short-term and long-term cumulative development that could occur by 2025 and by 2035, respectively, would require major improvements to the local and regional road network

Growth Inducement

There are certain Proposed Project components that would allow the development of areas of the Airport that are currently not readily accessible for development. One of these is the proposed “north side” road, which would remove an impediment to the development of the Airport’s north side. Since Alternative 2 would not allow the construction of this road, this growth-inducing aspect of the Proposed Project would no longer occur.

Another Proposed Project component, the proposed Highway 68 frontage road, would remove an impediment to the development of an approximate 3.6-acre parcel on the Airport’s south side and would still occur under Alternative 2. This parcel, although owned by the Airport, has no access and is, thus, undevelopable at this time. With the construction of the proposed Highway 68 frontage road, the parcel could be opened for landside development. For purposes of analysis, the EIR assumed the following as a worst case: 94,000 sf of general office development. Potential impacts that could occur from this future “south side” growth include: impacts to sensitive biological resources; additional vehicular traffic

and associated vehicular noise, emissions, and GHGs; demand for utilities (electricity, water); and additional demand for wastewater and solid waste disposal.

3.5.2.2 Comparison of Environmental Impacts with Proposed Project

Most of the impacts anticipated to occur under the Proposed Project would be the same under Alternative 2. Other impacts, while reduced, would still be potentially significant and would require mitigation (i.e., loss of protected biological resources). Future losses of Monterey pine trees and Yadon's piperia would remain Potentially Significant and Unavoidable under either the Proposed Project or Alternative 2. However, the number of trees lost would be less under Alternative 2 (approximately fewer 32 Monterey pine trees and 166 total trees) (**Appendix F**). This would also reduce the amount of GHG emissions related to a loss of carbon sequestration.

Construction-related impacts specific to the new "north side" road would be avoided under Alternative 2. However, although a general plan amendment would no longer be needed to remove Policy C-17 from the City of Del Rey Oaks general plan to allow the new "north side" road, City of Del Rey Oaks Conservation Element Goal 2 to protect the Canyon Del Rey drainage system would not be met by Alternative 2.

Traffic impacts under Alternative 2 compared to the Proposed Project are unknown. While the amount of vehicular traffic anticipated would be the same under either alternative, the distribution of the long-term north side traffic would be different due to the loss of the new "north side" access. An in-depth traffic analysis of Alternative 2 with the distribution of long-term traffic from the north side of the Airport through the CONA neighborhood would be required to fully determine the extent and significance of the impact. Any additional long-term traffic through CONA, however, would create Potentially Significant impacts related to the *City of Monterey General Plan* and CONA Neighborhood Plan goals and policies to reduce traffic and noise impacts within CONA. These policy inconsistencies would not occur under the Proposed Project. In addition, to the extent that construction traffic would utilize Airport Road to access areas on the north side of the Airport, construction vehicular impacts within the CONA neighborhood would be greater under Alternative 2 than would occur under the Proposed Project.

3.5.3 Alternative 3 (No Project)

Alternative 3 would keep the Airport in its present condition, rather than providing any type of expansion or improvement to the existing facilities (other than general maintenance projects). Under Alternative 3, the Airport would continue to operate per its approved FAA waiver of the runway/taxiway separation standards for Taxiway "A" (**Appendix D**). This waiver specifically indicates that when a Boeing 737 or larger aircraft is operating on/to Runway 10R-28L, another similarly large aircraft cannot operate on Taxiway "A" between Taxiways "F" and "K." Eventually, FAA may require formal air traffic control tower (ATCT) operating procedures, which would require a Letter of Agreement between the Airport and the ATCT.

Alternative 3 would not meet the safety enhancement objective of the Proposed Project (Section 2.5.1). It would not improve the runway/taxiway separation distance on the south side of the airfield nor

relocate the existing hold lines on Taxiways “G” and “J” outside the Runway 10R-28L RSA. It also would not address other non-standard issues within the Airport airfield, such as direct access to a runway from an apron and taxiway geometry design issues with Runway 10L-28R (**Exhibit 3K**).

Other Proposed Project components, such as a “north side” road, future development of the north side, and an extension of Taxiway “B” to provide a full parallel taxiway between the two runways would not be constructed. Land and easements for the Runway 28 RPZs would not be acquired.

Alternative 3 would not meet the Airport’s sustainability objectives of the Proposed Project (Section 2.5.3). It would not improve the Airport’s facilities to include the use of energy-efficient and low-flow water fixtures in new buildings and the construction of a new passenger terminal building to LEED standards.

In addition, no changes to the south side of the Airport would occur, including the relocation of the commercial terminal, the ARFF building, and GA tenants located on the southeast ramp. No roadway improvements on Fred Kane Drive, Olmsted Road, or a frontage road to Highway 68 would be constructed and additional vehicular parking would not be provided. No land acquisitions or easements would occur along Highway 68.

Alternative 3 would not improve the operational safety of the Runway 10R-28L taxiway system since for pilots unfamiliar with the waiver, confusion that leads to inadvertent runway incursions can occur. Since no land acquisition would occur, Alternative 3 would not protect Airport operational safety by providing Airport control over adjacent land that can directly affect Airport operations. Since a frontage road along Highway 68 would not be constructed, this alternative would not provide a way for the Airport to use undeveloped property along Highway 68 to generate additional funds for its portion of project costs and maintenance.

3.5.3.2 Impact Analysis

Environmental effects of Alternative 3 are discussed in the following sections and compared with those impacts that would occur under the Proposed Project.

Aesthetics

Alternative 3 would result in the continued use of existing facilities at the Airport. Accordingly, the overall sources of light and glare at the site would not change. Compared to the Proposed Project, the potential for nighttime lighting impacts would be less because construction activities would not occur. Therefore, Alternative 3 would have less impact in the short term (i.e., no construction lighting impacts) than the Proposed Project. In the long term, Alternative 3 would not result in changes to the visual appearance of the Airport, including the appearance of the Airport from Highway 68. No mitigation would be necessary under Alternative 3 as no impacts would occur.

Agriculture and Forest Resources

Similar to the Proposed Project, impacts to agricultural land, forest land, and timberland would not occur as a result of Alternative 3. The Airport is in an urbanized area and agricultural, forest land, or timberland operations do not occur at or near the Airport. No mitigation would be necessary.

Air Quality

Since no development would occur under Alternative 3, neither construction nor operational emissions would be generated. No mitigation would be necessary. Emissions related to future operational increases at the Airport would still occur as future enplanement and operation levels at the Airport are related to regional and national markets and overall trends in aviation, regardless of implementation of the Proposed Project or Alternative 3.

Biological Resources

Since no development would occur under Alternative 3, no impacts to biological resources, including a loss of special-status species or sensitive natural communities, would result. Inconsistencies with local biological goals and policies would not occur, nor would conflicts with the existing RSA Project habitat conservation areas. No mitigation would be necessary.

Cultural Resources

Since no development would occur under Alternative 3, no impacts to cultural resources, such as impacts to unknown archaeological resources or an unanticipated encounter with human remains during construction activities, would occur. No mitigation would be necessary.

Energy

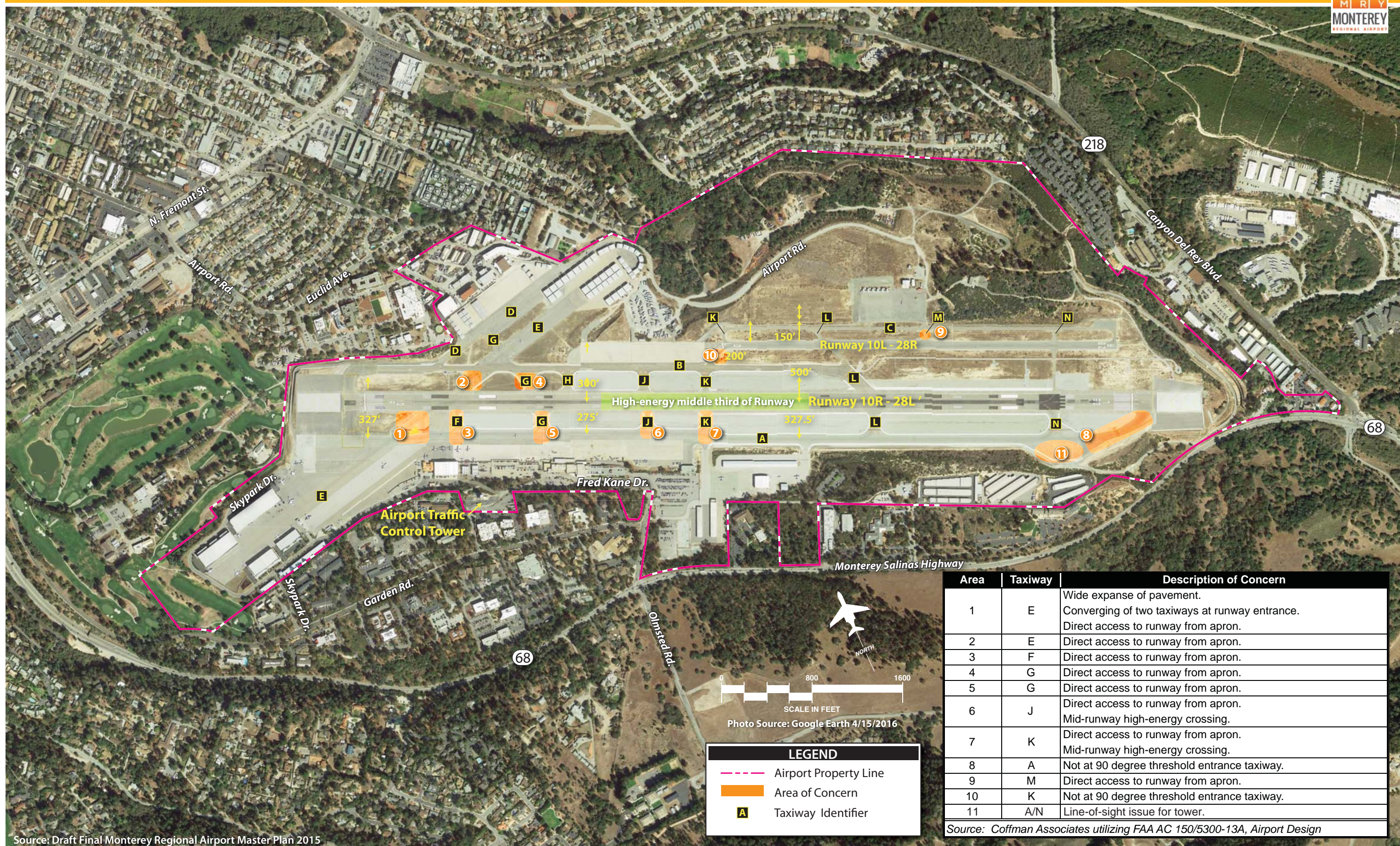
Since no development would occur under Alternative 3, no additional energy demand would occur. No mitigation would be necessary. However, Alternative 3 would not replace existing older buildings, such as the ARFF building and the commercial terminal with more energy-efficient, LEED certified structures. Thus, any existing energy inefficiencies would continue.

Geology and Soils

Since no development would occur under Alternative 3, no impacts related to geology and soils would result, and no mitigation would be necessary.

Greenhouse Gas Emissions

Similar to the discussion above under *Air Quality*, since no development would occur under Alternative 3, neither construction nor operational GHG emissions would be generated. No mitigation would be necessary. Greenhouse gas emissions related to future operational increases at the Airport would still



Area	Taxiway	Description of Concern
1	E	Wide expanse of pavement. Converging of two taxiways at runway entrance. Direct access to runway from apron.
2	E	Direct access to runway from apron.
3	F	Direct access to runway from apron.
4	G	Direct access to runway from apron.
5	G	Direct access to runway from apron.
6	J	Direct access to runway from apron. Mid-runway high-energy crossing.
7	K	Direct access to runway from apron. Mid-runway high-energy crossing.
8	A	Not at 90 degree threshold entrance taxiway.
9	M	Direct access to runway from apron.
10	K	Not at 90 degree threshold entrance taxiway.
11	A/N	Line-of-sight issue for tower.

LEGEND

- - - Airport Property Line
- Area of Concern
- A Taxiway Identifier

Source: Coffman Associates utilizing FAA AC 150/5300-13A, Airport Design

Source: Draft Final Monterey Regional Airport Master Plan 2015

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occur as future enplanement and operation levels at the Airport are related to regional and national markets and overall trends in aviation, regardless of implementation of the Proposed Project or Alternative 3.

Hazards and Hazardous Materials

Since no development would occur under Alternative 3, no impacts related to hazards and hazardous materials would result, and no mitigation would be necessary. Future development would not occur on the north side within the safety zones established for land use compatibility by the 2011 Handbook. Older buildings containing asbestos and/or lead-based paints would not be demolished.

Alternative 3 would not enhance the safety of the airfield by increasing taxiway-to-runway separation distances between Runway 10R-28L and Taxiway "A," which is a stated objective of the project. It also would not decrease existing and potential Part 77 penetrations associated with the existing ARFF and commercial terminal buildings and vegetation on an adjacent private 5.5-acre parcel.

Hydrology and Water Quality

Alternative 3 would not increase impervious surface at the Airport and, thus, no changes to existing levels of stormwater pollutants or runoff quantities would occur. However, without the construction of a new "north side" road, uncontrolled runoff from the airport property above Del Rey Gardens Drive would continue to flow down the hill and onto Del Rey Gardens Drive before ending up in the Canyon Del Rey Creek located along Highway 218. This is inconsistent with the City of Del Rey Oaks Open Space/Conservation Element Goal 2 to protect the Canyon Del Rey drainage system water quality, runoff, and flow.

No future demand of groundwater supplies above the Airport's existing entitlements would occur under Alternative 3. Mitigation would not be necessary.

Land Use and Planning

Since future airport development would not occur, land use compatibility impacts for either the Airport or for surrounding land uses would not result under Alternative 3. Similar to the discussion presented for Alternative 2, a new "north side" road would not be constructed under Alternative 3. Thus, Alternative 3 would not help to meet the City of Monterey goals and policies related to restricted use of Airport Road; however, Alternative 3 would also not exacerbate the existing condition, and policy inconsistencies would not occur as a result of the project. Alternative 3 would not require a City of Del Rey Oaks general plan amendment.

Noise

Since no development would occur under Alternative 3, no impacts related to land-based noise would result. Future non-aviation development would not occur on the north side within the existing or projected future 65 CNEL established for land use compatibility by the existing CLUP. Construction noise,

including nighttime noise, and project-related vehicular noise would not occur. No mitigation would be necessary.

Exterior noise levels, however, would be above the acceptable noise standards for one residence by 2025 and for four residences by 2035 based on anticipated increases in aircraft operations. This impact would occur whether the Proposed AMP is approved and implemented or not and would, therefore, be a Significant and Unavoidable impact of Alternative 3.

Population/Housing

Similar to the Proposed Project, no substantial new housing and related population growth would be induced by Alternative 3, and direct or indirect population or housing impacts would be Less than Significant. No mitigation would be necessary.

Public Services (Fire Protection, Emergency Services, and Police Protection)

Since no development would occur under Alternative 3, no additional demand for fire protection, emergency services, and police protection would result. No mitigation would be necessary. However, Alternative 3 would not replace the existing ARFF building; thus, any existing building inefficiencies would continue.

Recreation

Similar to the Proposed Project, since no substantial new housing and related population growth would be induced by Alternative 3, increased recreational demand would not occur, and impacts on recreational resources would be Less than Significant. No mitigation would be necessary.

Transportation/Traffic

Alternative 3 would not generate project-related traffic since new development at the Airport would not take place. This would avoid the project's contribution to existing and future deficient roadways and intersections during either construction or operational phases of the project. No changes to vehicle miles traveled would be associated with the project. No mitigation would be necessary.

Tribal Cultural Resources

Since no development would occur under Alternative 3, no impacts to tribal cultural resources would result. No mitigation would be necessary.

Utilities and Service Systems

Since no development would occur under Alternative 3, no additional water demand or increased wastewater or solid waste disposal needs would occur. No mitigation would be necessary. However, Alternative 3 would not replace existing older buildings, such as the ARFF building and the commercial

terminal, with more energy-efficient, LEED-certified structures. Any existing water use inefficiencies and wastewater or solid waste disposal would continue.

Cumulative Effects

Since no physical development would occur with Alternative 3, most cumulative impacts associated with the Proposed Project would not occur. The exception to this is noise related to forecast airport operational growth. Exterior noise levels, however, would be above the acceptable noise standards for one residence by 2025 and for four residences by 2035 based on anticipated increases in aircraft operations. This impact would occur whether the Proposed AMP is approved and implemented or not and would, therefore, be a Significant and Unavoidable cumulative impact of Alternative 3.

Growth Inducement

Since no physical development would occur with Alternative 3, potential growth inducement associated with the Proposed Project would not occur.

3.5.3.2 Comparison of Environmental Impacts with Proposed Project

Alternative 3 would avoid most impacts associated with the Proposed Project. However, as discussed previously, it does not meet the stated objectives of the project nor would it provide beneficial impacts of the Proposed Project, such as decreasing Part 77 penetrations and eliminating building inefficiencies associated with the existing ARFF and commercial terminal buildings. Since the new “north side” road would not be constructed, all airport traffic associated with the north side of the Airport would continue to use Airport Road through the CONA neighborhood.

3.6 CONCLUSION

As described in Section 3.3, the overall master planning process has included detailed alternative analysis for several of the individual project components. This information, as well as analysis contained in this EIR, has been utilized to provide three alternatives to the Proposed Project based on the criteria presented in Section 3.2: Alternatives 1 (Environmentally Superior), 2 (No “North Side” Road), and 3 (No Project).

Table 3E provides a comparison of the Proposed Project with each of the alternatives considered in this EIR: Alternative 1, Alternative 2, and Alternative 3. Alternative 3, the No Project alternative, would result in the least environmental impacts and would be the environmentally superior alternative. However, CEQA Guidelines, Section 15126.6(e)(2) states that if the environmentally superior alternative is the “no project” alternative, the EIR also must identify an environmentally superior alternative among the other alternatives. In this case, the environmentally superior alternative is Alternative 1. Alternative 1 was selected for detailed analysis within Chapter Four of this EIR. Quantification of its impacts and detailed mitigation can be found within that chapter.

While Alternative 1 would not reduce every potentially significant impact to a Less than Significant level, it would reduce several of the Potentially Significant and Unavoidable impacts of the Proposed Project, as discussed below. It would also reduce the amount of mitigation needed for several of the Proposed Project's biological impacts as indicated in **Table 3E**, where the impact is stated as "Less, but still Potentially Significant."

As discussed previously in Section 3.2.3, the Proposed Project would result in several Potentially Significant and Unavoidable impacts. Alternative 1 would reduce these Potentially Significant and Unavoidable impacts related to the Proposed Project in the following manner:

- **Highway 68 visual impacts** - The scale of the commercial terminal parking garage under the Proposed Project would be bigger than other existing buildings located a similar distance from Highway 68 and the ability of future landscape plans along the highway to fully screen the proposed structure is not known at this time. Under Alternative 1, this proposed parking structure would be converted to a surface parking lot, reducing potential visual impacts to the Highway 68 scenic corridor.
- **Impacts to Yadon's piperia, a federal endangered plant** - While the Proposed Project would impact as many as 460 individuals in the short term, Alternative 1 would impact 156 individuals; thus, over 300 individuals would be protected.
- **Impacts to Monterey pine trees, a CNPS Rank 1B.1 plant, and Monterey pine forest, a Sensitive Natural Community** - While the Proposed Project would impact as many as 323 trees and 5.27 acres of forest in the short term, Alternative 1 would impact 305 trees and 4.54 acres; thus 18 trees and 0.73 acres of forest would be protected.
- **Increases in greenhouse gases above 2015 levels** - The Proposed Project would provide approximately 1,271 parking spaces within the proposed relocated commercial terminal complex within two parking garages and four surface level parking lots. This represents a substantial commitment of resources to personal vehicular travel. In contrast, Alternative 1 would provide approximately 923 parking spaces in three surface level parking lots. As California continues to move towards meeting its 2030 and 2050 GHG goals, Alternative 1 allows the Airport to be more flexible in responding to future trends in personal mobility choices.
- **Loss of trees** - The Proposed Project would remove an estimated 404 trees in the southside terminal and Highway 68 frontage road area; Alternative 1 would remove approximately 354 trees in the same area. Thus, Alternative 1 would protect an additional 50 trees in this area. This not only reduces the amount of GHG created by a loss of carbon sequestration but would reduce visual impacts along the highway.
- **Off-airport emergency response times in the short term (i.e., until a new "north side" road is constructed)** - The Proposed Project would not construct a new "north side" road until Phase 5 of the proposed short-term development resulting in a decline in off-airport emergency response times until the temporary ARFF building is no longer necessary; Alternative 1 would construct the new

“north side” road in Phase 1 (short term) and would, thus, avoid a short-term decline in emergency response time for off-airport emergencies.

- CONA Neighborhood Plan policy inconsistencies** - Alternative 1 would construct a “north side” road in the first phase of the safety enhancement component, rather than as a separate project as planned in the Proposed Project, to remove the need for additional traffic to use Airport Road, even in the short term. This would eliminate policy inconsistencies with the City of Monterey’s CONA Neighborhood Plan regarding traffic and related impacts through the CONA neighborhood (Public Works Policies 15 and 16 and Airport Noise Policy 29 and Program 34b).
- Project-related peak hour trips to intersections currently operating at unacceptable levels of service** - While the Proposed Project would contribute peak hour trips to five intersections along Highways 68 or 218 operating deficiently, Alternative 1 would only contribute peak hour trips to two such intersections.

Resource/Threshold	Proposed Project Impact	Alternative 1 (Environmentally Superior)	Alternative 2 (No “North Side” Road)	Alternative 3 (No Project)
AESTHETICS				
Threshold 4.1-2 Would the Proposed Project or Alternative 1 substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state-designated scenic highway?	<u>Impact AES-1:</u> Potentially significant impacts to the scenic resources of Highway 68 due to grading and tree removal during construction of the proposed Highway 68 frontage road, south side drainage improvements, and long-term non-aeronautical development	Same	Same	None
	<u>Impact AES-2:</u> Potentially significant impacts to the scenic resources of Highway 68 due to the loss of mature trees due to short- and long-term projects could occur during the construction of the proposed Highway 68 frontage road, south side drainage improvements, and long-term non-aeronautical development	Same	Same	None
Threshold 4.1-3 - Would the Proposed Project or Alternative 1 substantially degrade the existing visual character or quality of the site and its surroundings?	<u>Impact AES-3:</u> The scale of the commercial terminal parking garage would be bigger than other existing buildings located a similar distance from Highway 68	None	Same	None

TABLE 3E (Continued)				
Resource/Threshold	Proposed Project Impact	Alternative 1 (Environmentally Superior)	Alternative 2 (No "North Side" Road)	Alternative 3 (No Project)
BIOLOGICAL RESOURCES				
Threshold 4.4-1 - Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFW or the USFWS	<u>Impact BIO-1</u> : Impacts to California legless lizards during construction activities	Same	Same	None
	<u>Impact BIO-2</u> : Impacts to nesting birds during construction activities	Same	Same	None
	<u>Impact BIO-3</u> : Loss of 1,518 sandmat manzanita (short-term projects)	Less, but still Potentially Significant	Less, but still Potentially Significant	None
	<u>Impact BIO-4</u> : Loss of 323 Monterey pine (short-term projects)	Less, but still Potentially Significant and Unavoidable	Less, but still Potentially Significant and Unavoidable	None
	<u>Impact BIO-5</u> : Loss of 8 Eastwood's goldenbush (short-term projects)	Less, but still Potentially Significant	Less, but still Potentially Significant	None
	<u>Impact BIO-6</u> : Loss of 18 Monterey ceanothus (short-term projects)	Less, but still Potentially Significant	Less, but still Potentially Significant	None
	<u>Impact BIO-7</u> : Loss of 49 small-leaved lomatium (short-term projects)	Less, but still Potentially Significant	Less, but still Potentially Significant	None
	<u>Impact BIO-8</u> : Loss of 539 Monterey spineflower and attendant seed bank (short-term projects)	Less, but still Potentially Significant	Less, but still Potentially Significant	None
	<u>Impact BIO-9</u> : Loss of 460 Yadon piperia (short-term projects)	Less, but still Potentially Significant and Unavoidable	Same	None
	<u>Impact BIO-10</u> : Potential loss of Seaside bird's beak (short-term projects)	Same	Same	None
	<u>Impact BIO-19</u> : Future loss of sandmat manzanita (long-term projects)	Same	Same	None
	<u>Impact BIO-20</u> : Future loss of Monterey pine (long-term projects)	Less, but still Potentially Significant and Unavoidable	Less, but still Potentially Significant and Unavoidable	None
	<u>Impact BIO-21</u> : Future loss of Eastwood's goldenbush (long-term projects)	Same	Less, but still Potentially Significant	None
	<u>Impact BIO-22</u> : Future loss of Monterey ceanothus (long-term projects)	Same	Less, but still Potentially Significant	None

Resource/Threshold	Proposed Project Impact	Alternative 1 (Environmentally Superior)	Alternative 2 (No “North Side” Road)	Alternative 3 (No Project)
Threshold 4.4-1 (Continued)	<u>Impact BIO-23</u> : Future loss of small-leaved lomatium (long-term projects)	Same	Less, but still Potentially Significant	None
	<u>Impact BIO-24</u> : Future loss of Monterey spineflower (long-term projects)	Same	Less, but still Potentially Significant	None
	<u>Impact BIO-25</u> : Future loss of Yadon’s piperia (long-term projects)	Same	Same	None
	<u>Impact BIO-26</u> : Loss of Seaside bird’s beak (long-term projects)	Same	Same	None
Threshold 4.4-2 - Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS	<u>Impact BIO-27</u> : Loss of 4.21 acres of sandmat manzanita chaparral (short-term projects)	Less, but still Potentially Significant	Less, but still Potentially Significant	None
	<u>Impact BIO-28</u> : Loss of 5.27 acres of Monterey pine forest (short-term projects)	Less, but still Potentially Significant and Unavoidable	Same	None
	<u>Impact BIO-29</u> : Loss of 4.83 acres of coast live oak woodland (705 trees) (short-term projects)	Less, but still Potentially Significant	Less, but still Potentially Significant	None
	<u>Impact BIO-33</u> : Future loss of sandmat manzanita chaparral (long-term projects)	Same	Less, but still Potentially Significant	None
	<u>Impact BIO-34</u> : Future loss of Monterey pine forest (long-term projects)	Same	Same	None
	<u>Impact BIO-35</u> : Future loss of coast live oak woodland (long-term projects)	Same	Less, but still Potentially Significant	None
Threshold 4.4-3 - Conflict with any local policies or ordinances protecting biological resources	<u>Impact BIO-36</u> : Potential inconsistencies with the Monterey City Code, Ch. 37 (short-term projects)	Same	Same	None
	<u>Impact BIO-37</u> : Potential inconsistencies with the Monterey Conservation Element, Goal d (short-term projects)	Same	Same	None
	<u>Impact BIO-40</u> : Potential inconsistencies with the Monterey City Code, Ch. 37(long-term projects)	Same	Same	None
	<u>Impact BIO-41</u> : Potential inconsistencies with the Monterey Conservation Element, Goal d(long-term projects)	Same	Same	None

TABLE 3E (Continued)				
Resource/Threshold	Proposed Project Impact	Alternative 1 (Environmentally Superior)	Alternative 2 (No “North Side” Road)	Alternative 3 (No Project)
Threshold 4.4-4 - Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan	<u>Impact BIO-42</u> : 1.25 acres of existing RSA Project conservation areas would be removed (short-term projects)	Same	None	None
	<u>Impact BIO-43</u> : A future perimeter fence upgrade could affect existing RSA Project conservation areas (long-term projects)	Same	Same	None
CULTURAL RESOURCES				
Threshold 4.5-2 - Cause a substantial adverse change in the significance of an archaeological resource as defined in State CEQA Guidelines, Section 15064.5	<u>Impact CUL-1</u> : Unknown archaeological resources could be adversely impacted by proposed construction	Same	Same	None
GEOLOGY AND SOILS				
Threshold 4.7-2 – Result in substantial soil erosion or the loss of topsoil	<u>Impact GEO-1</u> : Erosion or loss of topsoil	Same	Less, but still Potentially Significant	None
Threshold 4.7-3 – 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 offsite landslide, lateral spreading, subsidence, liquefaction or collapse	<u>Impact GEO-2</u> : Expose persons and structures to unacceptable factors of safety with respect to static slope movement and other slope instability issues	Same	Same	None
GREENHOUSE GAS EMISSIONS				
Threshold 4.8-1 - Result in a net increase in GHG emissions by 2035 compared to existing 2015 conditions	<u>Impact GHG-1</u> : Future GHG emissions would increase above 2015 levels	Same	Less, but still Potentially Significant	None
HAZARDS AND HAZARDOUS MATERIALS				
Threshold 4.9-1 - Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials	<u>Impact HAZ-1</u> : Since the construction of proposed project components require ground disturbance, there is a possibility that unknown hazardous sites or materials could be disturbed	Same	Same	None

TABLE 3E (Continued)				
Resource/Threshold	Proposed Project Impact	Alternative 1 (Environmentally Superior)	Alternative 2 (No "North Side" Road)	Alternative 3 (No Project)
Threshold 4.9-4 - For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area	<u>Impact HAZ-2</u> : Future non-aviation on the south side of the Airport could penetrate protected air-space	Same	Same	None
	<u>Impact HAZ-3</u> : Future non-aviation development on the north side of the Airport could exceed intensities set forth in the 2011 Handbook for Safety Zone 3	Same	Same	None
	<u>Impact HAZ-4</u> : Future non-aviation development on the north side of the Airport could exceed intensities set forth in the 2011 Handbook for Safety Zone 2	Same	Same	None
Threshold 4.9-5 - Impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan	<u>Impact HAZ-5</u> : In the short term, without a "north side" access road, there would be a decline in off-airport emergency response times	None	Same	None
HYDROLOGY AND WATER QUALITY				
Threshold 4.10-2 - Substantially deplete groundwater supplies or substantially interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table	<u>Impact HYD-1</u> : Future long-term development could use an increase of approximately 1.18 acre-feet (AF) per year of groundwater (worst-case), which would exceed the Airport's existing allotment	Same	Same	None

TABLE 3E (Continued)				
Resource/Threshold	Proposed Project Impact	Alternative 1 (Environmentally Superior)	Alternative 2 (No “North Side” Road)	Alternative 3 (No Project)
LAND USE AND PLANNING				
Threshold 4.11-3 - Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for avoiding or mitigating an environmental effect	None	None	Alternative 2 would be inconsistent with City of Del Rey Oaks Conservation Element Goal 2 to protect the Canyon Del Rey drainage system, and with City of Monterey goals and policies to reduce traffic and noise impacts within CONA.	None
	<u>Impact LU-1</u> : The Proposed Project is inconsistent with the City of Del Rey Oaks Policies C-3 and 13 of its general plan related to the anticipated traffic impacts	Same	Less ¹	None
	<u>Impact LU-2</u> : The Proposed Project is inconsistent with the City of Del Rey Oaks Policy C-17 of its general plan related to the proposed “north side” road	Same	None	None
	<u>Impact LU-3</u> : The Proposed Project is inconsistent with City of Monterey Policy b.4 of its Noise Element, which states, “Support limiting the number of fixed-base general aviation aircraft at the airport to the existing number”	Same	Same	Same
	<u>Impact LU-4</u> : The Proposed Project is inconsistent with City of Monterey Goal j, Policy j.2, and Programs j.1.1 and j.2.3 of its Circulation Element, which establish LOS D as an acceptable automobile LOS standard for roadway segments that are not within a multi-modal corridor and require a traffic analysis to determine appropriate mitigation and the funding of a pro-rata share toward improvements	Same	Same	None

TABLE 3E (Continued)				
Resource/Threshold	Proposed Project Impact	Alternative 1 (Environmentally Superior)	Alternative 2 (No "North Side" Road)	Alternative 3 (No Project)
Threshold 4.11-3 (Continued)	<u>Impact LU-5</u> : The Proposed Project (short-term projects) is not consistent with the CONA Neighborhood Plan goals and policies (Public Works Policies 15 and 16, and Airport Noise Policies 29, 34, and Program 34b) related to restricting the use of Airport Road for airport-related uses	None	Same	None
	<u>Impact LU-6</u> : The Proposed Project is inconsistent with CONA Neighborhood Plan Airport Noise Policy 34, which states that the neighborhood is opposed to the use of neighborhood residential streets by automobile and truck traffic going to and from the Airport and businesses on the Airport property as Airport Road would remain in use for existing or replacement airport land uses located west of Gate V22	Same	Same	Same
	<u>Impact LU-7</u> : Based on the Airport's operational growth forecasts for 2025 and 2035, potential inconsistencies could occur with CONA Neighborhood Plan Noise Goals 2, 3 and 4	Same	Same	Same
	<u>Impact LU-8</u> : The Proposed Project is not consistent with the current CLUP	Same	Same	Same
NOISE - Aircraft Noise				
Impact Criteria 4.10-1: Increase noise levels at noise-sensitive land uses to 65 CNEL or above as compared to the existing condition? (Thresholds 4.12.1-1 and 4.12.5-5)	<u>Impact NOI-1</u> : Future 2025 noise contours based on operational forecasts prepared for the Proposed AMP identify one additional residence within the 65-70 CNEL noise contour from existing conditions to 2025 conditions (This residence has been sound attenuated, but exterior noise impacts would be Potentially Significant.)	Same	Same	Same

TABLE 3E (Continued)				
Resource/Threshold	Proposed Project Impact	Alternative 1 (Environmentally Superior)	Alternative 2 (No "North Side" Road)	Alternative 3 (No Project)
Impact Criteria 4.10-1 (Continued)	<u>Impact NOI-2</u> : Future 2035 noise contours based on operational forecasts prepared for the Proposed AMP identify four additional residences within the 65-70 CNEL noise contour from existing conditions to 2035 conditions (These residences have been sound attenuated, but exterior noise impacts would be Potentially Significant.)	Same	Same	Same
	<u>Impact NOI-3</u> : Proposed long-term projects on the north side of the Airport could expose people working at the Airport to excessive noise levels	Same	Same	None
NOISE - Land-Based Noise				
Threshold 4.12.1-4 - Cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies)	<u>Impact NOI-4</u> : Some construction activities are expected to occur during nighttime hours when residents are especially sensitive to noise	Same	Less, but still Potentially Significant	None
PUBLIC SERVICES				
Threshold 4.14-1 - Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, 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: fire protection and police protection	<u>Impact PS-1</u> : ARFF response times to areas off-airport would be reduced below the recommended five-minute response time until the ARFF facility is permanently located on the south side or until the proposed "north side" road is constructed	None	Same	None

TABLE 3E (Continued)				
Resource/Threshold	Proposed Project Impact	Alternative 1 (Environmentally Superior)	Alternative 2 (No “North Side” Road)	Alternative 3 (No Project)
TRANSPORTATION/TRAFFIC				
Threshold 4.16-1 - Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit	<u>Impact TR-1</u> : Impacts to five intersections that are operating deficiently under existing conditions in the short term	Less, but still Potentially Significant and Unavoidable	Same	None
	<u>Impact TR-2</u> : Impacts to intersections and highway segments that are projected to operate deficiently under future conditions in the long term	Less, but still Potentially Significant and Unavoidable	Unknown ¹	None
	<u>Impact TR-3</u> : Project-related short- and long-term construction trips	Same	More ²	Unknown
Threshold 4.16-5: Increase VMT when compared to existing conditions within Monterey County due to proposed land use development	<u>Impact TR-7</u> : Future VMT impacts are unknown and speculative at this time	Same	Same	None
TRIBAL CULTURAL RESOURCES				
Threshold 4.17-1 - Cause a substantial adverse change in the significance of a tribal cultural resource ...	<u>Impact TRIB-1</u> : Unknown tribal cultural resources could be adversely impacted by proposed construction	Same	Same	None
UTILITIES - Water Supply and Service				
Threshold 4.18.1-1 – Have insufficient water supplies available to serve the Proposed Project or Alternative 1 from existing entitlements and resources or require new or expanded entitlements	<u>Impact UTIL-1</u> : Future long-term buildout of the Proposed Project or Alternative 1 could demand water in excess of what the Airport currently has remaining in its allocation	Same	Same	None

TABLE 3E (Continued)				
Resource/Threshold	Proposed Project Impact	Alternative 1 (Environmentally Superior)	Alternative 2 (No “North Side” Road)	Alternative 3 (No Project)
UTILITIES - Wastewater (Sewer) Service/Treatment				
Threshold 4.18.2-3 – Require an expansion of City of Monterey sewer infrastructure, the construction of which could cause significant environmental effect	<u>Impact UTIL-2</u> : South side demand shift could cause sewer capacity issues in the short term	Same	Same	None
	<u>Impact UTIL-3</u> : In the long term, future airport projects could exceed existing City of Monterey sewer infrastructure on either side of the Airport	Same	Same	None
UTILITIES - Solid Waste Disposal				
Threshold 4.18.3-2 – Comply with federal, state, and local statutes and regulations related to solid waste	<u>Impact UTIL-3</u> : Demolition of hazardous materials would require special handling and disposal	Same	Same	None
CUMULATIVE IMPACTS				
	Impacts to: aesthetics, air quality, biological resources, cultural resources, GHG emissions, hydrology and water quality, land use and planning, noise, transportation/traffic, tribal cultural resources, and utilities and service systems (water supply)	Same	Same	Less
GROWTH INDUCEMENT				
	Growth inducement related to the proposed “north side” road and the proposed Highway 68 frontage road	Same	Less	None
<p>¹ An in-depth traffic analysis of Alternative 2 with the distribution of long-term traffic from the north side of the Airport through the CONA neighborhood would be required to fully determine the extent and significance of the impact.</p> <p>² To the extent that construction traffic could utilize Airport Road to access areas on the north side of the Airport, construction vehicular impacts within the CONA neighborhood would be greater under Alternative 2 than would occur under the Proposed Project.</p>				



Chapter Four

ENVIRONMENTAL CONDITIONS,
IMPACTS, AND MITIGATION

Chapter Four

ENVIRONMENTAL CONDITIONS, IMPACTS, AND MITIGATION

4.0 INTRODUCTION

In accordance with Sections 15125 and 15126(a) to (c) of the *California Environmental Quality Act (CEQA)* Guidelines, this chapter of the Environmental Impact Report (EIR) analyzes those environmental topics where the Proposed Airport Master Plan (Proposed AMP or Proposed Project) could result in “potentially significant impacts,” as identified in the Notice of Preparation (NOP)/Initial Study (IS) included in **Appendix A**. The following specific topics were identified as requiring detailed EIR analysis:

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

Section 1.7 and the Initial Study (**Appendix A**) identify the topical areas where it has been determined that the project would not result in potentially significant impacts to environmental resources, and thus, these areas do not require any further analysis in this EIR. Each topical section in this chapter includes the following information: the regulatory setting for the resource category including a description of applicable regulations; identification of methodology used for the analysis presented in the section; identification of the existing conditions using a baseline of 2015 (with updates for 2016 and 2017 as appropriate); identification of thresholds of significance; analysis of potential project effects and identification of significant impacts; identification of mitigation measures, if required, to reduce the impacts; identification of regulatory requirements; and the level of significance after mitigation, if applicable.

Section 15064.7 of the CEQA Guidelines addresses thresholds of significance and encourages each public agency to develop thresholds of significance through a public review process. The Airport has not formally adopted thresholds of significance. In accordance with CEQA and the CEQA Guidelines, the analysis and significance thresholds used in this EIR have been derived from several sources, including

the general plan policies identified by agencies with applicable technical expertise, applicable regulatory standards, and Appendix G of the CEQA Guidelines.

The impact analyses in this chapter address potential impacts of both the Proposed Project and Alternative 1. Where the impacts are the same or similar, the discussion is combined; where impacts are different, the discussion is separated to allow a comparison of the impacts. The impact analyses in this chapter generally address the following:

- construction impacts;
- operational impacts (short-term projects); and
- operational impacts (long-term projects).

As noted in Section 1.4, this EIR uses “short-term projects” to denote projects that would occur in either the short- or intermediate-term planning horizons of the Proposed AMP. This is because some Proposed Project components are multi-phased and are proposed to be constructed over both the short- and intermediate-term AMP planning horizons. “Long term” is used to denote projects for which project funding, and thus construction and buildout schedules, are unknown or for which project details are not known at a sufficient level of detail to be evaluated at a project-specific level. These long-term projects are addressed at a more programmatic level of detail (i.e., based on their general land use).

Cumulative impacts related to the Proposed Project or Alternative 1 in conjunction with other cumulative projects at or within the vicinity of Monterey Regional Airport (Airport), as well as forecasted regional growth, are addressed in Chapter Five, Cumulative Analysis of this EIR.

Where a potentially significant environmental effect has been identified, applicable project-specific mitigation measures have been included where feasible. Recognizing that certain components of the Proposed Project and Alternative 1 are long-term projects and, therefore, programmatic in nature, certain details of the Proposed Project and Alternative 1 design are unknown at this time. During subsequent levels of approval, the Monterey Peninsula Airport District (MPAD) will have the discretion to substitute a different, environmentally equivalent, measure that would result in the same or superior effect on the environment as those described in this EIR. Additional mitigation measures and requirements may also be required in association with approval of subsequent levels of planning in accordance with the law. The following components have been identified in the EIR:

- **Regulatory Requirements.** In evaluating the potential impacts associated with the Proposed Project and Alternative 1, the EIR identifies a number of regulatory requirements (rr) that will serve to avoid or minimize impacts. These regulations are based on local, state, or federal regulations or laws that are frequently required independently of CEQA review and also serve to offset or prevent specific impacts. Typical regulatory requirements include compliance with the provisions of the California Building Code, Monterey Bay Air Resource District Rules, local agency fees, etc. Additional requirements may be imposed on the Proposed Project by government agencies during the approval process, as appropriate. These regulatory requirements are not unique to the project but have been identified to facilitate the reader’s understanding of the established requirements applicable to the project. Adherence to these requirements, as applicable, will be verified or applied during the development review and/or ministerial permit processes (e.g. building permit). These conditions and

requirements, in addition to the mitigation measures discussed below, will be tracked in the mitigation monitoring and reporting program (MMRP) that would be adopted in conjunction with Proposed Project or Alternative 1 approval.¹

- **Mitigation Measures.** Where a potentially significant environmental effect has been identified and is not reduced to a level considered Less than Significant through the application of a regulatory requirement, project-specific mitigation measures have been identified.

¹ The California Public Resources Code (PRC), Section 21081.6 (Assembly Bill [AB] 3180) requires that a Lead or Responsible Agency adopt a mitigation monitoring and reporting program (MMRP) when approving or carrying out a project where an environmental document, either an EIR or a Mitigated Negative Declaration, has identified measures to reduce potential adverse environmental impacts. The MMRP identifies the mitigation measure; the method by which the adopted measure will be implemented; the responsible party for verifying the measure has been satisfactorily completed; the method of verification; and the appropriate time or phase for the implementation of each mitigation measure. The MMRP is formally adopted by the MPAD Board in conjunction with the certification of the EIR. As appropriate, elements of the MMRP may be incorporated into subsequent lease agreements.

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Chapter Four

4.1 – AESTHETICS

This section discusses impacts to aesthetics and visual quality at the Airport. The term “aesthetics” is used to denote scenic resources in proximity to the Airport, the visual character of airport facilities, and associated regulations that affect public views of the Airport, including potential sources of light and glare.

4.1.1 Regulatory Setting

Federal Regulations

Code of Federal Regulations, Title 14, Part 77, Safe, Efficient Use, and Preservation of the Navigable Airspace

The Federal Aviation Regulations (FAR) Part 77 (recodified as Code of Federal Regulations [CFR], Title 14, Part 77) (Part 77) sets standards and notification requirements for new construction or alteration that may affect airport operations, as implemented by the Federal Aviation Administration (FAA). The regulations prohibit the construction or placement of objects that may affect navigable airspace in order to prevent hazards to aircraft operations and promote safe and efficient air travel. These regulations address the locations and heights of objects that would be in or near airports (including runways, approach zones, and horizontal, conical, and transitional surfaces), such as buildings, chimneys, aboveground infrastructure (light poles, utility lines, guy wires), antenna structures, cooling towers, storage tanks, vegetation, markings, lighting, and other similar structures. The regulations also require studies to determine if objects would affect aeronautical operations, procedures, and the safety of flight (including the protection of air traffic control radars, direction finders, and control tower line-of-sight visibility; and physical or electromagnetic effects on air navigation, communication facilities, and other surveillance systems).

To promote the visibility of aboveground structures, as well as to prevent glare impacts from objects in and near airports, the FAA has set standards for marking and lighting associated with the colors of objects, dimensions and patterns of color bands and rectangles, colors and types of lights, basic signals and intensity of lighting, night/day lighting combinations, and flash rates. FAA defines light emissions as “any light that emanates from a light source into the surrounding environment;” glare is defined as “a type of light emission that occurs when light is reflected off a surface (e.g., window glass, solar panels, or reflective building surfaces)” (FAA 2015:Chapter 13). The FAA has not established a significance threshold for these potential visual effects, but it requires a glint and glare study on solar panels located within the line-of-sight of a runway approach or an air traffic control tower (ATCT), as well as for other projects on a case-by-case basis.

State/Regional Regulations

California Scenic Highway Program

The California Scenic Highway Program is implemented through the Streets and Highway Code, Section 260. A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. Highways that are either eligible for designation as a scenic highway or so designated are listed in Section 263 of the Streets and Highway Code. The status of a state scenic highway changes from eligible to officially designated when the local jurisdiction adopts a scenic corridor protection program, applies to the California Department of Transportation (Caltrans) for scenic highway approval, and receives notification from Caltrans that the highway has been designated as a Scenic Highway (Caltrans website 2018).

Local Regulations

City of Monterey

The City of Monterey has local jurisdiction over the use of some airport-owned land located along the Airport's frontage with Highway 68. Zoning for this frontage area is within a D2 Development Control overlay district, which indicates that proposed development will require City of Monterey Planning Commission and Architectural Review Committee approval of all new construction and exterior alterations and additions (Monterey City Code, Article 13, Section 38-65). City of Monterey approval would also be necessary for proposed improvements to the intersection of Garden Road and Olmsted Road.

Goals and policies of the *City of Monterey General Plan's* Urban Design Element (2016) include incorporating existing cypress, Monterey pine, and coast live oak trees into project landscaping plans (Policies g.5, g.7, and g.8) and preserving and enhancing significant natural features within scenic corridors (Policy h.1). Specific policies that could be applicable to the development of airport property located along Highway 68 within the city are as follows:

Policy h.4. Roadway lighting and signing should be minimized, of low-profile design, and designed to enhance the scenic character of the corridor.

Policy h.6. Where feasible, direct driveway access to scenic entrances should not be permitted from individual properties. Most of the scenic corridors run through wooded canyons and create a rural feeling. This effect will be destroyed if residences are permitted to line the roadway in a manner similar to Josselyn Canyon Road.

Policy h.7. Frontage roads should not parallel scenic freeway lanes unless screened by terrain or vegetation. Frontage roads detract from the scenic qualities of an area and should be located within an adjacent development or screened by natural features where possible.

Policy h.8. Landscaped greenbelt areas should be established along the borders of scenic entrances.

Policy h.9. Landscape buffers should be provided at least 100 feet in width from the ultimate planned right-of-way of State-designated scenic highways.

Monterey-Salinas Highway

Policy h.19. Reverse the visual degradation of scenic forests.

Policy h.20. Avoid further illumination along Ryan Ranch and Garden Road Business Park areas.

Policy h.21. Screen buildings close to the Highway with native vegetation, such as Coast Live Oak.

Policy h.22. Maintain the scenic corridor.

City of Del Rey Oaks

The City of Del Rey Oaks controls an approximate 0.5-acre parcel that would be necessary for the proposed “north side” road connection to Del Rey Gardens Drive. The following City of Del Rey Oaks policy regarding scenic resources is in its 1997 *General Plan Update for the City of Del Rey Oaks* and could be applicable to the proposed connection of the “north side” road:

Policy C/OS-1. The City will encourage protection of scenic resources by:

- a. Locate structures away from ridgelines, steep slopes, or in other highly visible locations unless site review and design make it desirable;
- b. Utilize natural landforms and vegetation for screening structures, access roads, building foundations, and cut and fill slopes;

4.1.2 Methodology

Visual impacts have been determined by defining the visual quality of the area, the expected change as a result of the Proposed Project or Alternative 1, and the sensitivity of potential viewers to those changes. The sensitivity of viewers is associated with the length of exposure to changed scenic vistas or scenic resources and the context of the views and resources. For example, residential viewers would be more sensitive to changes in the scenic vistas and visual quality than workers in nearby offices because residents have a greater connection with the visual character of their neighborhood than people who are employed in an area.

The CEQA thresholds of significance also require an evaluation of whether the project would substantially degrade the existing visual character or quality of the Airport and the surroundings. The determination of whether the changes in the visual quality of a site would degrade an area or its surroundings, resulting in a significant impact, can be highly subjective and dependent on the viewer’s perspective. In determining whether the Proposed Project and Alternative 1 would degrade the visual character, factors such as the viewer groups of the site, the extent to which the Proposed Project and Alternative 1 would

disrupt natural visual resources, and the extent to which the Proposed Project and Alternative 1 would create a visually cohesive environment have been evaluated. This evaluation was done by first establishing the existing conditions baseline for visual quality at the Airport and in its surroundings, then characterizing the potential changes associated with the proposed demolition, design, and construction of proposed development and/or redevelopment (i.e., changes in locations and sizes of buildings and improvements) due to implementation of the Proposed Project and Alternative 1; these changes have been assessed in light of proposed concept plans and regulations that control building use, heights, and lighting at the Airport.



Consistency with City of Monterey Urban Design policies specific to the Airport’s potential development of parcels along Highway 68 and the City of Del Rey Oak’s Conservation/Open Space (C/OS) policies specific to the proposed Del Rey Gardens Drive connection has also been considered as a method of evaluating visual impacts related to specific development projects located within their respective jurisdictions.



Exhibit 4.1A. Looking north from Highway 68 at an existing airport long-term parking lot and existing southeast ramp general (GA) hangars.

4.1.3 Existing Conditions

The Airport is located on a mesa that is bounded on the south by a developed, semi-wooded canyon that contains Highway 68, a state- and county-designated highway. The Airport consists of approximately 498 acres. The airfield is situated on relatively flat terrain with steep drop offs to both the east and west. Areas not used by the airfield, associated airside and landside facilities, a solar farm, or various leaseholds are vegetated with a mix of native and non-native vegetation, including Monterey pine, coast live oak, and sandmat manzanita chaparral. Views of the Airport from the Highway 68 scenic corridor are limited due to heavy vegetative screening along Highway 68, other private buildings situated between the highway and the Airport, and the fact that the Airport is located at various elevations that are different than the highway (**Exhibit 4.1A**). Long-range views are limited to private residences located on the hills to the south that are more than 0.5 mile from the Airport.

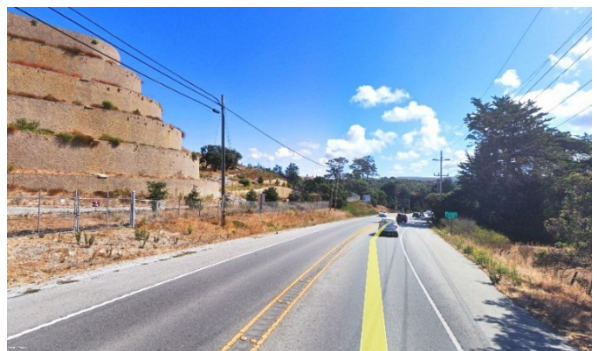


Exhibit 4.1B. View of retaining walls from Highway 68.

In the southeast part of the airport property, a series of six 11-foot-high retaining walls (ranging from approximately 150 feet to 650 feet in length) are visible from Highway 68 (**Exhibit 4.1B**). Views of the

wall occur to travelers of the highway for a period of approximately 20 to 25 seconds depending on whether one is traveling east bound (20 seconds) or westbound (25 seconds), respectively (based on a travel speed of 40 miles per hour). These walls are constructed of colored materials that mimic the natural features of the area and incorporate planters containing native vegetation to reduce the contrast between the walls and the surrounding aesthetics of the area. Due to the curvilinear nature of the highway, long-range views of the retaining walls from the highway are not available.

The north side of the Airport contains approximately 90 acres of mostly undeveloped land between the airfield and residential areas located north and northeast. This area has significant topography and vegetation. Limited views of this area are available from the backyards of residences located south of Rosita Road immediately adjacent to the Airport’s property line. Public views are also available during the daytime from Airport Road (**Exhibit 4.1C**); however, use of this road is limited to airport-related business and leaseholds since the road does not provide through access across the airport property. Airport Road is closed at night.



Exhibit 4.1C. Views of the north side of the Airport from existing Airport Road.

On the west side of the Airport, residences located closest to airport property may have limited views of an industrial park consisting of non-aviation development and aviation-related hangars. This area provides a transition between the Casanova Oaks Knoll Association (CONA) neighborhood and the Airport.

The Airport is not visible from Highway 218 located east of the Airport in Canyon Del Rey through the City of Del Rey Oaks. At Del Rey Gardens Drive, where airport property abuts the road for approximately 225 feet, views of the Airport are heavily screened by thick vegetation and upward slopes (**Exhibit 4.1D**).



Exhibit 4.1D. Looking west at a future proposed “north road” connection with Del Rey Gardens Drive.

4.1.4 Thresholds of Significance

The following thresholds of significance for aesthetics have been taken from the CEQA Guidelines, Appendix G (2017). Significant aesthetic impacts could occur if the Proposed Project or Alternative 1 would:

- Threshold 4.1-1: Have a substantial adverse effect on a scenic vista;
- Threshold 4.1-2: Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state-designated scenic highway;
- Threshold 4.1-3: Substantially degrade the existing visual character or quality of the site and its surroundings; or
- Threshold 4.1-4: Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Because the terms “substantial adverse effect,” “substantially damage,” “substantially degrade,” and “substantial light or glare” are not defined by federal or state law, this analysis considers policy statements contained in the *City of Monterey General Plan*, as amended (2016), and the *City of Del Rey Oaks’ General Plan Update for the City of Del Rey Oaks* to determine impact level of significance, where appropriate.

4.1.5 Impact Analysis

4.1.5.1 Threshold 4.1-1 – Would the Proposed Project or Alternative 1 have a substantial adverse effect on a scenic vista?

Proposed Project and Alternative 1

A scenic vista can be defined as a scene, distant view, or panorama that is unrestricted by vegetation or other obstructions. For example, the United States (U.S.) Department of the Interior, National Park Service (NPS) has established a *Scenic Vista Management Plan* for Yosemite National Park to reestablish and maintain “views, vistas, and discrete lines of sight” that are obscured by vegetation growth (NPS - Yosemite website 2018). The *City of Monterey General Plan* (Map 2 Showing Special Places) identifies scenic roads and other scenic resources within the city’s jurisdiction, as well as a larger study area that encompasses county lands south of Highway 68 but does not include any of the area north of Highway 68 in the vicinity of the Airport. This is because views across the Airport, even from Highway 68, which is a designated scenic highway, are restricted by topography, vegetation, and existing buildings and structures. In addition, neither the Airport nor Highway 68 are called out in the *City of Monterey General Plan* Urban Design Element as providing or contributing to existing vistas (City of Monterey 2016, Urban Design Element, Goals and Policies f. Vistas).

Construction Impacts

As discussed under Section 4.1.3, scenic vistas from or across the Airport are not available due to significant topography and thick vegetation. Demolition, grading, and construction activities associated with the Proposed Project and Alternative 1 would present only limited views of demolition debris, excavated soil stockpiles, heavy equipment (e.g., backhoes, bulldozers, dump trucks), and other construction activities and debris from outside of the airport boundaries. None of the proposed construction activity would have substantial adverse effects on scenic vistas and temporary, construction impacts would be Less than Significant.

Short- Term and Long-Term (Programmatic) Project Impacts

As discussed under Section 4.1.3 and above under Construction Impacts, scenic vistas from or across the Airport are not available due to significant topography and thick vegetation. Future development related to the Proposed Project and Alternative 1 would not have a substantial adverse effect on a scenic vista and operational impacts of short- or long-term projects would be Less than Significant.

Less Than Significant Impact: Neither the Proposed Project nor Alternative 1 would have a substantial adverse effect on a scenic vista, during either the temporary construction or the operational stages of short- or long-term projects. The Proposed Project or Alternative 1 would have a Less than Significant impact on scenic vistas under Threshold 4.1-1.

4.1.5.2 Threshold 4.1-2 – Would the Proposed Project or Alternative 1 substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state-designated scenic highway?

According to the *City of Monterey General Plan Urban Design Element*, Policy h.1, significant natural features within scenic corridors include: ridgelines, hilltops, rock outcroppings, stream and creek beds, scenic vistas, wildlife habitats, Monterey pine and oak groves, and other significant natural vegetation. Along Highway 68 in the vicinity of the Airport, the primary scenic resources from this list are Monterey pine groves, coast live oak, and other mature trees.

The City of Del Rey Oaks does not define scenic resources in its general plan but calls for the siting of structures away from ridge lines, steep slopes, and other highly visible locations (Policy C/OS-1). There are no designated scenic highways within the City of Del Rey Oaks in proximity to proposed projects.

Proposed Project and Alternative 1

Construction Impacts

During initial construction activities under the Proposed Project or Alternative 1, scenic resources such as mature trees along Highway 68 would not be removed and thus, scenic resources would not be substantially damaged. Construction activity would be primarily on existing developed areas of the

Airport such as the southeast and north general aviation (GA) apron areas, followed by construction adjacent to Taxiway “A,” and would continue to be screened from the scenic corridor by the existing mature vegetation along the highway.

Once needed south side drainage improvements (Section 4.10) and the proposed Highway 68 frontage road are under construction, however, trees along the highway would be removed. At that time, Potentially Significant temporary impacts related to the scenic resources of the Highway 68 corridor would be incurred. According to a tree survey conducted as part of this EIR (**Appendix F**), more than 200 mature trees could be removed by the grading and construction of the proposed frontage road and drainage improvements under both the Proposed Project (**Exhibit 4.1E**) and Alternative 1 (**Exhibit 4.1F**). As new landscaping is installed, some of these temporary construction impacts would be at least partly mitigated.

Temporary impacts to scenic resources along Highway 68 could also be experienced during construction of proposed long-term projects in proximity to the highway. Proposed non-aeronautical development would be located along the new frontage road. It is likely that the construction activity would be visible from the highway and would have Potentially Significant temporary impacts on scenic resources until such time that the development is completed, and landscaping has been installed.

Other proposed construction along the Highway 68 corridor includes the replacement of existing perimeter fencing on the north and south sides of the highway near the Airport’s southeastern border and on the interface of the runway protection zone (RPZ) with the highway (refer to Exhibit 2L). These proposed long-terms of the Proposed Project or Alternative 1 would not require the removal of existing trees during construction. Construction impacts related to the proposed fencing replacement would be Less than Significant.

On the northeast side of the Airport, a new “north side” road is proposed to connect with Del Rey Gardens Drive. Construction of the road would be visible from the access point shown in **Exhibit 4.1G**. The new road construction is planned to follow the existing terrain to the greatest extent feasible and to utilize sets of retaining walls and an “S” curve to minimize the grading required to ascend to the top of the Airport’s mesa. This is consistent with the City of Del Rey Oaks Policy C/OS-1 to “Locate structures away from ridgelines, steep slopes, or in other highly visible locations unless site review and design make it desirable” and to “Utilize natural landforms and vegetation for screening structures, access roads, building foundations, and cut and fill slopes.” At the top of the hill, where the proposed “north side” road would cross the existing on-airport service road, the proposed “north side” road would be located approximately 15 to 20 feet below the existing grade.

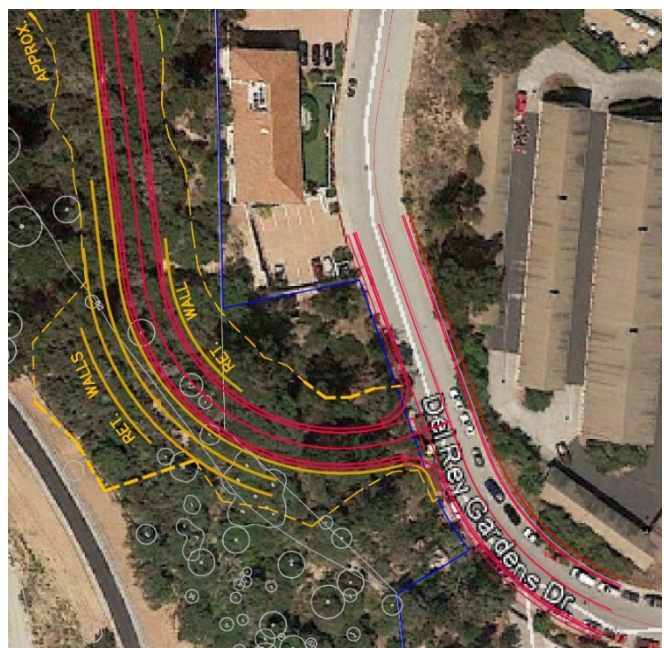
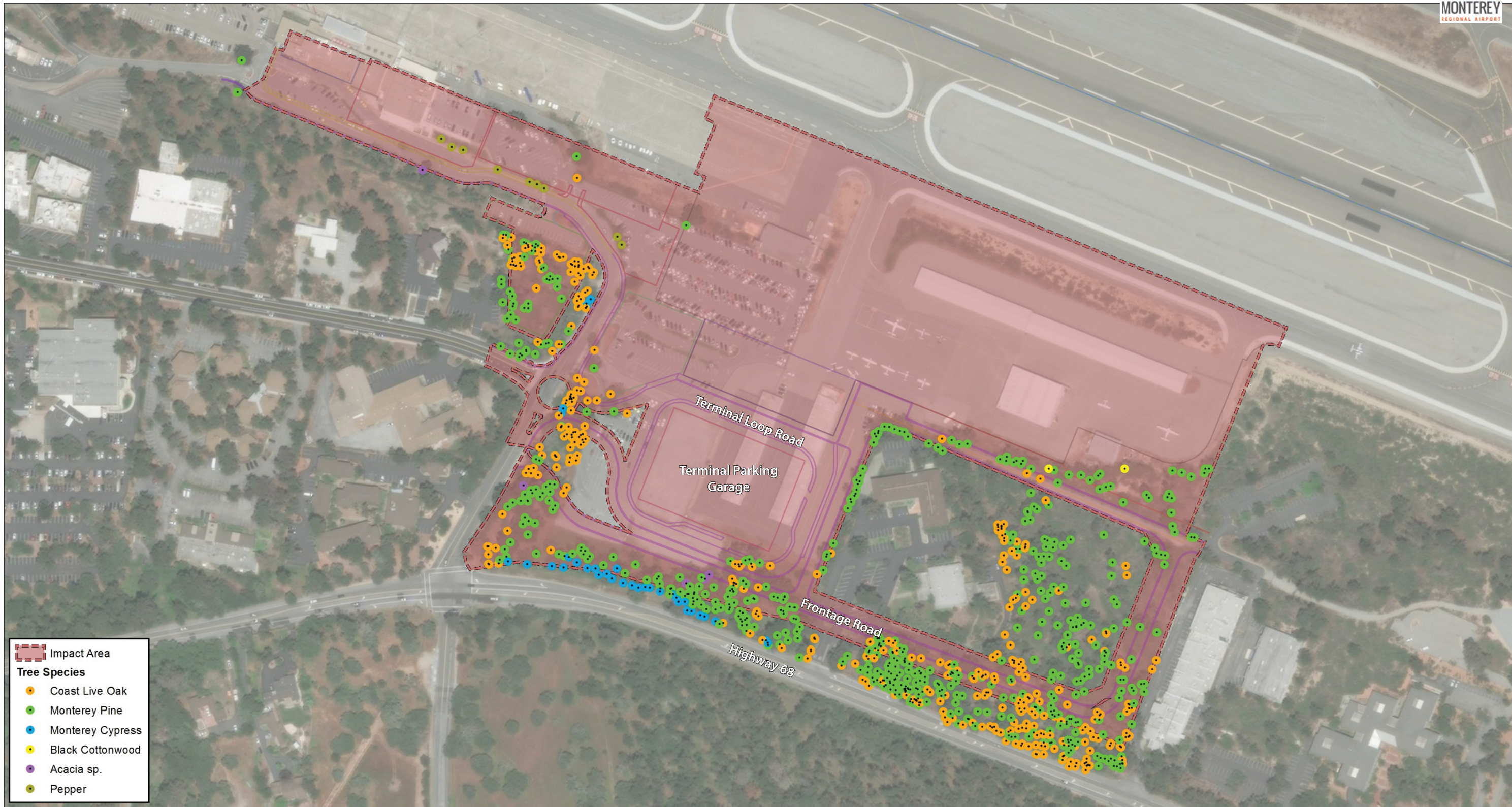


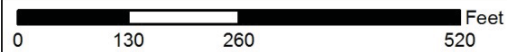
Exhibit 4.1G. Proposed “north side” road connection with Del Rey Gardens Drive.



Impact Area

Tree Species

- Coast Live Oak
- Monterey Pine
- Monterey Cypress
- Black Cottonwood
- Acacia sp.
- Pepper



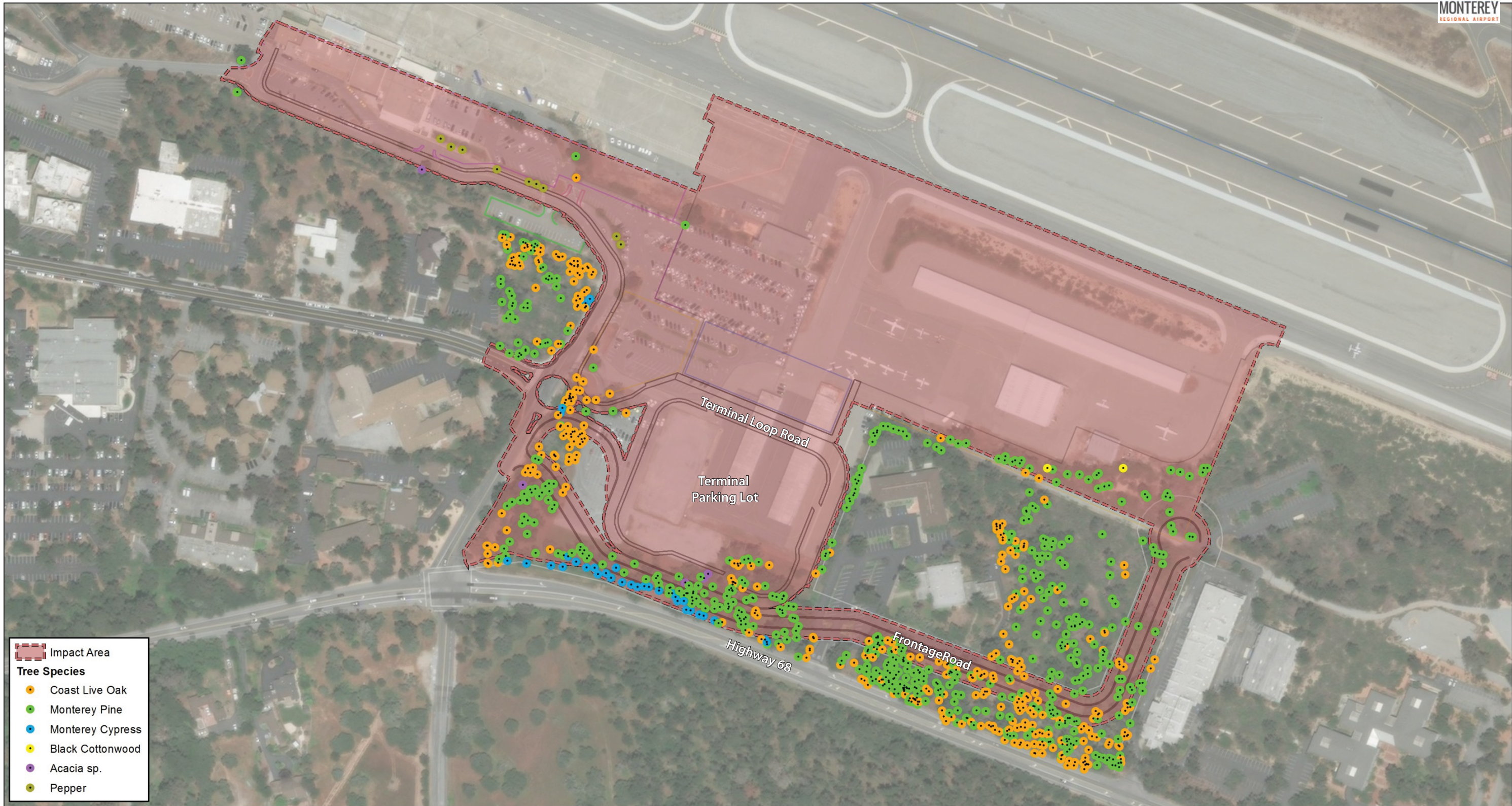
Source: SWCA 2018
Basemap by ESRI, 2018.



South Side Terminal Improvements

Proposed Project

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Impact Area

Tree Species

- Coast Live Oak
- Monterey Pine
- Monterey Cypress
- Black Cottonwood
- Acacia sp.
- Pepper

0 130 260 520 Feet



1:2,800

Source: SWCA 2018
Basemap by ESRI, 2018.

SWCA
ENVIRONMENTAL CONSULTANTS

South Side Terminal Improvements

Environmentally Superior Alternative

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Thus, the proposed road would not be visible to residents of the condominium units located to the northeast within the City of Del Rey Oaks. In addition, a minimum of a 100-foot buffer would occur between the proposed “north side” road and the closest condominium unit. Given that the visibility of the proposed road construction from within the City of Del Rey Oaks would be limited to a small portion of Del Rey Gardens Drive and that the proposed road design includes features that would allow it to use the natural landforms to the greatest extent feasible, the potential for the “north side” road construction to “substantially damage scenic resources” of the City of Del Rey Oaks during construction is Less than Significant.

As discussed above, the City of Del Rey Oaks primarily considers its scenic resources to be the highly visible areas of the city such as ridge lines and steep slopes. In addition, City of Del Rey Oak Policy C/OS-1 (b), which states, “Utilize natural landforms and vegetation for screening structures, access roads, building foundations, and cut and fill slopes” has been incorporated into the Proposed Project and Alternative 1 through the provision of an open space buffer around the common border of the Airport and the City of Del Rey Oaks. Since proposed projects would not be highly visible to the City of Del Rey Oaks, the remaining discussion focuses on potential impacts within the City of Monterey along Highway 68 on the south side of the Airport.

Short-Term Project Impacts

Proposed buildings or structures in proximity to the Highway 68 scenic corridor would be placed outside a 100-foot setback from the highway right-of-way consistent with the *City of Monterey General Plan Urban Design Element Policy h-9*. This setback is enforced through the City of Monterey’s development approval process for projects within its jurisdiction and has been incorporated into the Proposed Project (AES/rr-1, Section 4.1.6). The Proposed Project’s commercial terminal complex places a proposed four-level parking structure approximately 185 feet from the highway right-of-way in an area of the Airport that is currently paved or developed with hangars (**Exhibit 4.1H**).

The proposed Highway 68 frontage road is also planned for outside the setback; however, grading for the frontage road would be necessary within the setback. As discussed under Temporary Construction Impacts, the Proposed Project or Alternative 1’s Highway 68 frontage road and south side drainage basin would result in the removal of as many as 200 existing trees along the highway. Drainage improvements for the proposed short-term projects near Highway 68 have not yet been determined, but they are likely to include a storm water detention basin near the northeast corner of the Olmsted Road/Highway 68 intersection to meet local, regional, and state regulations regarding pre-construction and post-



Exhibit 4.1I. Looking east at the northeast corner of Highway 68 and Olmsted Road.

construction runoff quantities (see Section 4.10). This corner contains mature trees that provide screening of the existing airport parking lot and southeast GA area. However, the corner also contains overhead lines and poles, utility boxes, traffic signals, and fencing that detract from the scenic quality of the intersection (**Exhibit 4.1I**). In addition, if this corner

is reconstructed as a roundabout as a result of the *SR 68 Scenic Highway Plan* (TAMC 2017), the aesthetics of the intersection will change. Since a drainage plan for the terminal complex is not yet available and the future configuration of the intersection is unknown, impacts to the Highway 68 scenic corridor related to storm water improvements cannot be determined at this time.

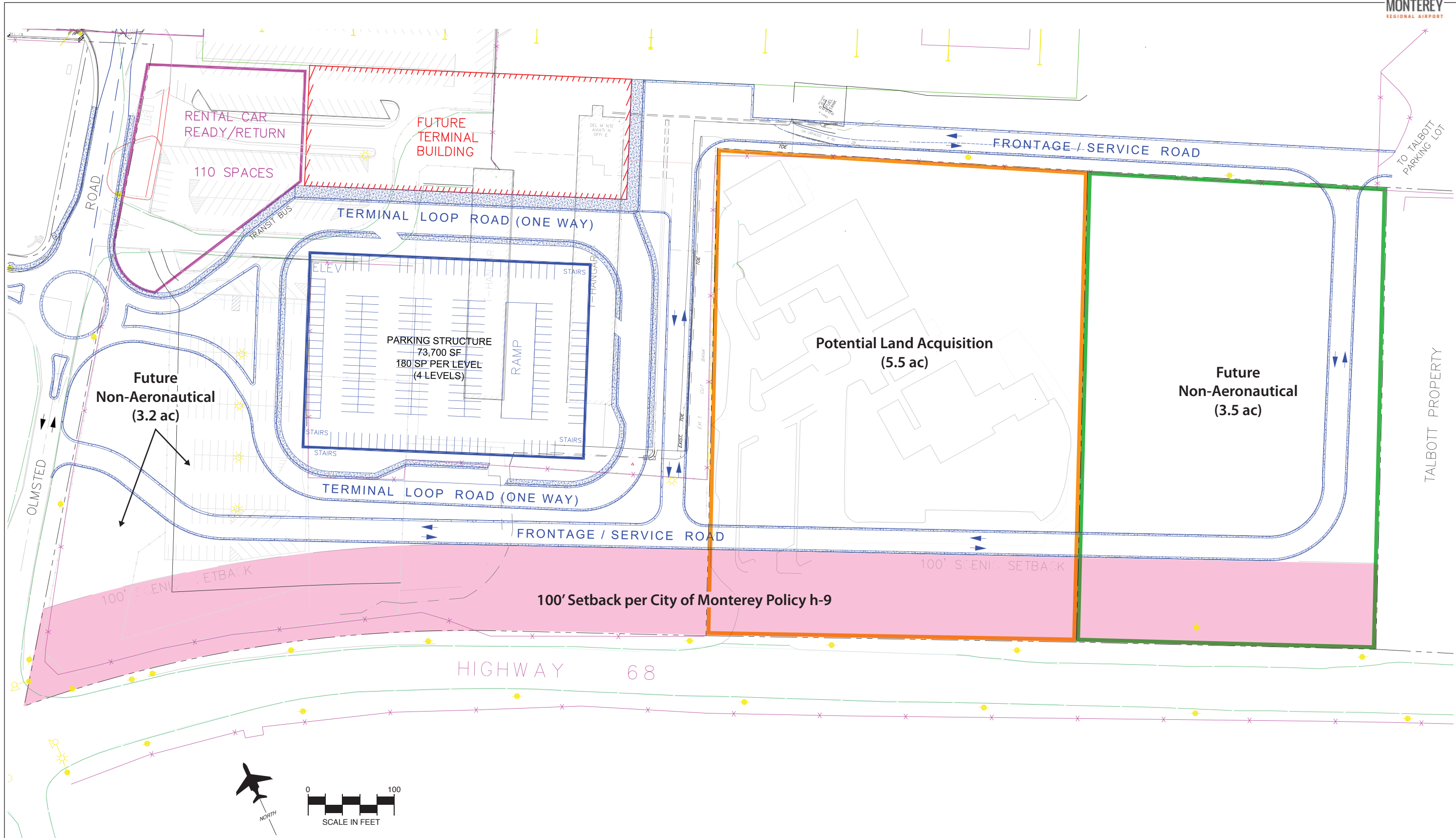
The overall development concept for the Proposed Project includes a proposed land acquisition along Highway 68. Acquisition of a 5.5-acre parcel adjacent to the proposed relocated commercial terminal complex (**Exhibit 4.1H**) would help to retain land use compatibility between the adjacent parcel and the new terminal as well as allow the Airport to limit obstructions present on the property. Other than the conversion of part of this parcel's parking lot and internal road to the proposed Highway 68 frontage road and potential drainage features and the closure of the parcel's existing access point with Highway 68, no changes to the development of the parcel or scenic resources located on the property are proposed.

In conclusion, impacts to the scenic resources of Highway 68 as a result of operational impacts of proposed short-term projects would occur due to the proposed loss of more than 200 existing trees along the north side of Highway 68. An overall landscape plan for the Highway 68 frontage road, including the setback, is not yet available. Potentially Significant impacts to these scenic resources would occur unless enough trees are replanted or retained to maintain an acceptable level of scenic resources per City of Monterey general plan policies. In addition, architectural treatments and/or other building design features must be incorporated so that the scenic values of the highway are not substantially damaged if areas internal to the Airport (such as the proposed parking garage) become more visible due to a loss of screening vegetation along the highway. Since detailed landscaping and building plans for the terminal complex and Highway 68 frontage road are not yet available, impacts to the Highway 68's scenic resources are considered Potentially Significant for purposes of this analysis. See Section 4.1.6 for mitigation.

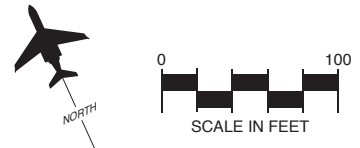
Long-Term Project Impacts (Programmatic)

Long-term development of two non-aeronautical parcels along Highway 68 are also part of the Proposed Project (**Exhibit 4.1H**). These land uses would be subject to not only the 100-foot setback per City of Monterey Policy h-9, but the City of Monterey's Architectural Review Committee approval since portions of the developable area are part of a D2 Development Control overlay district (AES/rr-2). Consistency with applicable City of Monterey policies (Section 4.1.1) would be evaluated as part of the city's development application process. Similar to the previous discussion under short-term projects, potentially significant impacts to the scenic resources of Highway 68 could occur unless enough trees are replanted or retained to maintain an acceptable level of scenic resources per City of Monterey general plan policies. In addition, architectural treatments and/or other building design features must be incorporated so that the scenic values of the highway are not substantially damaged if areas internal to the Airport (such as proposed non-aeronautical projects) are visible due to a loss of screening vegetation.

Acquisition of land south of Highway 68 near the Airport's southeastern boundary is proposed for protection of the Runway 10R-28L RPZ. No changes are proposed to this area except for potential



Source: Neill Engineers Corp., January 31, 2018



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replacement of the existing fence to a standard six-foot chain link fence; no loss of trees or other scenic resources of Highway 68 would occur. Therefore, impacts to the scenic resources of Highway 68 from proposed RPZ land acquisition and fencing upgrade are Less than Significant.

Another aspect of the Proposed Project or Alternative 1 that could affect the Highway 68 scenic corridor is a proposed upgrade to the Airport's perimeter fencing for purposes of wildlife management. As shown on **Exhibit 4.1J**, the fence is located along the highway near the existing series of retaining walls in the southeast part of the airport property. No scenic resources are present in this location of the highway corridor. The existing fence is six feet tall with three strands of barbed wire outriggers, but it is proposed to be increased to twelve feet with three strands of barbed wire outriggers to prevent black-tailed deer from jumping the fence. No trees or other scenic resources would be removed. Thus, the proposed perimeter fence upgrade's impact on the quality of the scenic resources within the Highway 68 corridor is considered Less than Significant.

Less than Significant Impacts:

Construction or operational impacts related to a proposed new "north side" road and its connection to Del Rey Gardens Drive would not substantially damage scenic resources of the City of Del Rey Oaks since the proposed road would not be located on a ridgeline or in a highly visible location. The Proposed Project and Alternative 1 would have a Less than Significant impact on scenic resources of the City of Del Rey Oak under Threshold 4.1-2.

The scenic resources of Highway 68 would not be substantially damaged due to the potential construction and operation of proposed fence replacement on the south side of the highway with a six-foot-tall chain link fence. No trees or other scenic resources would be affected. The Proposed Project and Alternative 1's RPZ perimeter fence would have a Less than Significant impact on Highway 68's scenic resources under Threshold 4.1-2.

The scenic resources of Highway 68 would not be substantially damaged due the potential construction and operation of a proposed perimeter fence upgrade along the north side of the highway in the southeast part of the Airport. No trees or other scenic resources would be affected and the Proposed Project and Alternative 1's perimeter fence would have a Less than Significant impact on Highway 68's scenic resources under Threshold 4.1-2.

Significant Impact AES-1:

Potentially significant impacts to the scenic resources of Highway 68 could occur during temporary construction of both short- and long-term projects. These impacts would occur as a result of either the Proposed Project or Alternative 1's grading and tree removal for the proposed Highway 68 frontage road, future non-

EXISTING FENCE - 6'TALL



ULTIMATE FENCE - 12'TALL



aeronautical land uses along Highway 68, and stormwater improvements associated with south side development.

Significant Impact AES-2:

Potentially significant impacts to the scenic resources of Highway 68 could occur during operation of both short- and long-term projects. These impacts would occur as a result of the loss of mature trees under either the Proposed Project or Alternative 1 for the proposed Highway 68 frontage road, future non-aeronautical land uses along Highway 68, and stormwater improvements associated with south side development.

4.1.5.3 Threshold 4.1-3 – Would the Proposed Project or Alternative 1 substantially degrade the existing visual character or quality of the site and its surrounding?

Proposed Project and Alternative 1

Construction Impacts

As described in Section 2.7.1, the overall duration of construction is proposed to be approximately 10 years for proposed short-term projects and another approximate 10 years for proposed long-term projects. The construction of the short-term projects would occur over four or five primary phases. Three construction staging and laydown areas have been identified for the short-term projects:

1. West of the north GA hangar relocation area between existing Airport Road and Taxiway “C”
2. Site of the proposed commercial terminal parking garage
3. Site of future parking along Fred Kane Drive east of the existing commercial terminal building

As a result of the incremental implementation of the proposed improvements, views of demolition and construction activities would affect areas throughout all project phases. During each phase, security fencing would be provided around the construction sites and staging areas.

As discussed previously, public views of the Airport are limited to those available from the streets, highways, and land uses adjacent to the facilities at the Airport, and long-range views are limited in number and scope. Also, due to the size of the Airport and the locations of the facilities, construction activities would only be visible to viewers in the immediate vicinity of each phase of improvements. These views would be temporary and confined to the individual construction phases. Given the industrial character of the Airport, construction activities would not substantially degrade the visual character of the site, and aesthetic impacts related to construction activities would be Less than Significant.

Short-Term Project Impacts

Implementation of the Proposed Project and Alternative 1 would not result in substantial changes to the visual character of the Airport in the short term. The area dedicated to commercial air carrier facilities would remain. Older facilities would be replaced with newer facilities that are generally consistent in nature. Although detailed design plans will be developed as improvements are implemented, the following discussion is based on the Proposed Project and Alternative 1 concept plans and regulatory requirements that would be applicable to development at the Airport. Proposed structures would need to comply with Part 77 regulations in terms of proposed building heights and lighting. Therefore, the heights of buildings are assumed to be generally consistent with the height of the existing buildings onsite. The potential changes in visual character for each proposed short-term project component of the Proposed Project and Alternative 1 are discussed in the paragraphs below.

Safety Enhancement Related to Taxiway "A" and Associated Building Relocations Component. The proposed safety enhancement component of the Proposed Project would be located in two primary areas of the Airport. On the north side of the airfield, an existing GA apron and hangar area would be developed with additional hangars, taxiway pavement, and a temporary or permanent ARFF building. From a visual standpoint, the area is located internal to the Airport and is not readily visible to land uses off the Airport (which are primarily residential) due to intervening topography and vegetation. The addition of new hangars and an ARFF building would not change the visual character of this area of the Airport, which is of a GA apron/hangar area.

On the south side of the airfield, the proposed safety enhancement project component would be located in areas of the Airport that are primarily developed with hangars, apron, vehicle parking lots, an ARFF building, and a commercial terminal. The relocation of the proposed commercial terminal complex would replace the existing urban land uses with new buildings, structures, and pavement. Visually, the proposed development would present a more cohesive visual appearance as the Airport will be able to develop the area as a single project with a common design and theme. The actual visual appearance and building aesthetics, however, are not known at this time.

There is one aspect of the safety enhancement component under the Proposed Project that has the potential to substantially degrade the existing visual character of the project site. The Proposed Project's commercial terminal complex places a proposed four-level parking structure approximately 185 feet from the Highway 68 right-of-way in an area of the Airport that is currently paved or developed with hangars. Although the design of this proposed structure is not available at this time, the conceptual plans depict an approximate 48-foot-high structure with a footprint of approximately 74,000 sf. The scale and size of the structure would result in a substantial change in the visual character of this part of the Airport. The site for the garage is currently screened from public viewing areas by thick vegetation, including mature trees. However, once the entrance road for the relocated commercial terminal complex is constructed, views of the garage from the proposed Garden Road/Terminal entrance roundabout would be available. In addition, if the proposed Highway 68 frontage road is constructed (see discussion below), views of the garage from Highway 68 could also be available. Although the distance of the garage from the highway would be outside of the mandated 100-foot setback and would be located approximately the same distance or further from the highway when compared to other

existing buildings in the area (for example, 2883 and 2846 Salinas Highway), the scale of the proposed structure would be bigger. Since the ability of future landscape plans along the highway to fully screen the proposed structure are not known at this time, impacts related to the proposed parking garage under the Proposed Project per Threshold 4.1-3 are Potentially Significant. See Section 4.1.6 for mitigation.

Conversely, under Alternative 1, the proposed terminal complex would include a surface parking lot instead of a parking garage. The footprint of a surface lot when compared to a parking garage would be larger (approximately 120,000 square feet [sf] for a 380-space lot vs. 74,000 sf for a four-level, 720-space garage [180 spaces per level]). However, the surface parking lot would be similar in visual character to the existing pavement and parking area. The proposed parking lot would remain outside of the 100-foot scenic corridor setback (**Exhibit 4.1K**). This is consistent with other frontage properties along the highway. Impacts related to the proposed surface lot under Alternative 1 per Threshold 4.1-3 are Less than Significant.

Land Acquisition of a 5.5-Acre Parcel. No changes to the 5.5-acre parcel proposed for land acquisition would occur under the Proposed Project or Alternative 1 with the exception of the construction of a Highway 68 frontage road and the potential trimming of trees that pose an obstruction to the Part 77 surface of Runway 10R-28L. These proposed actions would not change the appearance of the 5.5-acre parcel or substantially degrade its existing visual character. The parcel is already developed with parking lots and paved driveways and potential impacts under Threshold 4.1-3 are considered Less than Significant.

Highway 68 Frontage Road. In addition to crossing the aforementioned 5.5-acre parcel, the proposed Highway 68 frontage road would replace pavement currently used for parking or introduce pavement in an area that contains existing trees and vegetation (see Section 4.1.5.2 for a discussion of the loss of scenic resources along a scenic corridor). In terms of substantially degrading the existing visual character or quality of the site due to the location of a 24-foot-wide frontage road, potential impacts under Threshold 4.1-3 are considered Less than Significant. Similar frontage roads are located along this stretch of the highway in several areas and are adequately screened by the approved landscaped plans required by the City of Monterey within its established 100-foot setback (AES/rr-1).

“North Side” Road. The proposed “north side” road would be located on a heavily vegetated slope located between two office/commercial buildings within a light industrial area of Del Rey Oaks. The proposed road would visually look like the existing Del Rey Gardens Drive, i.e., 24 feet wide with curbs and gutters, and would appear to be an extension of an existing roadway network. Retaining walls would be used in places to minimize the amount of cut needed to traverse the steep terrain. This is also in keeping with the character of other roads in the area. The proposed “north side” road would be located approximately 15 to 20 feet below the existing grade. Thus, the proposed road would not be visible to residents of the condominium units located to the northeast within the City of Del Rey Oaks. In addition, a minimum of a 100-foot buffer would occur between the proposed “north side” road and the closest condominium unit. Potential impacts under Threshold 4.1-3 are considered Less than Significant.

Overall, the short-term projects under either the Proposed Project or Alternative 1 would be consistent with the visual character of the area, and in some cases, would replace existing older facilities with new

facilities that would result in a visual improvement. The changes in visual quality would not present a major change over existing conditions, and no major group of viewers with long-term views would be exposed to these visual changes. Since most of the proposed development under either the Proposed Project or Alternative 1 would be located on areas internal to the Airport or would be the redevelopment of existing developed areas, the overall visual character and quality of the Airport would remain essentially the same (i.e., the Airport would continue to be a regional commercial service airport). Regulatory requirements are in place to ensure that the overall visual character of the Airport, as well as areas along Highway 68, are not substantially degraded. Impacts would be Less than Significant, and no mitigation required for short-term operational components of the Proposed Project or Alternative 1 (with the exception of the proposed parking garage under the Proposed Project, which is Potentially Significant). See Section 4.1.6 for mitigation.

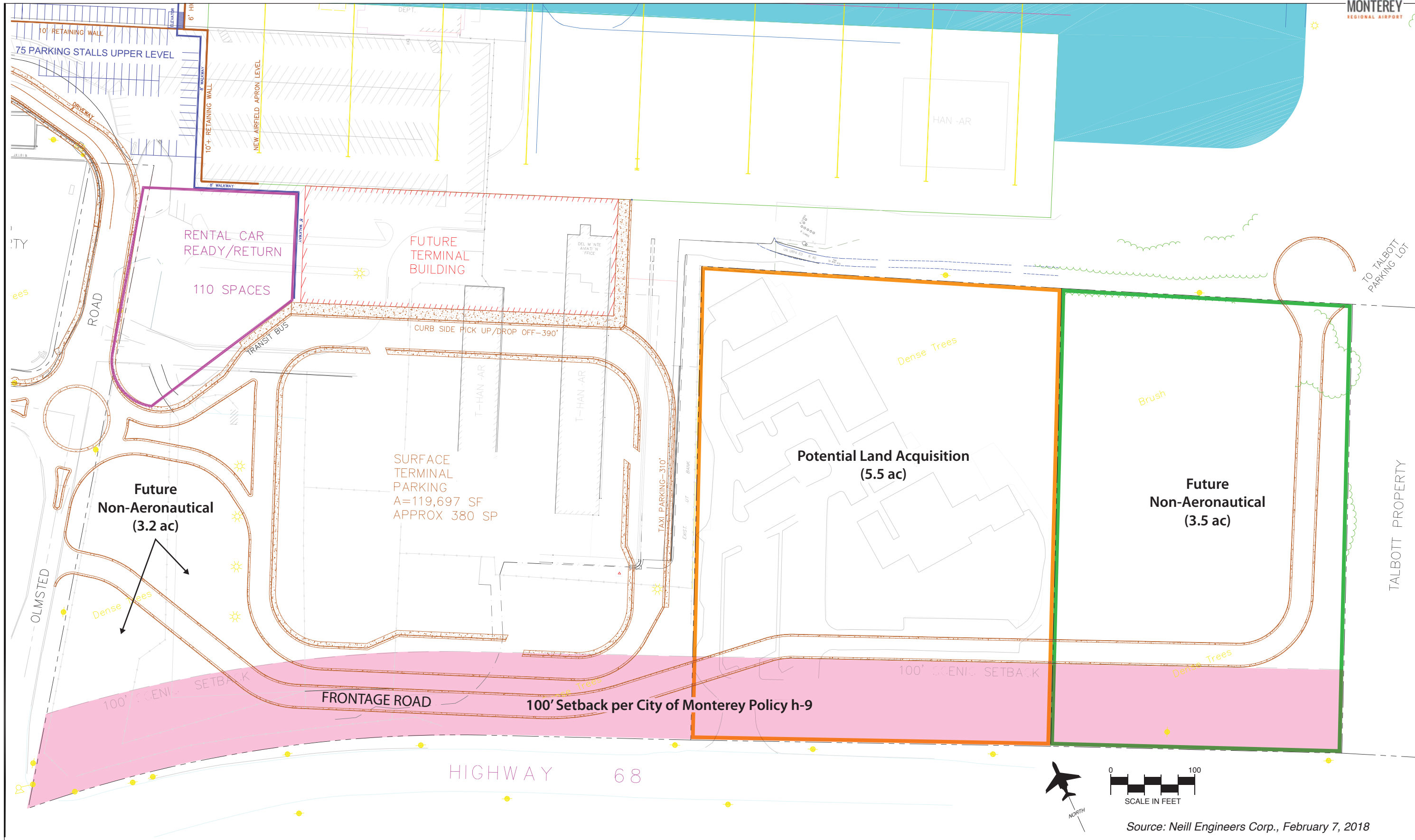
Long-Term Project Impacts (Programmatic)

Proposed long-term projects would be the same under either the Proposed Project or Alternative 1. Since there are no concept plans available to address these future components, the following analysis addresses the overall changes in land uses proposed.

As previously discussed in Threshold 4.1-2, and as shown on **Exhibit 4.1J**, the perimeter fence upgrade would be located along Highway 68 near the existing series of retaining walls in the southeast part of the airport property. Because the proposed change would not introduce a new man-made feature into the scenic corridor but would be an incremental change in the height of an existing structure, it would not substantially change or damage the quality of the highway. Rather, the fence is part of the foreground of a larger, more prominent feature, i.e., the retaining walls, that extends approximately 90 feet above the elevation of the highway. In comparison, the increase in fence height by six feet is inconsequential to the visual character of the area. Similarly, the proposed RPZ fence replacement on the south side of the highway to prevent uncontrolled access to the RPZs would not introduce a new land use into the area. Neither of the proposed fence upgrades along Highway 68 would substantially degrade the visual character of the site or area per Threshold 4.1-3.

Other proposed long-term projects are less defined, and the visual aspects of future development are unknown. Proposed long-term non-aeronautical projects along Highway 68 could include 50,000 to 100,000 sf of office or other commercial buildings outside of the 100-foot setback. This type of development is similar to other development along the highway and is not likely to change the overall visual character of the area. As previously discussed, the City of Monterey has regulatory requirements based on its general plan policies and zoning ordinance with which any future development within this area of the Airport would need to comply.

Proposed long-term non-aeronautical projects on the north side of the airfield could change the visual character of the north side of the Airport, which is currently developed with GA hangars and a solar farm, but which also has large amounts of vegetated open space. Visual impacts of future development will need to be evaluated as part of future environmental review when design aspects, such as location, bulk, and scale of buildings are known. However, these buildings are not likely to be visible from off the Airport. See also Section 4.1-4 below regarding potential impacts related to light and glare.



Source: Neill Engineers Corp., February 7, 2018

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Proposed aviation development on the north side of the Airport would expand the north side GA hangar area, replace existing hangars on the northwest ramp, and redevelop the existing Old North Side Industrial area. None of these long-term projects are anticipated to change the existing visual character of the Airport or adjacent areas.

Overall, with the possible exception of proposed long-term non-aeronautical development of the Airport's north side, long-term projects are similar in land use and scale to the existing conditions on the Airport or in the area and potential impacts would be Less than Significant per Threshold 4.1-3.

Less Than Significant Impacts: Construction activities would result in temporary visual changes at the Airport; however, given the urban context of the Airport site, these changes would not result in a significant visual impact.

Operationally, the character of the proposed short- and long-term improvements for the Proposed Project and Alternative 1 would be consistent with the visual character of the Airport (with the exception of the proposed commercial terminal parking garage under the Proposed Project - see Impact AES-3 below). The Proposed Project and Alternative 1 would have to comply with existing regulations related to building height. In addition, areas along Highway 68 would be subject to City of Monterey scenic policies and zoning requirements. Neither the Proposed Project nor Alternative 1 would change the overall visual character and visual quality of the Airport, and the Proposed Project and Alternative 1 would have a Less than Significant impact on visual character under Threshold 4.1-3, with the exception of AES-3 noted below.

Significant Impact AES-3: The scale of the commercial terminal parking garage under the Proposed Project would be bigger than other existing buildings located a similar distance from Highway 68. Since the ability of future landscape plans along the highway to fully screen the proposed structure is not known at this time, impacts related to the proposed parking garage per Threshold 4.1-3 are Potentially Significant.

4.1.5.4 Threshold 4.1-4 – Would the project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

Proposed Project and Alternative 1

Construction Impacts

Under both the Proposed Project and Alternative 1, there could be construction activities that could occur during the nighttime hours, resulting in the need for temporary lighting. This would generally be

limited to those project components located within safety zones of the airfield. This lighting would have to comply with Part 77 regulations (AES/rr-3) to prevent hazards to aircraft operations. None of the construction lighting would be in proximity to residents. On the north side, the closest residents to the proposed north GA hangar development live on the south side of Rosita Road and would be approximately 700 feet to over 1,000 feet away. Elevations of the homes range from approximately 50 feet below the ground elevation of the proposed hangars to generally the same ground elevation as the proposed hangars (**Exhibit 4.1L**). Other residents adjacent to the north side of the Airport live in The Oaks at 515 Canyon Del Rey Boulevard. These residents are located approximately 0.25 mile (1,320 feet) to the northeast from the north GA area and are approximately 35 feet below the ground elevation of the proposed hangars.

No residents are located near the south side project construction areas, especially those along the airfield. Residents located farther from the Airport, and at elevations above the airfield, are more than 0.5 mile away.

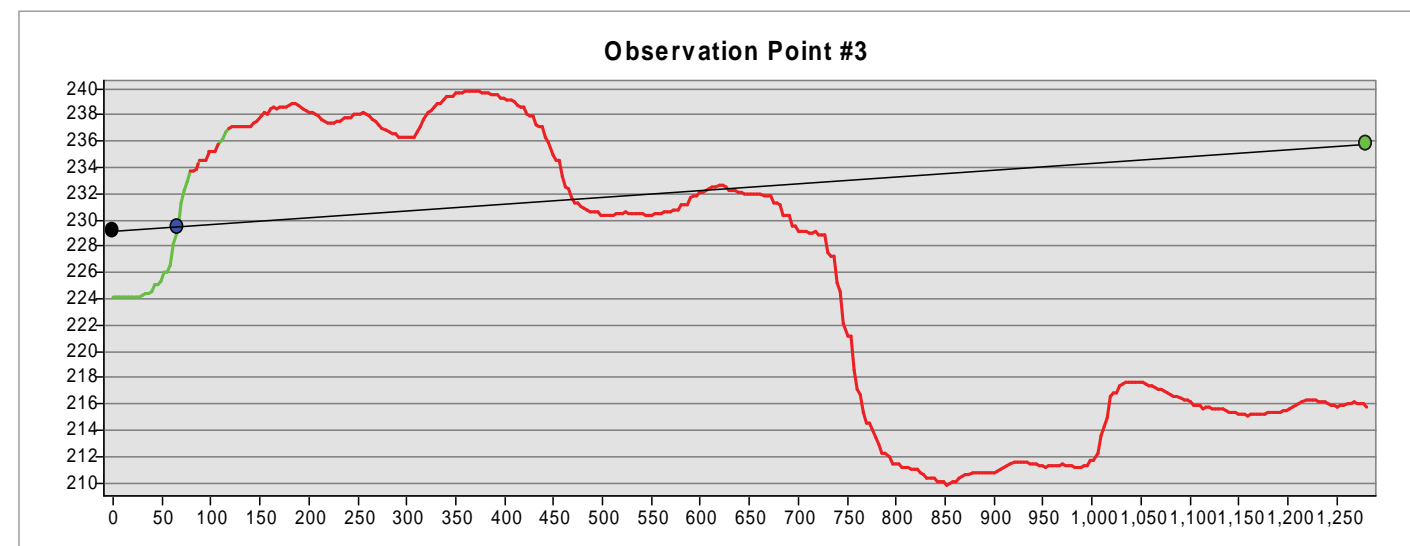
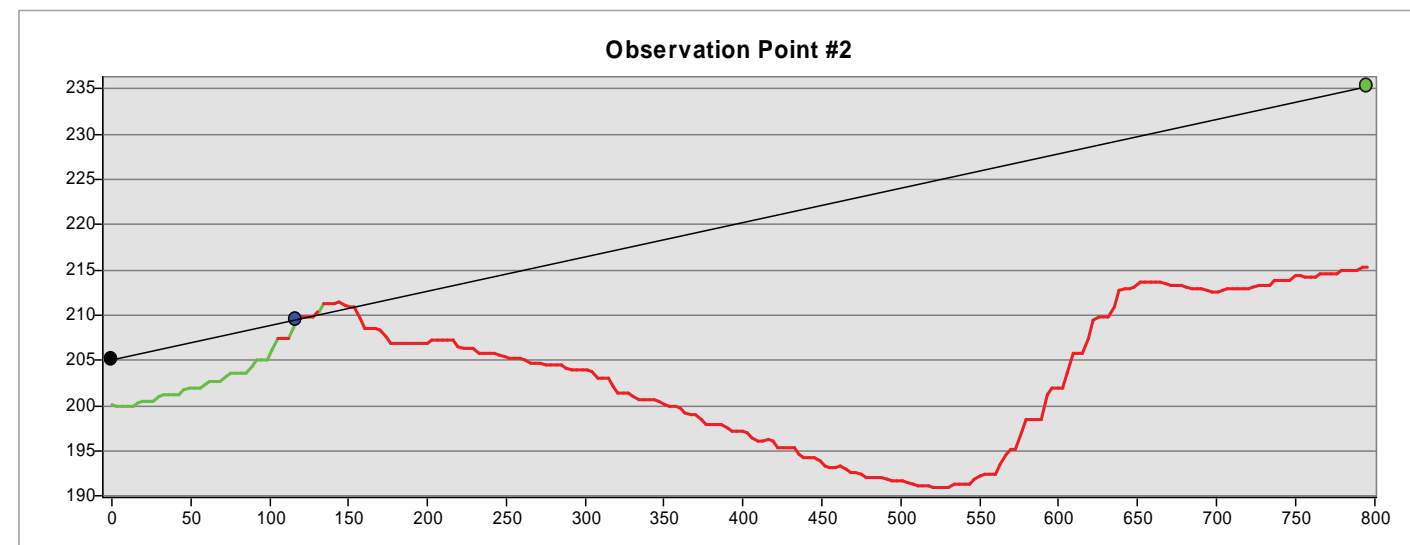
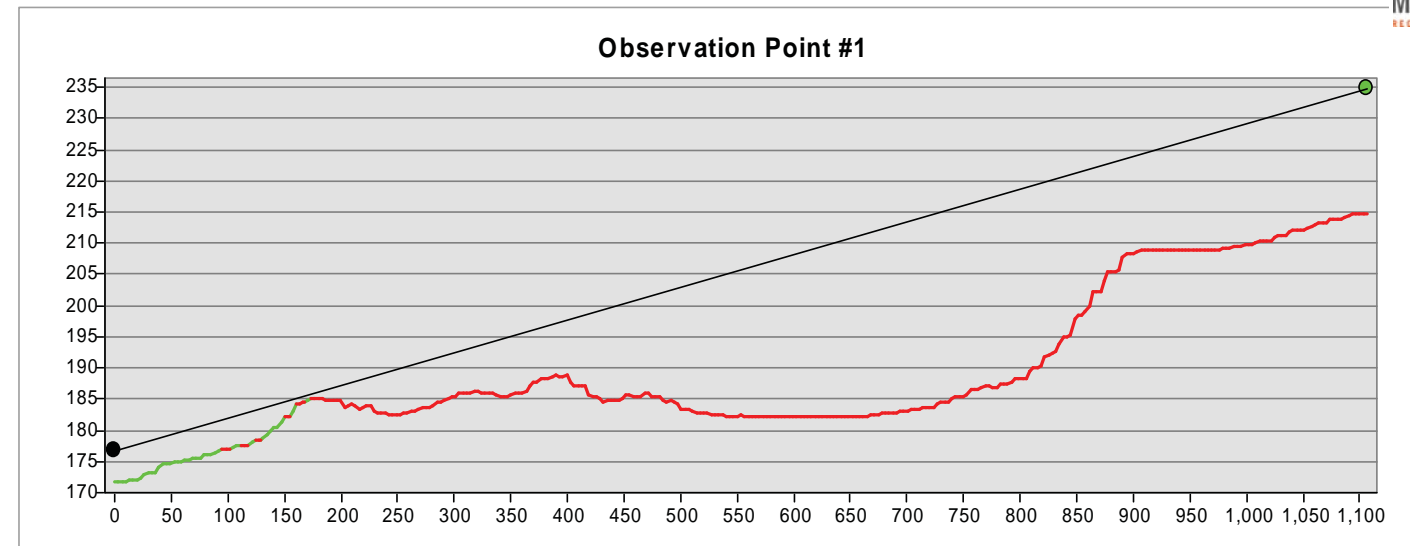
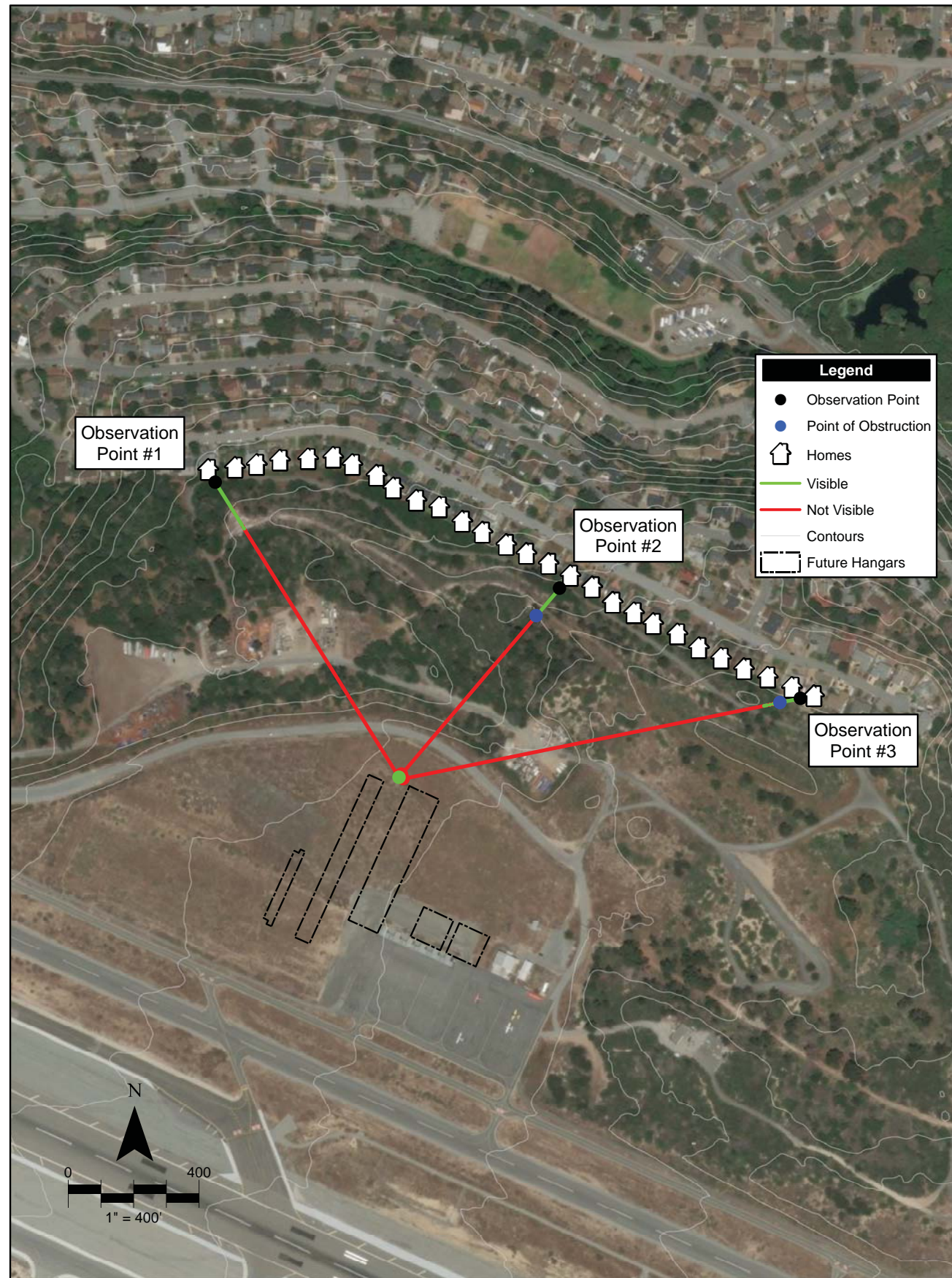
Given the lack of sensitive receptors adjacent to the construction sites, impacts associated with lighting would be Less than Significant, and no mitigation is required. Also, no substantial glare impacts would occur as a result of the construction activities, and no mitigation is required.

Short-Term Project Impacts

Short-term projects of the Proposed Project and Alternative 1 would include several new sources of lighting, including exterior building lights, parking lot security lights, and roadway lights, on both the south and north sides of the Airport. On the north side, exterior lighting would be associated with proposed GA hangars, an ARFF facility (under the Proposed Project the north side ARFF building would be temporary, while under Alternative 1 it would be permanent), a fuel farm, and a “north side” road.

Under the Proposed Project and Alternative 1, potential sources of glare include the use of glass, reflective building materials, or the installation of solar panels on buildings or parking areas. FAA requires glint and glare studies on a case-by-case basis, most often in relation to proposed solar projects, for those projects with a clear line-of-sight between the source of glare and a runway approach or the ATCT.

None of the new exterior lighting or sources of glare would be in proximity to residents. As previously discussed under Temporary Construction Impacts, on the north side, the closest residents to the proposed north GA hangar development live on the south side of Rosita Road and range from approximately 50 feet below the ground elevation of the proposed hangars to generally the same ground elevation as the proposed hangars (**Exhibit 4.1L**). Other residents adjacent to the north side of the Airport are located approximately 0.25 mile (1,320 feet) to the northeast from the north GA area and are approximately 35 feet below the ground elevation of the proposed hangars. Although detailed design plans will be developed as improvements are implemented, the concept plan provides that the new hangars would be 35 to 40 feet in height with exterior lights placed approximately 20 feet from the ground and directed down to the pavement along the sides of the buildings. Taxilane, roadway, and parking lot lights would also be directed down to the pavement. Thus, the new hangars, taxilanes, roads,



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and vehicular parking in the north GA area would introduce additional lighting on the north side, but they are not expected to create light spillage off the Airport.

Based on the line-of-sight analysis shown in **Exhibit 4.1L**, trees and topography located along the north airport property line prevent views past the southern edge of an existing berm located from 55 to 160 feet from the northern property line. Once the southeast GA hangars have been relocated to the north side GA area and grading begins on the proposed new commercial apron, dirt from the apron site would be deposited on the berm, which would be raised approximately six feet in height. This dirt would further screen Rosita Road residents from development occurring on the north side of the Airport. Impacts related to glare from proposed short-term north side development are also Less than Significant.

On the south side, exterior lighting would be associated with the proposed relocated ARFF building (Proposed Project only), relocated commercial terminal, terminal loop road, and new parking lots and garages. This lighting would replace existing parking lot, commercial terminal, and southeast GA ramp lighting. Once, a Highway 68 frontage road is constructed, additional exterior lighting would be installed. The proposed shift of Taxiway "A" approximately 52.5 feet south would require the relocation of 1,850 lf of taxiway edge lighting. This shift of airfield lighting would not create a new source of lighting nor would it adversely affect nighttime views due to the vegetative and topographical barriers that keep the airfield from being easily viewed from land beyond the airport property. No residents are located near the south side projects; residents located farther from the Airport, and at elevations above the airfield, are more than 0.5 mile away. Given the lack of sensitive receptors adjacent to the short-term projects, impacts associated with lighting and glare would be minimal.

All new light sources and potential glare sources affecting the airfield or operation of the Airport would have to comply with Part 77 regulations (AES/rr-3), including the installation of solar panels, types of lights and intensity of lighting and night/day lighting combinations. By complying with these regulations, the sources and intensity of lighting would be similar to existing lighting. In addition to avoiding the creation of hazards to airport operations, compliance with these requirements would prevent the creation of new sources of substantial light or glare that would result in significant visual impacts. Because of FAA oversight in this area, as well as the distance, vegetation, and topography between existing residents and proposed short-term projects, potential impacts related to project sources of light and glare due to short-term projects are Less than Significant, and no mitigation is required.

Long-Term Project Impacts (Programmatic)

Long-term projects of the Proposed Project and Alternative 1 would include several new sources of lighting, including exterior building lights, parking lot security lights, and roadway lights for potential future development of the north side with additional GA hangars and non-aeronautical development. A proposed extension of Taxiway "B" to the Runway 28L threshold would result in additional taxiway edge lights. Potential sources of glare could include the use of glass, reflective building materials, or the installation of solar panels on buildings or parking areas.

As previously discussed for the short-term projects, based on the line-of-sight analysis shown in **Exhibit 4.1L**, trees and topography located along the north airport property line prevent views past the southern

edge of an existing berm located from 55 to 160 feet from the northern property line. Once the southeast GA hangars have been relocated to the north side GA area and grading begins on the proposed new commercial apron, dirt from the apron site would be deposited on the berm, which would be raised approximately six feet in height. This dirt would further screen Rosita Road residents from development occurring on the north side of the Airport. Impacts related to lighting and glare from proposed long-term north side development are Less than Significant.

Taxiway lighting associated with an extension of Taxiway “B” would increase airfield lighting due to the installation of medium intensity blue taxiway edge lighting. Due to intervening distance, topography, and vegetation, long-range nighttime views for residents along the south side of Rosita Road or in areas further away would be minimally affected from either new lighting at the GA area or additional taxiway edge lights (**Exhibit 4.1L**). The new lighting would not significantly change nighttime views of the Airport from what currently exists, and impacts would be Less than Significant.

On the south side of the Airport, proposed long-term, non-aeronautical development along Highway 68 would require exterior building, street, and parking lot lighting. There are no land uses near this area of the Airport that would be adversely affected by the new and/or replacement lighting, and residents located farther from the Airport, and at elevations above the airfield, are more than 0.5 mile away. Existing land uses near the south side of the Airport are commercial, office, or light industrial land uses. Lights associated with long-term, non-aeronautical development along Highway 68 and the Airport’s southern property line would be directed internal to the airport property and would continue to be screened by vegetation within the 100-foot setback from Highway 68. The change in lighting due to proposed south side long-term development is not expected to affect drivers of Highway 68 due to the required landscaped setback. No lighting changes are expected from proposed RPZ acquisitions or perimeter fence upgrades.

Should any of the proposed facilities utilize solar panels for energy efficiency, there would be the potential that the solar panels could result in glint and glare, which, dependent on the placement of the panels, could result in an aesthetic impact on adjacent land uses and a potential safety concern to pilots and/or the ATCT. As previously discussed under the discussion of short-term projects, all new long-term light sources and potential glare sources affecting the airfield or operation of the Airport would have to comply with Part 77 regulations (AES/rr-3). In addition to avoiding the creation of hazards to airport operations, compliance with these requirements would prevent the creation of new long-term sources of substantial light or glare that would result in significant visual impacts.

In conclusion, no light- or glare-sensitive uses are immediately adjacent to the Airport that would be affected by proposed long-term projects. Due to the distance, vegetation, and topography between existing residents and proposed long-term projects, in addition to FAA oversight, potential impacts related to project sources of light and glare due to long-term projects would be Less than Significant. No mitigation is required.

Less Than Significant Impacts: *Given the lack of sensitive receptors adjacent to the construction sites, impacts associated with lighting and glare during temporary*

construction periods would be Less than Significant under the Proposed Project or Alternative 1 per Threshold 4.1-4.

Lighting impacts related to exterior lighting due to short- or long-term landside project components under the Proposed Project or Alternative 1 would be Less than Significant under Threshold 4.1-4. All new light sources affecting the airfield or operation of the Airport would have to comply with Part 77 regulations (AES/rr-3), including the types of lights and intensity of lighting and night/day lighting combinations.

Impacts related to taxiway edge lighting from a proposed short-term airside component, i.e., the relocation of Taxiway “A” edge lighting, under the Proposed Project or Alternative 1 would be Less than Significant under Threshold 4.1-4. All new light sources affecting the airfield or operation of the Airport would have to comply with Part 77 regulations (AES/rr-3), including the types of lights and intensity of lighting and night/day lighting combinations.

Impacts related to taxiway edge lighting from a proposed long-term airside component, i.e., extension of Taxiway “B” to the Runway 28L threshold, under the Proposed Project or Alternative 1 would be Less than Significant under Threshold 4.1-4. All new light sources affecting the airfield or operation of the Airport would have to comply with Part 77 regulations (AES/rr-3), including the types of lights and intensity of lighting and night/day lighting combinations.

Under the Proposed Project and Alternative 1, potential sources of glare would be Less than Significant under Threshold 4.1-4 due to FAA oversight in this area, as well as the distance, vegetation, and topography between existing residents and proposed short- and long-term development.

4.1.6 Mitigation Program

No mitigation program would be required for the Less than Significant impacts identified in Section 4.1.5. The following mitigation measures would apply for Significant Impacts AES-1, AES-2, and AES-3 if either the Proposed Project or Alternative 1 is approved.

Proposed Project and Alternative 1

AES/mm-1: Construction contract specifications for any phase of development where a construction laydown area/staging area will be used shall include security fencing with opaque screening around the construction sites and staging areas to block

the ground-level views of the site. No removal of trees shall be allowed at the staging area. All trees removed within the 100-foot setback from Highway 68 due to construction shall be replaced within the setback at a ratio of 1:10 in keeping with City of Monterey requirements for other projects along the highway corridor.

AES/mm-2: Detailed landscaping plans shall be required for all aspects of the proposed short- and long-term south side projects, including proposed stormwater improvements and the proposed Highway 68 frontage road, to ensure that adequate vegetative screening is provided to preserve the existing scenic quality of the associated segment of Highway 68. The landscaping plans shall include native species, protecting existing cypress, Monterey pine, and coast live oak trees to the extent possible, and use trees to screen parking, where appropriate.

Detailed landscaping plans for development within or adjacent to the 100-foot setback from Highway 68 within the City of Monterey zoned areas shall include the following additional provision: All trees removed within the 100-foot setback from Highway 68 shall be replaced within the setback at a ratio of 1:10 in keeping with City of Monterey requirements for other projects along the highway corridor.

AES/mm-3: For buildings and structures visible from the highway, architectural treatments and/or other building design features shall be incorporated so that the scenic values of the highway are not substantially damaged. Input from the California Department of Transportation and the City of Monterey regarding consistency with their scenic corridor policies shall be considered in the preparation of the landscape and site development plans. For development within the City of Monterey, the plans shall be provided to the City’s Architectural Review Board, along with any other required architectural renderings or site plans, for approval.

Regulatory Requirements

AES/rr-1: Proposed buildings or structures in proximity to the Highway 68 scenic corridor must be placed outside a 100-foot setback from the highway right-of-way consistent with the *City of Monterey General Plan*, Urban Design Element Policy h-9. This setback is enforced through the City of Monterey’s development approval process for projects within its jurisdiction.

AES/rr-2: All development located within the City of Monterey’s D2 Development Control overlay district will require Architectural Review Committee approval. This design control is enforced through the City of Monterey’s development approval process for projects within its jurisdiction.

AES/rr-3: All new light sources and potential glare sources would have to comply with Part 77 regulations, as enforced by FAA, including the installation of solar panels, types of lights and intensity of lighting and night/day lighting combinations. FAA also

requires a glint and glare study on solar panels located within the line-of-sight of a runway approach or an ATCT, as well as for other projects on a case-by-case basis.

AES/rr-4: Prior to issuance of any building permit, the contractor shall file a Notice of Proposed Construction or Alteration (FAA Form 7460-1) with the FAA regional office that will show compliance with the Part 77 regulation, as it relates to building or structure heights, markings, lighting, or other standards. The FAA’s Determination of No Hazard shall be submitted to MPAD prior to the start of construction.

4.1.7 Level of Significance after Mitigation

Potentially Significant and Unavoidable impacts could occur during construction of the proposed Highway 68 frontage road, south side drainage improvements, and long-term south side non-aeronautical development (Impact AES-1) due to grading and tree removal. During the operational phase of these projects, however, landscaping plans that are reviewed and acceptable to the City of Monterey, would mitigate Impact AES-2 (AES/mm-2) below a level of significance (**Table 4.1A**).

Potentially Significant and Unavoidable impacts could also occur if the proposed commercial terminal parking garage is constructed (Impact AES-3). Due to the bulk and scale of the proposed structure, it is not certain that its visual impacts can be fully mitigated by landscaping and architectural treatments until final detailed plans are available. At this time, therefore, Impact AES-3 is considered Potentially Significant and Unavoidable.

TABLE 4.1A
Summary of Potentially Significant Impacts and Mitigation - Aesthetics
Proposed Monterey Regional Airport Master Plan

Proposed Project	Mitigation Program	Alternative 1	Mitigation Program	Level of Significance After Mitigation
Threshold 4.1-2 - Would the Proposed Project or Alternative 1 substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state-designated scenic highway?				
<u>Impact AES-1:</u> Potentially significant impacts to the scenic resources of Highway 68 due to grading and tree removal could occur during temporary construction of the proposed Highway 68 frontage road, south side drainage improvements, and long-term non-aeronautical development.	AES/mm-1; AES/rr-1	Same as Proposed Project	AES/mm-1; AES/rr-1	Potentially Significant and Unavoidable (Temporary)
<u>Impact AES-2:</u> Potentially significant impacts to the scenic resources of Highway 68 due to the loss of mature trees due to short- and long-term projects could occur during the construction of the proposed Highway 68 frontage road, south side drainage improvements, and long-term non-aeronautical development.	AES/mm-2; AES/rr-1	Same as Proposed Project	AES/mm-2; AES/rr-1	Less than Significant
Threshold 4.1-3 - Would the Proposed Project or Alternative 1 substantially degrade the existing visual character or quality of the site and its surroundings?				
<u>Impact AES-3:</u> The scale of the commercial terminal parking garage under the Proposed Project would be bigger than other existing buildings located a similar distance from Highway 68 and the ability of future landscape plans along the highway to fully screen the proposed structure is not known at this time.	AES/mm-2 and AES/mm-3; AES/rr-2 through AES/rr-4	Not applicable	None necessary	Potentially Significant and Unavoidable

Chapter Four

4.2 – AGRICULTURE AND FOREST RESOURCES

This Environmental Impact Report (EIR) section analyzes the potential effects of the Proposed Project and Alternative 1 on state-protected agriculture and forest resources. Based on the analysis completed on the Proposed Project as part of the Initial Study (**Appendix A**), several of the *California Environmental Quality Act* (CEQA) Guidelines, Appendix G checklist questions related to Agriculture and Forest Resources were found to be No Impact. These included the following:

Would the project:

- Conflict with existing zoning for agricultural use or a *Williamson Act* contract?
- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code [PRC], Section 12220(g)), timberland (as defined by PRC, Section 4526), or timberland zoned Timberland Production (as defined by Government Code, Section 51104(g))?
- Result in the loss of forest land or conversion of forest land to non-forest use?
- 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?

The Airport is not zoned for agriculture uses nor is it part of a *Williamson Act* contract. There is no forest land or timberland (as defined in the PRC or Government Code) located at, or in proximity to, the Airport, and the Airport is not mapped as containing forest or timberland (CDFW website 2018).

Therefore, the above CEQA Guidelines thresholds are not discussed in the following impact analysis.

4.2.1 Regulatory Setting

Federal Regulations

Under the *Farmland Protection Policy Act* (FPPA), federal agencies are directed to identify and take into account the adverse effects of federal programs on the preservation of farmland, to consider appropriate alternative actions which can lessen adverse effects, and to assure that such federal programs are, to the extent practicable, compatible with state or local government programs and policies to protect

farmland. The FPPA guidelines developed by the United States (U.S.) Department of Agriculture apply to farmland classified as prime or unique, or of state or local importance as determined by the appropriate government agency, with concurrence by the Secretary of Agriculture.

State Regulations

The California PRC defines the following term related to agriculture as follows:

- Agricultural land (PRC, Section 21060.1): "... prime farmland, farmland of statewide importance, or unique farmland, as defined by the United States Department of Agricultural land inventory and monitoring criteria, as modified for California."

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 Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland (CEQA, Appendix G - Agriculture and Forest Resources). Statewide Important Farmlands maps are available by region to identify protected resources (California Department of Conservation website 2018).

4.2.2 Methodology

The methodology to evaluate substantial adverse effects to agriculture included a review of published maps of agricultural land to determine the presence of resources protected by the State of California. If protected farmland was present, the location of these areas has been mapped and overlain with the proposed improvements at the Airport. The State of California Farmland Mapping and Monitoring Program's (FMMP) Important Farmland Categories developed by the California Department of Conservation have been referenced to identify agricultural lands important to the state that are in the project area.

4.2.3 Existing Conditions

The California Department of Conservation's Important Farmland Map shows the entire Proposed Project area is classified as Urban and Built-Up Land or Other Land (California Department of Conservation website 2018). Urban and Built-Up Land is defined as those areas occupied by structures with a building density of at least one unit to 1.5 acres or approximately six structures to a 10-acre parcel. Common examples include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures.

Other Land is defined as those areas not included in any other mapping category. Common examples include low density rural developments, brush, timber, wetland, and riparian areas not suitable for livestock grazing, confined livestock, poultry or aquaculture facilities, strip mines, borrow pits, and water bodies smaller than 40 acres. Additionally, vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

No portion of the airport property or adjacent lands are used for agricultural purposes.

4.2.4 Thresholds of Significance

The following threshold of significance for agriculture has been taken from the CEQA Guidelines, Appendix G (2017). Significant impacts to agriculture could occur if the Proposed Project or Alternative 1 would:

- Threshold 4.2-1: 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.

4.2.5 Impact Analysis

4.2.5.1 Threshold 4.2-1 - 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

Proposed Project and Alternative 1

Construction Impacts

Neither the Proposed Project nor Alternative 1 would affect any mapped farmland protected by the state during construction activities. The Airport is in an urbanized area and agricultural operations do not occur at or near the Airport. Therefore, construction activities associated with the Proposed Project and Alternative 1 would have No Impact on the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

Short-Term and Long-Term (Programmatic) Project Impacts

Neither the Proposed Project nor Alternative 1 would affect any mapped farmland protected by the state. As previously stated, the Airport is in an urbanized area and agricultural operations do not occur at or near the Airport. Therefore, the Proposed Project and Alternative 1 would have No Impact on the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

No Impact:

Neither the Proposed Project nor Alternative 1 would result in construction or short or long-term project impacts to state-protected Farmland under Threshold 4.2-1.

4.2.6 Mitigation Program

No mitigation is necessary as No Impacts to agriculture would occur.

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Chapter Four

4.3 – AIR QUALITY

4.3.1 Regulatory Setting

The Airport is located within the North Central Coast Air Basin (NCCAB). This section provides information regarding the regulatory setting for air quality in the NCCAB.

Federal Regulations

Title I of the federal *Clean Air Act* (CAA) charges the U.S. Environmental Protection Agency (U.S. EPA) with the responsibility of safeguarding air quality from new or continued deterioration from mobile and stationary sources of air pollutant emissions. The U.S. EPA's program responsibilities under the CAA include identifying air pollutants that have a deleterious effect on human health and/or environmental welfare, setting standards to control these pollutants, designating areas of each county that do not meet the established air quality standards, requiring technological controls and improvements on emissions sources and fuels, and requiring operating permits for new or significant existing emissions sources. To that end, the U.S. EPA promulgates and enforces the National Ambient Air Quality Standards (NAAQS).

The NAAQS represent levels of pollutants in the ambient (i.e., "outdoor") air that, when exceeded, cause negative impacts to human health ("primary" NAAQS) and environmental quality ("secondary" NAAQS). The U.S. EPA has established NAAQS for the following "criteria" pollutants: carbon monoxide (CO), nitrogen dioxide (NO₂), particulate matter (PM), ozone (O₃), sulfur dioxide (SO₂), and lead (Pb).

Under the CAA, the U.S. EPA is required to periodically review scientific literature on the health effects associated with exposure to criteria air pollutants. The primary sources and health effects of the criteria air pollutants regulated by the NAAQS are summarized as follows (U.S. EPA 2015):

- **Carbon Monoxide.** Gasoline-fueled vehicles and other on-road and non-road mobile sources are the primary sources of CO in the United States. Exposure to carbon monoxide reduces the capacity of blood to carry oxygen, thereby decreasing the supply of oxygen to tissues and organs. People with several types of heart disease already have a reduced capacity for pumping oxygenated blood, which can cause them to experience myocardial ischemia (reduced oxygen to the heart), often accompanied by chest pain (angina), when exercising or under increased stress. For these people, short-term CO exposure further affects their already compromised ability to respond to the increased oxygen demands of exercise or exertion. Thus, people with heart disease are identified as being at greatest risk from ambient CO. Other potentially at-risk populations include those with

chronic obstructive pulmonary disease, anemia, diabetes, and those in prenatal or elderly life stages (U.S. EPA 2015).

- **Nitrogen Dioxide**. Nitric oxide (NO) and NO₂ are emitted by cars, trucks, buses, power plants, and non-road engines and equipment. Emitted NO is rapidly oxidized into NO₂ in the atmosphere. Exposure to nitrogen dioxide has been associated with a variety of health effects, including respiratory symptoms, especially among asthmatic children, and respiratory-related emergency department visits and hospital admissions, particularly for children and older adults (U.S. EPA 2015).
- **Particulate Matter**. Particulate matter (PM) is a generic term for a broad class of chemically and physically diverse substances that exist as discrete particles (liquid droplets or solids) over a wide range of sizes. Particles originate from a variety of man-made stationary and mobile sources, as well as from natural sources, such as forest fires. Particles may be emitted directly or may be formed in the atmosphere by transformations of gaseous emissions, such as oxides of sulfur (SO_x), oxides of nitrogen (NO_x), and volatile organic compounds (VOCs). The chemical and physical properties of PM vary greatly with time, region, meteorology, and the source of emissions.

For regulatory purposes, the U.S. EPA distinguishes between categories of particles based on size and has established standards for fine and coarse particles. PM₁₀, in general terms, is an abbreviation for particles with an aerodynamic diameter less than or equal to 10 micrometers (µm) and represents inhalable particles small enough to penetrate deeply into the lungs (i.e., thoracic particles). PM₁₀ is composed of a coarse fraction referred to as PM_{10-2.5} or as thoracic coarse particles (i.e., particles with an aerodynamic diameter less than or equal to 10 µm and greater than 2.5 µm) and a fine fraction referred to as PM_{2.5} or fine particles (i.e., particles with an aerodynamic diameter less than or equal to 2.5 µm). Thoracic coarse particles are emitted largely as a result of mechanical processes and uncontrolled burning. Important sources include resuspended dust (e.g., resuspended by cars, wind, etc.), industrial processes, construction and demolition operations, residential burning, and wildfires. Fine particles are formed chiefly by combustion processes (e.g., from power plants, gas and diesel engines, wood combustion, and many industrial processes) and by atmospheric reactions of gaseous pollutants. Although scientific evidence links harmful human health effects with exposures to both fine particles and thoracic coarse particles, the evidence is much stronger for fine particles than for thoracic coarse particles.

Effects associated with exposures to both PM_{2.5} and PM_{10-2.5} include premature mortality, aggravation of respiratory and cardiovascular disease (as indicated by increased hospital and emergency department visits), and changes in sub-clinical indicators of respiratory and cardiac function. Such health effects have been associated with short- and/or long-term exposure to PM. Exposures to PM_{2.5} are also associated with decreased lung function growth, exacerbation of allergic symptoms, and increased respiratory symptoms. Children, older adults, individuals with preexisting heart and lung disease (including asthma), and persons with lower socioeconomic status are considered among the groups most at risk for effects associated with PM exposures. Information is accumulating and currently provides suggestive evidence for associations between long-term PM_{2.5} exposure and developmental effects such as low birth weight and infant mortality due to respiratory causes (U.S. EPA 2015).

- **Ozone.** Ground-level ozone forms through the reaction of pollutants emitted by industrial facilities, electric utilities, and motor vehicles; chemicals that are precursors to ozone formation can also be emitted by natural sources, particularly trees and other plants. Ground-level ozone can pose risks to human health, in contrast to the stratospheric ozone layer that protects the earth from harmful wavelengths of solar ultraviolet radiation. Short-term exposure to ground-level ozone can cause a variety of respiratory health effects, including inflammation of the lining of the lungs, reduced lung function, and respiratory symptoms such as cough, wheezing, chest pain, burning in the chest, and shortness of breath (U.S. EPA 2015).
- **Sulfur Dioxide.** Fossil fuel combustion by electrical utilities and industry is the primary source of sulfur dioxide in the United States. People with asthma are especially susceptible to the effects of sulfur dioxide. Short-term exposures of asthmatic individuals to elevated levels of sulfur dioxide while exercising at a moderate level may result in breathing difficulties, accompanied by symptoms such as wheezing, chest tightness, or shortness of breath. Studies also provide consistent evidence of an association between short-term sulfur dioxide exposures and increased respiratory symptoms in children, especially those with asthma or chronic respiratory symptoms. Short-term exposures to sulfur dioxide have also been associated with respiratory-related emergency department visits and hospital admissions, particularly for children and older adults (U.S. EPA 2015).
- **Lead.** Historically, the major source of lead emissions was combustion of leaded gasoline in motor vehicles (such as cars and trucks). Following the elimination of leaded gasoline in the United States, the remaining sources of lead air emissions have been industrial sources, including lead smelting and battery recycling operations, and piston-engine small aircraft that use leaded aviation gasoline. Lead accumulates in bones, blood, and soft tissues of the body. Exposure to lead can affect development of the central nervous system in young children, resulting in neurodevelopmental effects such as lowered IQ and behavioral problems (U.S. EPA 2015).

An area with ambient air concentrations exceeding the NAAQS for a criteria pollutant is said to be in “nonattainment” for the pollutant’s NAAQS, while an area where ambient concentrations are below the NAAQS is considered in “attainment.” The U.S. EPA requires areas designated as nonattainment to demonstrate how they would attain the NAAQS by an established deadline. To accomplish this, states prepare state implementation plans (SIPs). SIPs are typically a comprehensive set of reduction strategies and emissions budgets designed to bring an area into attainment.

In addition to its authority to adopt, amend, and enforce the NAAQS, Section 233 of the CAA exclusively vests the authority to promulgate emission standards for aircraft or aircraft engines with the U.S. EPA. States and other municipalities are preempted from adopting or enforcing any standard respecting aircraft engine emissions unless such standard is identical to the U.S. EPA’s standards.

Section 176(c) of the CAA requires projects overseen by federal agencies to demonstrate that they conform to SIPs in U.S. EPA-designated air quality nonattainment areas. Pursuant to this responsibility, the U.S. EPA codified the General Conformity regulations of the CAA. Per these regulations, federal actions in nonattainment areas must demonstrate that annual project-related air emissions do not cause or contribute to continued air quality violations in the area by remaining within the applicable *de minimis*

thresholds. Annual project-related emissions beneath the *de minimis* thresholds are considered to conform to state SIPs; annual emissions exceeding the thresholds require additional analysis to determine if the emissions are in violation of the applicable SIP.

Finally, the air toxics provisions of the CAA give authority to the U.S. EPA to develop and enforce regulations to protect the public from exposure to airborne contaminants that are known to be hazardous to human health. Per Section 112 of the CAA, the U.S. EPA establishes National Emission Standards for Hazardous Air Pollutants (NESHAP), which include standards that apply to both asbestos and lead. These air toxic regulations specify work practices for asbestos that must be followed during building demolition and renovations (U.S. EPA 2016).

State Regulations

Due to regional air quality concerns, individual states have the authority to adopt air quality standards that are more stringent than the NAAQS. Pursuant to the *California Clean Air Act (CCAA)*, the California Air Resources Board (CARB) established the California Ambient Air Quality Standards (CAAQS). The CAAQS generally have more stringent standards for each of the U.S. EPA criteria pollutants mentioned above. The CAAQS also include requirements for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride.

Similar to federal regulations, an area within California that violates the CAAQS is considered in nonattainment and an area with ambient air concentrations below the CAAQS is in attainment. As with the federal regulations, air quality management agencies in areas designated nonattainment for any of the CAAQS must develop air quality management plans (AQMPs), including strategies and timelines required to bring the air basin into attainment of the standards as expeditiously as possible.

CARB also develops and enforces air quality regulations and programs for mobile and stationary sources of air emissions within the State of California. Thus, it is within CARB's jurisdiction to enforce the following state-level air quality regulations, initiatives, and programs potentially pertinent to the Proposed Airport Master Plan (Proposed AMP) improvements:

- California Code of Regulations (CCR), Title 13, Division 3, Chapter 9, Article 4.8, Section 2449. This regulation is for in-use, off-road, diesel-fueled fleets, and – among other things – imposes various requirements that prohibit engines from idling for longer than five minutes (with exemptions) and require equipment turnover with time to improve the overall emissions profile of the fleet.
- CCR, Title 13, Division 3, Chapter 10, Article 1, Section 2485. On-road vehicles with a gross vehicular weight rating of 10,000 or more are not to idle for longer than five minutes at any location (with exemptions).

Additionally, in August 1998, CARB identified particulate emissions from diesel-fueled engines, also referred to as diesel particulate matter (DPM), as a toxic air contaminant (TAC). TACs are pollutants that are associated with acute, chronic, or carcinogenic effects, but for which no NAAQS or CAAQS have been established. TAC impacts are evaluated by determining if a chemical poses a significant risk to human health and, if so, under what circumstances. In 2000, CARB published the *Risk Reduction Plan to Reduce*

Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (CARB 2000b) and the *Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines* (CARB 2000a). These documents represent proposals to reduce DPM emissions, with the goal being to reduce emissions and the associated health risk by 75 percent in 2010 and by 85 percent in 2020. The programs aim to require the use of state-of-the-art catalyzed diesel particulate filters and ultra-low-sulfur diesel fuel.

Local Regulations

The Monterey Bay Air Resources District (MBARD), formerly known as the Monterey Bay Unified Air Pollution Control District (MBUAPCD), is responsible for air monitoring, permitting, enforcement, long-range air quality planning, regulatory development, and other activities related to air pollution within the NCCAB. The MBARD assists CARB in air quality regulation and program enforcement within the NCCAB and is the agency responsible for adopting and updating an AQMP for the NCCAB to ensure attainment of the CAAQS. MBARD coordinates closely with the Association of Monterey Bay Area Governments (AMBAG) and other regional and local governmental agencies to develop and implement the AQMP. The MBARD's AQMP includes emissions inventories for precursors of ozone (NO_x and VOC). Ground level ozone is not emitted directly into the air but is created by chemical reactions between oxides of nitrogen and reactive organic gases (NO_x and VOCs). Therefore, NO_x and VOCs are considered precursors for ozone and are commonly used to evaluate potential impacts related to ozone.

MBARD also enforces local rules to help further the goals of the *2012-2015 Air Quality Management Plan* (MBARD 2017), of which the following are potentially relevant to proposed airport improvements:

- Rule 400 – Visible Emissions. Imposes general and industry-specific restrictions on particulate emissions that would obscure visibility in the NCCAB.
- Rule 402 – Nuisances. Restricts discharges of air contaminants or other materials that cause injury, nuisance, or annoyance to the public or businesses.
- Rule 403 – Particulate Matter. Establishes an overall emissions discharge limit of 0.15 grain per standard dry cubic foot of exhaust gas, as well as hourly limits based on process rates.
- Rule 412 – Sulfur Content of Fuels. Restricts burning of gaseous fuels containing more than 50 grains per 100 cubic feet of hydrogen sulfide, or any fuels with a gross sulfur content exceeding 0.5 percent by weight.
- Rule 424 – National Emission Standards for Hazardous Air Pollutants (NESHAP). The Federal Asbestos NESHAP regulates asbestos removals and building demolitions and is enforced through Rule 424.
- Rule 425 – Use of Cutback Asphalt. Imposes restrictions on the manufacture, sale, and use of rapid cure, medium cure, slow cure, and emulsified asphalts within the district.

- Rule 426 – Architectural Coatings. Imposes limits on the content of architectural coatings (e.g., interior and exterior paints and solvents) in order to reduce the emission of volatile organic compounds.

Additionally, MBARD engages in the following programs to reduce ozone precursors (NO_x and VOC): providing grant funds for direct emission reduction projects such as roadway roundabout design, and construction and the application of adaptive traffic signal control at intersections. MBARD also implemented the Monterey Bay Clean Vehicle Program, which offered cash rebates to the public for the purchase or lease of battery electric and plug-in hybrid electric vehicles.

Local General Plan

The *City of Monterey General Plan* includes the following goal and policies related to transportation-related air pollutant emissions (City of Monterey 2005):

Goal c. Reduce fixed source and transportation-based air pollution.

Policy c.1. Reduce air pollution generated by motor vehicles by encouraging the use of public transit, carpooling, bicycles, and walking as alternatives. Policies to achieve these goals are found in the Circulation Element.

Policy c.2. Consider air quality impacts resulting from proximity of residential, commercial, and industrial development in the City's development review process, primarily the California Environmental Quality Act.

Policy c.3. Promote cooperation with local and state agencies to develop programs to reduce sources of air pollution.

4.3.2 Methodology

The following text outlines the methodology used to prepare the analyses for this section. In cases where a quantitative methodology is not suitable for evaluating air pollutant effects, a qualitative methodology is presented.

Construction Impacts

To quantify air pollutant emissions from construction activity, a construction emissions inventory for each of the alternatives was prepared using the California Emissions Estimator Model (CalEEMod) version 2016.3.2. The CalEEMod software model, published by the California Air Pollution Control Officers Association (CAPCOA) in collaboration with various California air districts, estimates on-road vehicle emissions, such as those from dump trucks or light-duty work trucks, and off-road vehicle emissions, such as heavy construction equipment. The modeling results also include emissions resulting from earthmoving (e.g., grading and site preparation), structure demolition, and building construction. CalEEMod inputs for worker trips, haul trips, equipment activity, disturbed ground surface area, and

material quantities are based on engineering estimates (where available) and the construction schedule discussed in Section 2.7.2. CalEEMod includes emissions factors that are adjusted to local climatic conditions in the area overseen by MBARD.

Proposed short-term projects modeled in CalEEMod for construction-related emissions estimate purposes included the proposed relocation and construction of GA north side hangars, the relocated commercial terminal complex and ARFF, and the proposed “north side” and Highway 68 frontage roads.

Detailed, building-specific information for construction of long-term projects was not available. Therefore, default construction values in CalEEMod were used to represent the air pollutant emissions associated with construction of these facilities. For purposes of the proposed long-term projects, the emission estimates assumed construction of 400,000 sf of light industrial development, 325,000 sf of office park development, and 106 additional aircraft storage hangars on the Airport’s north side. CalEEMod includes emissions factors for light industrial development and office park development. Aircraft storage hangars are not included in CalEEMod; therefore, construction of the hangars is represented by the default values of a warehouse facility with the same square footage as the proposed hangars. Proposed south side, long-term projects modeled in CalEEMod included 10,000 sf of high-turnover restaurant development, 45,000 sf of medical/dental office development, and 94,000 sf of general office development. These land uses are included in CalEEMod, and the default values were used for the modeling of construction-related emissions.

Operational Impacts

Operational air pollutant emissions from the existing condition and Proposed Project or Alternative 1 improvements are associated with changes in vehicular emissions from traffic that would result from future development projects. These emissions were modeled with CalEEMod. Operational air pollutant emissions also include direct emissions from energy use (natural gas) associated with operating new buildings; these emissions also were estimated with CalEEMod.

As previously discussed in this EIR, no changes to the airfield or terminal (gate) capacity are proposed under the Proposed Project or Alternative 1. However, aircraft operational air pollutant emissions associated with the cumulative growth forecast approved by the Federal Aviation Administration (FAA) for planning purposes (see **Appendix B**) are addressed in Section 5.3 of this EIR. The standard methodology for analyzing air emissions conditions at airports involves the use of a computer simulation model. Specifically, the FAA has approved the Aviation Environmental Design Tool (AEDT) for calculating aircraft operational emissions for environmental documentation. Using the same inputs, AEDT is also used to model noise exposure contours. Additional information regarding the model may be found in **Appendix K**.

Diesel Particulate Matter Impacts

To provide an analysis of potential health risks associated with DPM related to proposed construction activity, a health risk assessment (HRA) conducted as part of the certified *Environmental Impact Report for the Proposed Runway Safety Area Improvements at Monterey Peninsula Airport* (MPAD 2010) has

been used. This major construction project was completed in 2015 over a period of approximately two years. Construction details provided in the EIR were reviewed for similarity between the Runway Safety Area Improvements Project (RSA Project) and the Proposed Project and Alternative 1. Based on that review, the types of equipment used and the proximity of the construction activity areas to sensitive receptors of the three scenarios (RSA Project, Proposed Project and Alternative 1) are all similar in that they include use of common diesel fuel-powered equipment such as bulldozers, graders, and dump trucks. Additionally, the intensity of the construction period (i.e., number of construction equipment operation hours per day) for the RSA Project was greater than what is projected for Proposed Project and Alternative 1. As noted in the RSA Project EIR, the estimated pounds per day for PM_{2.5} for the RSA Project analysis ranged between 15.5 and 16.7 pounds per day. In comparison, PM_{2.5} emissions for the Proposed Project and Alternative 1 range between 0.2 and 3.3 pounds per day, which indicates a lesser amount of equipment activity per day when compared to the RSA Project. Based on the information above, it is assumed that the findings of the HRA prepared for the RSA Project provide an overstatement of the potential effects of the Proposed Project or Alternative 1 and can be used as a “worst case” analysis.

The potential health risks associated with exposure to DPM result from long-term exposure and are generally considered to be related to cumulative lifetime exposure to DPM. The RSA Project’s HRA outputs included non-cancer health risks for both acute (short term) and chronic (long term) conditions, which were measured against a hazard index (HI) established by the State of California Office of Environmental Health Hazard Assessment (OEHHA). If the HI was greater than one, the impact was considered significant. The HRA also calculated cancer risks which were identified as the lifetime possibility of developing cancer from exposure to carcinogenic substances. Cancer risks are expressed as the chances in one million of contracting cancer; for example, one cancer case among one million people exposed. A project has a significant cancer risk if the cancer risk at a receptor exceeds 10 in one million.

4.3.3 Existing Conditions

Attainment Status

Table 4.3A details the NAAQS, as well as NCCAB’s attainment status, for all regulated pollutants at the federal level. The NCCAB is currently in attainment for all federal criteria air pollutants. **Table 4.3A** also details the CAAQS and describes the NCCAB’s status with respect to these state standards. Regarding the CAAQS, the NCCAB is classified as nonattainment for PM₁₀ and nonattainment-transitional for ozone.

TABLE 4.3A
National and California Ambient Air Quality Standard Attainment Levels

Pollutant	Averaging Time	NAAQS	NCCAB Attainment Status	CAAQS ^a	NCCAB Attainment Status
Carbon Monoxide (CO)	8-hour	9 ppm ^b	Attainment	9 ppm	Attainment
	1-hour	35 ppm ^b	Attainment	20 ppm	Attainment
Nitrogen Dioxide (NO ₂)	Annual	0.053 ppm	Attainment	0.030 ppm	Attainment
	1-hour	0.100 ppm	Attainment	0.18 ppm	Attainment
Particulate Matter (PM ₁₀)	24-hour	150 µg/m ³ ^c	Attainment	50 µg/m ³	Nonattainment
	Annual	--	--	20 µg/m ³	
Particulate Matter (PM _{2.5})	Annual	15.0 µg/m ³ ^d	Attainment	12.0 µg/m ³	Attainment
	24-hour	35 µg/m ³ ^e	Attainment	--	--
Ozone (O ₃)	8-hour	0.070 ppm ^f	Attainment	0.07 ppm	Nonattainment - Transitional ⁱ
	1-hour	0.12 ppm ^g	Attainment	0.09 ppm	
Sulfur Dioxide (SO ₂)	Annual	0.03 ppm	Attainment	--	--
	24-hour	0.14 ppm ^b	Attainment	0.04 ppm	Attainment
	3-hour	0.5 ppm ^b	Attainment	--	--
	1-hour	--	--	0.25 ppm	Attainment
Lead (Pb)	Rolling 3-month	0.15 µg/m ³	Attainment	--	--
	Quarterly	1.5 µg/m ³	Attainment	--	--
	30-day	--	--	1.5 µg/m ³	Attainment
Visibility-Reducing Particles	8-hour	--	--	0.23 ^h	Attainment
Sulfates	24-hour	--	--	25 µg/m ³	Attainment
Hydrogen Sulfide	1-hour	--	--	0.03 ppm	Attainment
Vinyl Chloride	24-hour	--	--	0.01 ppm	Attainment

Sources: U.S. EPA 2016, <https://www.epa.gov/criteria-air-pollutants/naaqs-table>; CARB 2016a, <https://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm#table>

ppm = parts per million; µg/m³ = one-millionth of a gram per cubic meter air

^a The CAAQS for O₃, CO, SO₂ (1 and 24 hour), NO₂, particulate matter, and visibility-reducing particles are not to be exceeded. All other standards are not to be equaled or exceeded.

^b Not to be exceeded more than once per year.

^c Not to be exceeded more than once per year on average over three years.

^d To attain this standard, the three-year average of the weighted annual mean PM_{2.5} concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m³.

^e To attain this standard, the three-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m³.

^f To attain this standard, the three-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm.

^g The 1997 1-hour O₃ NAAQS, including any implementation rules, only applies to limited areas, but shall remain in place for implementation purposes until U.S. EPA undertakes rulemaking to address the transition from the 1997 standard to the 2008 8-hour standard. The 1-hour standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is ≤ 1.

^h The visibility-reducing particles standard refers to an extinction coefficient of 0.23 per kilometer; visibility of ten miles or more when relative humidity is <70 percent.

ⁱ Nonattainment-Transitional is a subcategory of nonattainment. For ozone, there must be three or fewer exceedances in the previous year.

Airport Emissions

Aircraft Emissions

Table 4.3B summarizes the air pollutant emissions resulting from aircraft operations at the Airport based on aircraft operations and fleet mixes in 2015. The FAA’s AEDT was used to calculate existing airport operational emissions using the same modeling inputs for the noise exposure contours discussed in Section 4.12, Noise (**Appendix K**).

TABLE 4.3B
Aircraft Operation Air Pollutant Emissions Inventory - Existing Condition (2015)
Monterey Regional Airport

Year	Tons/Year					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
2015	7.7	28.7	284.4	3.8	1.9	1.9

Source: AEDT analysis (**Appendix E**).

Building Operational Emissions

Table 4.3C presents the estimated operational air pollutant emissions from the existing commercial terminal, aircraft rescue and firefighting (ARFF) building, and southeast hangars based on their known utility demand. These facilities were selected for modeling because they would be altered as part of the Proposed Project and Alternative 1, and therefore represent the only elements of the Airport where change would occur as part of the proposed improvements.¹ Totals for each of the listed facilities include air pollutant emissions for energy, water, and wastewater consumption related to operation of the buildings.

Airport land uses are not included in CalEEMod. Therefore, similar land uses were selected to represent the existing facilities. Specifically, the approximate 70,000-square foot (sf) existing terminal is represented by 11,200 sf of light industrial space and 58,800 sf of government office space in CalEEMod. For the ARFF, a public facility land use, with 8,400 sf of building space, was selected. The southeast hangar areas were modeled using light industrial land uses totally approximately 126,000 sf. The model year for the calculations is 2015.

TABLE 4.3C
Building Emissions Inventory - Existing Condition (2015)
Monterey Regional Airport

Existing Land Use	Pounds/Day					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Existing Terminal – Building Energy	0.33	0.06	0.05	<0.01	0.03	0.03
Existing ARFF – Building Energy	0.04	0.01	0.01	<0.01	<0.01	<0.01
Southeast Hangars – Building Energy and Vehicles	3.48	1.28	3.44	0.01	0.41	0.13
Total	3.85	1.35	3.5	0.1	0.44	0.16

Source: CalEEMod analysis (**Appendix E**).
 NOTE: Numbers reflect rounding.

The emissions estimates presented in **Table 4.3C** were calculated used default CalEEMod settings. For calibration, the CalEEMod results for the commercial terminal and ARFF were compared to actual energy consumption information for the commercial terminal and ARFF. In both cases, the difference in the

¹ The emissions data presented does not reflect air pollutant emissions for other facilities and sources at the Airport; air pollutant sources are not known for each airport tenant, and an airport-wide air pollutant emissions inventory is beyond the scope of this EIR based on the parameters of the Proposed Project.

CalEEMod and actual energy consumption results was less than two percent. Additional information regarding energy use may be found in Section 4.6.

Vehicular Emissions

Vehicle air pollutant emissions associated with the southeast hangars to be removed were also included in this EIR's existing pollutant inventory (see **Table 4.3C**) as changes in vehicle activity would occur as a result of the demolition of these buildings. As such, vehicle activity associated with the southeast hangars has been quantified. A user-input value of 62 vehicle trips per day for the entire hangar development was used based on information provided in the *Traffic Impact Analysis Report for the Monterey Regional Airport's Proposed Master Plan and Associated Development Projects, Monterey County, California* (EIR Traffic Study) (**Appendix M**). Existing vehicle trips (and thus emissions) specific to the existing ARFF, the existing terminal, and all tenants at the Airport have not been quantified.

4.3.4 Thresholds of Significance

The following thresholds have been selected based on the *California Environmental Quality Act* (CEQA) Guidelines, Appendix G, as well as MBARD's *CEQA Air Quality Guidelines* (MBARD 2008) and MBARD's *Guidelines for Implementing the California Environmental Quality Act* (MBARD 2016). It should be noted that MBARD has two sets of thresholds: one addresses the District's role in (2016 thresholds) when MBARD is the Lead Agency, and one provides guidance for other lead agencies (2008 thresholds) when preparing environmental documents.

Significant air quality impacts could occur if the Proposed Project would:

- Threshold 4.3-1: Result in mass daily emissions during construction or operation that exceed the thresholds summarized in **Table 4.3D**;
- Threshold 4.3-2: Conflict or obstruct implementation of the applicable air quality plan;
- Threshold 4.3-3: Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Threshold 4.3-4: Create objectionable odors affecting a substantial number of people; or
- Threshold 4.3-5: Expose sensitive receptors to substantial pollutant concentrations.

**TABLE 4.3D
Air Pollutant Significance Thresholds
Monterey Bay Air Resources District**

Criteria Pollutant	Construction Thresholds	Operational Thresholds
	Maximum Daily Emissions (pounds/day)	Average Daily Emissions (pounds/day)
Volatile organic compounds (VOC) or reactive organic gases (ROG)	137	137
Nitrogen oxides (NO _x)	137	137
Carbon monoxide (CO)	550	550
Particulate matter < 10 micrometers	82 ¹	82 ¹
Particulate matter < 2.5 micrometers	55	55
Sulfur dioxide (SO ₂)	150	150

Sources: MBARD 2008 CEQA Air Quality Guidelines; MBARD 2016 Guidelines for Implementing the California Environmental Quality Act)

¹ Emissions exceeding this threshold are considered significant by MBARD if dispersion modeling results exceed the ambient air quality standard. Air pollutant dispersion modeling was not conducted for this project because initial modeling indicates that the Proposed Project and Alternative 1 PM₁₀ emissions are well below the established threshold; therefore, the emissions thresholds are used to judge the significance without dispersion modeling.

4.3.5 Impact Analysis

4.3.5.1 Threshold 4.3-1 - Result in mass daily emissions during construction or operation that exceed the thresholds summarized in Table 4.3D

Proposed Project

Construction Impacts

Implementation of the Proposed Project would generate air pollutant emissions related to construction activities for approximately 11 years (2019-2029). Construction-related air pollutant emissions vary based on the duration and level of activity at issue and include exhaust emissions from construction equipment and vehicles and fugitive dust emissions from land disturbance, material staging, and demolition. As such, the level of activity and corresponding level of emissions would vary each year based on improvements undertaken.

Construction-related emissions tend to be temporary and short in duration but have the potential to cause localized air quality impacts. **Table 4.3E** summarizes the maximum pounds per day of each criteria pollutant for each construction year for the Proposed Project, based on engineering estimates for each of the proposed short-term projects. The table also includes criteria pollutant estimates associated with construction of the proposed long-term projects under the Proposed Project. It should be noted that the emissions estimate for the proposed long-term projects represents a worst-case scenario in which all construction activity associated with the long-term projects occurs simultaneously.

The table also includes the MBARD construction emissions thresholds. As noted in the table, the construction emissions for the Proposed Project are below the applicable thresholds for each of the time

periods analyzed. Therefore, construction emissions associated with construction of the Proposed Project’s short-term and long-term project components would be Less than Significant.

All proposed development would be required to meet the regulatory requirements of CARB and the MBARD (see AQ/rr-1 and AQ/rr-2, Section 4.3.6).

TABLE 4.3E
Construction Emissions Inventory¹ (Short-Term and Long-Term Projects)
Proposed Project

Year	Construction Emissions (pounds per day)					
	VOC ²	NO _x	CO	SO ₂	PM ₁₀ ³	PM _{2.5} ³
Short-Term Project Components						
2019	4.9	43.1	38.2	0.1	6.1	2.7
2020	4.9	43.1	38.2	0.1	6.1	2.7
2021	4.9	43.1	38.2	0.1	6.1	2.7
2022	5.4	49.6	47.6	0.1	6.8	3.3
2023	5.2	42.1	57.0	0.1	5.9	3.1
2024	1.6	16.4	16.5	<0.1	1.7	0.9
2025	3.2	28.9	34.9	0.1	3.7	2.0
2026	0.5	4.0	4.3	<0.1	0.3	0.2
2027	5.5	54.4	39.5	0.1	5.1	3.5
2028	1.1	11.0	12.3	<0.1	0.9	0.5
2029	7.2	83.5	80.5	0.3	7.1	4.2
Long-Term Project Components						
2035 ⁴	8.3	45.1	61.8	0.2	54.7	1.4
Significance Threshold ⁵	137	137	550	150	82	55
Emissions Exceed Threshold?	No	No	No	No	No	No

Source: CalEEMod analysis (**Appendix E**)
¹ Includes emissions from on-road (worker and truck trips) and off-road (construction equipment) sources. Represents maximum daily emissions during the construction year.
² Also referred to as Reactive Organic Gases (ROGs).
³ Includes fugitive particulates and exhaust particulates.
⁴ Represents maximum daily emissions during a construction year (2035) for all long-term projects and represents a scenario in which all construction activity occurs simultaneously.
⁵ MBARD 2008 *CEQA Air Quality Guidelines*; MBARD 2016 *Guidelines for Implementing the California Environmental Quality Act*).

Short-Term Project Impacts

Table 4.3F presents the estimated operational air pollutant emissions associated with the proposed relocated southeast hangars, commercial terminal, and ARFF buildings using CalEEMod. As discussed in EIR Section 4.16, Traffic, no new vehicular trips are associated with the proposed commercial terminal and commercial terminal apron relocation; the number of aircraft gate positions (five) would remain the same as the existing terminal. Additionally, it is assumed that trips associated with the relocated ARFF would shift from the existing location to the proposed location and no meaningful change in vehicular emissions would occur. Therefore, only the changes in vehicle activity associated with proposed development of the north side hangars is included in the short-term operational analysis. As noted in

the table, the totals include the net increase in vehicular operational emissions only for the proposed north side hangars.

TABLE 4.3F
Operational Emissions Inventory (Short-Term Projects)
Proposed Project (2022¹)

Proposed Project Components	Pounds/Day					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Relocated Terminal	0.47	0.09	<0.01	<0.01	0.01	0.01
Relocated ARFF	0.06	0.01	0.01	<0.01	<0.01	<0.01
Relocated North Side Hangars ²	0.78	0.13	0.32	<0.01	0.06	0.02
Total	1.31	0.23	0.33	<0.01	0.07	0.03
Significance Threshold	137	137	550	150	82	55
Emissions Exceed Threshold?	No	No	No	No	No	No

Source: CalEEMod analysis.
¹ 2022 reflects anticipated completion date of project components listed in this table.
² Includes a net increase in vehicular operational emissions.
 NOTE: Numbers reflect rounding. Also, although the Proposed Project and Alternative 1 would result in the replacement of these existing land uses and their associated emissions, no quantitative credit is taken for the replacement of the buildings in the impact assessment provided below. Instead, the impact assessment conservatively assumed that the existing conditions baseline associated with these existing buildings is zero pounds per day for each of the referenced criteria air pollutants. Note, however, that the impact assessment does reflect only the net increase in vehicular-related emissions associated with the hangars.

As previously discussed, aircraft storage hangars are not a default land use included in the CalEEMod model; therefore, 30,000 sf of industrial development was selected to represent the hangars for the purposes of this analysis. Additionally, aircraft terminals are not a default land use included in the CalEEMod model. Therefore, for purposes of this analysis, the 100,000-sf terminal was represented by 16,000 sf of light industrial space and 84,000 sf of government office space. For the ARFF, a building size of 13,400 sf was used, and a public facility was selected. These assumptions are based on the project description found in Sections 2.5.2 and 2.6.1 of this EIR.

Beginning in approximately 2022, additional trips could occur on the north side following proposed construction of seven hangars. CalEEMod was used to estimate air pollutant emissions related to operation of these hangars. Because aircraft storage hangars are not a default land use included in the CalEEMod model, a user-input value of 10 vehicle trips per day associated with the entire hangar development was used based on information provided in the *Monterey Regional Airport Environmental Impact Report Traffic Analysis (Appendix M)*.

Table 4.3F summarizes the daily operational emissions associated with the proposed short-term projects. The table also includes the MBARD operational emissions thresholds. As noted in the table, the operational emissions for the Proposed Project’s short-term projects are below the applicable thresholds for each of the time periods analyzed. Therefore, operational emissions associated with proposed short-term components of the Proposed Project would be Less than Significant.

Long-Term Project Impacts (Programmatic)

CalEEMod was also used to model anticipated operational activity on both the north side and the south side of the Airport for year 2035. This Proposed Project long-term projects contain opportunities for a variety of non-aviation land uses. Representative land uses for purposes of this analysis include general light industrial, office park, and additional hangar development on the north side of the Airport, and high-turnover restaurant, medical-dental office, and general office on the south side of the Airport. These non-aviation land uses were chosen for evaluation to represent a conservative assessment of the possible future development upon airport buildout. The traffic analysis associated with these long-term non-aviation land uses was only considered at a programmatic level. Project-specific traffic studies and other environmental analyses may be required before any of these non-aviation land uses could be developed.

As previously discussed, for purposes of this analysis, it was assumed that future north side projects could include construction of 400,000 sf of light industrial development, 325,000 sf of office park development, and 106 additional aircraft storage hangars. CalEEMod includes emissions factors for light industrial development and office park development. As with the operational short-term analysis, a user-input value was used for the hangars based on information provided in the *Monterey Regional Airport Environmental Impact Report Traffic Analysis* (i.e., a value of 149 trips per day for the entire hangar development was used). Proposed south side projects modeled in CalEEMod included 10,000 sf of high-turnover restaurant development, 45,000 sf of medical/dental office development, and 94,000 sf of general office development. These land uses are included in CalEEMod, and the default operational values were used for the modeling.

Table 4.3G summarizes the estimated air pollutant emissions associated with proposed long-term projects. The table also includes the MBARD operational emissions thresholds. As noted in the table, the operational emissions for the Proposed Project’s long-term projects are below the applicable thresholds for each of the time periods analyzed. Therefore, operational emissions associated with proposed long-term projects of the Proposed Project would be Less than Significant.

Proposed Project Component	Pounds/Day					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
South Side ¹	13.71	43.33	92.45	0.24	16.35	4.63
North Side ¹	36.62	86.87	201.05	0.56	39.09	11.16
Total	50.32	130.20	293.51	0.81	55.44	15.79
Significance Threshold	137	137	550	150	82	55
Emissions Exceed Threshold?	No	No	No	No	No	No

Source: CalEEMod analysis.
 NOTE: Numbers may not add due to rounding.
¹ Includes vehicular operational emissions.

Less than Significant Impact:

As noted in the tables, estimated emissions for the Proposed Project would not exceed the established mass daily construction or operational emissions thresholds of the MBARD for either proposed short-term or long-term projects per Threshold 4.3-1.

Alternative 1

Construction Impacts

Implementation of Alternative 1 also would generate air pollutant emissions related to construction activities for approximately ten years (2019-2028). **Table 4.3H** summarizes the maximum pounds per day for each construction year for Alternative 1 based on engineering estimates for each of the proposed project components. The table also includes criteria pollutant estimates associated with construction of the proposed long-term projects under the Proposed Project. It should be noted that the emissions estimate for the proposed long-term projects represents a worst-case scenario in which all construction activity associated with the long-term projects occurs simultaneously.

TABLE 4.3H
Construction Emissions Inventory¹ (Short-Term and Long-Term Projects)
Alternative 1

Year	Construction Emissions (pounds per day)					
	VOC ²	NO _x	CO	SO ₂	PM ₁₀ ³	PM _{2.5} ³
Short-Term Project Components						
2019	4.9	43.1	38.2	0.1	6.1	2.7
2020	2.3	24.8	19.2	0.1	3.1	1.8
2021	0.6	5.1	5.1	8.4	0.4	0.3
2022	5.4	49.6	47.6	0.1	6.8	3.3
2023	5.2	42.1	57.0	0.1	5.9	3.1
2024	1.6	16.4	16.5	<0.1	1.7	0.9
2025	4.2	41.4	35.0	1.8	5.4	2.7
2026	4.8	45.4	61.6	0.1	4.4	2.6
2027	0.6	6.7	6.4	<0.1	0.7	0.3
2028	0.7	7.3	6.8	<0.1	0.6	0.4
Long-Term Project Components						
2035 ⁴	8.3	45.1	61.8	0.2	54.7	1.4
Significance Threshold ⁵	137	137	550	150	82	55
Emissions Exceed Threshold?	No	No	No	No	No	No

Source: CalEEMod analysis (**Appendix E**).

¹ Includes emissions from on-road (worker and truck trips) and off-road (construction equipment) sources. Represents maximum daily emissions during the construction year.

² Also referred to as Reactive Organic Gases (ROGs).

³ Includes fugitive particulates and exhaust particulates.

⁴ Represents maximum daily emissions during a construction year for all long-term projects and represents a scenario in which all construction activity occurs simultaneously.

⁵ MBARD 2008 CEQA Air Quality Guidelines; MBARD 2016 Guidelines for Implementing the California Environmental Quality Act).

As noted in the table, the construction emissions for Alternative 1 would be below the applicable thresholds for each of the time periods analyzed, such that impacts would be Less Than Significant.

All proposed development under Alternative 1 would be required to meet the regulatory requirements of CARB and the MBARD (see AQ/rr-1 and AQ/rr-2, Section 4.3.6).

Short-Term and Long-Term Project (Programmatic) Impacts

The analysis described above for project impacts of the Proposed Project are the same for Alternative 1, as emissions from the proposed short- and long-term projects would be the same regardless of whether they are built on the north or the south side. The operational emissions for Alternative 1 would be below the applicable thresholds for each of the time periods analyzed (**Tables 4.3F** and **4.3G**). Therefore, operational emissions associated with proposed short- and long-term projects of Alternative 1 would be Less than Significant.

Less than Significant Impact: *As noted in the tables, estimated emissions for Alternative 1 would not exceed the established mass daily construction or operational emissions thresholds of the MBARD for either proposed short-term or long-term projects per Threshold 4.3-1.*

4.3.5.2 Threshold 4.3-2 - Conflict or obstruct implementation of the applicable air quality plan

Proposed Project and Alternative 1

Construction and Short-Term and Long-Term (Programmatic) Project Impacts

As previously noted, MBARD prepared the *2012-2015 Air Quality Management Plan* to identify control measures to meet the CAAQS for which the area does not attain (1-hour ozone and PM₁₀). The AQMP includes emissions inventories for precursors of ozone (NO_x and VOC). The AQMP accommodates growth by projecting growth in emissions based on different indicators. For example, population forecasts adopted by AMBAG are used to forecast population-related emissions. Through the planning process, emission growth is offset by basin-wide controls on stationary, area, and transportation sources of air pollution (MBARD 2008:5-10).

The Proposed Project and Alternative 1 include construction of a proposed relocated commercial terminal complex (including apron, terminal loop road and roundabout, and vehicular parking lots and garage). The roundabout feature would support implementation of the AQMP by reducing automobile idling emissions. Construction of the improvements outlined in the Proposed Project and Alternative 1 would be undertaken with typical off-road construction equipment such as backhoes, scrapers, graders, and front-end loaders. Additionally, typical on-road equipment, including dump trucks and pick-up trucks, would be used. Regarding operational emissions, typical automobiles and trucks would be used. The AQMP emissions inventories include off-road and on-road activities with the typical equipment used in the air pollutant emissions modeling prepared for this study.

As outlined in Table 4-1, Emission Inventory and Forecasts for NO_x of the AQMP, it is estimated that 31.61 tons per day, or approximately 63,220 pounds per day, of NO_x would be emitted by all sources in the NCCAB in 2020. In comparison, in the year with the greatest amount of construction activity (2029), construction NO_x emissions would be 83.5 pounds per day (**Table 4.3E**), and operational NO_x emissions would be 130.2 pounds per day (**Tables 4.3F and 4.3G**) for the Proposed Project (213.7 pounds per day when combined), which would represent less than 0.03 percent of the AQMP’s forecasted total emissions. For Alternative 1, the year with the greatest amount of construction NO_x emissions is 2022, with 49.6 pounds per day (**Table 4.3H**). Operational NO_x emissions for that year would be 130.2 pounds per day (**Tables 4.3F and 4.3G**). When combined, the total would be 179.8 pounds per day, which would represent less than 0.03 percent of the AQMP’s forecasted total emissions.

Anticipated growth in project-related construction and operational emissions is accounted for in the AQMP since the Airport is an existing land use within the NCCAB and has had ongoing maintenance and capital improvement projects. Additionally, as noted previously, the Proposed Project and Alternative 1 would not exceed the mass daily construction or operational emissions thresholds, which are used to screen projects for potential interference with the AQMP. Therefore, it is not expected that the project activity would interfere with any plans, regulations, or policies currently enacted in the NCAAB.

Less than Significant Impact: *Per Threshold 4.3-2, construction and operation of the Proposed Project or Alternative 1 would not conflict with or obstruct implementation of the applicable air quality plan.*

4.3.5.3 Threshold 4.3-3 - Violate any air quality standard or contribute substantially to an existing or projected air quality violation

Proposed Project and Alternative 1

Construction and Short-Term and Long-Term (Programmatic) Project Impacts

As shown in **Table 4.3A**, the NCCAB area currently attains all NAAQS, but is a CAAQS nonattainment area for PM₁₀ and ozone. Nonetheless, because emissions from the proposed projects under the Proposed Project or Alternative 1 would be below the MBARD’s thresholds, the Proposed Project and Alternative 1 would result in Less than Significant impacts with respect to a potential NAAQS or CAAQS violation.

Less than Significant Impact: *Per Threshold 4.3-3, the Proposed Project or Alternative 1 would not significantly contribute to a violation of the CAAQS or NAAQS since project-specific emissions would be below the MBARD-established emission thresholds.*

4.3.5.4 Threshold 4.3-4 - Create objectionable odors affecting a substantial number of people

Proposed Project and Alternative 1

Construction and Short-Term and Long-Term (Programmatic) Project Impacts

MBARD has not adopted thresholds for objectionable odors. However, as part of a personal interview with MBARD staff regarding this topic, MBARD staff concurred with the use of other air quality management districts’ methodology for determining impacts when MBARD does not have adopted thresholds (Nunes, B., MBARD, Air Quality Planner 2016). Therefore, based on San Luis Obispo County Air Pollution Control District’s Air Quality Handbook (SLOAPCD 2012), a review of a three-year complaint history related to the proposed activity can be used to establish a baseline condition for odor-generating sources.

Coordination with MBARD also was undertaken to determine if complaints of nuisance or annoyance related to emissions of air contaminants including smoke, dust, or odors at Monterey Regional Airport have been received. MBARD staff responded that, based on records dating back to 2015, there are no records of complaints (MBARD 2018). Additionally, a review of the Airport’s records for the previous three years, which includes construction of the recent RSA Project completed in 2015, indicates that only one complaint related to operational-related odors and no complaints related to construction odors occurred (refer to **Appendix A**, email from S. Bachman, Senior Park and Recreation Specialist, California State Parks, dated January 4, 2016). Based on the one complaint received, the area of the Airport affected by the complaint is the FBO area in the Airport’s southwest corner. This area is not being changed by the Proposed Project. However, the Airport will continue to address this existing concern.

The Proposed Project and Alternative 1 would result in the same or similar construction and operational activities as those that occurred during the Airport’s three-year historical profile; as such, it is reasonable and appropriate to use the historical profile as a basis to determine that the Proposed Project or Alternative 1 would result in Less than Significant impacts related to objectionable odors.

Less than Significant Impact: *Construction and operation of the Proposed Project or Alternative 1 would not expose a substantial number of people to objectionable odors per Threshold 4.3-4.*

4.3.5.5 Threshold 4.3-5 - Expose sensitive receptors to substantial pollutant concentrations

Proposed Project and Alternative 1

Construction Impacts

Section 4.11 addresses general construction impacts to adjacent land uses in proximity to construction sites associated with the Proposed Project and Alternative 1. However, some receptors are more sensitive to pollutants and, therefore, potential health risks need to be evaluated.

As part of the certified *Environmental Impact Report for the Proposed Runway Safety Area Improvements at Monterey Peninsula Airport* (MPAD 2010), an HRA was conducted to estimate pollutant exposure from construction of that project to nearby residences and other sensitive receptors. As previously discussed, construction details provided in that EIR were reviewed for similarity between the RSA Project and the Proposed Project and Alternative 1. Specifically, types of equipment expected to be used, daily emissions from diesel-powered construction equipment, and proximity to sensitive receptors were evaluated. Based on the comparison between the projects, the findings of the RSA Project's HRA provide an overstatement of the potential effects of the Proposed Project or Alternative 1 and can be used as a "worst case" analysis. Therefore, the RSA Project's HRA is summarized here and will be used to draw conclusions for the Proposed Project and Alternative 1. That HRA was prepared in accordance with the OEHHA *Air Toxics Hot Spots Program Risk Assessment Guidelines* and focused on DPM.

For the purposes of this discussion, a "sensitive receptor" is defined as any residence including private homes, condominiums, apartments, and living quarters; education facilities such as preschools and kindergarten through grade twelve (k-12) schools; daycare centers; and health care facilities such as hospitals or retirement and nursing homes. Construction workers present at the site are also considered sensitive receptors. The following sensitive receptors are located within 1,000 feet of the proposed construction areas: Directly north of the Airport is a residential development located within the City of Del Rey Oaks. Also, on the north side of the Airport is the Casanova Oak Knolls Association (CONA) neighborhood located within the City of Monterey, which includes single-family residential properties and multifamily residential properties.

The RSA Project's HRA was intended to provide a conservative estimate of changes in annual DPM concentrations in the project vicinity over time. Using an U.S. EPA screening model (SCREEN3), annual DPM concentrations and associated cancer and non-cancer health risks were calculated. Based on the results of the HRA, the predicted chronic HI for the maximum exposed residential receptor was 0.1. For the maximum exposed worker receptor, the chronic HI was 0.03. For the maximum exposed school receptor, the chronic HI was less than 0.01. These results are below the threshold of 1.

The maximum cancer risk for the residential and construction worker receptors was 0.04 per million each. The maximum cancer risk for the school receptor was less than 0.01 per million. Thus, the cancer risk for the maximum exposed receptors as calculated for the RSA Project's HRA did not exceed the threshold of 10 in one million.

As previously noted, the magnitude of the construction for the RSA Project exceeded the estimates of exhaust emissions for the proposed airport improvements considered in this EIR. Therefore, it can be reasonably assumed that the results may be used to infer that the Proposed Project or Alternative 1 would not expose sensitive receptors to significant amounts of pollution, and impacts related to exposure of sensitive receptors to significant amounts of pollution during construction would be Less than Significant.

Additional information and analysis regarding removal and disposal of asbestos may be found in Section 4.9.2.

Short-Term Project Impacts

Based on the analysis summarized in **Table 4.3F**, the estimated operational emissions from proposed short-term projects would be well below the adopted MBARD thresholds for the time periods analyzed; therefore, dispersion modeling was not prepared. Based on information derived from the traffic study prepared for Section 4.16, average daily vehicle trips (ADT) at the Airport would remain consistent with existing vehicle activity levels with the proposed short-term project components under either the Proposed Project or Alternative 1. For example, ADT for Olmsted Road (on the south side of the Airport) are expected to decrease by 58 ADT for the Proposed Project and by 76 ADT for Alternative 1. On the proposed “north side” road, ADT would be zero for the Proposed Project (since the new road would not be constructed in the short-term) and would convey approximately 102 ADT for Alternative 1. Airport Road would experience an increase of 72 ADT under the Proposed Project and a decrease by 10 ADT under Alternative 1. In all cases and on all roads leading to the Airport, the vehicular traffic associated with the proposed short-term projects would generate only very minor amounts of pollutant concentrations, and impacts related to exposure of sensitive receptors to substantial pollutant concentrations related to operation of short-term projects would be Less than Significant.

Long-Term Project Impacts (Programmatic)

Based on the analysis summarized in **Table 4.3G**, the estimated operational emissions from proposed long-term projects would be well below the adopted MBARD thresholds for the time periods analyzed; therefore, dispersion modeling was not prepared. However, using information derived from the traffic study prepared for Section 4.16, ADT at the Airport are projected to increase with implementation of proposed long-term project components. For example, ADT for Olmsted Road (on the south side of the Airport) are expected to increase by 3,717 ADT for the Proposed Project and by 3,794 ADT for Alternative 1. On the proposed “north side” road, ADT are projected to be 6,913 ADT for the Proposed Project and 6,933 ADT for Alternative 1; ADT on Airport Road would decrease by 10 ADT under either the Proposed Project or Alternative 1 since vehicular traffic from the existing north side GA hangars would be redirected to the new “north side” road.

As previously discussed, DPM is classified as a toxic air contaminant primarily emitted by diesel powered vehicles. Based on the traffic study prepared for Section 4.16, traffic activity observations in the CONA neighborhood west of the Airport included commercial vehicle activity ranging between 3 and 17 percent. The term “commercial vehicles” refers to both vehicles with more than three axles (including larger trucks and vehicles pulling trailers) and larger two-axle trucks, such as delivery trucks and box trucks. Oftentimes, these vehicles use diesel fuel. For illustrative purposes, when these percentages are applied to the forecast ADT on the proposed “north side” road as a result of proposed long-term projects, 1,147 of the 6,913 ADT for the Proposed Project and 1,150 of the 6,933 ADT for Alternative 1 could be performed with diesel powered vehicles on the proposed “north side” road.²

² This truck assumption based on the activity due to the Old North Side Industrial Area through the CONA neighborhood would be most applicable if, in the long-term, the north side is developed with light industrial land uses. To the extent that the north side is developed with office land uses, the percentage of truck activity could be considerably less.

The CARB publication *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) notes that, “air pollution studies have shown an association between respiratory and other non-cancer health effects and proximity to high traffic roadways. Other studies have shown that diesel exhaust and other cancer-causing chemicals emitted from cars and trucks are responsible for much of the overall cancer risk from airborne toxics in California.” Given the potential health effects related to vehicle emissions, CARB recommends not siting new sensitive land uses within 500 feet of an urban roads with more than 100,000 ADT. As previously discussed, the forecast traffic volumes associated with operation of the proposed north side long-term projects are expected to be considerably less than 100,000 ADT.

Vehicle activity associated with the long-term projects are not anticipated to expose sensitive receptors to significant amounts of pollutants; therefore, impacts related to substantial pollutant concentrations are Less Than Significant.

Less than Significant Impact: The Proposed Project or Alternative 1 would not expose sensitive receptors to substantial pollutant concentrations during construction or the operation of proposed short-term or long-term projects per Threshold 4.3-5.

4.3.6 Mitigation Program

No mitigation program is required for the Less than Significant air quality impacts identified in Section 4.3.5. The following regulatory requirements would apply if either the Proposed Project or Alternative 1 is approved.

Proposed Project and Alternative 1

Regulatory Requirements

AQ/rr-1: The Airport shall implement a dust control plan that includes the following, as stipulated in FAA AC 150/5370-10G, *Standards for Specifying Construction of Airports*, Item P-156 (FAA 2014) and the MBARD *CEQA Air Quality Guidelines* (MBARD 2008):

1. Limit the area under construction at any one time.
2. Water all active construction areas at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure.
3. Cover all trucks hauling soil, sand, and other loose materials off property with tarpaulins or other effective covers.
4. Pave all roads on construction sites, if possible, and water all unpaved roads and construction haul routes to minimize dust during construction operations.
5. Limit traffic speeds along all unpaved haul routes to 15 miles per hour (mph).
6. Prohibit all grading activities during periods of high wind (over 15 mph).
7. Keep loader buckets low when transferring material to trucks.
8. Maintain at least 2 feet of freeboard on haul trucks.
9. Limit entering/exiting site to controlled areas to avoid track out.

10. Cover inactive storage piles.
11. Minimize the area of exposed erodible earth.
12. Apply temporary mulch or non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydro seed area with or without seeding, where applicable.
13. Plant vegetative ground cover in disturbed areas as soon as possible.
14. Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).
15. Install wheel washers at the entrance to construction sites for all exiting trucks.
16. Sweep streets if visible soil material is carried out from the construction site.
17. Post a publicly visible sign which specifies the telephone number and person to contact regarding dust complaints. This person shall respond to complaints and take corrective action within 48 hours. The phone number of the MBARD shall be visible to ensure compliance with Rule 402 (Nuisance).

AQ/rr-2: In accordance with CARB's In-Use Off Road Diesel Fueled Fleets Regulation (2016), the following measures for construction vehicles and/or equipment shall be implemented:

1. Construction vehicles will use a CARB Tier 3 engine when available in the region;
2. Vehicle operators will limit idling to no more than five minutes; and,
3. All diesel equipment used for the project shall meet State of California diesel equipment requirements and be registered through the Statewide Portable Equipment Registration Program or the Diesel Off Road Online Reporting System.

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Chapter Four

4.4 – BIOLOGICAL RESOURCES

This Environmental Impact Report (EIR) section analyzes the potential biological effects of the proposed short-term projects on federal, state, and locally regulated species and habitats. Adverse impacts could occur if a component of the Proposed Project or Alternative 1 would result in temporary or permanent modification to jurisdictional habitats or to habitats occupied by special-status species. Where potential impacts to biological resources have been identified, measures for avoiding, minimizing, or mitigating adverse effects to the resources are provided. Impact calculations are based on conceptual site plans and are subject to refinement.

Long-term aspects of the Proposed Project and Alternative 1 would be the same. At a programmatic level, potential impacts and recommended avoidance and/or mitigation measures are provided to facilitate future environmental reviews and analysis. The emphasis is on determining the potential effects of the Proposed Project or Alternative 1 on federal, state, and locally regulated species and habitats in future development areas. Where potential impacts to sensitive resources may occur, measures for avoiding, minimizing, or mitigating adverse effects to the resources are provided. The programmatic measures would be incorporated into future *California Environmental Quality Act* (CEQA) documents prepared for the specific future projects.

Based on the analysis completed on the Proposed Project as part of the Initial Study (**Appendix A**), two of the CEQA Guidelines, Appendix G checklist questions related to Biological Resources were found to be Less than Significant. These included the following - Would the project:

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?

The Airport actively implements a wildlife hazard management plan (WHMP) that reduces potential wildlife movement across the Airport. Since the Proposed Project is consistent with this WHMP, no significant changes to the movement of wildlife across the Airport would occur. In addition, there are no adopted habitat conservation plans, natural community conservation plans, or other approved local, regional, or state habitat conservation plans at the Airport.

4.4.1 Regulatory Setting

Federal Regulations

Federal Endangered Species Act of 1973

The federal *Endangered Species Act* (FESA) (Code of Federal Regulations [CFR], Title 50, Part 17) provides legal protection for plant and animal taxa that are in danger of extinction and classified as either threatened or endangered under the FESA. The FESA requires federal agencies, when considering approval of a public or private action (such as the issuance of a United States (U.S.) Army Corps of Engineers [USACE] permit under Section 404 of the *Clean Water Act* [CWA]), to evaluate the proposed action's potential to jeopardize the continued existence of any listed species potentially impacted by the action. This assessment can, and often does, include an analysis of the proposed action's potential to adversely modify designated critical habitat for such species.

Section 9 of the FESA protects federally-listed plant and animal species from unlawful take. "Take" is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." The U.S. Fish and Wildlife Service (USFWS) regulates activities that may result in "take" of listed species. Federally designated critical habitat is also regulated. Constraints to listed species resulting from the implementation of a project would require the responsible agency or individual to formally consult with USFWS to determine the extent of impact, such as take, to a listed species. Once USFWS reviews a Biological Assessment for a project, they may issue a federal Biological Opinion and Incidental Take Statement under FESA, Section 7 that includes provisions for legal take, provided that specific mitigation measures are employed.

Migratory Bird Treaty Act of 1918

The *Migratory Bird Treaty Act* (MBTA) protects all migratory birds, including their eggs, nests, and feathers. The MBTA was originally drafted to put an end to the commercial trade in bird feathers popular in the latter part of the 1800s. The MBTA is enforced by USFWS, and potential impacts to species protected under the MBTA are evaluated by USFWS in consultation with other federal agencies. The current U.S. Government administration has recently released an interpretation of the MBTA known as the M-Opinion, which concludes that the take of birds resulting from an activity is not prohibited by the MBTA when the underlying purpose of that activity is not to take birds.

On April 11, 2018, USFWS issued guidance on the recent "M-Opinion" affecting MBTA implementation. Working with other federal agencies on migratory bird conservation is an integral mission of the USFWS; therefore, USFWS maintains that potential impacts to migratory birds resulting from federal actions should be addressed under the *National Environmental Policy Act* (NEPA).

State Regulations

California Fish and Game Code

Several parts of the California Fish and Game Code (CFGC) provide protection to special-status species, which are enforced by the California Department of Fish and Wildlife (CDFW). CFGC, Section 3503, Protections of Bird's Nests includes provisions to protect the nests and eggs of birds. Section 3503 states: "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto."

Per CFGC, Section 2835, in absence of a CDFW-approved natural community conservation plan, CDFW cannot authorize take of a Fully Protected¹ species. CFGC, Section 3511 (birds), Section 4700 (mammals), Section 5050 (reptiles and amphibians), and Section 5515 (fish) include provisions to protect Fully Protected species, such as: 1) prohibiting take or possession "at any time" of the species listed in the statute, with few exceptions; 2) stating that "no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to "take" a species that has been designated as Fully Protected; and 3) stating that no previously issued permits or licenses for take of these species "shall have any force or effect" for authorizing take or possession. Unless an applicant has developed a CDFW-approved natural community conservation plan, CDFW is unable to authorize incidental take of Fully Protected species when activities are proposed in areas inhabited by those species.

CDFW also manages the *California Native Plant Protection Act of 1977* (NPPA) (CFGC, Section 1900 et seq.), which was enacted to identify, designate, and protect rare plants. In accordance with CDFW guidelines, plant species with California Native Plant Society (CNPS) Ranks 1A, 1B, 2A, 2B, and 3 are considered "rare" under the NPPA. Impacts to plants with these rarity rankings must be fully evaluated under the CEQA. Plants with CNPS Rank 4 have limited distributions but are not necessarily eligible for listing. CNPS recommends that impacts to plants with CNPS Rank 4 also be evaluated per CEQA.

California Endangered Species Act of 1984

California has a parallel mandate to the FESA, which is embodied in the *California Endangered Species Act* (CESA) as well as the NPPA. The CESA ensures legal protection for plants listed as rare or endangered and for wildlife listed as threatened or endangered. CDFW regulates activities that may result in the "take" of such species. CDFW also maintains a list of California Species of Special Concern based on limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. Under state law, CDFW is empowered to review projects for their potential to impact state-listed species and Species of Special Concern and their habitats.

Take of state-listed species requires a Section 2081 Incidental Take Permit from CDFW. This process requires submittal of a sensitive species study and permit application package and is similar to the FESA,

¹ The classification of Fully Protected was the state's initial effort in the 1960s to identify and provide additional protection to those animals that were rare or faced possible extinction. Most "fully" protected species have been listed as threatened or endangered species under the *California Endangered Species Act*. Lists were created for fish, mammals, amphibians, reptiles, and birds.

Section 10 process, except that CDFW is the regulatory and decision-making agency. A CDFW 2081 Incidental Take Permit typically has mitigation requirements. If CDFW concurs that impacts to a state-listed species would likely result from a project, alternatives and measures to avoid or reduce the impacts must be identified in a 2081 Permit to allow for incidental take authorization. CDFW may also include compensatory mitigation (mitigation/conservation bank) requirements for impacts to habitat for listed plants and wildlife.

Senate Bill 1334

The passage of CEQA Statute Senate Bill (SB) 1334 enacted Public Resources Code (PRC), Section 21083.4, which maintains that the potential conversion of oak woodland is subject to CEQA and is to be mitigated. Per SB 1334 and PRC, Section 21083.4, all California counties are required to adopt oak woodlands management plans and ordinances that require a discretionary permit for oak woodland conversions and set a minimum mitigation standard.

Local Regulations

Those aspects of the Proposed Project and Alternative 1 that are in the City of Monterey jurisdiction are subject to Chapter 37, Preservation of Trees and Shrubs of the Monterey City Code (updated as of April 17, 2018). Specifically, Section 37-2.5, Protection of Trees During Construction states that, "All public or private construction projects requiring acquisition of a building permit shall comply with the tree protection guidelines established by the City in order to safeguard and protect any trees affected by said construction (Ordinance 3424 Section 13, 2009)." Section 37-8, Removal or Damaging Trees on Private Property; Permit Required requires a permit from the city before a protected tree can be removed per Section 37-11, Conditions of Removal/Mitigation Measures. Section 37-8 requires that the City Forester review and approve removals that are based on tree health and/or safety considerations. All other removals, such as those necessary to accommodate new development or building expansions, require review and approval of the city's Community Development and/or Public Works departments. Per City of Monterey Code 37-11(D), the project applicant may make an in-lieu fee payment to the City of Monterey that is equivalent to the value of the removed trees or the cost of the numbers of replacement trees as determined by City Council Resolution. The payment must be used to plant additional trees offsite in a location approved by the City Forester.

Protected trees are defined in Section 37-2, Definitions as:

- a) trees located on a vacant private parcel that are more than two inches (2") in diameter when measured at a point four feet six inches (4'6") above the tree's natural grade; and,
- b) trees located on a private, developed parcel that are more than six inches (6") when measured at a point four feet six inches (4'6") above the tree's natural grade.

In addition to impacts to trees, the following goals and policies of the *City of Monterey General Plan Conservation Element* (City of Monterey 2016) are pertinent to the Proposed Project and Alternative 1 components that would occur in the City of Monterey jurisdiction.

Goal d. Protect the character and composition of existing native vegetative communities. Conserve, manage, and restore habitats for endangered species, and protect biological diversity represented by special-status plant and wildlife species.

Policy d.1. Protect existing native plants and promote the use of locally occurring, native vegetation for public and private landscaping and revegetation efforts.

Policy d.2. Discourage the use of plant species on the California Exotic Pest Plant Council lists.

Policy d.3. Protect existing sensitive habitats by careful planning to avoid and/or mitigate significant impacts to habitat areas identified as having high and moderate biological values.

Policy d.4. Protect and manage habitats that support special-status species, are of high biological diversity, or are unusual or regionally restricted. Prepare biotic reports or habitat management plans as needed to ensure protection of habitat values.

Policy d.5. Reduce biotic impacts to a less-than-significant level on project sites by ensuring that mitigation measures identified in biotic reports are incorporated as conditions of approval for development projects. Compliance with the City Tree Ordinance is the mechanism that will be used to address impacts of tree removals. As mitigation for significant impacts, avoidance, replacement, restoration of habitats on- or off-site or other measures may be required.

Policy d.6. Within identified habitat areas with high biological value, the City will provide for a focused evaluation of areas identified as appropriate habitat for special-status species during the project review and approval process.

4.4.2 Methodology

The analysis contained in this EIR is based on detailed biological surveys of all short-term project areas and constraint level surveys of areas covered by the long-term, programmatic aspects of the Proposed Airport Master Plan (AMP). Prior to conducting the site visits, literature reviews were performed to gain familiarity with the project area and identify target species. The review consisted of a search of CDFW's California Natural Diversity Data Base (CNDDDB) RareFind 5 (CNDDDB 2018) that focused on the Seaside (California) U.S. Geological Survey (USGS) quadrangle map and the surrounding quadrangles (i.e., Monterey, Marina, Salinas, Spreckels, Soberanes Point, Mt. Carmel, and Carmel Valley). Additionally, a Trust Resources Report was obtained from the USFWS Information, Planning, and Conservation System (IPaC) online database. Environmental documents prepared for other projects on the airport property were also reviewed. **Appendix F** contains the Biological Resources Survey Report (BRSR), which includes tables of the special-status plants species, natural communities of concern, and special-status animal species investigated for occurrence based on the literature and database reviews as well as the biologists' prior knowledge of the airport environs (**Appendix F**, Tables 3, 4 and 5, respectively).

Botanical and wildlife surveys in the project areas were conducted on the following dates: April 18-19 and 25-26, 2016; May 19-20, 2016; July 14, 2016; August 4 and 24, 2016; October 13, 2016; March 29-

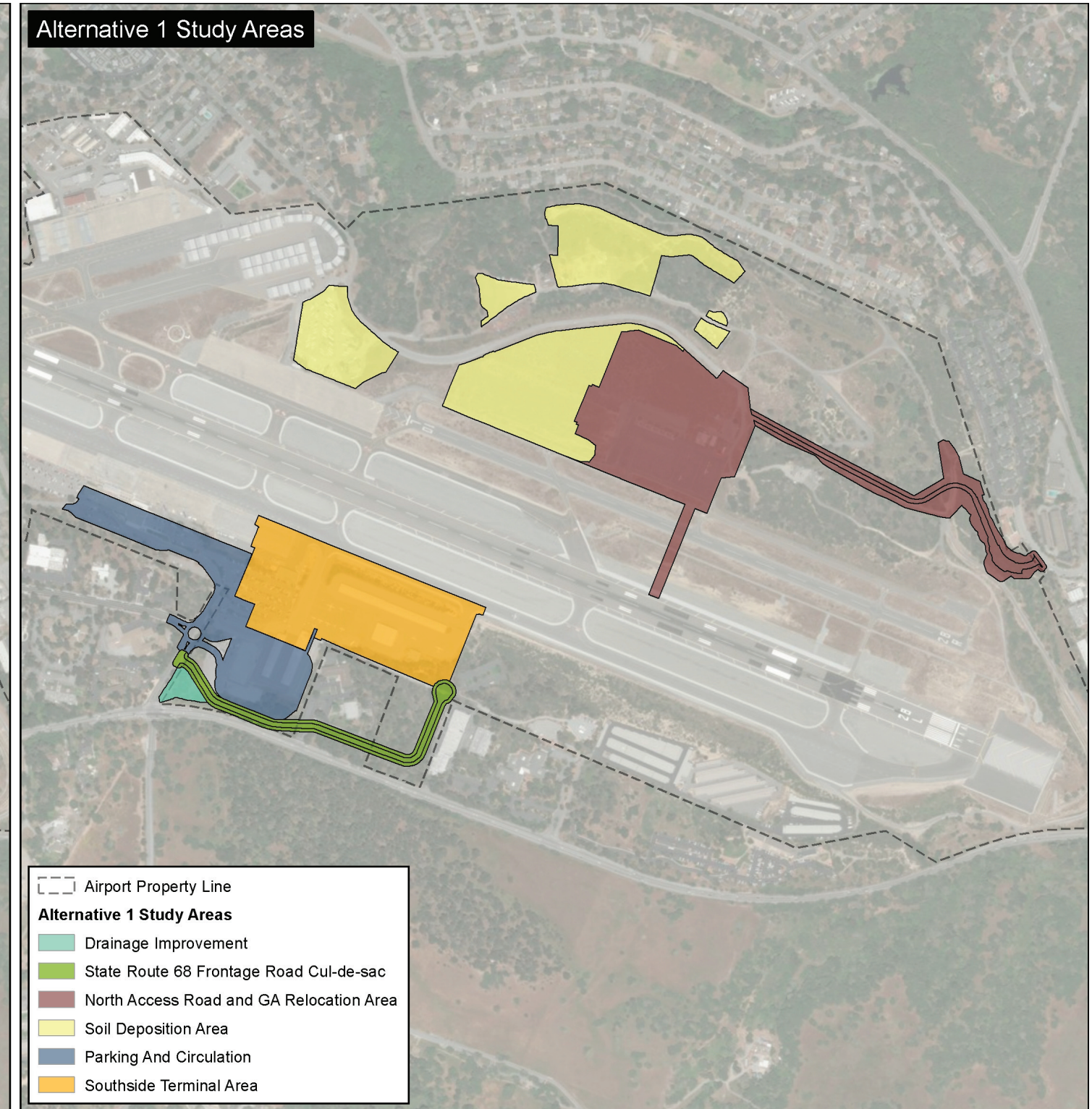
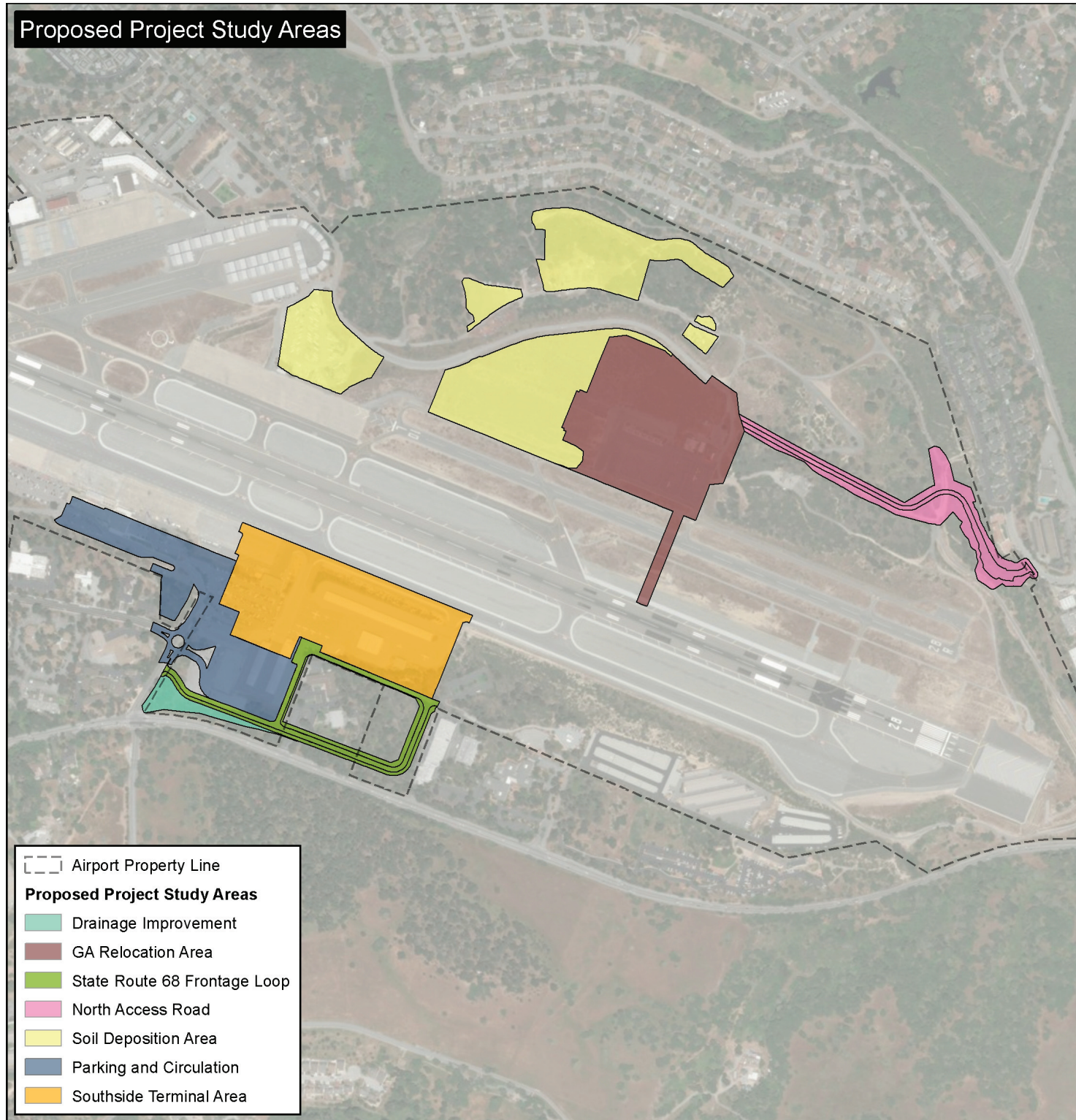
31, 2017; April 27-28, 2017; May 22-23, 2017; August 10-11, 2017; September 27, 2017; and February 12, 2018. The biological surveys were conducted during the appropriate blooming periods for all special-status plant species that have potential to occur on the airport property. To verify the blooming status of Monterey spineflower (*Chorizanthe pungens* var. *pungens*), Yadon’s piperia (*Piperia yadonii*), and Seaside bird’s beak (*Cordylanthus rigidus* ssp. *littoralis*) in the vicinity, the surveyors visited known populations of these species prior to each survey event. The Seaside bird’s beak reference population was visible and identifiable during every survey event. The Monterey spineflower reference population was visible and identifiable during the April, May, and July surveys. Yadon’s piperia was visible and identifiable during the April and May surveys. A known population of sand gilia (*Gilia tenuiflora* ssp. *arenaria*) was also visited on June 8, 2016. The sand gilia at the reference site was desiccated and had completed its flowering cycle in early June. This indicated that sand gilia in the Monterey area was likely identifiable during the April and May surveys.

The surveyors mapped biological resources with a Trimble® GeoXT Global Positioning System (GPS) Unit capable of sub-meter accuracy. When necessary, the surveyors referred to *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012) and *The Plants of Monterey County* (Mathews 2015) to identify plant species. Classification and mapping of the vegetative communities in the project areas was conducted in accordance with *A Manual of California Vegetation* (Sawyer, Keeler-Wolf, and Evans 2009).

Since the proposed short-term projects include several related actions that would occur on different parts of the airport property, the analysis segregated the various short-term projects into project subareas. The segregation provided a framework for discussing and analyzing the resources that occur within the footprint of each project element. **Table 4.4A** lists the subareas and the alternative(s), i.e., Proposed Project and Alternative 1, with which the subareas are associated; these subareas are graphically depicted on **Exhibit 4.4A**. The Soil Deposition and the Terminal Area subareas are the same for both alternatives.

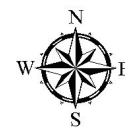
Study Project Subareas	Side of Airport	Proposed Project	Alternative 1
Highway 68 Frontage Road with Loop	South	4.13 acres	
“North Side” Road	North	5.92 acres	
General Aviation (GA) Relocation Area	North	17.29 acres	
Terminal Area Parking and Circulation	South	11.87 acres	
South Side Drainage Improvements	South	1.26 acres	
Highway 68 Frontage Road with Loop	South		3.42 acres
Alternative 1 “North Side” road and GA Relocation Area	North		23.20 acres
Alternative 1 Terminal Area Parking and Circulation	South		11.83 acres
Alternative 1 South Side Drainage Improvements	South		0.72 acre
Soil Deposition Areas	North	25.26 acres	25.26 acres
Terminal Area	South	17.04 acres	17.20 acres

Source: SWCA 2018



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Basemap by ESRI, 2018.



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Source: SWCA 2018

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4.4.3 Existing Conditions

4.4.3.1 Vegetative Communities

The following sections describe the plant communities that occur on the Airport (**Exhibit 4.4B**).

Ruderal

Ruderal vegetation is usually found in disturbed areas that have been significantly altered by construction, landscaping, or other types of land-clearing activities. Ruderal habitats often occur along roadsides and fence-lines, near developments, and in other areas experiencing severe surface disturbance. Plants found within this habitat are typically introduced Mediterranean species that colonize disturbed lands. Few occurrences of hardy native species such as Monterey spineflower, sandmat manzanita (*Arctostaphylos pumila*), purple owl's clover (*Castilleja exserta*), and annual lupine (*Lupinus bicolor*) have been able to exist in the ruderal vegetation. In some areas, native plant species have started to recolonize the ruderal vegetation but do not provide sufficient cover to be considered a native plant community. These areas are mapped as "Ruderal with Remnant Native Trees/Shrubs" in **Exhibit 4.4B**.

Pinus Radiate Forest (Monterey Pine Forest)

Monterey pine forest includes Monterey pine trees (*Pinus radiata*) as the dominant or co-dominant species in the tree canopy. This habitat type occurs on marine terraces and headlands with well-drained soils. The Monterey pine forest is largely in the southern project subareas along the southern airport property boundary. In parts of the Airport, it includes coast live oak and a few landscape trees as sub-dominants in the tree canopy creating a *Pinus radiata/Quercus agrifolia* association. The shrub layer varies from landscape and ruderal species near the terminal and existing airport parking, non-native grassland adjacent to Highway 68, and dense maritime chaparral in and near an adjacent 5.5-acre private parcel. Numerous occurrences of Yadon's piperia are in the Monterey pine forest on the south side of the Airport.

Arctostaphylos Pumila Shrubland (Sandmat Manzanita Chaparral)

Sandmat manzanita chaparral is similar in definition to central maritime chaparral (Holland 1986). This community consists of variable, thick-leaved shrubs of moderate to high cover, dominated by sandmat manzanita. Sandmat manzanita chaparral is typically located on well-drained, sandy substrates within the summer coastal fog zone in scattered locations near Monterey and Fort Ord. On the Airport, this community includes mixed stands with *Arctostaphylos tomentosa* and as a shrub layer in the Monterey pine forest. The stands are dense to moderately dense with large areas being impassable. Some areas of this community are almost completely covered with manzanita species, whereas other areas have a greater presence of common chaparral species. Manzanita species observed in the chaparral include sandmat manzanita, woolly-leaved manzanita (*Arctostaphylos tomentosa* ssp. *tomentosa*), and bristly-twigged manzanita (*A.t.bracteosa*). The common chaparral species include, but are not limited to, black sage (*Salvia mellifera*), chamise (*Adenostoma fasciculatum*), California sage (*Artemisia californica*), and toyon (*Heteromeles arbutifolia*).

Quercus Agrifolia Woodland Alliance (Coast Live Oak Woodland)

Coast live oak woodlands feature coast live oak (*Quercus agrifolia*) as the dominant evergreen tree, often reaching 30 to 75 feet in height and establishing dense canopies (Holland 1986). The shrub layer is typically poorly developed but may include species such as toyon and gooseberry (*Ribes* spp.). The herbaceous layer is dominated by native and exotic grasses and forbs.

The Airport supports coast live oak woodland on the eastern, northern, and southern portions of the property. This community intergrades with the Monterey pine, sandmat manzanita chaparral, and other communities. The community on the Airport has a shrub layer that includes poison oak, blackberry, woolly-leaved manzanita, Monterey ceanothus, Toro manzanita, black sage, and California sage. The herbaceous layer is patchy and includes a variety of annual grasses, fiesta flower (*Pholistoma auritum*), buttercups (*Ranunculus californicus*), and California melic (*Melica imperfecta*).

Baccharis Pilularis Shrubland Alliance (Coyote Brush Scrub)

Coyote brush scrub is similar in definition to central coastal scrub (Holland 1986). This is a shrubland community that is dominated by coyote brush (*Baccharis pilularis*) and includes mock heather (*Ericameria ericoides*), buckbrush (*Ceanothus cuneatus cuneatus*), California sage, black sage, and other scrub species. This community is indicative of disturbed places that are in the process of being recolonized by native shrubs. A small patch of this community occurs on the northeast portion of the project subareas. The surrounding habitats include sandmat manzanita chaparral and ruderal areas. Other native plants found in the coyote brush shrubland include mock heather, California sage, and sand scrub ceanothus (*Ceanothus dentatus*).

Salix Lasiolepis Shrubland (Arroyo Willow Thickets)

Arroyo willow thickets are similar in definition to central coast riparian scrub, which consists of scrubby streamside thickets that are dominated by any of several willow species, including arroyo willow (*Salix lasiolepis*) (Holland 1986). The thickets vary in density from partially open to impenetrable. The understory commonly supports species such as California blackberry (*Rubus ursinus*) and stinging nettle (*Urtica dioica*) in drier sites, or cattail and sedges in mesic (moist) sites. Arroyo willow thickets occur on many soil types including sand and gravel bars in areas close to groundwater or surface water. The only arroyo willow thicket on the Airport is in the northwestern detention basin. This low-lying area receives stormwater from the airport property and directs the water through culverts and channels to the municipal stormwater system in the City of Del Rey Oaks.

4.4.3.2 Special-Status Plants Observed in the Project Subareas

Table 4.4B summarizes the special-status plants that were observed in the project subareas. **Exhibit 4.4C** is a map of the special-status species occurrences. Descriptions of the special-status species observed in the subareas are provided in the sections following **Table 4.4B**.



Airport Property Line

Habitats

- Arctostaphylos pumila shrubland alliance
- Baccharis pilularis shrubland alliance
- Pinus radiata forest alliance
- Pinus radiata / Quercus agrifolia
- Quercus agrifolia / Toxicodendron diversilobum
- Salix lasiolepis shrubland alliance
- Ruderal
- Ruderal with remnant native shrubs/trees

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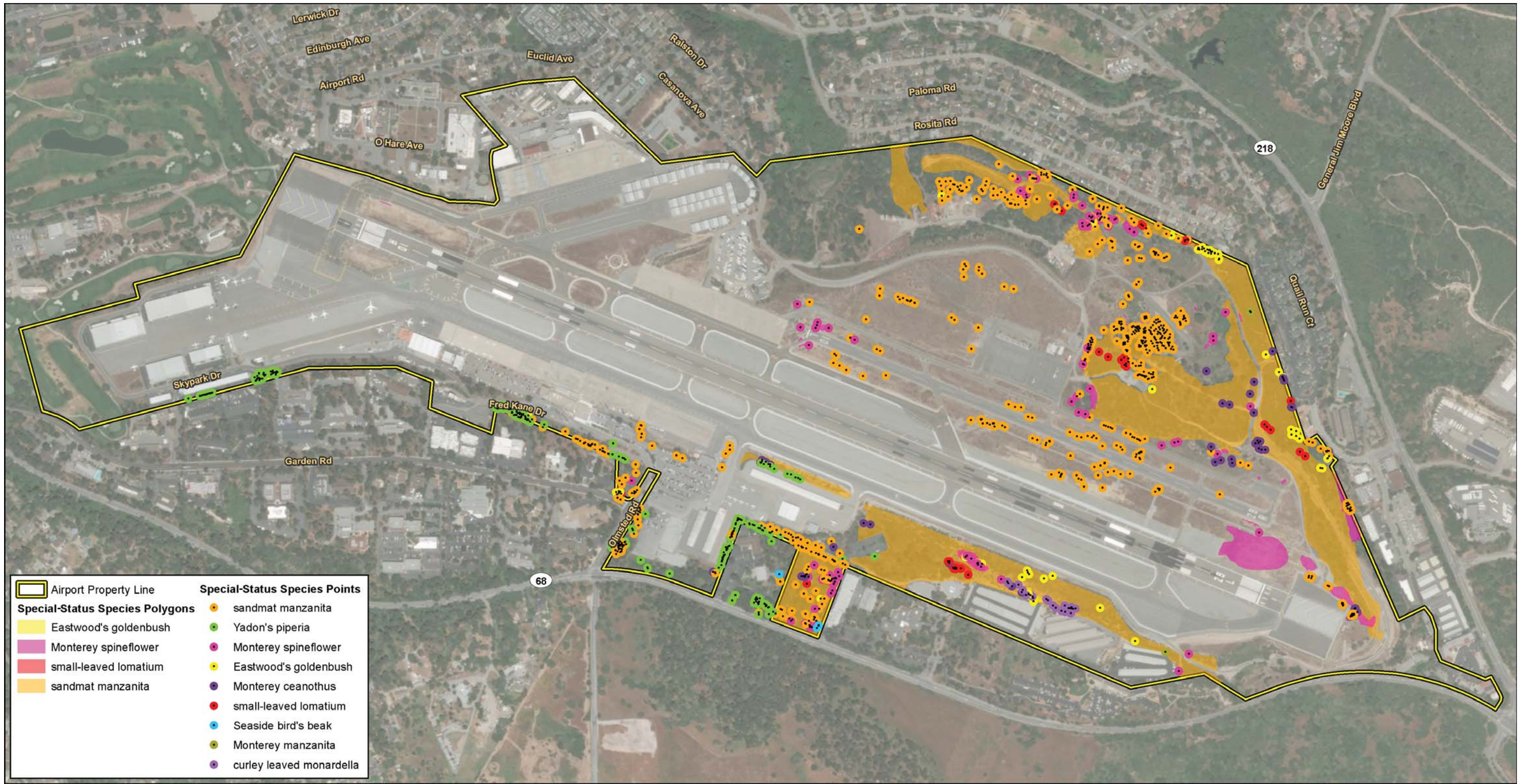
Basemap by ESRI, 2018.



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Source: SWCA 2018

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Basemap by ESRI, 2018.



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Source: SWCA 2018

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TABLE 4.4B
Summary of Special-Status Plants Observed in the Short-Term Project Areas
Proposed Project and Alternative 1

Species Name	Legal Status ¹ Federal/State/CNPS	Location of Occurrences
Sandmat manzanita <i>Arctostaphylos pumila</i>	--/--/1B.2	Occurs in all subareas.
Monterey spineflower <i>Chorizanthe pungens</i>	FT/--/1B.2	Occurs in the Highway 68 Frontage Road with Loop, “North Side” Road, GA Relocation, Terminal Area Parking and Circulation, Highway 68 Frontage Road with Cul-de-sac, Alternative 1 “North Side” Road and GA Relocation Area, and the Soil Deposition subareas.
Eastwood’s goldenbush <i>Ericameria fasciculata</i>	--/--/1B.1	Occurs in the Highway 68 Frontage Road with Loop, “North Side” Road, Terminal Area Parking and Circulation, Highway 68 Frontage Road with Cul-de-sac, Alternative 1 “North Side” Road and GA Relocation Area, and the Soil Deposition subareas.
Monterey ceanothus <i>Ceanothus cuneatus</i> var. <i>rigidus</i>	--/--/4.2	Occurs in the Highway 68 Frontage Road with Loop, “North Side” Road, Terminal Area, Alternative 1 Terminal Parking and Circulation, and Alternative 1 “North Side” Road and GA Relocation subareas.
Yadon’s piperia <i>Piperia yadonii</i>	FE/--/1B.1	Occurs in the Highway 68 Frontage Road with Loop, Terminal Area Parking and Circulation, Alternative 1 Terminal Area Parking and Circulation, Terminal Area, Highway 68 Frontage Road with Cul-de-sac, South Side Drainage Improvements, and Alternative 1 South Side Drainage Improvements subareas.
Small-leaved lomatium <i>Lomatium parvifolium</i>	--/--/4.2	Occurs in the Highway 68 Frontage Road with Loop, “North Side” Road, Highway 68 Frontage Road with Cul-de-sac, Alternative 1 “North Side” Road and GA Relocation Area, and the Soil Deposition subareas.
Seaside bird’s beak <i>Cordylanthus rigidus</i> ssp. <i>littoralis</i>	--/SE/1B.1	Occurs in the Highway 68 Frontage Road with Loop and Highway 68 Frontage Road with Cul-de-sac subareas.
Monterey pine <i>Pinus radiata</i>	--/--/1B.1	Occurs in the Terminal Area, “North Side” Road, Alternative 1 “North Side” Road and GA Relocation, Soil Deposition Areas, South Side Drainage Improvements, Alternative 1 South Side Drainage Improvements, Highway 68 Frontage Road with Loop, and Highway 68 Frontage Road with Cul-de-sac subareas.

Source: SWCA 2018

¹ **Status Codes**

-- = No status

Federal: FE = Federal Endangered; FT=Federal Threatened

State: SE=State Endangered; ST= State Threatened; SR= State Rare

California Native Plant Society (CNPS):

Rank 1B = rare, threatened, or endangered in California and elsewhere

Rank 2 = rare, threatened, or endangered in California, but more common elsewhere

Rank 3 = plants about which more information is needed

Rank 4 = a watch list for plants of limited distribution

Threat Code:

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

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

.3 = Not very endangered in California (<20 percent of occurrences threatened, or no current threats known)

Sandmat Manzanita (Arctostaphylos pumila)

Sandmat manzanita is a low growing evergreen shrub that occurs in maritime chaparral and in openings within Monterey pine forest. It is endemic to California and limited to areas around Monterey Bay within 10 to 673 feet above mean sea level (msl) in elevation. Sandmat manzanita typically occurs on sandy soils associated with stabilized dunes. CNPS has included sandmat manzanita as Rank 1B.2. Sandmat manzanita is widespread on the airport property with numerous occurrences in the project subareas.

Monterey Spineflower (Chorizanthe pungens)

Monterey spineflower is an annual herb that occurs at 10 to 1,476 feet msl in openings among chaparral, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland on sandy soils. Monterey spineflower is federally threatened under the FESA and ranked as a CNPS Rank 1B.2 species. The openings in the Monterey pine forest and maritime chaparral in the subareas provide good habitat for this species. Numerous occurrences of Monterey spineflower were observed in the project subareas.

Eastwood's Goldenbush (Ericameria fasciculata)

Eastwood's goldenbush is a perennial shrub that occurs in openings within closed-cone coniferous forest, chaparral, coastal dunes, and coastal scrub. It is typically found in sandy soil at elevations ranging from 98 to 902 feet msl. Eastwood's goldenbush is ranked as a CNPS Rank 1B.2 species and is sporadically located in several of the project subareas (refer to **Table 4.4B**).

Monterey Ceanothus (Ceanothus cuneatus var. rigidus)

Monterey ceanothus is an evergreen shrub that occurs in closed-cone, coniferous forest, chaparral, and coastal scrub with sandy soils, at 10 to 1,804 feet msl. The *Ceanothus cuneatus* species is endemic to California with the *rigidus* variation being endemic to Monterey and San Luis Obispo counties. CNPS has included Monterey ceanothus as Rank 4.2. Species included as Rank 4.2 are considered to have a limited distribution and are "fairly endangered" in California. Monterey ceanothus was observed in various locations within several subareas with most of the occurrences in the central maritime chaparral and the oak woodland located at the eastern end of the runways (refer to **Exhibit 4.4C**).

Yadon's Piperia (Piperia yadonii)

Yadon's piperia is a perennial herb that primarily occurs at 32 to 1,673 feet msl in Monterey pine forests with sparse understories or maritime chaparral with sandstone substrates and *Arctostaphylos hookerii* (USFWS 1998). CNPS also reports some occurrences in coastal bluff scrub. Yadon's piperia is listed as endangered under the FESA and is included as a CNPS Rank 1B.1 species. Numerous Yadon's piperia are located on the southern portion of the airport property and within several of the project subareas (refer to **Table 4.4B**). Yadon's piperia occurrences observed in the project subareas are largely concentrated in the Monterey pine forest which includes maritime chaparral associates and non-native vegetation.

Seaside Bird's Beak (Cordylanthus rigidus ssp. littoralis)

Seaside bird's beak is an annual herb that occurs in closed-cone coniferous forest, chaparral, cismontane woodland, coastal dunes, and coastal scrub with sandy soils. This species has been documented to occur from 0 to 1,394 feet msl. Although it is more commonly found in intact native communities, it can persist in disturbed sites. This species is known from approximately 20 occurrences on the central California coast from northern Santa Barbara County to northern Monterey County. Seaside bird's beak is listed as endangered under the CESA and is a CNPS Rank 1B.1 species (CNPS 2018). Calflora documents three occurrences in the general vicinity of the Airport. Most of these occurrences are located on private property immediately east of the subareas along Highway 68; however, several individuals were observed in the Proposed Frontage Road Loop and the Alternative 1 Frontage Road Cul-de-sac subareas.

Small-leaved Lomatium (Lomatium parvifolium)

Small-leaved lomatium is a perennial herb that is endemic to California. This species has been documented in Santa Cruz, Monterey, San Luis Obispo, Santa Barbara, and Ventura counties. It is most commonly found in chaparral and closed-cone pine forests. It is largely a coastal species and can be found in a variety of soil types. Small-leaved lomatium blooms January through June. The CNPS has applied the rare plant rank 4.2 to this species, which indicates that it has a limited distribution and is moderately threatened in California. This species occurs in sporadic patches among the maritime chaparral on the airport property.

Monterey Pine (Pinus radiata)

Monterey pine is an evergreen coniferous tree that is restricted to Monterey, Santa Cruz, San Luis Obispo, and San Mateo counties. This species is widely cultivated and planted. The California Invasive Plant Council considers Monterey pine trees to have a limited threat to natural ecosystems outside of its native range.

CNPS considers natural occurrences of Monterey pine to be "rare, threatened, or endangered in California and elsewhere (Rank 1B.1)." In addition, CDFW considers Monterey pine forest a Sensitive Natural Community. Currently, there are five known natural stands of Monterey pines; three in the counties noted above and two located in Mexico. The Monterey pine forest on the Airport is naturally occurring. In addition, the Monterey pine forest on the south side of the Airport supports Yadon's piperia, a federally endangered species.

4.4.3.3 Federal and State Protected Wildlife

FESA and/or CESA protected animal species were not observed in the project subareas during the surveys. However, the airport property supports suitable habitat for nesting birds which are protected under the MBTA and CFGC, as well as California legless lizards (*Aniella pulchra*). Two other protected species - California red-legged frog (CRF) (*Rana aurora draytonii*) and California tiger salamander (CTS) (*Ambystoma californiense*) - have documented occurrences within 1.3 miles of the Airport. This section

provides an evaluation of the short-term project component subareas' and the Airport's overall potential to support these species.

Migratory Birds

The entire airport property provides suitable habitat for nesting birds. A variety of bird species may use the trees and shrubs on the Airport to build nests or for foraging; raptors may use the trees for nesting and the shrub and grass areas for foraging. If project activities are conducted between March and September, birds may be nesting within or adjacent to the affected area(s).

California Red-legged Frog (Rana Aurora Draytonii)

California red-legged frog (CRF) is listed as threatened under the FESA. A member of the true frog family *Ranidae*, CRF occur mainly in coastal drainages and aquatic habitats from the vicinity of Point Reyes, California south to northwestern Baja California, Mexico. Monterey, San Luis Obispo, and Santa Barbara counties support the greatest amount of occupied habitat. CRF breed in aquatic sites with deep pools, emergent vegetation, and overhanging vegetation, but also use riparian and upland areas throughout their life cycle. Adult frogs with access to permanent water will generally remain active throughout the summer. In cooler areas, they may hibernate in burrows or other refugia in the winter. CRF adults may move upstream and downstream of breeding habitat to forage and find refugia (USFWS 2008).

As previously discussed under Section 4.4.2, Methodology, the CNDDDB was reviewed to determine if any CRF occurrences have been documented within a 3.1-mile radius around the airport property. As of May 2018, CNDDDB does not document any CRF occurrences on the Airport (CNDDDB 2018). The closest occurrence (#939) is located approximately 1.3 miles southwest of the Airport in Montara Pond 1, an artificially maintained pond at the Tehama golf course. The 1.3 miles between occurrence #939 and the Airport is characterized by steep terrain, open space, mining operations, Highway 68 and other paved roads, and urban development. These land uses greatly limit the potential for straight line movements from Montara Pond 1 to the Airport.

California Tiger Salamander (Ambystoma californiense)

The CTS is a large, stocky, terrestrial salamander in the *Ambystomatidae* family. Adult males can be eight inches long, whereas females are generally less than seven inches long. Coloration consists of white or pale-yellow spots or bars on a black background on the back and sides. Adults are primarily nocturnal in their above-ground activities and are generally active during nights of heavy rainfall (USFWS 2009).

The species is restricted to grassland and low foothill (below 1,500 feet) regions where lowland aquatic sites are available for breeding. CTS prefer natural ephemeral pools or ponds; stock ponds will be utilized if they dry out seasonally. Adults travel to these ponds from upland habitat during winter rains. They spend two to five weeks in the water for reproduction, depending on gender (USFWS 2009). Ninety percent of the adult CTS lifetime is spent in the upland habitat in small mammal burrows. These terrestrial populations are often difficult to observe. Adults do not breed every year and can live to be at least 10 years old. Studies have shown that CTS use approximately a 2,200-foot radius around a

breeding pond (364 acres) (USFWS 2009). Dispersal movements of up to 0.62 mile are considered likely (USFWS 2009).

The CNDDDB was reviewed to identify documented CTS occurrences within the airport property and 3.1 miles of the Airport. No CTS occurrences are documented on the airport property. CNDDDB documents three occurrences within 3.1 miles of the Airport:

- Occurrence #394 – located 1.3 miles south-southeast of the eastern airport boundary; habitat is comprised of a former cattle stock pond (Tehama golf course pond 1). This is in the same general area as the CRF occurrence #939 discussed previously.
- Occurrence #167 – located 2.3 miles east of the eastern project boundary; habitat is comprised of a vernal pool with multiple rodent burrows on the former Fort Ord military reservation.
- Occurrence #166 – located 3.0 miles east of the eastern airport boundary; habitat is comprised of a vernal pool on the former Fort Ord military reservation.

Much like the CRF occurrences, the CTS occurrences are separated from the Airport by steep terrain, open space, Highway 218, Highway 68, other paved roads, and urban development. These land uses greatly limit the potential for straight line movements from the documented CTS occurrences to the project area.

On-Airport Habitat for CRF and CTS

The project subareas are largely comprised of developed lands and upland habitats including ruderal vegetation, coast live oak woodland, Monterey pine forest, and maritime chaparral. The only mesic sites (i.e., areas with moderate amounts of moisture) in the subareas are a detention basin located in the northwest corner of the Airport and a low-lying stormwater collection area that is situated between Highway 68 and existing general aviation (GA) hangers and receives overland runoff from the impermeable surfaces surrounding the GA hangers and the highway. The area may have been excavated to serve as a stormwater collection area; however, it is not a defined basin and does not have bed or bank features. The stormwater collection site has native sandy soils that have a rapid percolation rate; therefore, standing water is rarely present. The vegetation in the stormwater collection area includes Monterey pine trees, landscape trees, and dense grasses at the ground level. Herbaceous species observed in the area included creeping wild rye (*Elymus triticoides*), velvet grass (*Holcus lanatus*), annual blue grass (*Poa annua*), and Baltic rush (*Juncus balticus*). The sporadic and short-lived presence of water and the lack of emergent vegetation in the stormwater collection area indicates that the area is not suitable for CTS or CRF breeding habitat. This, coupled with the distance and urban development between other breeding habitats, indicates that CRF and CTS are not likely to use the area as upland habitat.

The stormwater detention basin located on the northwestern portion of the Airport supports a willow thicket that is occasionally trimmed and has fluctuating water levels based on the season. The habitats immediately surrounding the detention basin include disturbed oak woodland with a grassy understory

and sporadic shrubs. Urban development dominates the landscape beyond the oak woodland. Due to the trimming and fluctuating water levels, the habitat in the basin varies and is unlikely to support breeding CLF but could provide marginal summer shelter habitat for the species. Considering the habitat characteristics, any occurrence of CRF in the basin would likely be transitory. Although marginal, the detention basin could also provide suitable habitat for CTS.

Legless Lizards

CDFW recognizes two subspecies of legless lizard in coastal California: silvery legless lizard (*A. p. pulchra*) and black legless lizard (*A. p. nigra*). Both are herein referred to as California legless lizards and are considered as Species of Special Concern (SSC) by CDFW. These are elusive, fossorial (sub-surface), coastally distributed lizards ranging from the San Francisco Bay area southward into northern Mexico (Zeiner et al. 1990). Suitable habitat includes loose soils of coastal dune, valley foothill woodland, chaparral, and coastal scrub areas, where the species forages at the bases of vegetation and under leaf litter.

The sandy soils in the project subareas provide suitable habitat for California legless lizards. Biologists have conducted numerous legless lizard survey and monitoring efforts as part of the recent Monterey Regional Airport Runway Safety Area Improvements Project (RSA Project) and other projects on the Airport. These survey and monitoring efforts included excavation of over 45 acres of legless lizard habitat, and only one individual was identified. Thus, the past survey results indicate that the species could be present in low numbers on the Airport.

4.4.3.4 Federal and State Regulated Habitats

Jurisdictional Waters

The airport property does not contain wetlands or other jurisdictional waters as defined in the federal CWA.² As previously discussed, there are two wet areas on the Airport, the stormwater collection area situated between Highway 68 and the existing GA hangars, and the northwestern detention basin. The stormwater collection area receives overland stormwater flow from the adjacent hangars, parking areas, and highway. It is low lying but does not include a bed or banks, does not support riparian vegetation,

² The USACE is responsible for the issuance of permits for the placement of dredged or fill material into “waters of the United States” pursuant to Section 404 of the CWA (United States Code, Title 22, Part 1344). As defined by USACE in CFR, Title 33, Section 328.3(a)(parts 1–6), the following summarizes “waters of the United States” as: “Those waters that are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; tributaries and impoundments to such waters; all interstate waters including interstate wetlands; and territorial seas.”

Section 401 of the CWA and its provisions ensure that federally permitted activities comply with the federal CWA and state water quality laws. Section 401 is implemented through a review process that is conducted by the Regional Water Quality Control Board (RWQCB) and is triggered by the Section 404 permitting process.

does not have an ordinary high-water mark, and does not have any hydrological connection to a navigable water or other waterway.

The northwestern detention basin is a maintained stormwater detention area with earthen and concrete banks and a spillway. The basin is designed to allow stormwater to percolate into the soil; therefore, the spillway is rarely used for stormwater flow. The spillway connects to the municipal stormwater system to the north and does not direct flows to traditional navigable waters, relatively permanent waters, or other potential waters of the U.S.; therefore, the detention basin would not be considered waters of the U.S.

Critical Habitat

The Airport and the various project subareas are not located in any critical habitat units. This determination is based on information obtained from the Trusted Resources List obtained from the USFWS IPaC and various *Federal Register* (FR) documents. Numerous species have designated habitat in Monterey County; some of the critical habitat units located near the Airport are discussed below.

- On May 29, 2002, USFWS designated approximately 18,829 acres in Santa Cruz and Monterey counties as Monterey spineflower critical habitat (67 FR 37498–37546). This designation included airport property; however, the designation was challenged. In January 2008, USFWS published a revised ruling (73 FR 1525) that does not designate airport property as critical habitat for Monterey spineflower.
- On October 24, 2007, USFWS designated eight critical habitat units for Yadon’s piperia in Monterey County (72 FR 60422); Unit 4 – Aguajito is the closest to the Airport. Unit 4 includes two subunits consisting of 108 acres, which are located approximately 0.83 mile to the south.
- On June 19, 2012, USFWS designated critical habitat for the Pacific Coast population of western snowy plover (*Charadrius alexandrinus nivosus*) (77 FR 36727–36869). Unit CA 22 is the closest unit to the Airport and is located approximately 1.5 miles to the west.

State-protected Sensitive Natural Communities

CDFW maintains a list of Sensitive Natural Communities that are evaluated using the NatureServe Heritage Methodology to assign Global and State rankings to the communities. Natural Communities with ranks of S1-S3 are considered Sensitive Natural Communities to be addressed in the environmental review processes of CEQA and its equivalents. The Global and State ranking system does not imply that specific actions are required in review of projects that may impact the community; however, regulatory agencies may request that impacts to these communities be addressed in environmental documents. Sandmat manzanita chaparral and Monterey pine forest have “G1” Global Rank and an “S1” State Rank, which indicate that these communities are “critically imperiled.” Coast live oak woodland has a “G4” Global Rank and an “S4” State Rank. The G4 and S4 rankings indicate that coast live oak woodland is “apparently secure” in its range (Nature Serve 2018).

Oak woodlands are also considered under SB 1334 and associated PRC, Section 21083.4, which maintains that the potential conversion of oak woodland is subject to CEQA and is to be mitigated.

4.4.4 Thresholds of Significance

Guidance for determining CEQA significance thresholds is based on Appendix G of the CEQA Guidelines (2017). Using these guidelines, activities requiring CEQA review would have a significant impact on biological resources if they would:

- Threshold 4.4-1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFW or the USFWS;
- Threshold 4.4-2: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS;
- Threshold 4.4-3: Conflict with any local policies or ordinances protecting biological resources; and/or;
- Threshold 4.4-4: Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.³

As discussed in Section 4.4.3.4, the Airport contains no protected wetlands or U.S. waters as defined by Section 404 of the CWA. In addition, potential migratory wildlife corridor impacts were found in the Initial Study to be Less than Significant because implementation of the Airport's existing WHMP (MPAD 2013), the existing perimeter fence, and development in the area all limit the use of the airport property as a migratory route for resident wildlife species. Therefore, impacts based on CEQA thresholds for protected wetlands and migratory wildlife corridors are not discussed further in this section.

4.4.5 Impact Analysis

The Proposed Project and Alternative 1 include multiple projects. Although the projects are connected by the project description and the overall project goals and objectives, each project would affect different subareas and resources. As such, potential impacts and recommended avoidance and/or mitigation measures associated with Proposed Project and Alternative 1 subareas that were defined to address the various projects are provided.

³ Although there are no listed plans approved for, or near, the Airport, the Airport implements a project-specific habitat conservation and enhancement plan (HCEP) for its 2015 RSA Project. Therefore, in spite of receiving a "Less than Significant" rating in the Initial Study, this threshold has been retained to allow the discussion of impacts to the RSA Project's HCEP.

4.4.5.1 Threshold 4.4-1 - Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFW or the USFWS

For the purpose of this analysis, candidate, sensitive, or special-status plant and wildlife species are identified as follows:

- Plants and animals listed or proposed for listing as threatened or endangered under the FESA (CFR, Title 50, Sections 17.1 through 17.78);
- Plants and animals that are candidates for possible future listing as threatened or endangered under the FESA. From the February 28, 1996 *Federal Register*, page 7597: "those species for which the Service has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposed rule to list but issuance of the proposed rule is precluded.";
- Plants and animals that meet the definitions of rare or endangered species under CEQA (CEQA Guidelines, Section 15380);
- Plants considered by the CNPS to be "rare, threatened, or endangered" in California (Ranks 1A, 1B, 2A, 2B, and 3 in CNPS Rare Plant ranks)⁴;
- Plants listed under the California NPPA (CFGC, Section 1900 et seq.);
- Animals listed or proposed for listing by the State of California as threatened or endangered under CESA (California Code of Regulations [CCR], Title 14, Section 670.5);
- Plants listed or proposed for listing by the State of California as threatened or endangered under the CESA pursuant to Section 1904 (NPPA) and CFGC, Sections 2074.2 and 2075.5;
- Plants and wildlife considered sensitive by other federal agencies (i.e., U.S. Forest Service, Bureau of Land Management), state agencies, or jurisdictions;
- Animal species of special concern to CDFW; or
- Animal species that are fully protected in California (CFGC, Section 3511 [birds], Section 4700 [mammals], and Section 5050 [reptiles and amphibians]).

⁴ CNPS also highly recommends that impacts to plants with CNPS Rank 4 be evaluated per CEQA. Rank 4 Plants have limited distributions but are not necessarily eligible for listing.

Proposed Project and Alternative 1

Construction Impacts

Impacts to candidate, sensitive, or special-status wildlife species could be affected during construction due to the disturbance of their habitat. The following species are potentially present in Proposed Project and Alternative 1 project subareas:

California Legless Lizard. The vegetative communities in the Proposed Project and Alternative 1 subareas provide suitable habitat for silvery and black legless lizards (collectively referred to as California legless lizards) and other reptile species. Grading activities could result in direct take of these reptiles. Direct take may include being struck by equipment, entrapped in stockpiled materials or trenches, or trampled or collected by construction personnel. Any loss of California legless lizards is considered a Potentially Significant impact. See Section 4.4.6 for mitigation.

Nesting Birds. The habitats occurring in the Proposed Project and Alternative 1 subareas provide suitable nesting habitat for birds. Common passerines may use the oak woodland and maritime chaparral for nesting; raptors may use the oak and pine trees for nesting. These available nesting habitats would be impacted by land-clearing activities. If land-clearing activities are conducted between March and September, birds may be nesting within or adjacent to the affected area(s), and the individuals could be directly or indirectly impacted. Direct impacts may include loss of active nests during vegetation removal. Noise or other disturbances may cause an individual to abandon a nest, resulting in an indirect impact. Direct and indirect impacts to nesting birds, including a loss of nests, would also be considered a Potentially Significant impact. See Section 4.4.6 for mitigation.

Impacts to candidate, sensitive, or special-status plant species due to construction activities such as grading and other ground disturbance activities associated with Proposed Project and Alternative 1 short- and long-term projects have been included in the quantification of impacts related to the operation of those same components and are discussed below under Short-Term Project Impacts and Long-Term Project Impacts (Programmatic).

Significant Impact BIO-1: Potential take of California legless lizard (SSC) under the Proposed Project and Alternative 1 is considered Potentially Significant per Threshold 4.4-1.

Significant Impact BIO-2: Potential impacts to nesting birds (protected under the MBTA and CFGC) under the Proposed Project and Alternative 1 are considered Potentially Significant per Threshold 4.4-1.

Proposed Project

Short-Term Project Impacts

Potential impacts to candidate, sensitive, or special-status species resulting from short-term projects are summarized in **Table 4.4C** with discussions following the table for each project subarea.

TABLE 4.4C
Impacts to Special-Status Species (Short-Term Projects)
Proposed Project

Resource	Impacts by Project Subarea (number of individuals)							
	Terminal Area	Terminal Area Parking/ Circulation	Highway 68 Frontage Road Loop	South Side Drainage Improvements	“North Side” Road	GA Relocation	Soil Deposition	Total Impact
Sandmat manzanita	157	63	180	15	716	26	361	1,518
Monterey pine trees	30	37	165	0	32	0	59	323
Eastwood’s goldenbush	0	0	1	0	6	0	1	8
Monterey ceanothus	9	1	0	0	8	0	0	18
Small-leaved lomatium	0	0	32	0	16	0	1	49
Monterey spineflower	0	37	136	0	15	126	225	539
Yadon’s piperia	53	36	323	45	0	0	0	460

Source: SWCA 2018

Sandmat manzanita. Sandmat manzanita is a CNPS Rank 1B.2 plant that is widespread on the airport property. It occurs in all the Proposed Project subareas. Construction of short-term projects would result in the direct removal of the sandmat manzanita individuals located in the disturbance areas. In total, the Proposed Project short-term projects have the potential to directly remove 1,518 sandmat manzanita plants as discussed below.

- **Terminal Area:** Approximately 157 sandmat manzanita plants would be removed during the construction of the proposed relocated airport terminal and associated aircraft ramp. The individuals to be removed are in the ruderal vegetation that currently exists just north of the existing GA hangars, in the ruderal vegetation located adjacent to the existing airport rescue and firefighting (ARFF) station, and in the Monterey pine forest located on the bank that is immediately south of the GA ramp and hangars.
- **Terminal Area Parking and Circulation:** Approximately 63 sandmat manzanita plants would be removed during the construction of parking and circulation improvements that would occur on the south side of the Airport. Most of the impacts would result from the removal of the Monterey pine forest located just west of the existing Fred Kane Road and Olmsted Road intersection. This habitat and associated sandmat manzanita plants would be removed for the construction of proposed

surface parking. A few individuals would be removed for the proposed traffic circle at Olmsted Road and Garden Road.

- **Highway 68 Frontage Road Loop:** Approximately 180 sandmat manzanita plants would be removed during the construction of a proposed Highway 68 frontage road. All the impacts would occur in the Monterey pine forest and sandmat manzanita chaparral that are in the Airport's 3.3-acre undeveloped parcel that is between two private properties.
- **South Side Drainage Improvements:** Approximately 15 sandmat manzanita plants would be removed during the construction of proposed drainage improvements that would occur on the south side of the Airport at the Highway 68 and Olmsted Road intersection.
- **"North Side" Road:** Approximately 716 sandmat manzanita plants would be removed during the construction of the proposed "north side" road. The proposed "north side" road would traverse the hillside just northeast of the runways and the undeveloped lands located west of Del Rey Gardens Drive. This area supports dense sandmat manzanita chaparral and coast live oak woodland.
- **GA Relocation:** Construction of the proposed north GA area would result in the removal of approximately 26 sandmat manzanita plants that occur in the ruderal vegetation. These individuals are routinely mowed for fire abatement and are not part of a native plant community.
- **Soil Deposition Areas:** Construction of the proposed relocated commercial terminal apron would require excavating and stockpiling large quantities of soil. The excavated soil would be stockpiled in five soil deposition areas located on the northern part of the airport property. The soil stockpiles would result in the removal of approximately 361 sandmat manzanita plants. Most of this impact would occur in the largest of the five stockpile areas that would be placed in the coast live oak woodland, Monterey pine forest, sandmat manzanita chaparral, and ruderal habitats that are located immediately north of the existing industrial lease areas north of Airport Road.

The anticipated loss of 1,518 sandmat manzanita plants is considered a Potentially Significant impact. See Section 4.4.6 for mitigation.

Monterey Pine. Monterey pine is a CNPS Rank 1B.1 plant that is widespread on the airport property. It occurs in all the Proposed Project subareas, with the exception of the GA relocation site. The Monterey pine forests on the Airport are largely intermixed with the maritime chaparral. Fire suppression in the maritime chaparral has allowed the Monterey pines to become established in the chaparral community. Monterey pines and other tall trees create site barriers for pilots and can be problematic for safe operations. Therefore, airports commonly remove tall trees under CFR Title 14, Part 77 (Part 77).

Construction of the Proposed Project short-term projects would result in the removal of a total of 323 Monterey pines in several project subareas as discussed below.

- **Terminal Area:** 30 Monterey pine trees would be removed during the construction of the proposed relocated airport terminal and associated aircraft ramp. The individuals to be removed are in the Monterey pine forest located on the bank that is immediately south of the GA ramp.
- **Terminal Area Parking and Circulation:** 37 Monterey pine trees would be removed during the construction of proposed terminal parking and circulation improvements that would occur on the south side of the Airport. Most of the impacts would result from the removal of the Monterey pine forest located just west of the existing Fred Kane Road and Olmsted Road intersection for the construction of new surface parking. A few individuals would be removed for the proposed traffic circle at Olmsted Road and Garden Road and the proposed terminal parking structure.
- **Highway 68 Frontage Road Loop:** 165 Monterey pine trees would be removed during the construction of the proposed Highway 68 frontage road. All these impacts would occur in the ruderal habitat located between the existing airport parking and Highway 68 and in the Monterey pine forest and sandmat manzanita chaparral that are in the Airport's 3.3-acre undeveloped parcel that is between two private properties.
- **"North Side" Road:** 32 Monterey pine trees would be removed during the construction of the proposed "north side" road. The "North Side" Road subarea supports dense sandmat manzanita chaparral and coast live oak woodland that harbor sporadic Monterey pine trees.
- **Soil Deposition Areas:** The soil stockpiles would result in the removal of approximately 59 Monterey pine trees. Most of this impact would occur in the largest stockpile area that would be in the coast live oak woodland, Monterey pine forest, sandmat manzanita chaparral, and ruderal habitats that are immediately north of the existing industrial lease areas located north of Airport Road.

The anticipated loss of 323 Monterey pine trees is considered a Potentially Significant impact. See Section 4.4.6 for mitigation.

Eastwood's Goldenbush. Eastwood's goldenbush is a CNPS Rank 1B.1 species that has sporadic occurrences on the airport property with the highest concentrations in the northeast portion of the property. The Proposed Project would remove one occurrence from the Highway 68 Frontage Road Loop subarea, one occurrence from the Soil Deposition subarea, and six occurrences from the "North Side" Road subarea. The Proposed Project would avoid the individuals located in the Terminal Area Parking and Circulation subarea. The anticipated loss of eight occurrences of Eastwood goldenbush is considered a Potentially Significant impact. See Section 4.4.6 for mitigation.

Monterey Ceanothus. Monterey ceanothus is a CNPS Rank 4.2 species. The Proposed Project would remove one occurrence from the Terminal Area Parking and Circulation subarea, nine occurrences from the Terminal subarea, and eight occurrences from the "North Side" Road subarea. The anticipated loss of 18 occurrences of Monterey ceanothus is considered a Potentially Significant impact based on CNPS recommendations. See Section 4.4.6 for mitigation.

Small-leaved Lomatium. Small-leaved lomatium is a CNPS Rank 4.2 species. The Proposed Project would remove one occurrence from the Soil Deposition subarea, sixteen occurrences from the “North Side” Road subarea, and 32 occurrences from the Highway 68 Frontage Road Loop subarea. As designed, the Proposed Project would avoid the individuals located in the Terminal Area Parking and Circulation subarea. The anticipated loss of 49 occurrences of Monterey ceanothus is considered a Potentially Significant impact based on CNPS recommendations. See Section 4.4.6 for mitigation.

Monterey Spineflower. Monterey spineflower is a federally threatened and CNPS Rank 1B.2 species that is widespread on the airport property. The Monterey spineflower population on the Airport fluctuates seasonally making it difficult to predict the potential impacts to the species that could occur. Based on the project design and the 2016 and 2017 survey data, it is anticipated that the Proposed Project could impact approximately 539 individuals and the seed bank that occurs at the occurrences. The anticipated impacts would occur in the Terminal Area Parking and Circulation, Highway 68 Frontage Road Loop, “North Side” Road, GA Relocation, and Soil Deposition subareas. The impacts would include the removal of individuals, loss of soil seed bank from removing top soil, and the conversion of available habitat to developed areas. The loss of 539 Monterey spineflower and the attendant seed bank is considered a Potentially Significant impact. See Section 4.4.6 for mitigation.

Yadon’s Piperia. Yadon’s piperia is a federally endangered and CNPS Rank 1B.1 species that has numerous occurrences on the southern portion of the Airport and sparse occurrences in the northern portion of the Airport. Yadon’s piperia was observed in the Terminal, Terminal Parking and Circulation, Highway 68 Frontage Loop Road, and South Side Drainage Improvements subareas. The Proposed Project would remove 460 Yadon’s piperia from these subareas, which accounts for approximately 39 percent of the Yadon’s piperia population on the airport property and the adjacent private parcel proposed for land acquisition. It also includes the loss of approximately 15 percent of the larger population occurring on and around the Airport. In short, the Proposed Project would permanently remove approximately 1.84 acres of occupied Yadon’s piperia habitat. The impacts would include the removal of individuals, loss of soil seed bank from removing top soil, and the conversion of occupied habitat to developed areas. These impacts are considered Potentially Significant. See Section 4.4.6 for mitigation.

Seaside Bird’s Beak. Seaside bird’s beak is listed as endangered under the CESA and is a CNPS Rank 1B.1 species. The 2016 and 2017 surveys documented the presence of two (one in 2016 and one in 2017) individuals in the Highway 68 Frontage Road Loop subarea. Utilizing the survey data, the Airport redesigned the frontage road alignment to avoid the known occurrences. Instead, the Proposed Project frontage road is proposed to be constructed approximately 25 feet to the north of the occurrences. Seaside bird’s beak is an annual species. As such, its population numbers and exact location can fluctuate from season to season and a potential loss of individuals could occur. Any loss of Seaside Bird’s Beak would be considered a Potentially Significant impact. See Section 4.4.6 for mitigation.

Conclusion. Potential impacts of the proposed short-term projects under the Proposed Project include a loss of individual special-status plants. These impacts are Potentially Significant. See Section 4.4.6 for mitigation.

- Significant Impact BIO-3:** *The anticipated loss of 1,518 sandmat manzanita (CNPS Rank 1B.2) under the Proposed Project is considered Potentially Significant per Threshold 4.4-1.*
- Significant Impact BIO-4:** *The anticipated loss of 323 Monterey pine (CNPS Rank 1B.1) under the Proposed Project is considered Potentially Significant per Threshold 4.4-1.*
- Significant Impact BIO-5:** *The anticipated loss of eight Eastwood’s goldenbush (CNPS Rank 1B.1) under the Proposed Project is considered Potentially Significant per Threshold 4.4-1.*
- Significant Impact BIO-6:** *The anticipated loss of 18 Monterey ceonothus (CNPS Rank 4.2) under the Proposed Project is considered Potentially Significant based on CNPS recommendations per Threshold 4.4-1.*
- Significant Impact BIO-7:** *The anticipated loss of 49 small-leaved lomatium (CNPS Rank 4.2) under the Proposed Project is considered Potentially Significant based on CNPS recommendations per Threshold 4.4-1.*
- Significant Impact BIO-8:** *The anticipated loss of 539 Monterey spineflower (federally endangered and CNPS Rank 1B.2) and the attendant seed bank (i.e., occupied habitat) under the Proposed Project is considered Potentially Significant per Threshold 4.4-1.*
- Significant Impact BIO-9:** *The anticipated loss of 460 Yadon’s piperia (federally endangered and CNPS Rank 1B.1) under the Proposed Project is considered Potentially Significant per Threshold 4.4-1.*
- Significant Impact BIO-10:** *Although the Proposed Project has been designed to avoid known Seaside bird’s beak (state endangered and CNPS Rank 1B.1), this plant is an annual species and its numbers and exact location can fluctuate. Thus, losses of the species could still occur. This is considered Potentially Significant per Threshold 4.4-1.*

Alternative 1

Short-Term Project Impacts

Table 4.4D quantifies the potential impacts to special-status species associated with Alternative 1. Because the “north side” road would be constructed at the same time as the GA relocation under Alternative 1, these impacts are combined in one project subarea, rather than separated as presented in **Table 4.4C** for the Proposed Project. All other project subareas under Alternative 1 are the same as

the Proposed Project, and the qualitative discussion of each resource as presented under the Proposed Project is the same as for Alternative 1 and is not repeated here.

TABLE 4.4D
Impacts to Special-Status Species (Short-Term Projects)
Alternative 1

Resource	Impacts by Project Subarea (number of individuals)						Total Impact
	Terminal Area	Terminal Area Parking/Circulation	Highway 68 Frontage Road Cul-de-Sac	South Side Drainage Improvements	“North Side” Road and GA Relocation	Soil Deposition	
Sandmat manzanita	152	44	136	15	742	361	1,450
Monterey pine trees	32	32	150	0	32	59	305
Eastwood’s goldenbush	0	0	1	0	6	1	8
Monterey ceanothus	9	1	0	0	8	0	18
Small-leaved lomatium	0	0	32	0	16	1	49
Monterey spineflower	0	0	136	0	141	225	502
Yadon’s piperia	53	3	59	41	0	0	156

Source: SWCA 2018

Table 4.4E compares the quantifiable impacts to special-status species between the Proposed Project and Alternative 1. Since Alternative 1 does not include the surface parking component at the intersection of Olmsted Road and Fred Kane Drive, Alternative 1 would avoid the special-status plants located in this portion of the Alternative 1 Terminal Area Parking and Circulation subarea. Alternative 1 also includes a Highway 68 frontage road cul-de-sac instead of the loop road considered in the Proposed Project. These two changes between the Proposed Project and Alternative 1 reduce impacts to biological resources associated with south side development. However, impacts to special-status plants would still occur and mitigation measures would be required (Section 4.4.6).

For example, Alternative 1 would directly remove 156 Yadon’s piperia and would permanently remove approximately 1.61 acres of occupied Yadon’s piperia habitat from the project subareas. Alternative 1 has the potential to remove approximately 13 percent of the Yadon’s piperia population that occurs on the airport property and the adjacent private parcel proposed for land acquisition, resulting in the loss of approximately five percent of the larger population occurring on and around the Airport. The impacts would include the physical removal of individuals, loss of soil seed bank from removing top soil, and the conversion of occupied habitat to developed areas.

Seaside bird’s beak is listed as endangered under the CESA and is a CNPS Rank 1B.1 species. The 2016 and 2017 surveys documented the presence of two (one in 2016 and one in 2017) individuals in the Alternative 1 Highway 68 Frontage Road Cul-de-sac study subarea. Utilizing the survey data, the Airport redesigned the frontage road cul-de-sac alignment to avoid the known occurrences; instead, the Alternative 1 frontage road would be constructed approximately 25 feet to the north of the occurrences.

However, Seaside bird’s beak is an annual species. As such, its population numbers and exact location can fluctuate from season to season and a potential loss of individuals could occur.

**TABLE 4.4E
Comparison of Impacts to Special-Status Species (Short-Term Projects)
Proposed Project and Alternative 1**

Resource	Proposed Project	Alternative 1	Reason for Variance
Sandmat manzanita	1,518	1,450	Alternative 1 has removed a surface parking lot at Olmsted Road and Fred Kane Drive, which would avoid impacts in the Alternative 1 Terminal Area Parking and Circulation subarea. Alternative 1 has removed the loop in the Highway 68 frontage road which would reduce the impact area in the Frontage Road Loop and Terminal subareas.
Monterey pine trees	323	305	Alternative 1 has removed a surface parking lot at Olmsted Road and Fred Kane Drive, which would avoid impacts in the Alternative 1 Terminal Area Parking and Circulation subarea. Alternative 1 has removed the loop in the Highway 68 frontage road which would reduce the impact area in the Frontage Road Loop and Terminal subareas.
Eastwood’s goldenbush	8	8	No change.
Monterey ceanothus	18	18	No change.
Small-leaved lomatium	49	49	No change.
Monterey spineflower	539	502	Alternative 1 has removed a surface parking lot at Olmsted Road and Fred Kane Drive, which would avoid impacts in the Alternative 1 Terminal Area Parking and Circulation subarea.
Yadon’s piperia	460	156	Alternative 1 has removed the loop in the Highway 68 frontage road which would reduce the impact area in the Frontage Road Loop and Terminal subareas. Alternative 1 has replaced a terminal parking garage with a surface parking lot, which would reduce impacts in the Alternative 1 Terminal Area Parking and Circulation subarea.

Source: SWCA 2018

Conclusion. While Alternative 1 would reduce, to some extent, the Proposed Project’s potentially significant impacts on sensitive plant species, impacts to the special-status species discussed would remain Potentially Significant under Alternative 1. See Section 4.4.6 for mitigation.

Significant Impact BIO-11 (Alt. 1): *The anticipated loss of 1,450 sandmat manzanita (CNPS Rank 1B.2) under Alternative 1 is considered Potentially Significant per Threshold 4.4-1.*

- Significant Impact BIO-12 (Alt. 1):** *The anticipated loss of 305 Monterey pine trees (CNPS Rank 1B.1) under Alternative 1 is considered Potentially Significant per Threshold 4.4-1.*
- Significant Impact BIO-13 (Alt. 1):** *The anticipated loss of eight Eastwood’s goldenbush (CNPS Rank 1B.1) under Alternative 1 is considered Potentially Significant per Threshold 4.4-1.*
- Significant Impact BIO-14 (Alt. 1):** *The anticipated loss of 18 Monterey ceonothus (CNPS Rank 4.2) under Alternative 1 is considered Potentially Significant based on CNPS recommendations per Threshold 4.4-1.*
- Significant Impact BIO-15 (Alt. 1):** *The anticipated loss of 49 small-leaved lomatium (CNPS Rank 4.2) under Alternative 1 is considered Potentially Significant based on CNPS recommendations per Threshold 4.4-1.*
- Significant Impact BIO-16 (Alt. 1):** *The anticipated loss of 502 Monterey spineflower (federally endangered and CNPS Rank 1B.2) and the attendant seed bank (i.e., occupied habitat) under Alternative 1 is considered Potentially Significant per Threshold 4.4-1.*
- Significant Impact BIO-17 (Alt. 1):** *The anticipated loss of 156 Yadon’s piperia (federally endangered and CNPS Rank 1B.1) under Alternative 1 is considered Potentially Significant per Threshold 4.4-1.*
- Significant Impact BIO-18 (Alt. 1):** *Although Alternative 1 has been designed to avoid known Seaside bird’s beak (state endangered and CNPS Rank 1B.1), this plant is an annual species and its numbers and exact location can fluctuate. Thus, losses of the species could still occur. This is considered Potentially Significant per Threshold 4.4-1 per Threshold 4.4-1.*

Proposed Project and Alternative 1

Long-Term Project Impacts (Programmatic)

Development of the following long-term projects are the same under either the Proposed Project or Alternative 1 and have the potential to directly or indirectly impact candidate, sensitive, or special-status species:

- Construction of non-aviation uses on the north and south sides of the Airport;
- Upgrade of the perimeter fence;
- Construction of a consolidated maintenance building; and
- Extension of Taxiway “B” to the Runway 28L threshold and construct geometry improvements for Taxiways “G,” “K,” “L,” and “M.”

Table 4.4F lists the special-status species that are known to occupy these long-term project areas.

TABLE 4.4F Summary of Special-Status Plants Observed in the Long-Term Project Areas Proposed Project and Alternative 1		
Species Name	Legal Status ¹ Federal/State/CNPS	Project Areas with Resources
Sandmat manzanita	--/--/1B.2	Occurs in all non-aviation development areas, extended Taxiway B development area, perimeter fence upgrade area, and the consolidated maintenance building area.
Monterey spineflower	FT/--/1B.2	Occurs in all non-aviation development areas, extended Taxiway B development area, perimeter fence upgrade area, and the consolidated maintenance building area.
Eastwood’s goldenbush	--/--/1B.1	Occurs in the northern non-aviation development areas and the perimeter fence upgrade area.
Monterey ceanothus	--/--/4.2	Occurs in the northern non-aviation development areas and the perimeter fence upgrade area.
Yadon’s piperia	FE/--/1B.1	Occurs in all non-aviation development areas and the perimeter fence upgrade area.
Small-leaved lomatium	--/--/4.2	Occurs in all non-aviation development areas and the perimeter fence upgrade area.
Seaside bird’s beak	--/SE/1B.1	Occurs in the southeastern non-aviation development area.
Monterey pine	--/--/1B.1	Occurs in all non-aviation development areas, extended Taxiway B development area, perimeter fence upgrade area, and the consolidated maintenance building area.

Source: SWCA 2018

¹ Status Codes
 -- = No status
Federal: FE = Federal Endangered; FT=Federal Threatened
State: SE=State Endangered; ST= State Threatened; SR= State Rare
California Native Plant Society (CNPS):
 Rank 1B = rare, threatened, or endangered in California and elsewhere
 Rank 2 = rare, threatened, or endangered in California, but more common elsewhere
 Rank 3 = plants about which more information is needed
 Rank 4 = a watch list plants of limited distribution

Threat Code:
 .1 = Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
 .2 = Fairly endangered in California (20-80% occurrences threatened)
 .3 = Not very endangered in California (<20% of occurrences threatened, or no current threats known)

In addition to the species listed in **Table 4.4F**, other special-status species including, but not limited to, California legless lizards, California horned lark, loggerheaded shrike, sharp shinned hawk, and Monterey manzanita may occur in the future development areas. Potential direct impacts to these species could include physically removing, trampling, or destroying individuals that occupy the project areas. Indirect impacts could include altering the existing conditions in the project areas in such a way that the nearby areas could no longer support the special-status species. These direct and indirect impacts are Potentially Significant. See Section 4.4.6 for mitigation.

The only potential habitat for amphibious species on the airport property is the stormwater detention basin on the northwestern portion of the airport property. The detention basin is routinely managed for stormwater collection and is surrounded by urban development. The on-going management and urban development in the area likely precludes the presence of California red-legged frog and California tiger salamander. Both the Proposed Project and Alternative 1 would designate the detention basin and adjacent oak woodland as Conservation Area 4 and include the area as open space on the Airport Layout Plan; therefore, no adverse impacts to the basin and adjacent oak woodland would occur.

Significant Impact BIO-19: *Any future loss of sandmat manzanita (CNPS Rank 1B.2) under either the Proposed Project or Alternative 1 is considered Potentially Significant per Threshold 4.4-1.*

Significant Impact BIO-20: *Any future loss of Monterey pine (CNPS Rank 1B.1) under either the Proposed Project or Alternative 1 is considered Potentially Significant per Threshold 4.4-1.*

Significant Impact BIO-21: *Any future loss of Eastwood's goldenbush (CNPS Rank 1B.1) under either the Proposed Project or Alternative 1 is considered Potentially Significant per Threshold 4.4-1.*

Significant Impact BIO-22: *Any future loss of Monterey ceonothus (CNPS Rank 4.2) under either the Proposed Project or Alternative 1 is considered Potentially Significant based on CNPS recommendations per Threshold 4.4-1.*

Significant Impact BIO-23: *Any future loss of small-leaved lomatium (CNPS Rank 4.2) under either the Proposed Project or Alternative 1 is considered Potentially Significant based on CNPS recommendations per Threshold 4.4-1.*

Significant Impact BIO-24: *Any future loss of Monterey spineflower (federally endangered and CNPS Rank 1B.2) and its attendant seed bank (i.e., occupied habitat) under either the Proposed Project or Alternative 1 is considered Potentially Significant per Threshold 4.4-1.*

Significant Impact BIO-25: *Any future loss of Yadon’s piperia (federally endangered and CNPS Rank 1B.1) under either the Proposed Project or Alternative 1 is considered Potentially Significant per Threshold 4.4-1.*

Significant Impact BIO-26: *Any future loss of Seaside bird’s beak (state endangered and CNPS Rank 1B.1) under either the Proposed Project or Alternative 1 is considered Potentially Significant per Threshold 4.4-1.*

4.4.5.2 Threshold 4.4-2 - Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS

Proposed Project and Alternative 1

The Proposed Project and Alternative 1 subareas do not support riparian habitats. However, the Proposed Project and Alternative 1 subareas do support sandmat manzanita chaparral, Monterey pine forest, and coast live oak woodland, which CDFW considers to be Sensitive Natural Communities (Section 4.4.3.4).

Construction and Short-Term Project Impacts

Table 4.4G summarizes the proposed short-term project impacts for the Proposed Project and Alternative 1 to allow comparison between the two. Indirect impacts to biological resources related to construction activities include erosion, accidental grading or equipment maneuvering, and spread of non-native species that may negatively affect the natural processes that support the communities.

TABLE 4.4G
Comparison of Impacts to Sensitive Natural Communities (Short-Term Projects)
Proposed Project and Alternative 1

Resource	Proposed Project	Alternative 1	Reason for Variance
Sandmat manzanita chaparral	4.21 acres	4.16 acres	Alternative 1 has removed the loop in the Highway 68 frontage road which would reduce the impact area in the Frontage Road Loop subarea.
Monterey pine forest	5.27 acres	4.54 acres	Alternative 1 reduces impacts in the following subareas: Terminal Area Parking and Circulation Area; Highway 68 Frontage Road with Cul-de-sac; and South Side Drainage Improvements subareas.
Coast live oak woodland	4.83 acres (705 trees)	4.83 acres (657 trees)	Although there is no change in acreage of oak woodlands, impacts where oak trees occur (but not in oak woodlands) have been reduced in the following subareas: Highway 68 Frontage Road with Cul-de-sac and Terminal Area Parking and Circulation.

Source: SWCA 2018

Sandmat Manzanita Chaparral. The Proposed Project would impact 4.21 acres of sandmat manzanita chaparral. This impact would result from the proposed grading and development of the Highway 68 Frontage Road with Loop (0.53 acre), “North Side” Road and GA Relocation (3.26 acres), and the Soil

Deposition Area (0.41 acre) subareas. These impacts are considered Potentially Significant. See Section 4.4.6 for mitigation.

Monterey Pine Forest. The Proposed Project would impact 5.27 acres of Monterey pine forest. This impact would result from the proposed grading and development of the Terminal Area (1.16 acre), Terminal Area Parking and Circulation Area (1.09 acre), Highway 68 Frontage Road with Loop (1.94 acre), South Side Drainage Improvements (0.45), “North Side” Road and GA Relocation (0.36 acre), and the Soil Deposition Area (0.27 acre) subareas. These impacts are considered Potentially Significant. See Section 4.4.6 for mitigation.

Coast Live Oak Woodland. The Proposed Project would impact 4.83 acres of coast live oak woodland and 705 coast live oak trees. This impact would result from the proposed grading and development of the “North Side” Road and GA Relocation, the Soil Deposition, Highway 68 Frontage Road Loop, and the Terminal Area Parking and Circulation subareas. These impacts are considered Potentially Significant. See Section 4.4.6 for mitigation.

Significant Impact BIO-27: A loss of 4.21 acres of sandmat manzanita chaparral under the Proposed Project is considered Potentially Significant per Threshold 4.4-2.

Significant Impact BIO-28: A loss of 5.27 acres of Monterey pine forest under the Proposed Project is considered Potentially Significant per Threshold 4.4-2.

Significant Impact BIO-29: A loss of 4.83 acres of coast live oak woodland (705 trees) under the Proposed Project is considered Potentially Significant per Threshold 4.4-2.

Sandmat Manzanita Chaparral. Alternative 1 would impact 4.16 acres of sandmat manzanita chaparral. This impact would result from the grading and development of the Highway 68 Frontage Road with Cul-de-sac (0.49 acre), “North Side” Road (3.26 acres), and the Soil Deposition Area (0.41 acre) subareas. These impacts are considered Potentially Significant. See Section 4.4.6 for mitigation.

Monterey Pine Forest. Alternative 1 would impact 4.54 acres of Monterey pine forest. This impact would result from the grading and development of the Terminal Area (1.16 acres), Terminal Area Parking and Circulation Area (0.71 acre), Highway 68 Frontage Road with Cul-de-sac (1.73 acres), South Side Drainage Improvements (0.31), “North Side” Road (0.36 acre), and the Soil Deposition Area (0.27 acre) subareas. These impacts are considered Potentially Significant. See Section 4.4.6 for mitigation.

Coast Live Oak Woodland. Alternative 1 would impact 4.83 acres of coast live oak woodland and 657 coast live oak trees. This impact would result from the grading and development of the “North Side” Road and GA Relocation, the Soil Deposition, Highway 68 Frontage Road Loop, and the Terminal Area Parking and Circulation subareas. These impacts are considered Potentially Significant. See Section 4.4.6 for mitigation.

Significant Impact BIO-30 (Alt. 1): *A loss of 4.16 acres of sandmat manzanita chaparral under Alternative 1 is considered Potentially Significant per Threshold 4.4-2.*

Significant Impact BIO-31 (Alt. 1): *A loss of 4.54 acres of Monterey pine forest under Alternative 1 is considered Potentially Significant per Threshold 4.4-2.*

Significant Impact BIO-32 (Alt. 1): *A loss of 4.83 acres of coast live oak woodland (657 trees) under Alternative 1 is considered Potentially Significant per Threshold 4.4-2.*

Construction and Long-Term Project Impacts (Programmatic)

The proposed non-aviation development and perimeter fence upgrades of the Proposed Project or Alternative 1 would be the same and could result in direct and indirect effects on sandmat manzanita chaparral, Monterey pine forest, and coast live oak woodland. Direct impacts could include the physical removal of the communities and conversion of the lands to developed areas. Indirect effects include erosion, accidental grading or equipment maneuvering in the communities, and spread of non-native species that may negatively affect the natural processes that support the communities. These direct and indirect impacts are Potentially Significant. See Section 4.4.6 for mitigation measures.

Significant Impact BIO-33: *Any future loss of sandmat manzanita chaparral under the Proposed Project or Alternative 1 is considered Potentially Significant per Threshold 4.4-2.*

Significant Impact BIO-34: *Any future loss of Monterey pine forest under the Proposed Project or Alternative 1 is considered Potentially Significant per Threshold 4.4-2.*

Significant Impact BIO-35: *Any future loss of coast live oak woodland under the Proposed Project or Alternative 1 is considered Potentially Significant per Threshold 4.4-2.*

4.4.5.3 Threshold 4.4-3 - Conflict with any local policies or ordinances protecting biological resources

Only some of the proposed projects are located in the City of Monterey and thus subject to provisions of Chapter 37 (Preservation of Trees and Shrubs) of the City of Monterey City Code. Specifically, under both the Proposed Project and Alternative 1, proposed projects in the following project subareas must comply with Section 37: (i) the Terminal Area Parking and Circulation Area; (ii) the Highway 68 Frontage Road Loop or Highway 68 Frontage Road Cul-de-sac; and (iii) the South Side Drainage Improvements. As previously discussed in Section 4.4.1, Chapter 37 requires that the applicant obtain a permit from the City Forester and/or the city's Department of Plans and Public Works to remove a protected tree.

In addition, these same projects would be subject to the city’s Conservation Element policies related to Goal d, which is intended to “[p]rotect the character and composition of existing native vegetative communities,” and “[c]onserve, manage, and restore habitats for endangered species, and protect biological diversity represented by special-status plant and wildlife species. As previously listed in Section 4.4.1 under *Local Regulations*, these policies require that existing native plants, special-status species, and sensitive habitats be protected (Policies d.1, d.3 and d.4), use of exotic plant species be discouraged (Policy d.2), and that biological mitigation measures are incorporated into conditions of approval for development projects (Policy d.5).

During construction, proposed projects located within the City of Monterey could have impacts to: Monterey spineflower, a federal endangered plant; Yadon’s piperia, a federal endangered plant and CNPS-ranked 1B.1 rare plant; Seaside bird’s beak, a state endangered and CNPS-ranked 1B.1 rare plant; Eastwood’s goldenbush, a CNPS-ranked 1B.1 rare plant; sandmat manzanita, a CNPS-ranked 1B.2 rare plant; and native trees, including coast live oak and Monterey pine. These impacts are discussed more specifically below for the Proposed Project and Alternative 1.

Proposed Project

Construction and Short-Term Project Impacts

The Proposed Project includes a Highway 68 frontage road and terminal area parking and circulation system, which would occur partly within the City of Monterey jurisdiction. Proposed short-term projects in this area would result in the removal of 306 trees of the following species:

- Coast live oak: 117 trees
- Monterey cypress: 6 trees
- Monterey pine: 179 trees
- Golden wattle (*Acacia pycnantha*): 4 trees

Thus, Chapter 37 of the Monterey City Code requires the Airport to coordinate with the City Forester and/or the city’s Department of Plans and Public Works. Given the number of trees proposed for removal, the project may not be able to comply with the city ordinance absent mitigation. This would be a Potentially Significant impact. See Section 4.4.6 for mitigation.

The Highway 68 frontage road and terminal area parking and circulation system would also result in the removal of native habitats that are provided special considerations under the City of Monterey Conservation Element Goal d and related policies as discussed below:

- The proposed Highway 68 frontage road and terminal area parking and circulation system would result in the removal of native plants that comprise native plant communities, thus, creating impacts with Policy d.1.
- The proposed Highway 68 frontage road and the terminal area parking and circulation system would result in the removal of 2.76 acres of Monterey pine forest and 0.53 acres of sandmat manzanita chaparral plant communities, thus, creating impacts with Policy d.3. These plant communities are considered Sensitive Natural Communities by CDFW. The portions of these communities that occur

in the Proposed Project subareas are partially disturbed but largely intact, and therefore have moderate to high biological values.

- The proposed Highway 68 frontage road and terminal area parking and circulation system would result in the removal of plant communities that contain Yadon’s piperia, Monterey spineflower, Seaside bird’s beak, sandmat manzanita, and Eastwood’s goldenbush. Yadon’s piperia and Monterey spineflower are listed under the FESA, thus, creating impacts with Policy d.4. Seaside bird’s beak is listed under the CESA. All the plant species are ranked as rare species by the CNPS and are protected under the NPPA. These plant species and their associated plant communities are regionally restricted to the Monterey area and are of high biological diversity.

The listed potential inconsistencies with *City of Monterey General Plan* Conservation Element goals and policies are Potentially Significant impacts related to Threshold 4.4-3. See Section 4.4.6 for mitigation.

Significant Impact BIO-36: ***Construction and operation of proposed short-term projects within the Terminal Area Parking and Circulation Area, Highway 68 Frontage Road Loop, and South Side Drainage Improvements subareas under the Proposed Project could be inconsistent with Chapter 37 of the City of Monterey City Code regarding tree removal, which is considered a Potentially Significant impact.***

Significant Impact BIO-37: ***Construction and operation of proposed short-term projects under the Proposed Project within the Terminal Area Parking and Circulation Area, Highway 68 Frontage Road Loop, and South Side Drainage Improvements subareas could be inconsistent with City of Monterey biological resource policies of its Conservation Element, which is considered a Potentially Significant impact.***

Alternative 1

Construction and Short-Term Project Impacts

Alternative 1 includes a Highway 68 frontage road cul-de-sac and terminal area parking and circulation system that would occur within the City of Monterey jurisdiction. These Alternative 1 components would result in the removal of 252 trees of the following species:

- Coast live oak: 67 trees
- Monterey pine: 164 trees
- Monterey cypress: 17 trees
- Golden wattle: 4 trees

Thus, coordination with the City of Monterey’s City Forester and/or the city’s Department of Plans and Public Works will be required per Chapter 37 of the City Code. Given the number of trees proposed for

removal, Potentially Significant impacts related to compliance with this city ordinance could occur. See Section 4.4.6 for mitigation.

The proposed Highway 68 frontage road cul-de-sac and terminal area parking and circulation system of Alternative 1 would also result in the removal of native habitats that are provided special considerations under the City of Monterey Conservation Element goals and policies as discussed below:

- The proposed Highway 68 frontage road cul-de-sac and terminal area parking and circulation system would result in the removal of native plants that comprise native plant communities, thus, creating impacts with Policy d.1.
- The proposed Highway 68 frontage road cul-de-sac and the terminal area parking and circulation system would result in the removal of 2.24 acres of Monterey pine forest and 0.48 acre of sandmat manzanita chaparral plant communities, thus, creating impacts with Policy d.3. These plant communities are considered Sensitive Natural Communities by CDFW. The portions of these communities that occur in the Alternative 1 subareas are partially disturbed but largely intact, and therefore have moderate to high biological values.
- The proposed Highway 68 frontage road cul-de-sac and terminal area parking and circulation system would result in the removal of plant communities that contain Yadon’s piperia, Monterey spineflower, Seaside bird’s beak, sandmat manzanita, and Eastwood’s goldenbush. Yadon’s piperia and Monterey spineflower are listed under the FESA, thus, creating impacts with Policy d.4. Seaside bird’s beak is listed under the CESA. All the plant species are ranked as rare species by the CNPS and are protected under the NPPA. These plant species and their associated plant communities are regionally restricted to the Monterey area and are of high biological diversity.

The listed potential inconsistencies with *City of Monterey General Plan* Conservation Element goals and policies are Potentially Significant impacts related to Threshold 4.4-3. See Section 4.4.6 for mitigation.

Significant Impact BIO-38 (Alt. 1): Construction and operation of proposed short-term projects under Alternative 1 within the Terminal Area Parking and Circulation Area, Highway 68 Frontage Road Cul-de-sac, and South Side Drainage Improvements subareas could be inconsistent with Chapter 37 of the City of Monterey City Code regarding tree removal, which is considered a Potentially Significant impact.

Significant Impact BIO-39 (Alt. 1): Construction and operation of proposed short-term projects under Alternative 1 within the Terminal Area Parking and Circulation Area, Highway 68 Frontage Road Cul-de-sac, and South Side Drainage Improvements subareas could be inconsistent with City of Monterey biological resource policies of its Conservation Element, which is considered a Potentially Significant impact.

Proposed Project and Alternative 1

Construction and Long-Term Project Impacts (Programmatic)

Non-aviation development proposed for the south side of the Airport in the long-term would be the same for either the Proposed Project or Alternative 1 and would be conducted on lands that are in the City of Monterey jurisdiction and are subject to Chapter 37, Preservation of Trees and Shrubs of the City of Monterey Code. In addition to impacts to trees, these south side non-aviation development components of the Proposed Project or Alternative 1 have the potential to impact vegetation types identified for protection in the City of Monterey Conservation Element goals and policies.

Potential inconsistencies with *City of Monterey General Plan* Conservation Element goals and policies due to long-term projects are Potentially Significant impacts related to Threshold 4.4-3. See Section 4.4.6 for mitigation.

Significant Impact BIO-40: ***Proposed construction and operation of long-term projects under either the Proposed Project or Alternative 1 within the Terminal Area Parking and Circulation Area, Highway 68 Frontage Road Loop or Highway Frontage Road Cul-de-sac, and South Side Drainage Improvements subareas could be inconsistent with Chapter 37 of the City of Monterey City Code regarding tree removal, which is considered a Potentially Significant impact.***

Significant Impact BIO-41: ***Proposed construction and operation of long-term projects under either the Proposed Project or Alternative 1 within the Terminal Area Parking and Circulation Area, Highway 68 Frontage Road Loop or Highway Frontage Road Cul-de-sac, and South Side Drainage Improvements subareas could be inconsistent with City of Monterey biological resource policies of its Conservation Element, which is considered a Potentially Significant impact.***

4.4.5.4 Threshold 4.4-4 - Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan

Proposed Project and Alternative 1

Construction and Short-Term Project Impacts

During construction, the proposed “north side” road, would occur within previously established HCEP conservation areas for the RSA Project. The EIR for the 2015 RSA Project identified impacts to sandmat manzanita chaparral, coast live oak woodland, and rare plants that occurred in the affected communities. As part of the mitigation for these impacts, the Airport developed and adopted a HCEP that established three conservation areas on the eastern part of the airport property. Conservation Area

1 includes 1.2 acres of central maritime chaparral that is dominated by sandmat manzanita. Conservation Area 2 includes 3.0 acres of coast live oak woodland. Conservation Area 3 includes 1.2 acres of maritime chaparral restoration plantings within the vegetated retaining walls and adjacent areas. The Airport designated these areas as open space on the airport layout plan (ALP) and have been conducting habitat management activities in them.

The Proposed Project and Alternative 1 include a proposed “north side” road, which would remove 0.79 acre of Conservation Area 1 (sandmat manzanita chaparral) and 0.46 acre of Conservation Area 2 (coast live oak woodland). The removal of these established conservation areas conflicts with the approved mitigation for the RSA Project and is a Potentially Significant impact. As such, the affected conservation areas must be replaced at a 1:1 ratio with in-kind habitat replacement conservation areas to maintain compliance with the RSA Project’s established mitigation. See Section 4.4.6 for mitigation.

Significant Impact BIO-42: *The Proposed Project and Alternative 1 would remove 1.25 acres of previously established conservation areas for the RSA Project due to the construction and operation of the “north side” road and is considered a Potentially Significant impact under Threshold 4.4-4.*

Construction and Long-Term Project Impacts (Programmatic)

A proposed future perimeter fence upgrade has the potential to directly impact the existing RSA Project Conservation Area 1, Conservation Area 2, and/or Conservation Area 1 replacement areas. Direct impacts to these conservation areas could include constructing the fence in an alignment that traverses one or more of the conservation areas, which would require vegetation removal and could result in erosion in the affected conservation area. These conservation areas were established to mitigate the impacts to sensitive natural communities and the special-status species that occupy the communities that resulted from the RSA Project and is a Potentially Significant impact. As such, any future project that results in the removal of all or a portion of the conservation areas must replace the impacted area to maintain compliance with past CEQA documentation. See Section 4.4.6 for mitigation.

Significant Impact BIO-43: *A proposed perimeter fence upgrade under either the Proposed Project or Alternative 1 could directly impact the existing RSA Project Conservation Area 1, Conservation Area 2, and/or Conservation Area 1 Replacement areas and is considered a Potentially Significant impact.*

4.4.6 Mitigation Program

The following mitigation program includes both project-specific mitigation for short-term projects under the Proposed Project or Alternative 1 and programmatic mitigation for future long-term projects under the Proposed Project or Alternative 1. Most of the short-term, project-specific mitigation and the long-term, programmatic mitigation would apply equally to either alternative. Where the mitigation measures are different, the differences are summarized below in **Table 4.4H**.

TABLE 4.4H Summary Comparison of Project-Specific Mitigation Proposed Project and Alternative 1			
Mitigation	Proposed Project	Mitigation	Alternative 1
Threshold 4.4-1 - Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFW or the USFWS			
BIO/mm-3	Replant 3,036 sandmat manzanita plants (estimated)	BIO/mm-12	Replant 2,900 sandmat manzanita plants (estimated)
All other mitigation measures for this threshold are the same.			
Threshold 4.4-2 - Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS - All mitigation for this threshold are the same.			
Threshold 4.4-3 - Conflict with any local policies or ordinances protecting biological resources			
BIO/mm-36	In-lieu fees for 306 trees (estimated)	BIO/mm-39	In-lieu fees for 252 trees (estimated)
Threshold 4.4-4 - Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan - All mitigation for this threshold is the same.			

4.4.6.1 Threshold 4.4-1 - Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFW or the USFWS

Proposed Project and Alternative 1

Construction Impacts

California Legless Lizards:

BIO/mm-1: Within 30 days prior to site grading, an environmental monitor shall conduct surveys for California legless lizards and other reptiles. The surveyor shall utilize hand search or cover board methods in areas of disturbance where legless lizards are expected to be found (e.g., under shrubs, other vegetation, or debris). If cover board methods are used, they shall commence at least 30 days prior to the start of construction. If hand search methods are used, the surveys shall be completed immediately prior to and during grading activities. The surveyor shall capture and relocate any legless lizards or other reptiles observed during the survey effort. The captured individuals shall be relocated from the construction area(s) and placed in suitable habitat on the airport property.

Nesting Birds:

BIO/mm-2: To the maximum extent possible, initial vegetation-clearing activities in the project areas shall be conducted between October and February, which is outside of the typical bird breeding season. If the project schedule does not provide for late season vegetation removal, a nesting bird survey shall be conducted by a qualified biologist no more than one week prior to the land clearing to determine presence/absence of nesting birds within the vegetated area. If active nests are

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

Proposed Project

Short-Term Project Impacts

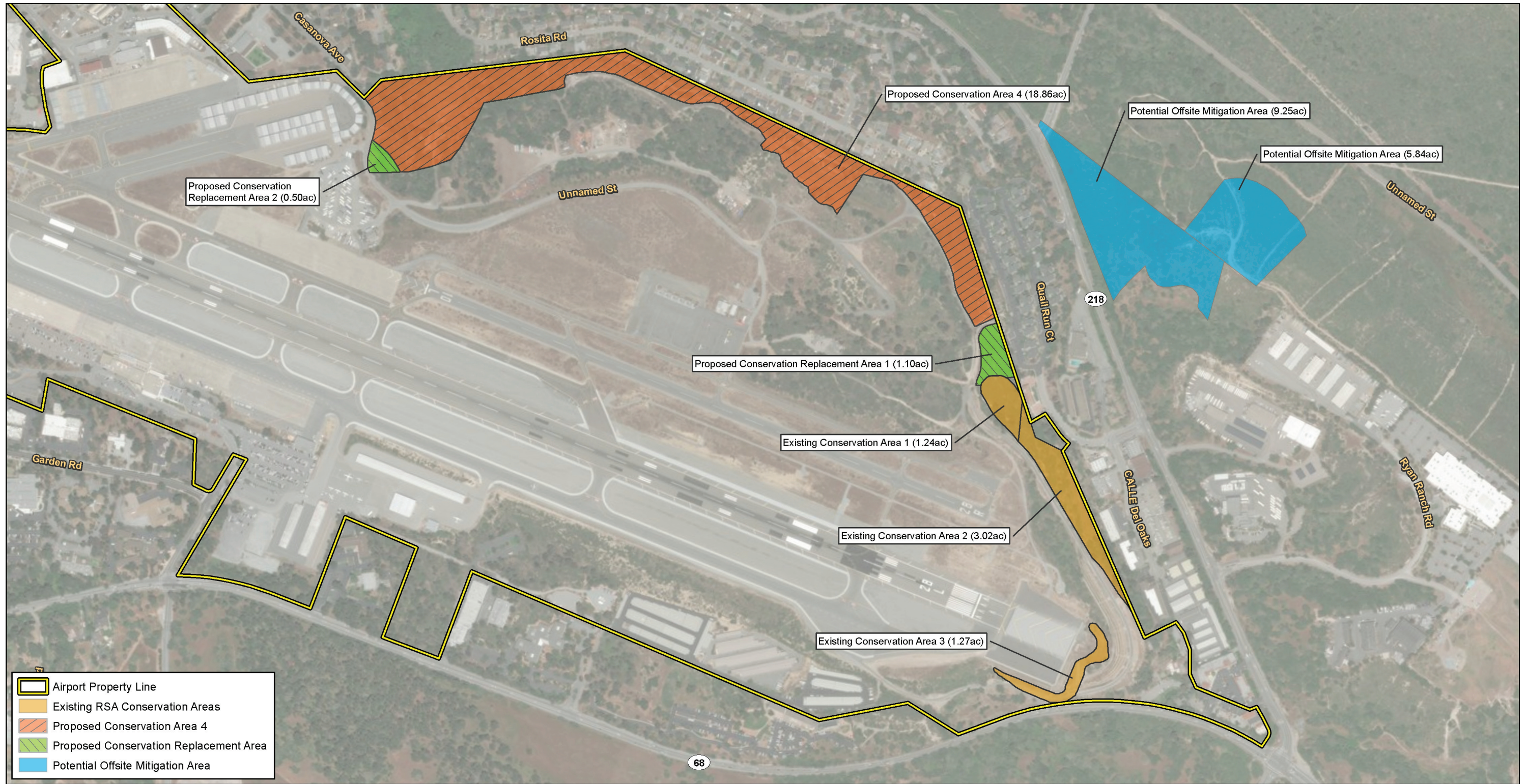
Sandmat Manzanita:

BIO/mm-3: The Project Sponsor shall propagate, plant, and maintain at least 3,036 sandmat manzanita container plants. The sandmat manzanita container plants may be installed in the temporary disturbance areas and/or landscaping of the Proposed Project “north side” road, onsite Conservation Area 4 (**Exhibit 4.4D**), or the offsite conservation lands (refer to BIO/mm-29 through BIO/mm-31 of Threshold 4.4-2 and **Exhibit 4.4D**) as appropriate. The sandmat manzanita container plants shall be monitored and maintained for seven years following their installation. In order for the sandmat manzanita replacement mitigation to be considered successful, at least 3,036 replacement sandmat manzanita plants must be self-sustaining by the end of the seven-year monitoring program.

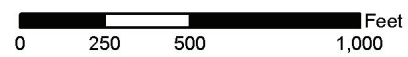
Monterey Pine:

For past projects, the Airport has mitigated Monterey pine tree removals by replacing the removed trees at a 1.1:1 mitigation ratio. Applying this ratio to the Proposed Project would require the Airport to plant 356 Monterey pines on the airport property. FAA sight restrictions (Part 77) make this mitigation strategy infeasible. As such, the following mitigation is provided to offset the Monterey pine tree removals to the maximum extent feasible.

BIO/mm-4: Prior to construction of any Proposed Project component that would remove Monterey pine trees, the Airport shall establish 1.0 acre of Monterey pine forest conservation space on the north side of the airport property. The Airport shall plant up to 25 Monterey pine trees in the conservation space. The 1.0 acre of Monterey pine forest conservation space shall be managed under a HCEP as described in BIO/mm-26 (Threshold 4.4-2).



	Airport Property Line
	Existing RSA Conservation Areas
	Proposed Conservation Area 4
	Proposed Conservation Replacement Area
	Potential Offsite Mitigation Area



Basemap by ESRI, 2018.



1:7,000

Source: SWCA 2018

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Eastwood's Goldenbush:

BIO/mm-5: Prior to any site disturbances, the Project Sponsor shall retain a qualified biologist and/or horticulturalist to collect a sufficient amount of Eastwood's goldenbush seed from individuals on the airport property to propagate a minimum of 16 Eastwood's goldenbush container plants. The propagated materials shall be planted and maintained in Conservation Area 4 (**Exhibit 4.4D**).

Monterey Ceanothus:

BIO/mm-6: Prior to any site disturbances, the Project Sponsor shall retain a qualified biologist and/or horticulturalist to collect a sufficient amount of Monterey ceanothus seed from individuals on the airport property to propagate a minimum of 36 Monterey ceanothus container plants. The propagated materials shall be planted and maintained in Conservation Area 4 (**Exhibit 4.4D**).

Small-leaved Lomatium:

BIO/mm-7: To minimize impacts to small-leaved lomatium and promote the continued existence of the species on the airport property, the Project Sponsor shall implement a soil and seed bank conservation program that will include small-leaved lomatium seed and top soil collection and distribution.

Small-leaved lomatium shall be conserved in Conservation Area 4 by broadcast seeding and relocating the soil seed bank. Seed to be broadcast shall be collected from the project areas prior to start of construction. This species flowers from January through June; therefore, seed collection shall begin in May and continue through September, or when seed production ceases. To the extent feasible, all available seed shall be collected from plants located in the project disturbance areas.

Soil from the project disturbance areas containing small-leaved lomatium seed shall be collected and reapplied. To accomplish this, the upper six inches of soil located within the vicinity of existing small-leaved lomatium individuals shall be collected and redistributed prior to grading activities. Soil collection shall occur immediately following completion of seed collection and prior to the first rainfall. The collected soil shall be immediately distributed in the disturbance areas. The collected seed shall be broadcast over the relocated soil, and then the receptor site shall be lightly raked to cover the seed.

Monterey Spineflower:

BIO/mm-8: To minimize Monterey spineflower impacts and promote the continued existence of the species on the airport property, the Project Sponsor shall implement a soil

and seed bank conservation program that shall include Monterey spineflower seed and top soil collection and distribution.

Monterey spineflower shall be conserved in the temporarily impacted portions of the Proposed Project disturbance areas by broadcast seeding and relocating the soil seed bank. Seed to be broadcast shall be collected from the project areas prior to the start of construction. All seed collection activities shall be conducted by a USFWS-approved biologist. This species flowers from April through June; therefore, seed collection shall begin in August and continue through September, or when seed production ceases. To the extent feasible, all available seed shall be collected from plants located in the project disturbance areas.

Soil from the project disturbance areas containing Monterey spineflower seed shall be collected and reapplied. To accomplish this, the upper six inches of soil located within the vicinity of existing Monterey spineflower individuals shall be collected and redistributed prior to grading activities. Soil collection shall occur immediately following completion of seed collection and prior to the first rainfall. The collected soil shall be immediately distributed in the disturbance areas that do not have existing Monterey spineflower occurrences. The collected seed shall be broadcast over the relocated soil, and then the receptor site shall be lightly raked to cover the seed.

Yadon's Piperia:

The Proposed Project has the potential to remove Yadon's piperia occurrences and convert occupied Yadon's piperia habitat to developed lands. The Airport shall include the following minimization measures to reduce the anticipated impacts to Yadon's piperia. These measures are intended to address the Airport's responsibilities as a Lead Agency under CEQA. However, the measures may be subject to change during a FESA Section 7 consultation between the FAA and USFWS for any project component(s) that require FAA funding, approval, oversight, or other federal nexus. During the FESA, Section 7 consultation process, the USFWS will prepare a Biological Opinion to address project impacts to Yadon's piperia within the framework of FESA. This, however, is a separate process with different legal standards and criteria than those involved in the current CEQA analysis of this project. Nevertheless, the USFWS, following conclusion of the Section 7 consultation process, may recommend mitigation measures additional to, or different from, those recommended in this EIR.

Whether and to what extent the measures recommended by USFWS are feasible cannot be ascertained at this time. Nevertheless, as indicated below, if the mitigation measures recommended by USFWS through the Section 7 process are feasible, the Airport will implement them. In such event, the Airport may implement the USFWS-recommended mitigation measures in lieu of the measures identified in this EIR, provided a qualified biologist determines the USFWS-recommended measures are an adequate and effective substitute for those set forth in this document.

BIO/mm-9: Yadon’s piperia located on the Airport in the vicinity of the Highway 68 frontage road loop and the adjacent 5.5-acre private property boundary shall be removed and implementation of BIO/mm-8 would be necessary in this location.

The Highway 68 frontage road and terminal loop road shall be designed to be constructed on the existing asphalt to avoid impacts to the Yadon’s piperia that are located on the Airport and the adjacent 5.5-acre private property boundary. Prior to construction of the terminal parking garage and circulation road(s), the construction plans shall clearly show the placement of construction exclusion fence along the toe of slope on both the Airport and the adjacent 5.5-acre private property boundary. The intent of the fence is to exclude the Yadon’s piperia occurrences from accidental disturbance during construction. The fence shall be maintained in place throughout the construction period.

BIO/mm-10: To minimize the impacts to Yadon’s piperia, the Project Sponsor shall retain a qualified biologist to design and implement a five-year Yadon’s piperia seed and bulb collection and translocation program. The seed and bulb translocation program shall be prepared and approved for implementation by the Project Sponsor in the two years prior to construction of any Proposed Project component that would impact Yadon’s piperia, including but not limited to construction of the relocated terminal and associated aircraft ramp and the Highway 68 frontage road. The Yadon’s piperia seed and bulb collection and translocation program shall include the following:

- Detailed methods and a schedule for the collection and distribution of Yadon’s piperia seed and the translocation of Yadon’s piperia bulbs of individuals that are in the construction area(s).
 - During the flowering/blooming period for Yadon’s piperia (anticipated to be May-July) and in the year prior to project construction, a qualified biologist shall mark with pin flags individual Yadon’s piperia plants that will be impacted by the project construction.
 - During the time that the marked Yadon’s piperia are setting seed (anticipated to be between August-September), the biologist shall collect seed from the marked individuals. The collected seed shall be redistributed in a predetermined seed and bulb receiver site that is located adjacent to but outside of the disturbance area. Due to mycorrhizal associations, the seed and bulb receiver site must be near existing Yadon’s piperia individuals.
 - Prior to distributing the collected seed in the receiver site, the receiver site shall be cleared of non-native vegetation.

- Once the seed receiver site is prepared, the biologist shall hand broadcast the seed in the receiver site, gently rake the seed into the duff/soil surface and cover the seed with pine needle duff.
- The seed and bulb receiver site and nearby Yadon’s piperia occurrences shall be fenced during construction to exclude the area from accidental damages during construction activities.
- Prior to construction and when plants are dormant (anticipated to be October-December), the biologist shall excavate and relocate bulbs of the marked plants to the seed and bulb receiver site. The bulbs shall be planted approximately six inches below the soil surface.
- Following completion of the seed and bulb relocation efforts, the biologist shall monitor the receiver site for four consecutive years. The goal of the monitoring shall be to quantify and document the number of individuals that emerged in the receiver site, the presence of non-native vegetation, and overall success of the translocation efforts.
- Non-native vegetation removal must be conducted during the monitoring program. Non-native vegetation removal may not utilize translocated herbicides due to root to tuber/bulb transfer.

Seaside Bird’s Beak:

The Proposed Project Highway 68 frontage road loop would be constructed adjacent to Seaside bird’s beak occurrences. The following avoidance measures are proposed to facilitate avoidance of the occurrences:

BIO/mm-11: To account for Seaside bird’s beak seasonal population fluctuations and facilitate species avoidance, the Project Sponsor shall conduct annual surveys for Seaside bird’s beak in the Airport-owned parcel located between two adjacent private properties along Highway 68. The annual Seaside bird’s beak survey shall be conducted in June, July, or August of each year preceding the final design and development of the chosen Highway 68 frontage road alignment. The intent of the annual survey effort is to collect GPS data on the species’ distribution and develop a multi-season assessment of the quantity and distribution of the Seaside bird’s beak occurrences near the Highway 68 frontage road alignment. The annual survey GPS data shall be provided to the Airport so that the project design team can use the survey data during the development of the final design plans to align the proposed road in such a manner that avoids impacts to the Seaside bird’s beak.

If full avoidance of the Seaside bird’s beak is feasible, the project contractors, under the direction of an environmental monitor, shall install construction exclusion

fencing around the occurrences to exclude construction related disturbances from the area. If the design team determines that full avoidance of the species is not feasible, the Project Sponsor shall delay construction of the Highway 68 frontage road until they have coordinated with the CDFW to obtain a CESA 2081-Incidental Take Permit.

Alternative 1

Short-Term Project Impacts

Sandmat Manzanita:

BIO/mm-12: The Project Sponsor shall propagate, plant, and maintain at least 2,900 sandmat manzanita container plants. The sandmat manzanita container plants may be installed in the temporary disturbance areas and/or landscaping of the Alternative 1 “north side” road, onsite Conservation Area 4 (**Exhibit 4.4D**), or the offsite conservation lands (refer to BIO/mm-29 through BIO/mm-31 of Threshold 4.4-2 and **Exhibit 4.4D**) as appropriate. The sandmat manzanita container plants shall be monitored and maintained for seven years following their installation. To consider the sandmat manzanita replacement mitigation successful, at least 2,900 replacement sandmat manzanita plants must be self-sustaining by the end of the seven-year monitoring program.

Monterey Pine:

For past projects, the Airport has mitigated Monterey pine tree removals by replacing the removed trees at a 1.1:1 mitigation ratio. Applying this ratio to Alternative 1 would require the Airport to plant 336 Monterey pines on the airport property. FAA sight restrictions (Part 77) make this mitigation strategy infeasible for the Proposed Project and Alternative 1. As such, the following mitigation is provided to offset the Monterey pine tree removals to the maximum extent feasible.

BIO/mm-13: This measure is the same as BIO/mm-4 under the Proposed Project.

Eastwood’s Goldenbush:

BIO/mm-14: This measure is the same as BIO/mm-5 under the Proposed Project.

Monterey Ceanothus:

BIO/mm-15: This measure is the same as BIO/mm-6 under the Proposed Project.

Small-leaved Lomatium:

BIO/mm-16: This measure is the same as BIO/mm-7 under the Proposed Project.

Monterey Spineflower:

BIO/mm-17: This measure is the same as BIO/mm-8 under the Proposed Project.

Yadon’s Piperia:

Similar to the Proposed Project, Alternative 1 has the potential to remove Yadon’s piperia occurrences and convert occupied Yadon’s piperia habitat to developed lands. The Airport shall include the following minimization measures to reduce the anticipated impacts to Yadon’s piperia. These measures are intended to address the Airport’s responsibilities as a Lead Agency under CEQA. However, the measures may be subject to change during a FESA, Section 7 consultation between the FAA and USFWS for any project component(s) that require FAA funding, approval, oversight, or other federal nexus.

As previously discussed under the Proposed Project, during the FESA, Section 7 consultation process, the USFWS will prepare a Biological Opinion to address project impacts to Yadon’s piperia within the framework of FESA. If the mitigation measures recommended by USFWS through the Section 7 process can be feasible, the Airport will implement them. In such event, the Airport may implement the USFWS-recommended mitigation measures in lieu of the measures identified in this EIR, provided a qualified biologist determines the USFWS-recommended measures are an adequate and effective substitute for those set forth in this document.

BIO/mm-18: This measure is the same as BIO/mm-9 under the Proposed Project.

BIO/mm-19: This measure is the same as BIO/mm-10 under the Proposed Project.

Seaside Bird’s Beak:

Alternative 1’s Highway 68 frontage road cul-de-sac would be constructed adjacent to Seaside bird’s beak occurrences. The following avoidance measures are proposed to facilitate avoidance of the occurrences:

BIO/mm-20: This measure is the same as BIO/mm-11 under the Proposed Project.

Proposed Project and Alternative 1

Long-Term Project Impacts (Programmatic)

Special-Status Plants, including Seaside bird’s beak, Yadon’s piperia, Monterey spineflower, and CNPS Ranked 1, 2, 3, and 4 Species:

BIO/mm-21: Prior to approving any proposed long-term projects on undeveloped lands at the Airport, the Project Sponsor shall retain a qualified biologist to conduct floristic botanical surveys and wildlife surveys in future project area(s) and prepare a Biological Resources Survey Report (BRSR). The surveys and subsequent BRSR

shall determine if special-status species occur in the development area(s) and if special-status species would be impacted by proposed long-term project(s). If impacts to special-status species would occur, the biologist and the Project Sponsor shall develop mitigation strategies to address the impacts.

The following recommendations for mitigation ratios/strategies for some plants known to occur in the development areas may be applied to proposed long-term project(s):

- Seaside bird's beak. The Project Sponsor shall coordinate with CDFW to obtain a 2081-Incidental Take Permit under the CESA. Under the 2081-Incidental Take Permit, mitigation ratios for Seaside bird's beak may require purchasing replacement habitat that is occupied by the species and conducting rehabilitation efforts on the replacement land.
- Yadon's piperia. For proposed long-term projects with a federal nexus, the Project Sponsor shall coordinate with FAA and USFWS during the FESA, Section 7 process. Mitigation may require the Project Sponsor to implement minimization and conservation measures that relocate the individuals to be impacted. If these efforts fail or are deemed insufficient by USFWS, purchasing replacement habitat that is occupied by the species and conducting rehabilitation efforts on the replacement land may be required.
 - For projects that do not have a federal nexus, the Project Sponsor shall implement BIO/mm-10.
- Monterey spineflower. For proposed long-term projects with a federal nexus, the Project Sponsor shall coordinate with the FAA and USFWS during the FESA, Section 7 process. Mitigation may require the Project Sponsor to implement minimization and conservation measures that involve seed and seed bank collection and redistribution on the airport property.
 - For projects that do not have a federal nexus, the Project Sponsor shall implement BIO/mm-8.
- CNPS Rare Plant Ranked 1, 2, and 3 species. For each CNPS Rare Plant Ranked 1, 2, and 3 species (excluding Monterey pine) impacted by a proposed long-term project(s), the Project Sponsor shall plant two container plants of the same species for each one plant impacted (2:1). The replacement plantings shall be planted in any of the four onsite conservation areas or an established offsite conservation area. The replacement plantings shall be monitored and maintained for no less than five years.

- CNPS Rare Plant Ranked 4 species. For each CNPS Rare Plant Ranked 4 species impacted by a proposed long-term project(s), the Project Sponsor shall:
 - For annual species, collect seed prior to project disturbance and redistribute the collected seed in suitable habitat in the project area following completion of disturbance.
 - For perennial species, propagate and plant one (1) container plant of the same species for each on plant impacted (1:1). The container plants shall be planted in any of the four onsite conservation areas or an established offsite conservation area. The replacement plantings shall be monitored and maintained for no less than three years.

4.4.6.2 Threshold 4.4-2 - Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS

Proposed Project and Alternative 1

Construction and Short-Term Project Impacts

BIO/mm-22: Prior to ground disturbance, the Project Sponsor shall retain an environmental monitor for all measures requiring environmental mitigation to ensure compliance with the EIR mitigation measures. The monitor shall be responsible for:

1. Ensuring that procedures for verifying compliance with environmental mitigations are implemented;
2. Establishing lines of communication and reporting methods;
3. Conducting daily and weekly compliance reporting;
4. Conducting construction crew training regarding environmentally sensitive areas;
5. Maintaining authority to stop work; and
6. Outlining actions to be taken in the event of non-compliance. Monitoring shall be at a frequency and duration determined by the Project Sponsor and in consultation with the affected natural resource agencies (e.g., CDFW and USFWS).

BIO/mm-23: All proposed grading plans shall clearly show the location of project delineation fencing that excludes adjacent sensitive communities from disturbance. The fencing shall consist of highly visible construction fence supported by steel T-stakes that are driven into the soil. The monitoring biologist shall field-fit the placement of the project delineation fencing to minimize impacts to adjacent communities and other sensitive resources. The project delineation fencing shall remain in place and functional throughout the duration of the project and no

work activities shall occur outside the delineated work area. The grading plans shall clearly show all staging areas, which shall be located within the construction area and outside the adjacent habitat areas.

BIO/mm-24: Prior to the commencement of site grading, an environmental monitor shall conduct environmental awareness training for all construction personnel. The environmental awareness training shall include discussions of the special communities and special-status species that occur in the project area. Topics of discussion shall include:

1. Description of the species' habitats; general provisions and protections afforded by the FESA and CEQA;
2. Measures implemented to protect special-status species;
3. Review of the project boundaries and special conditions;
4. The monitor's role in project activities;
5. Lines of communication; and
6. Procedures to be implemented in the event a special-status species is observed in the work area.

BIO/mm-25: The Project Sponsor shall prepare a detailed erosion control plan, which shall address both temporary and permanent measures to control erosion. Erosion and soil protection shall be provided on all cut and fill slopes and the soil deposition areas. The erosion control plan shall include revegetation measures including mulching, hydro-seeding, or planting methods as appropriate. All permanent erosion control measures shall be initiated as soon as possible after completion of grading, and prior to the onset of the rainy season (October 15). Permanent revegetation and landscaping shall emphasize native shrubs and trees to improve the probability of slope and soil stabilization without adverse impacts to slope stability due to irrigation infiltration and long-term root development. Vegetation shall be watered regularly to ensure adequate root establishment.

BIO/mm-26: Prior to implementation of any Proposed Project or Alternative 1 project, the Project Sponsor shall prepare a HCEP that designates an 18.86-acre conservation area (Conservation Area 4) along the Airport's northern property boundary as Open Space on the ALP. The HCEP shall provide for the conservation and management of approximately 11.92 acres of coast live oak woodland, 5.92 acres of sandmat manzanita chaparral, and 1.0 acre of Monterey pine forest habitats. **Exhibit 4.4D** shows the location of Conservation Area 4 and its associated habitat types.

Future activities in Conservation Area 4 shall be limited to preserving and rehabilitating the coast live oak woodland, sandmat manzanita, Monterey pine forest, and special-status plant species that occur in the conservation area. Habitat rehabilitation activities shall focus on invasive species removal; planting native

coast live oak woodland, sandmat manzanita chaparral, and Monterey pine forest associates; and augmenting the native rare plant species populations.

The HCEP shall be prepared by a qualified biologist and/or botanist and shall detail the methods for managing the conservation area. At a minimum, the HCEP should include the following elements:

1. A brief narrative of the project location, description, and purpose;
2. Clearly identify the parties responsible for the conservation program and their contact information;
3. A map showing and quantifying all conservation areas;
4. Designation of a Monterey spineflower seed and soil receiver site;
5. Detailed discussion of the methods for implementing the HCEP including invasive species removal, sources of plant materials, and supplemental watering regimes;
6. Methods for the identification and removal of diseased or dead trees.
7. Detailed discussions of a special-status plant species propagation program. Special-status plant propagules shall be collected from the disturbance areas, grown, and reintroduced into the conservation areas;
8. Identification of locations, amounts, sizes, and types of plants to be planted, inclusive of at least 100 coast live oak trees, 2,000 sandmat manzanita container plants, and 25 Monterey pine trees.
9. Identification of necessary components (e.g., temporary irrigation, amendments, etc.) to ensure successful plant reestablishment;
10. A program schedule and established success criteria for a seven-year monitoring and reporting program that is structured to ensure the success of the HCEP.
11. Detailed discussions of the methods to be employed for implementing all additional habitat conservation requirements put forth by the USFWS and CDFW as appropriate.

BIO/mm-27: The Project Sponsor shall retain a qualified biologist/botanist to supervise and monitor the implementation of the HCEP. The biologist/botanist shall supervise plant propagation, site preparation, implementation timing, species utilized, planting installation, maintenance, monitoring, and reporting of the habitat rehabilitation efforts. The biologist/botanist shall prepare and submit six annual reports and one final monitoring report to the Airport and other agencies as appropriate. The annual and final monitoring reports shall include discussions of the project activities, project photographs, and an assessment of the mitigation efforts' attainment of the success criteria.

BIO/mm-28: The Project Sponsor shall include in the Proposed Project or Alternative 1 design plans the installation of a water supply and irrigation system. The system will supply water for temporary irrigation that will be used to provide supplemental

water to Conservation Area 4. The water supply and temporary irrigation system shall be installed as part of the short-term project development and prior to the installation of planting installation.

BIO/mm-29: The Project Sponsor shall implement an offsite habitat conservation program that benefits local flora and fauna with emphasis on coast live oak woodland, maritime chaparral, and rare plant conservation. The conservation program shall be implemented on lands in the coastal Monterey area, preferably near the Airport. The Project Sponsor is currently pursuing conservation lands located just east of the Airport that supports approximately 1.04 acres of annual brome grasslands, 2.55 acres of coast live oak woodland, 4.01 acres of arroyo willow thicket, 3.41 acres of chamise chaparral, and 4.08 acres of woolly leaf manzanita chaparral. **Exhibit 4.4D** shows the location of the potential offsite conservation lands. The potential conservation lands are located adjacent to an existing Native Rare Plant Reserve that was established by USACE’s *Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord* (1997). Should the acquisition of the potential conservation lands not be completed, the Project Sponsor shall pursue the acquisition of other lands that support or has the potential to support coast live oak woodland and maritime chaparral communities. Once the offsite conservation lands are secured, the Project Sponsor shall place the lands under a conservation easement in perpetuity.

BIO/mm-30: Upon acquisition of the offsite conservation lands, the Project Sponsor shall conduct a biological inventory of the conservation lands that includes floristic botanical surveys and wildlife surveys as appropriate. The intent of the biological inventory is to identify and quantify the resources present on the conserved lands and provide a baseline for the implementation of a resource-focused conservation program.

BIO/mm-31: The Project Sponsor shall prepare and implement a conservation program on the conserved lands. The conservation program shall utilize the biological inventory to develop management actions that focus on conserving, rehabilitating, and/or enhancing the biological resources present. At a minimum, the conservation program shall include:

1. A brief narrative of the conservation lands’ location, description, and purpose;
2. Clearly identify the parties responsible for the conservation program and their contact information;
3. Maps showing and quantifying all conservation areas, habitats, invasive species, native rare species, and suitable rehabilitation areas;
4. Identification of suitable habitat rehabilitation plant species including rare plants to be installed for mitigation for future projects proposed by the Project Sponsor.

5. Detailed discussion of the methods for implementing the conservation program including invasive species removal, installation and maintenance of plant materials, and supplemental watering regimes;
6. Methods for the identification and removal of diseased or dead trees, as needed.
7. Detailed discussions of a special-status plant species management;
8. Identification of necessary components (e.g., temporary irrigation, amendments, etc.) to ensure successful plant reestablishment;
9. A program schedule for a seven-year monitoring and reporting program that is structured to ensure the successful management of the conserved lands.

Construction and Long-Term Project Impacts (Programmatic)

BIO/mm-32:

Prior to approving any proposed long-term project in the proposed non-aviation development areas or the upgraded perimeter fence alignment that would convert undeveloped lands to developed areas or otherwise remove vegetation, the Project Sponsor shall retain a qualified biologist to map and quantify the vegetative communities that are present in the project area and determine if the project would result in a net loss of sandmat manzanita chaparral, Monterey pine forest, and/or coast live oak woodland.

- If a net loss of sandmat manzanita chaparral would occur, the Project Sponsor shall preserve and rehabilitate, re-establish, or create additional sandmat manzanita chaparral at a 2:1 ratio. The preserved sandmat manzanita chaparral may be located on the existing airport property or offsite, as appropriate.
- If a net loss of coast live oak woodlands would occur, the Project Sponsor shall conduct one or a combination of the following:
 - Preserve and rehabilitate, re-establish, or create additional coast live oak woodland at a 2:1 ratio. The preserved coast live oak woodland may be located on the existing airport property or offsite, as appropriate.
 - Plant two coast live oak trees for each one coast live oak tree removed. Replacement trees may be planted on the existing airport property or offsite, as appropriate. Replacement trees should be grown from local (Monterey Peninsula) stock.
 - Contribute \$1,000 to the Oak Woodlands Conservation Fund, as established under subdivision (a) of Section 1363 of the CFGC per each coast live oak tree removed for the project. The Project Sponsor shall coordinate with the CDFW and the State Wildlife Conservation Board (SWCB) to ensure that the contributed funds will be granted to the SWCB for the purpose of purchasing coast live oak woodland conservation easements.

- If proposed long-term project(s) would impact Monterey pine forest, the Project Sponsor shall design the project(s) to minimize the impact to the greatest extent possible. If Monterey pine trees will be removed for proposed long-term project(s), the Project Sponsor shall incorporate Monterey Pine trees into the project design, in such a manner that does not conflict with safe flight operations at the Airport.
- For any proposed long-term project that results in a net loss of sandmat manzanita chaparral or coast live oak woodland that shall be mitigated through the preservation and rehabilitation, re-establishment, or creation of habitat, the Project Sponsor shall develop a project specific habitat mitigation and monitoring plan (HMMP). The HMMP shall:
 1. Identify the project description and mitigation requirements;
 2. Identify the responsible parties;
 3. Map and quantify all preservation/mitigation areas;
 4. Provide detailed discussions of the methods for implementing the mitigation program including invasive species removal, sources of plant materials, and supplemental watering regimes;
 5. Identify the locations, amounts, sizes, and types of plants to be planted;
 6. Identify necessary components (e.g., temporary irrigation, amendments, etc.) to ensure successful plant reestablishment;
 7. Provide a program schedule and established success criteria for a monitoring and reporting program that is structured to ensure the success of the mitigation.

BIO/mm-33: For any proposed long-term project that has potential to impact a sensitive natural community or a special-status species, the Project Sponsor shall retain an environmental monitor for all measures requiring environmental mitigation to ensure compliance with the CEQA measures. The monitor shall be responsible for:

1. Ensuring that procedures for verifying compliance with environmental mitigations are implemented;
2. Establishing lines of communication and reporting methods;
3. Conducting compliance reporting;
4. Conducting construction crew training regarding environmentally sensitive areas;
5. Maintaining authority to stop work; and
6. Outlining actions to be taken in the event of non-compliance.

BIO/mm-34: For any proposed long-term project that has potential to impact a sensitive natural community or will be conducted adjacent to a sensitive natural community, the Project Sponsor shall incorporate the use of construction delineation fencing to exclude construction-related impacts to the adjacent resources. The monitoring

biologist shall field-fit the placement of the project delineation fencing to minimize impacts to adjacent communities and other sensitive resources. The project delineation fencing shall remain in place and functional throughout the duration of the project, and no work activities shall occur outside the delineated work area.

BIO/mm-35: For any proposed long-term project that has potential to impact a sensitive natural community or a special-status species, an environmental monitor shall conduct environmental awareness training for all construction personnel prior to the commencement of ground-disturbing activities. The environmental awareness training shall include discussions of the special communities and special-status species that occur in the project area. Topics of discussion shall include:

1. Description of the species' habitats;
2. General provisions and protections afforded by the FESA and CEQA;
3. Measures implemented to protect special-status species;
4. Review of the project boundaries and special conditions;
5. The monitor's role in project activities;
6. Lines of communication; and
7. Procedures to be implemented in the event a special-status species is observed in the work area.

4.4.6.3 Threshold 4.4-3 - Conflict with any local policies or ordinances protecting biological resources

Proposed Project

Construction and Short-Term Project Impacts

BIO/mm-36: During the City of Monterey permitting process for the Highway 68 frontage road loop and associated terminal area parking and circulation components, the Project Sponsor shall coordinate with the City Forester to determine an appropriate in-lieu fee for the replacement of 117 coast live trees, 179 Monterey pine trees, six Monterey cypress trees, and four golden wattle trees that would be removed. Per the City of Monterey Code 37-11(D), the in-lieu fee payment to the City of Monterey shall be equivalent to the value of the removed trees or the cost of the numbers of replacement trees as determined by City Council Resolution. The value of the trees shall be established and conform to standards adopted by City Council Resolution. The payment shall be used to plant additional trees offsite in a location approved by the City Forester.

BIO/mm-37: The Project Sponsor shall incorporate California native plant species in the landscape designs of the Proposed Project "north side" road and Highway 68 frontage road designs.

BIO/mm-38: The Project Sponsor shall not utilize any plant species that are listed on the California Exotic Pest Plant Council lists in the landscape designs of any of the Proposed Project components.

Alternative 1

Construction and Short-Term Project Impacts

BIO/mm-39: During the City of Monterey permitting process for the Highway 68 frontage road cul-de-sac and associated terminal area parking and circulation components, the Project Sponsor shall coordinate with the City Forester to determine an appropriate in-lieu fee for the replacement of 67 coast live trees, 164 Monterey pine trees, 17 Monterey cypress trees, and four golden wattle trees that would be removed. Per the City of Monterey Code 37-11(D), the in-lieu fee payment to the City of Monterey shall be equivalent to the value of the removed trees or the cost of the numbers of replacement trees as determined by City Council Resolution. The value of the trees shall be established and conform to standards adopted by City Council Resolution. The payment shall be used to plant additional trees offsite in a location approved by the City Forester.

BIO/mm-40: This mitigation measure is the same as BIO/mm-37 for the Proposed Project.

BIO/mm-41: This mitigation measure is the same as BIO/mm-38 for the Proposed Project.

Proposed Project and Alternative 1

Construction and Long-Term Project Impacts (Programmatic)

BIO/mm-42: The Project Sponsor shall incorporate California native plant species in the landscape designs of any proposed long-term project that is conducted in the City of Monterey jurisdiction.

BIO/mm-43: The Project Sponsor shall not utilize any plant species that are listed on the California Exotic Pest Plant Council lists in the landscape designs of any proposed long-term project that is conducted in the City of Monterey jurisdiction.

BIO/mm-44: For any proposed long-term project conducted in the City of Monterey jurisdiction that will result in the removal of coast live oak, Monterey pine, or Monterey cypress trees, the Project Sponsor shall conduct one of the following tree mitigation efforts:

- Per the City of Monterey City Code 37-11(C), the Project Sponsor shall replace any coast live oak, Monterey pine, or Monterey cypress tree(s) that are removed for proposed long-term projects that occur in the City of Monterey jurisdiction, as directed by the City Forester. The replacement trees should be

planted onsite, if feasible, but may be planted offsite if project conditions prohibit onsite planting. The removed trees shall be replaced at a ratio of up to three trees for every one tree removed.

- During the City of Monterey permitting process for proposed long-term projects that are conducted in the City of Monterey jurisdiction, the Project Sponsor shall coordinate with the City Forester to determine an appropriate in-lieu fee for the replacement of coast live trees, Monterey pine trees, and/or Monterey cypress trees that would be removed for the project. Per the City of Monterey Code 37-11(D), the in-lieu fee payment to the City of Monterey shall be equivalent to the value of the removed trees or the cost of the numbers of replacement trees as determined by City Council Resolution. The value of the trees shall be established and conform to standards adopted by City Council Resolution. The payment shall be used to plant additional trees offsite in a location approved by the City Forester.

4.4.5.4 Threshold 4.4-4 - Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan

Proposed Project and Alternative 1

Construction and Short-Term Project Impacts

BIO/mm-45: To replace the 0.79 acre of Conservation Area 1 (sandmat manzanita chaparral) that would be removed by the construction of the Proposed Project and Alternative 1 “north side” road, the Airport shall designate 1.1 acres of existing sandmat manzanita chaparral as open space on the ALP and manage the resource per the guidelines of the RSA Project HCEP. The Airport shall revise the RSA Project HCEP to incorporate the new Conservation Area 1 boundaries and extend the conservation area invasive species management for an additional two years. The 1.1 acres to be designated as open space is located immediately north of the Conservation Area 1 boundary and within the existing airport perimeter fence (refer to Conservation Area 1 Replacement in **Exhibit 4.4D**).

BIO/mm-46: To replace the 0.46 acre of Conservation Area 2 (coast live oak woodland) that would be removed by the construction of the Proposed Project and Alternative 1 “north side” road, the Airport shall designate 0.46 acre of existing coast live oak woodland as open space on the ALP and manage the resource per the guidelines of the HCEP. The Airport shall revise the RSA Project HCEP to incorporate the new Conservation Area 2 boundaries and extend the conservation area invasive species management for an additional two years. The 0.46 acre to be designated as open space is located at the northwest corner of the airport property near the existing detention basin (refer to Conservation Area 2 Replacement in **Exhibit 4.4D**).

Construction and Long-Term Project Impacts (Programmatic)

BIO/mm-47: To avoid direct impacts to the conservation areas on the airport property, the Project Sponsor shall design the upgraded perimeter fence alignment to avoid the conservation areas. If full avoidance of the conservation areas is not feasible, the Project Sponsor shall replace on a 1:1 basis all portions of the affected conservation area(s) that will fall within the upgraded perimeter fence. The replacement conservation areas shall support the same vegetative community type as the affected conservation area. Replacement conservation areas should be located on the airport property, if feasible. If establishing a replacement conservation area on the airport property is not feasible, the Project Sponsor may establish a replacement conservation area offsite, provided the replacement conservation area supports the same vegetative community type as the affected conservation area.

4.4.7 Level of Significance After Mitigation

Table 4.4I summarizes the potentially significant impacts related to biological resources for the Proposed Project and Alternative 1. Upon implementation of the mitigation and/or avoidance measures listed in this EIR, potentially significant impacts to biological resources would be Less than Significant for Thresholds 4.4-2, 4.4-3, and 4.4-4.

Some impacts related to Thresholds 4.4-1 and 4.4-2, however, remain Potentially Significant and Unavoidable at this time. Yadon's piperia is a federally endangered plant protected by the FESA that has an extremely limited distribution. In addition, Yadon's piperia is very difficult to propagate and reintroduce in the field. The methods of translocation proposed to minimize the impacts to Yadon's piperia are not adequately field tested to ensure success. Thus, at this time, a determination that impacts to this endangered plant would be Less than Significant cannot be made, and potential impacts are considered Potentially Significant and Unavoidable for purposes of this EIR.

As stated previously (see introduction to BIO/mm-9 and BIO/mm-10) during the FESA Section 7 consultation process, the USFWS will prepare a Biological Opinion to address project impacts to Yadon's piperia within the framework of FESA. This, however, is a separate process with different legal standards and criteria than those involved in the current CEQA analysis of this project. Nevertheless, the USFWS, following conclusion of the Section 7 consultation process, may recommend mitigation measures additional to, or different from, those recommended in this EIR. Whether and to what extent the measures recommended by USFWS are feasible cannot be ascertained at this time.

CNPS considers Monterey pine trees to be sensitive species, and CDFW considers Monterey pine forest to be a Sensitive Natural Community. The Monterey pine forest on the Airport is naturally occurring. In addition, the Monterey pine forest on the south side of the Airport supports Yadon's piperia, a federally endangered species. Because proposed mitigation would not fully mitigate the loss of over 300 trees and four to five acres of Monterey pine forest in the short term (BIO/mm-4 and BIO/mm-22 through BIO/mm-31 for the Proposed Project and BIO/mm-13 and BIO/mm-22 through BIO/mm-31 for Alternative 1), as well as unknown impacts in the long term, impacts related to the loss of Monterey pine trees and forest are considered Potentially Significant and Unavoidable.

TABLE 4.4I
Summary of Potentially Significant Impacts and Mitigation – Biological Resources
Proposed Monterey Regional Airport Master Plan

Proposed Project	Mitigation Program	Alternative 1	Mitigation Program	Level of Significance After Mitigation
Threshold 4.4-1 - Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFW or the USFWS				
Construction Impacts				
Impact BIO-1: Impacts to California legless lizards	BIO/mm-1	Same as Proposed Project	Same as Proposed Project	Less than Significant
Impact BIO-2: Impacts to nesting birds	BIO/mm-2	Same as Proposed Project	Same as Proposed Project	Less than Significant
Short-Term Project Impacts				
Impact BIO-3: Loss of 1,518 sandmat manzanita	BIO/mm-3	Impact BIO-11: Loss of 1,450 sandmat manzanita	BIO/mm-12	Less than Significant
Impact BIO-4: Loss of 323 Monterey pine	BIO/mm-4	Impact BIO-12: Loss of 305 Monterey pine	BIO/mm-13	Potentially Significant and Unavoidable
Impact BIO-5: Loss of 8 Eastwood’s goldenbush	BIO/mm-5	Impact BIO-13: Same as Proposed Project	BIO/mm-14- Same as Proposed Project	Less than Significant
Impact BIO-6: Loss of 18 Monterey ceanothus	BIO/mm-6	Impact BIO-14: Same as Proposed Project	BIO/mm-15 - Same as Proposed Project	Less than Significant
Impact BIO-7: Loss of 49 small-leaved lomatium	BIO/mm-7	Impact BIO-15: Same as Proposed Project	BIO/mm-16 - Same as Proposed Project	Less than Significant
Impact BIO-8: Loss of 539 Monterey spineflower and attendant seed bank	BIO/mm-8	Impact BIO-16: Loss of 502 Monterey spineflower and attendant seed bank	BIO/mm-17 - Same as Proposed Project	Less than Significant
Impact BIO-9: Loss of 460 Yadon piperia	BIO/mm-9 and BIO/mm-10	Impact BIO-17: Loss of 156 Yadon piperia	BIO/mm-18 and BIO/mm-19 - Same as Proposed Project	Potentially Significant and Unavoidable
Impact BIO-10: Potential loss of Seaside bird’s beak	BIO/mm-11	Impact BIO-18: Same as Proposed Project	BIO/mm-20 - Same as Proposed Project	Less than Significant
Long-Term Project Impacts (Programmatic)				
Impact BIO-19: Future loss of sandmat manzanita	BIO/mm-21	Same as Proposed Project	Same as Proposed Project	Less than Significant
Impact BIO-20: Future loss of Monterey pine	BIO/mm-21	Same as Proposed Project	Same as Proposed Project	Potentially Significant and Unavoidable
Impact BIO-21: Future loss of Eastwood’s goldenbush	BIO/mm-21	Same as Proposed Project	Same as Proposed Project	Less than Significant
Impact BIO-22: Future loss of Monterey ceanothus	BIO/mm-21	Same as Proposed Project	Same as Proposed Project	Less than Significant
Impact BIO-23: Future loss of small-leaved lomatium	BIO/mm-21	Same as Proposed Project	Same as Proposed Project	Less than Significant
Impact BIO-24: Future loss of Monterey spineflower	BIO/mm-21	Same as Proposed Project	Same as Proposed Project	Less than Significant
Impact BIO-25: Future loss of Yadon’s piperia	BIO/mm-21	Same as Proposed Project	Same as Proposed Project	Potentially Significant and Unavoidable
Impact BIO-26: Future loss of Seaside bird’s beak	BIO/mm-21	Same as Proposed Project	Same as Proposed Project	Less than Significant

Proposed Project	Mitigation Program	Alternative 1	Mitigation Program	Level of Significance After Mitigation
Threshold 4.4-2 - Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS				
Construction and Short-Term Project Impacts				
<u>Impact BIO-27</u> : Loss of 4.21 acres of sandmat manzanita chaparral	BIO/mm-22 through BIO/mm-31	<u>Impact BIO-30</u> : Loss of 4.16 acres of sandmat manzanita chaparral	Same as Proposed Project	Less than Significant
Impact BIO-28 : Loss of 5.27 acres of Monterey pine forest	BIO/mm-22 through BIO/mm-31	Impact BIO-31 : Loss of 4.54 acres of Monterey pine forest	Same as Proposed Project	Potentially Significant and Unavoidable
<u>Impact BIO-29</u> : Loss of 4.83 acres of coast live oak woodland (705 trees)	BIO/mm-22 through BIO/mm-31	<u>Impact BIO-32</u> : Loss of 4.83 acres of coast live oak woodland (657 trees)	Same as Proposed Project	Less than Significant
Construction and Long-Term Project Impacts (Programmatic)				
<u>Impact BIO-33</u> : Future loss of sandmat manzanita chaparral	BIO/mm-32 through BIO/mm-35	Same as Proposed Project	Same as Proposed Project	Less than Significant
Impact BIO-34 : Future loss of Monterey pine forest	BIO/mm-32 through BIO/mm-35	Same as Proposed Project	Same as Proposed Project	Potentially Significant and Unavoidable
<u>Impact BIO-35</u> : Future loss of coast live oak woodland	BIO/mm-32 through BIO/mm-35	Same as Proposed Project	Same as Proposed Project	Less than Significant
Threshold 4.4-3 - Conflict with any local policies or ordinances protecting biological resources				
Construction and Short-Term Project Impacts				
<u>Impact BIO-36</u> : Potential inconsistencies with the Monterey City Code, Ch. 37	BIO/mm-36	<u>Impact BIO-38</u> : Potential inconsistencies with the Monterey City Code, Ch. 37	BIO/mm-39	Less than Significant
<u>Impact BIO-37</u> : Potential inconsistencies with the Monterey Conservation Element, Goal d	BIO/mm-37 and BIO/mm-38	<u>Impact BIO-39</u> : Potential inconsistencies with the Monterey Conservation Element, Goal d	BIO/mm-40 and BIO/mm-41	Less than Significant
Construction and Long-Term Project Impacts				
<u>Impact BIO-40</u> : Potential inconsistencies with the Monterey City Code, Ch. 37	BIO/mm-42	Same as Proposed Project	Same as Proposed Project	Less than Significant
<u>Impact BIO-41</u> : Potential inconsistencies with the Monterey Conservation Element, Goal d	BIO/mm-43 and BIO/mm-44	Same as Proposed Project	Same as Proposed Project	Less than Significant
Threshold 4.4-4 - Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan				
Construction and Short-Term Project Impacts				
<u>Impact BIO-42</u> : 1.25 acres of existing RSA Project conservation areas would be removed	BIO/mm-45 and BIO/mm-46	Same as Proposed Project	Same as Proposed Project	Less than Significant
Construction and Long-Term Project Impacts				
<u>Impact BIO-43</u> : A future perimeter fence upgrade could affect existing RSA Project conservation areas	BIO/mm-47	Same as Proposed Project	Same as Proposed Project	Less than Significant

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Chapter Four

4.5 – CULTURAL RESOURCES

This section analyzes the Proposed Project and Alternative 1’s potential to cause significant impacts on cultural resources, including both archaeological and historic resources. The discussion that follows: (i) summarizes the federal and state regulations that govern cultural resource protection; (ii) describes the existing cultural resources at the project site and identifies those that are significant; (iii) evaluates the Proposed Project and Alternative 1’s potential impacts on those resources, with a focus on impacts to significant buildings, sites, or artifacts; and (iv) recommends, as necessary, mitigation measures to reduce the Proposed Project and Alternative 1’s potentially significant impacts to less than significant levels.

4.5.1 Regulatory Setting

Federal Regulations

The *National Historic Preservation Act* (NHPA) was enacted in 1966 and amended most recently in 2014 (United States Code [USC], Title 54, Sections 300101 et seq.). It instituted a multifaceted program, administered by the Secretary of the Interior, to encourage sound preservation policies of the nation’s cultural resources at the federal, state, and local levels. The NHPA authorized the expansion and maintenance of the National Register of Historic Places (NRHP), established the position of State Historic Preservation Officer, and provided for the designation of State Review Boards. The NHPA also created a mechanism to certify local governments to carry out the goals of the NHPA, assisted Native American tribes to preserve their cultural heritage, and created the Advisory Council on Historic Preservation (ACHP).

Section 106 of the NHPA (USC, Title 54, Section 306108) states that federal agencies with direct or indirect jurisdiction over federally funded, assisted, or licensed undertakings must take into account the effect of the undertaking on any historic property that is included in or eligible for inclusion in the NRHP and that the ACHP must be afforded an opportunity to comment, through a process outlined in the ACHP regulations in Code of Federal Regulations (CFR), Title 36, Part 800, on such undertakings. The Section 106 process involves identification of significant historic resources within an “area of potential effect [APE]; determination if the undertaking will cause an adverse effect on historic resources; and resolution of those adverse effects through execution of a Memorandum of Agreement.” In addition to the ACHP, interested members of the public, including individuals, organizations, and agencies (such as the California Office of Historic Preservation) are provided with opportunities to participate in the process. Section 106 also requires that a federal agency, when considering an undertaking with potential impacts on cul-

tural resources, meet and consult with any federally-recognized tribe that may have a cultural or religious interest in any resource that might be affected by the proposed action. Such consultations must be conducted on a government-to-government basis. See also Section 4.17, Tribal Cultural Resources.

The NRHP was established by the NHPA as “an authoritative guide to be used by federal, state, and local governments, private groups and citizens to identify the nation’s cultural resources and to indicate what properties should be considered for protection from destruction or impairment” (CFR, Title 36, Section 60.2). The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, and association. A property is eligible for the NRHP if it is significant under one or more of the following criteria:

- **Criterion A.** It is associated with events that have made a significant contribution to the broad patterns of our history;
- **Criterion B.** It is associated with the lives of persons who are significant in our past;
- **Criterion C.** It embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; and/or
- **Criterion D.** It has yielded, or may be likely to yield, information important in prehistory or history. Ordinarily, cemeteries, birthplaces, or graves of historic figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, and properties that are primarily commemorative in nature are not considered eligible for the NRHP unless they satisfy certain conditions. In general, a resource must be 50 years of age to be considered for the NRHP unless it satisfies a standard of exceptional importance.

In addition to meeting these criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the “ability of a property to convey its significance” (U.S. Department of Interior, NPS 1990). In order to assess integrity, the National Park Service (NPS) recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven qualities, which are defined in the following manner in National Register Bulletin 15:

- **Location.** The place where the historic property was constructed or the place where the historic event occurred;
- **Design.** The combination of elements that create the form, plan, space, structure, and style of a property;
- **Setting.** The physical environment of a historic property;

- **Materials.** The physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property;
- **Workmanship.** The physical evidence of the crafts of a particular culture or people during any given period in history or prehistory;
- **Feeling.** A property’s expression of the aesthetic or historic sense of a particular period of time; and/or
- **Association.** The direct link between an important historic event or person and a historic property.

At the federal level, cultural resources associated with paleontology are generally protected within the scope of other cultural resources regulations, such as the NHPA. In addition, they are specifically protected by the *Paleontological Resources Preservation Act* (Public Law 111-11), which directs certain federal departments, such as the United States (U.S.) Department of Agriculture (U.S. Forest Service) and the U.S. Department of Interior (National Park Service, Bureau of Land Management, Bureau of Reclamation, and U.S. Fish and Wildlife Service), to implement comprehensive paleontological resource management programs (U.S. Department of Interior, NPS website 2018).

State Regulations

Historical Resources

The California Office of Historic Preservation, a division of the California Department of Parks and Recreation, is responsible for carrying out the duties described in the California Public Resources Code (PRC) and maintaining the California Historic Resources Inventory and California Register of Historical Resources (CRHR). Created in 1992 and implemented in 1998, the CRHR is “an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state’s historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change” (PRC, Sections 21083.2 and 21084.1). Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historical resources surveys, or designated by local landmarks programs may be nominated for inclusion in the CRHR.

According to PRC, Section 5024.1(c), a resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria:

- **Criterion 1.** It is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.
- **Criterion 2.** It is associated with the lives of persons important in our past.

- **Criterion 3.** It 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.
- **Criterion 4.** It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to convey the reasons for their significance. Resources whose historic integrity does not meet NRHP criteria may still be eligible for listing in the CRHR.

The state-level regulatory framework also includes the *California Environmental Quality Act* (CEQA), which requires the identification and mitigation of substantial adverse impacts that may affect the significance of eligible historical and archaeological resources. According to the CEQA Guidelines, Section 15064.5, for the purposes of CEQA, historical resources are:

- (1) A resource listed in, or formally determined eligible...for listing in the CRHR (PRC, Section 5024.1; California Code of Regulations [CCR], Title 14, Section 4850 et seq.).
- (2) A resource included in a local register of historical resources, as defined in PRC, Section 5020.1(k) or identified as significant in a historic resources survey meeting the requirements of PRC, Section 5024.1(g).
- (3) Any object, building, structure, site, area, place, record, or manuscript that the Lead Agency determines to be eligible for national, state, or local landmark listing; generally, a resource shall be considered by the Lead Agency to be historically significant (and therefore a historic resource under CEQA) if the resource meets the criteria for listing on the CRHR (as defined in PRC, Section 5024.1; CCR, Title 14, Section 4852).

Resources recommended for listing in the CRHR must retain enough of their historic character or appearance to convey the reasons for their significance. Resources whose historic integrity (as defined above) do not meet NRHP criteria may still be eligible for listing in the CRHR. However, according to CEQA, the fact that a resource is not listed in or determined eligible for listing in the CRHR or is not included in a local register or survey shall not preclude the Lead Agency from determining that the resource may be a historical resource (PRC, Section 5024.1). Pursuant to CEQA, a project with an effect that may cause a substantial adverse change in the significance of a historical resource may have a significant effect on the environment (CEQA Guidelines, Section 15064.5[b]).

The CEQA Guidelines specify that a “substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired” (CEQA Guidelines, Section 15064.5). Material impairment occurs when a project alters in an adverse manner or demolishes “those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion” or eligibility for inclusion in the NRHP, CRHR, or local register. In addition, pursuant to CEQA Guidelines, Section 15126.2, the “direct and indirect significant effects of the

project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects.”

Pursuant to CEQA Guidelines (Section 15378), study of a project under CEQA requires consideration of “the whole of an action, which has the potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment.” CEQA Guidelines (Section 15064[d]) further define direct and indirect impacts:

- (1) A direct physical change in the environment is a physical change in the environment, which is caused by and immediately related to the project.
- (2) An indirect physical change in the environment is a physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project. If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect physical change in the environment.
- (3) An indirect physical change is to be considered only if that change is a reasonably foreseeable impact, which may be caused by the project.

Archaeological Resources

In terms of archaeological resources, PRC, Section 21083.2(g) defines a “unique archaeological resource” as an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- (1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- (2) Has a special and particular quality, such as being the oldest of its type or the best available example of its type.
- (3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If it can be demonstrated that a proposed project will cause damage to a unique archaeological resource, the Lead Agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (PRC, Sections 21083.2[a], [b], and [c]). CEQA notes that, if an archaeological resource is neither a unique archaeological resource nor a historical resource, the effects of the project on those resources shall not be considered to be a significant effect on the environment (CEQA Guidelines, Section 15064.5[c][4]).

Note that under CEQA Guidelines, Section 15126.4(b)(3), preservation in place is the preferred method of mitigation for potential impacts to archaeological resources. If preservation in place is deemed infeasible, the Lead Agency may instead opt for data recovery as a mitigation measure (CEQA Guidelines, Section 15126.4[b][3][C]). Before defaulting to data recovery, however, the Lead Agency must first assess whether the four basic approaches to preservation in place – avoidance, incorporation into green-space, capping, and conveyance into a permanent conservation easement – are feasible (CEQA Guidelines, Section 15126.4[b][3][B]). If none of the preserve-in-place approaches is feasible, the Lead Agency may adopt data recovery as the mitigation measure for the impact (CEQA Guidelines, Section 15126.4[b][3][C]).

Paleontological Resources

Paleontological resources are protected in the CEQA Guidelines, as well as by PRC, Section 5097.5, which states, “No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.” As used in this section, “public lands” means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof (Caltrans website 2018).

The Society of Vertebrate Paleontology (SVP), which is a nonprofit organization founded in 1940 for educational and scientific purposes, has established professional standards for the assessment and mitigation of adverse impacts to paleontological resources (SVP 1995) and provides a global forum for vertebrate paleontologists (SVP website 2018).

California Health and Safety Code

The disposition of burials falls first under the general prohibition on disturbing or removing human remains under California Health and Safety Code (CHSC), Section 7050.5. If human remains are discovered during construction, no further disturbance to the site shall occur, and the County Coroner must be notified (CCR, Title 14, Section 15064.5; PRC, Section 5097.98). More specifically, remains suspected to be Native American are treated under CEQA in CCR, Title 14, Section 15064.5, while PRC, Section 5097.98 illustrates the process to be followed in the event that remains are discovered.

Local Regulations

CEQA allows local input in determining criteria for significant historical and archaeological resources. Title 18, Chapter 18.25 of the Monterey County Zoning Ordinance codifies the county’s provisions for the preservation of historic resources. As defined in Chapter 18.25.060, eligibility criteria for historic and cultural resources considered significant in the county are generally consistent with the criteria of the CRHR (County of Monterey 2018).

In addition, although actual policies of the county are not applicable to the Airport, which is its own jurisdiction, the county's Conservation/Open Space Element Policies OS-7.3 and OS-7.4 provide guidance in determining the potential for significant impacts and the need for mitigation to paleontological resources in lieu of specific state guidelines. Policy OS-7.3 states, "Development proposed within high and moderate sensitivity zones and known fossil bearing formations shall require a paleontological field inspection prior to approval...", while Policy OS-7.4 states, "Development proposed in low sensitivity zones are not required to have a paleontological survey unless there is specific additional information that suggests paleontological resources are present." (County of Monterey 2010).

4.5.2 Methodology

On June 2, 2014, staff at the Northwest Information Center (NWIC) at Sonoma State University, Rohnert Park, California, conducted a California Historical Resources Information System (CHRIS) records search covering the entire airport property and land within a 0.25-mile radius around the airport property. A supplemental records search was subsequently completed on October 22, 2015. The purpose of the records searches was to identify previously recorded prehistoric or historic cultural resources, including isolated artifacts, archaeological sites, historical buildings, and structures, that are located within or adjacent to the airport property. The NWIC consulted the following sources of information, along with official maps and records:

- National Register of Historic Places
- California National Register of Determined Eligible Properties
- California State Historic Property Data Files
- California State Historical Landmarks
- California Points of Historical Interest
- California Office of Historic Preservation Archaeological Determinations of Eligibility
- California Department of Transportation (Caltrans) State and Local Bridge Surveys

In addition, the following recent technical reports prepared for data recovery, field survey, and construction monitoring efforts for multiple projects on the Airport, were also reviewed:

- *Cultural Resources Monitoring for the Solar Array Project, Airport District Property, Monterey County, California* (O'Neill 2017); and
- *Data Recovery Report for Portions of CA-MNT-1438/H, Monterey Peninsula Airport District, Monterey County* (Holm et al. 2016).

Qualified archaeologists conducted intensive-level pedestrian surveys of a 177-acre study area (**Exhibit 4.5A**) on April 26-28, 2017 and March 17-18, 2018. The study area was determined by the Proposed Project or Alternative 1's areas of potential disturbance. All areas of exposed ground surface were examined for prehistoric artifacts (e.g., chipped stone tools and production debris, stone milling tools), historic artifacts (e.g., metal, glass, ceramics), soil discoloration that might indicate the presence of a cultural midden, linear features, soil depressions, and other features indicative of the former presence of historic structures or buildings (e.g., foundations). Approximately 50 percent of the study area had

zero to less than 25 percent visibility. The remainder of the study area had poor to good (25 percent to 75 percent) visibility. In areas of poor visibility, the ground was cleared using boot or trowel at regular 20-meter intervals to inspect the surface for the presence of cultural resources. Total survey coverage included 137 acres of the 177-acre study area. Paved areas and those obscured by existing improvements were not subject to pedestrian survey (approximately 40 acres).

Two historic resources surveys and evaluations to identify airport properties that appeared eligible for national, state, or local designation, either individually or as part of a historic district, were completed in 2014 and 2017 (SWCA 2014; SWCA 2017). Methods included a CHRIS records search of the airport property and an intensive level survey and evaluation of built environment resources aged 45 years or older. As a result of initial research, 21 properties were subject to intensive-level survey in 2014; an additional four buildings that had become 45 years or older since the 2014 study were evaluated in 2017. (A fifth building, Building 72, was also researched but found to be demolished.) Buildings evaluated as part of the historic assessments have been documented using State of California Department of Parks and Recreation Series 523 Forms, as appropriate.

The evaluation of paleontological resources used a previous assessment of the Airport's potential for paleontological resources that was completed for the Airport's Runway Safety Area Improvements Project (RSA Project) (SWCA 2009).

4.5.3 Existing Conditions

Prehistoric Cultural Resources

Prehistoric occupation of California's Central Coast region is estimated to have occurred within the Paleo-Indian Period (approximately 10,000 years ago) when sea levels were some 15 to 20 meters lower than today. The six prehistoric periods of Central Coast occupation and cultural development are Paleo-Indian (pre-8000 cal B.C.), Millingstone (8000 to 3500 cal B.C.), Early (3500 to 600 cal B.C.), Middle (600 cal B.C. to cal A.D. 1000), Middle-Late Transition (cal A.D. 1000 to 1250), and Late (cal A.D. 1250 to 1769) (Jones et al. 2007:134).

Several cultural resource surveys and one data recovery effort have been conducted on the Airport prior to the studies completed for this EIR (**Exhibit 4.5B**). One survey (Edwards and Cooper 1983) focused on an area north of the airfield, while a survey completed in 2009 covered areas east and west of the runway related to the Airport's RSA Project (SWCA 2010). In 2015, much of the Airport's infield area was surveyed (SWCA 2018). There is one known prehistoric cultural resource site (archaeological site CA-MNT-1438/H), which is in the southeast part of the Airport. Data recovery excavation was conducted on the part of the site located within the RSA Project area.

Historic Cultural Resources

Monterey was explored by Spain in the 1500s and settled in 1770 when Captain Gaspar de Portola and Father Junipero Serra established Monterey (originally known as Monterrey) as a mission and a presidio.



- Airport Property Line
- Study Area
- Survey Coverage Area
- Not Surveyed

0 250 500 1,000 Feet



1:8,500

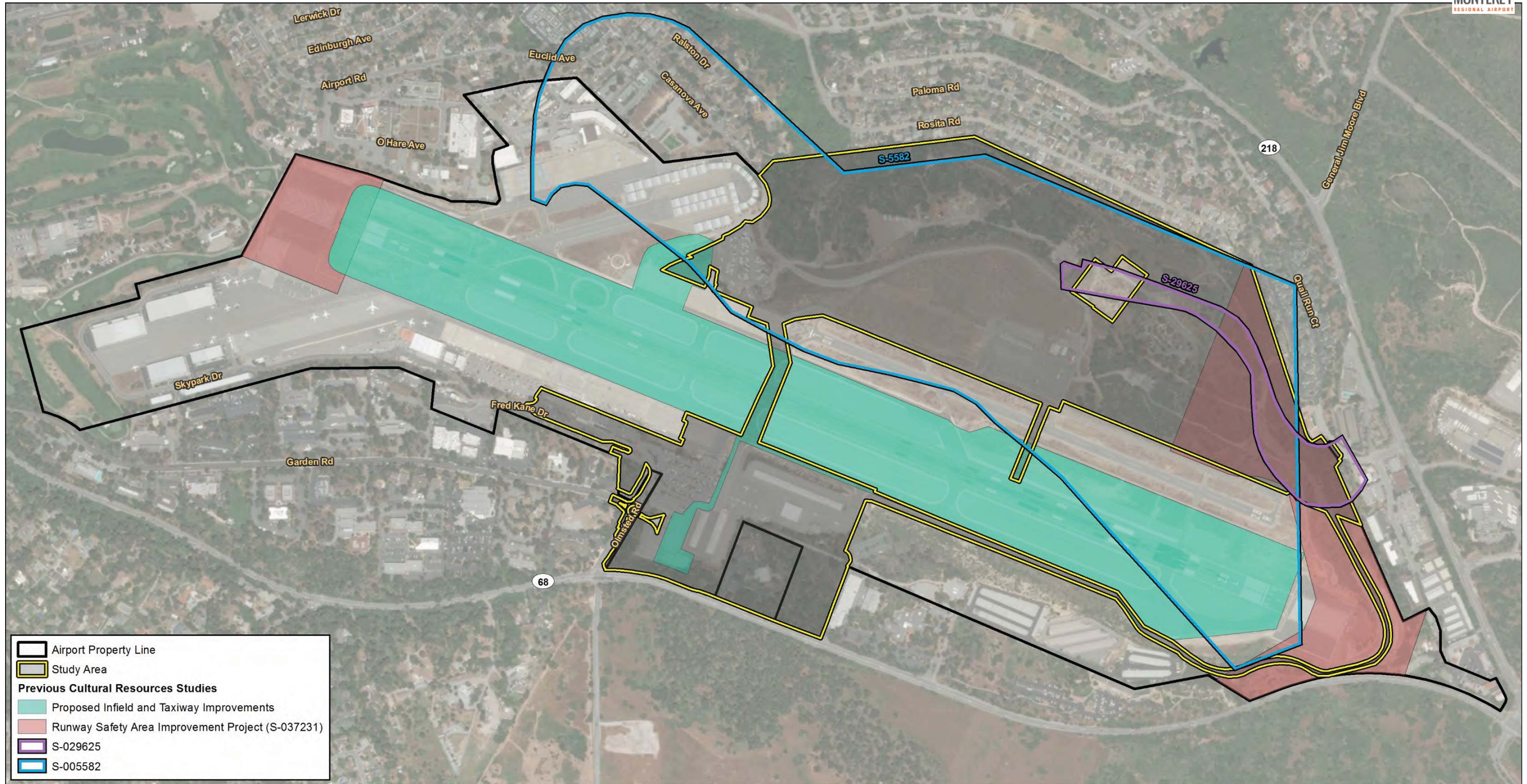
Basemap by ESRI, 2018.

SWCA
ENVIRONMENTAL CONSULTANTS

Survey Coverage Map
Cultural Resources Survey Report
Monterey Regional Airport, Monterey County, Ca

Source: SWCA 2018a

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- Airport Property Line
- Study Area
- Previous Cultural Resources Studies**
- Proposed Infield and Taxiway Improvements
- Runway Safety Area Improvement Project (S-037231)
- S-029625
- S-005582

0 250 500 1,000 Feet



1:8,500

Basemap by ESRI, 2018.



Previous Cultural Resources Studies

Cultural Resources Survey Report
Monterey Regional Airport, Monterey County, Ca

Source: SWCA 2018a

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At the conclusion of the Mexican-American War of 1848, California first became a U.S. territory and then a state. On October 13, 1849, Monterey became California's first capital.

One of the first successful industrial endeavors in Monterey was whaling, followed by the sardine fishing industry. The establishment of a railway line from the mainline of the Southern Pacific Railroad near Watsonville to a wharf at the Monterey Customs House and the construction of Hotel Del Monte in 1880 allowed Monterey to become a resort and tourist destination as well.

In addition to its importance as a center for fishing and tourism, Monterey's strategic location and port made it the focus of defense-related development through the early twentieth century. In 1917, as the U.S. entered World War I, the Fort Ord Military Base (originally dubbed Camp Gigling) was established just north/northeast of Monterey as a military training base for infantry troops. In 1939, Camp Gigling became Camp Ord, and in 1940, the facility was renamed Fort Ord and greatly expanded. Following World War II, Fort Ord remained an important military base and training/deployment center until its official closure in 1994.

The same patterns of growth in the tourism and defense/military presence in the area also resulted in the development and expansion of the Airport. In the 1930s, land formerly held by Del Monte Properties was deeded to the City of Monterey, and, with funding provided by the Great Depression-era Works Projects Administration, an airport was constructed. The original configuration included two runways and a hangar (SWCA 2014).

During World War II, the Airport served as one of a number of auxiliary airfields to Naval Air Station Alameda. Following the war, commercial passenger flights resumed and, in 1948, construction of a new terminal began. Inaugurated in the fall of 1950, the terminal spanned 15,000 square feet (sf) and was promoted as serving the communities of Monterey, Carmel, and Watsonville (SWCA 2014).

Historic Resources Inventory

Based on the Historic Cultural Resources discussion presented above, there are two principal themes of significance associated with the Airport: (1) World War II era, defense-related development, and (2) the early history and development of aviation on the Monterey Peninsula. **Table 4.5A** lists the buildings on the Airport that were approximately 45 years or older and originally assessed by SWCA in 2014, as well as information pertinent to their eligibility for listing as historic structures under the NHPA, including dates of construction and alterations/additions. **Table 4.5B** lists the buildings on the Airport that became 45 years or older since the 2014 assessment (as of 2017) (SWCA 2017).

While a number of properties on the Airport are over 45 years of age, only one of its properties appears eligible for national, state, or local landmark listing: Tarp's Roadhouse, formerly known as Rancho Saucito/Ryan House. This building was constructed between 1919 and 1925 on the southeastern portion of the airport property (prior to the development of the Airport). In 1994, Tarp's Roadhouse was found eligible for the NRHP at the local level of significance; in 1996, the California State Office of Historic Preservation stated its concurrence with this finding (Widdell 1996).

**TABLE 4.5A
Potential Historic Resources
Monterey Regional Airport**

Building Inventory #	Description of Building	Year Built	Year Modified	Original Square Feet	Modified Square Feet	Surveyed	DPR Form Prepared	Eligibility Status
117	Tenant Building	1949	1968	4,020	4,020	Yes	Yes	Not eligible
130	Hangar	Circa 1965 (Source: aerial photographs; listed on inventory as 1960/70)	N/A	12,060	N/A	Yes	Yes	Not eligible
140	Hangar	Circa 1965 (Source: aerial photographs)	N/A	17,472	N/A	Yes	Yes	Not eligible
200	Terminal Building	1949/1950	1949,1959, 1971,1973, 1974,1997, 2000	15,404	73,988	Yes	Yes	Not eligible
505	Tenant Building	Pre-1961 (Source: aerial photographs)	N/I	N/I	N/I	Yes	Yes	Not eligible
506	Tenant Building	1947	N/I	4,550	13,370	Yes	Yes	Not eligible
510	Hangar	1944	N/I	16,000	17,560	Yes	Yes	Not eligible
514	Hangar	1940	1954	5,720	16,150	Yes	Yes	Not eligible
1101	Searle Electronic	Circa 1985 (Source: visual inspection; listed as 1967 on inventory; does not appear on 1971 aerial photograph)	N/A	3,200	N/A	Yes	No	Not eligible
1105	Tenant Building	1943	1950	352	7,754	Yes	Yes	Not eligible
1109	Tenant Building	1943	1991	410	480	Yes	Yes	Not eligible
1170	Building	Post-1983 (Source: historic topographical maps and aerial photos)				Yes	No	Not eligible
1248	Tenant Building	1944	1947	2,240	2,000	Yes	Yes	Not eligible
1600	Navy Flying Club (portable office building)	1962	N/A	2,000	N/A	Yes	Yes	Not eligible
1705	Old ASR Building	1943	1960	1,575	1,575	Yes	Yes	Not eligible
2475	FAA Tower	1961	N/A	N/I	N/I	Yes	Yes	Not eligible
113, 105 & 109	113: Tenant Building (Quonset Hut) 105: Tenant Building (Quonset Hut) 109: connector between 105 & 113	1944	2001	4,125	8,600	Yes	Yes	Not eligible
1301/1325	Picnic Area Buildings	1960	N/A	700	700	Yes	Yes	Not eligible
27	Small Quonset Hut	Circa 1942/1943 (Source: visual inspection)	N/A	N/A	N/A	Yes	Yes	Not eligible
Line Shack	Quonset Hut	Circa 1942/1943 (Source: visual inspection)	N/A	N/A	N/A	Yes	Yes	Not eligible

Source: SWCA 2014

DPR Form = California Department of Parks and Recreation form for recording historical resources

N/I = No Information available

N/A = Not applicable; The building has not been modified.

TABLE 4.5B
Historic Resources Supplemental Assessment Results
Monterey Regional Airport

Building #	Description of Building	Year Built	Year Modified	Square Feet	Surveyed	DPR Form Prepared	Eligibility Status
72	Car Washes (demolished)	1970 (not extant)	N/A	3,513	Yes	No	N/A
99	Maintenance building	1970	N/A	1,504	Yes	Yes	Not eligible
102	Tenant building	1970	1980	6,900	Yes	Yes	Not eligible
104	Tenant building	1970	1980	7,350	Yes	Yes	Not eligible
106	Tenant building	1970	N/A	32,260	Yes	Yes	Not eligible

Source: SWCA 2017

N/A = not applicable; DPR = Department of Parks and Recreation

All other buildings located at the Airport greater than 45 years of age are considered ineligible for NRHP or CRHR listing, and none qualifies as an individual landmark or as an historic district. This includes the existing commercial terminal building and older buildings located in the Old North Side Industrial Area of the Airport. This lack of eligibility is primarily due to significant alterations and additions to the structures that have occurred over time. In general, properties reflecting the identified themes of significance (i.e., World War II or aviation history) had alterations and additions that compromised their historic integrity as discussed further below:

- Existing Commercial Terminal - The original commercial terminal building was constructed in 1950 and exhibited the “textbook features of Mid-Century Modern design” (SWCA 2014). Over the years, substantial additions were made, including: 1971-1974 (expansion); 1978-1981 (new hold room and other additions); 1988-1992 (second floor added to terminal and other additions); 1999 (second floor added to east end and other additions); and 2002-2007 (seismic retrofitting, expansion of east hold room, renovations to the Golden Tee Restaurant, and other additions). Certain defining elements, such as an early 1950s archway and sign at the entrance to the Airport, were also removed. Additional building modernizations occurred internal to the building, such as reconfiguration of check-in areas, baggage claim facilities, and security checkpoints in the mid-1990s and mid-2000s.
- Old North Side Industrial Area - The Old North Side Industrial Area was evaluated for individual building historic significance as well as its potential as an historic district (SWCA 2014). This area is one of the earliest areas developed at the Airport and was put into use during World War II as the U.S. Naval Auxiliary Air Station. However, the continuing use and expansion of the Airport over the decades has brought numerous alterations and new construction throughout the area, as the facilities were adapted, and new facilities added in response to new uses and demand. Considered together over time, alterations and additions have resulted in a loss of integrity as a potential historic district (SWCA 2014). Similarly, individual buildings are ineligible for national, state, or local historic designation.

Paleontological Resources

Paleontological sensitivity is defined as the potential for a geologic unit to produce scientifically significant fossils and is determined by rock type, past history of the geologic unit in producing significant fossils, and fossil localities recorded from that unit. A museum records search with the University of

California Museum of Paleontology (UCMP) for potential fossil localities within a one-mile radius of the Airport was conducted and only a single fossil locality was discovered (SWCA 2009).

According to the geologic mapping by Clark et al. (1997), the Airport is underlain by the following geologic units, in approximate ascending stratigraphic order (**Exhibit 4.5C**): 1) sylvan coastal terrace deposits; 2) coastal terrace deposits, undivided; 3) older coastal dunes; 4) colluvium, undivided; 5) alluvial deposits, undivided; and 6) artificial fill. As identified in **Table 4.5C** and **Exhibit 4.5D**, these geologic units have zero to low potential for containing paleontological deposits.

TABLE 4.5C
Paleontological Assessment and Resource Sensitivity Summary for Geologic Units
Monterey Regional Airport

Age	Geologic Unit	Map Abbreviation	Known Fossil Types	Paleontological Sensitivity
Holocene	Artificial Fill	Qaf	None	Zero
	Alluvial Deposits, undivided	Qal	None	Low
	Colluvium, undivided	Qc	None	Low
Pleistocene	Older coastal dunes	Qod	None	Low
	Coastal terrace deposits, undivided	Qct	None	Low
	Sylvan coastal terrace	Qcts	None	Low

Source: SWCA 2009

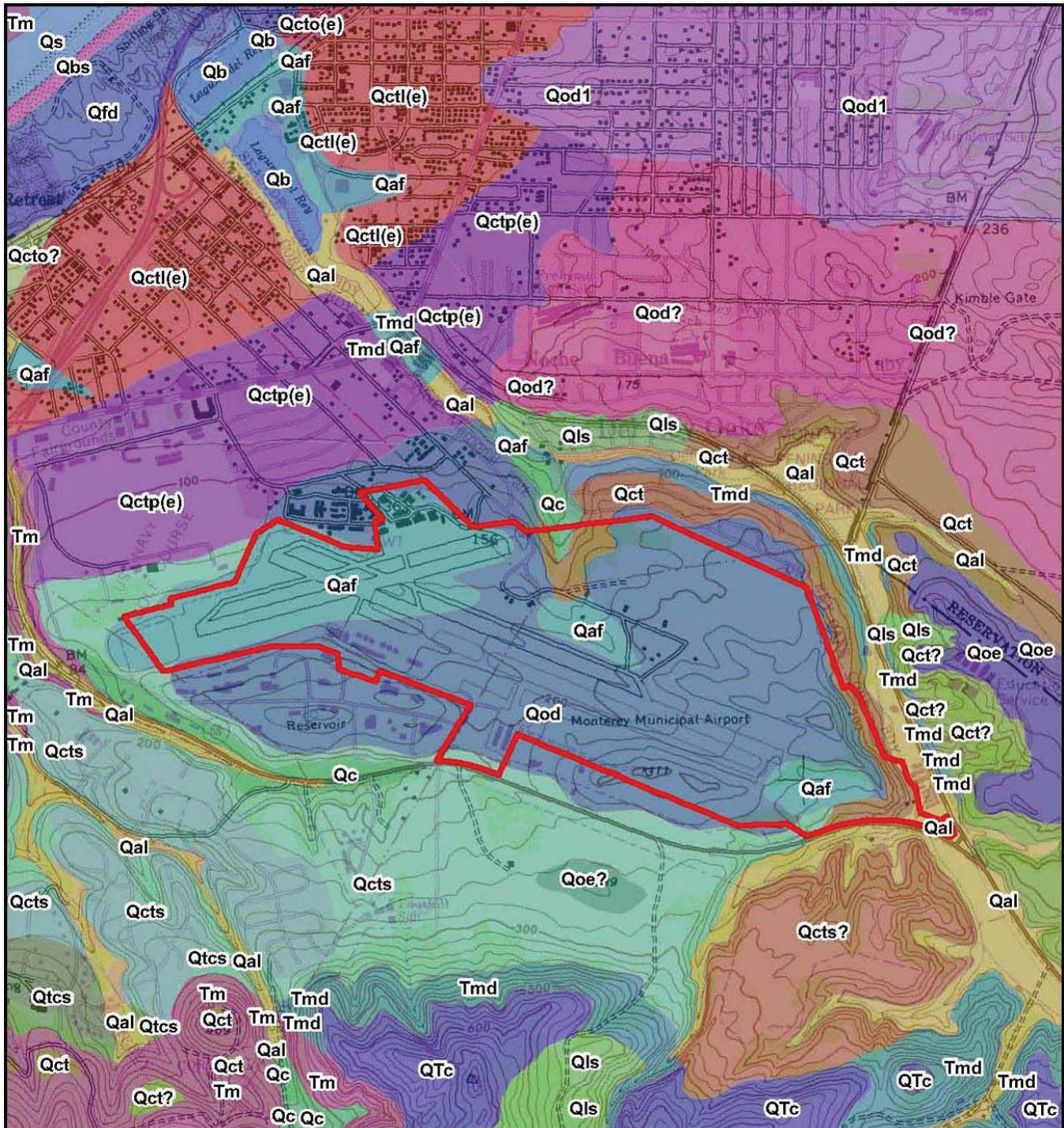
4.5.4 Thresholds of Significance

The following thresholds of significance have been taken from the CEQA Guidelines, Appendix G (2017). Significant impacts to cultural resources would occur if the Proposed Project or Alternative 1 would:

- Threshold 4.5-1: Cause a substantial adverse change in the significance of a historical resource as defined in State CEQA Guidelines, Section 15064.5;
- Threshold 4.5-2: Cause a substantial adverse change in the significance of an archaeological resource as defined in State CEQA, Guidelines, Section 15064.5;
- Threshold 4.5-3: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;
- Threshold 4.5-4: Disturb any human remains, including those interred outside of formal cemeteries.

4.5.5 Impact Analysis

The Proposed Project and Alternative 1 would both result in ground disturbance activities that could have adverse impacts to cultural resources, if present. In addition, proposed redevelopment would result in the demolition of existing older buildings. The following analysis addresses the various types of cultural resources and the potential for adverse impacts as enforced by CEQA or other applicable regulations.



0 250 500 Meters
 0 1,000 2,000 Feet

USGS 7.5' Quadrangle:
 Seaside, CA 1947 (Photorevised 1983)
 Land Grants: Aguajit, City Lands of Monterey,
 Noche Buena, Saucito
 Township: 15S, Range: 01E, Unsectioned

1:24,000

Legend

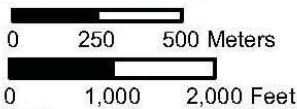
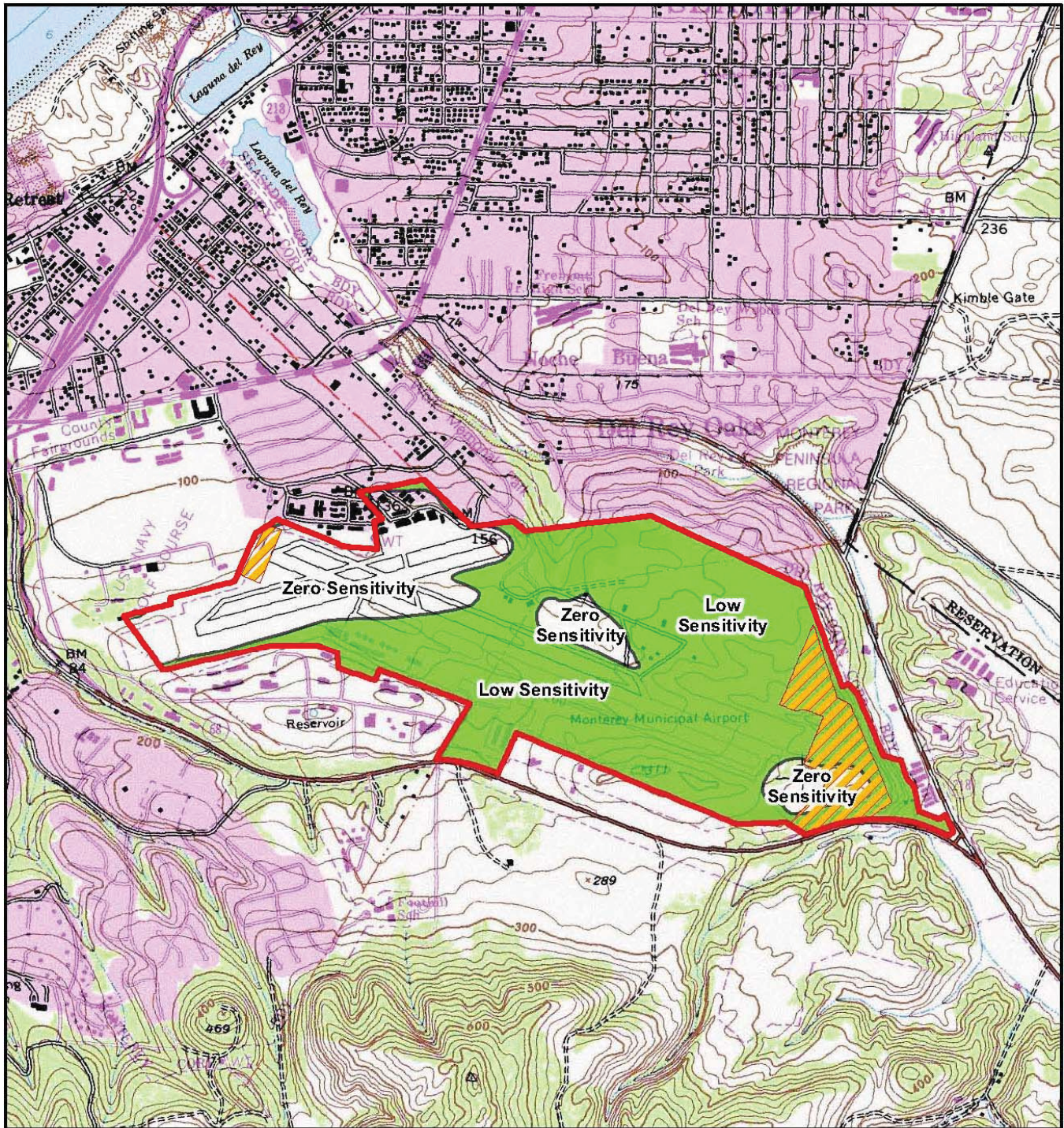
Project Area
 Qc
 Qct
 Qaf
 Qal
 Qcts
 Qod

Source: Clark, J.C, Dupre, W.R,
 Rosenberg, L.I. 1997. Geologic
 Map of the Monterey and Seaside
 7.5-Minute Quadrangles,
 Monterey County, California.

Geologic Map
 Monterey Airport
 Project

Rev. 1

Source: SWCA 2009



1:24,000

Legend

- Project Area
- Zero Sensitivity
- Low Sensitivity
- Areas of Potential Future Ground Disturbance



Source: Clark, J.C., Dupre, W.R., Rosenberg, L.I. 1997. Geologic Map of the Monterey and Seaside 7.5-Minute Quadrangles, Monterey County, California.

Paleontological Sensitivity Map

Monterey Airport Project

Rev. 1

Source: SWCA 2009

4.5.5.1 Threshold 4.5-1 - Cause a substantial adverse change in the significance of a historical resource as defined in State CEQA Guidelines, Section 15064.5

Proposed Project and Alternative 1

Construction and Short-Term and Long-Term (Programmatic) Project Impacts

Archival research has revealed that the entire study area has been subject to some level of cultural resources assessments, including both architectural surveys and evaluations, archaeological surveys, archaeological monitoring, and archaeological data recovery. Several historic-era buildings are located within the study area; however, all but one (P-27-1459, Tarpý's Roadhouse) have been determined ineligible for national, state, or local historic designation. Neither the Proposed Project nor Alternative 1 would have any impact on Tarpý's Roadhouse as no development or redevelopment is proposed in this area of the Airport. Therefore, no impacts would occur to historic resources eligible for national, state, or local historic designation as a result of proposed building demolition.

Cultural resources surveys of the study area reveal the Airport is heavily disturbed due to its original construction and subsequent historic and modern development. Dozens of buildings, structures, and access routes associated with mid-twentieth century development of the Airport resulted in extensive earth movement and modification of the native landscape. Historic aerials and maps depict a vast network of no longer extant historic features in the northern and northwestern portions of the study area (SWCA 2014) that have been demolished and removed from the airport property. Remnants of this earlier development include existing roads and access routes.

The recent 2018 field survey identified a concrete foundation and associated concrete debris in the northern portion of the study area, designated MRY-HIST-001. Historic archaeological site MRY-HIST-001 consists of the foundational remnants of a target shooting range facility (Morello, C. Monterey Regional Airport, Senior Manager of Development and Environment 2018). The foundation is partially demolished, as evidenced by concrete debris piles adjacent to the site. Although partially obscured by dense vegetation, the visible portion of the foundation measures approximately 100 feet (northwest/southeast) by 35 feet (northeast/southwest).

Historic archaeological site MRY-HIST-001 is not associated with any significant events or people (Criterion A/1 and B/2) (NRHP/CRHR criterion, respectively), the foundation is a typical example of construction type and material (Criterion C/3), the site does not have the ability to provide additional information regarding the history of the Airport or region beyond what is already well-documented (Criterion D/4), and the site lacks integrity. As such, the site does not constitute a historical resource or historical property and impacts related to its disturbance are Less than Significant.

In addition, although dozens of isolated historic-era cans and bottles and miscellaneous historic-era debris (e.g., metal, glass, plastic) were observed throughout the study area, the majority is related to recreational use or mid-twentieth century development within the airport property. In addition, two abandoned mid-century automobiles were encountered in the southern portion of the study area, within the

potential acquisition property along Highway 68. Due to the lack of context, there are no impacts related to the disturbance of isolated historic debris and automobiles.

Less than Significant Impacts: *Disturbance of historic archaeological site MRY-HIST-001 under either the Proposed Project or Alternative 1 would be Less than Significant for Threshold 4.5-1 as the site does not constitute a historical resource under CEQA.*

Disturbance of miscellaneous historic debris under either the Proposed Project or Alternative 1 would be Less than Significant under Threshold 4.5-1 as these materials do not constitute a historical resource under CEQA.

4.5.5.2 Threshold 4.5-2 - Cause a substantial adverse change in the significance of an archaeological resource as defined in State CEQA Guidelines, Section 15064.5

Proposed Project and Alternative 1

Construction and Short-Term and Long-Term (Programmatic) Project Impacts

There is only one previously identified archaeological site within the study area, the prehistoric component of P-27-1459 (CA-MNT-1438/H). As part of the Airport's RSA Project in 2014, data recovery efforts were conducted on the affected portion of this site, which included all portions of the site inside of the Airport's perimeter fence. Following data recovery, site-associated soils were excavated and relocated to a confidential area on the Airport known to not contain archaeological resources (Holm et al. 2016). This protected location is outside of any disturbance areas associated with the Proposed Project or Alternative 1 and no impacts would occur. The 2014 data recovery effort included only a portion of CA-MNT-1438/H located within the perimeter fence of the Airport. However, the site extends outside of the airport property to the east. The integrity and nature of the cultural deposits associated with CA-MNT-1438/H outside of the Airport's perimeter fence are unknown. CA-MNT-1438/H was originally recorded outside and southeast of the perimeter fence (then known as CA-MNT-728) in December of 1993 for a proposed re-route of Highway 68. Reportedly one set of Native American remains were discovered in the eastern portion of CA-MNT-1438/H in 1977. Neither the Proposed Project nor Alternative 1 contemplate development in proximity to the previous portion of CA-MNT-1438/H within the Airport's perimeter fence. Likewise, neither the Proposed Project nor Alternative 1 would affect any portion of the site not previously subject to data recovery as part of the RSA Project.

Although no other significant cultural resources were identified within the study area as a result of pedestrian survey and archival research, the lack of visibility, and in some cases, impenetrable vegetation prohibits a definitive finding of no adverse impact from future construction activities associated with the Proposed Project or Alternative 1. Since the Airport has at least one known archaeological site, there remains the potential for unknown archaeological resources that could be adversely impacted by future construction activity. This possibility is considered a Potentially Significant impact. See Section 4.5.6 for mitigation.

Significant Impact CUL-1: *Unknown archaeological resources could be adversely impacted by proposed construction and/or operation under the Proposed Project or Alternative 1 for both short and long-term projects.*

4.5.5.3 Threshold 4.5-3 - Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature

Proposed Project and Alternative 1

Construction and Short-Term and Long-Term (Programmatic) Project Impacts

Based on the types of geologic units present at the Airport, as well as the lack of fossil finds in the area, the Airport is considered to have a zero to low potential for containing paleontological resources (**Table 4.5C** and **Exhibit 4.5D**). Therefore, as recommended in county Policy OS-7.4, site-specific paleontological surveys are not warranted and potential impacts to paleontological resources due to the Proposed Project or Alternative 1 are Less than Significant. In the unlikely event that fossil resources are discovered during construction activities associated with the Proposed Project or Alternative 1, standard protocols according to SVP guidance (1995) would be followed. This standard protocol includes retaining a qualified paleontologist to evaluate the find, determining its significance, and, if appropriate, redepotting the resource in an appropriate museum or curation facility.

Less than Significant Impact: *Impacts to paleontological resources at the Airport are Less than Significant under Threshold 4.5-3 since the geologic units present have zero to low potential for significant resources.*

4.5.5.4 Threshold 4.5-4 - Disturb any human remains, including those interred outside of formal cemeteries

Proposed Project and Alternative 1

Construction and Short-Term and Long-Term (Programmatic) Project Impacts

As previously mentioned, redeposited Native American remains from CA-MNT-1438/H are protected and confidential. As such, they are located outside of any aspect or component of the Proposed Project or Alternative 1. Thus, no impacts to the remains at site CA-MNT-1438/H would occur.

Nevertheless, the Proposed Project and Alternative 1 both would involve grading and other ground disturbance activities that may lead to the unanticipated discovery of human remains. Such discoveries are addressed in CHSC, Section 7050.5. This code section states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC, Section 5097.98. The County Coroner must be notified of the find immediately. If the human remains are determined to be Native American, the County Coroner will notify the NAHC within 24 hours, which will determine and notify a Most Likely Descendant (MLD). The MLD shall complete the inspection of the

site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

Less than Significant Impact: *Impacts related to an unanticipated encounter with human remains during construction activities would be Less than Significant under Threshold 4.5-4, since the procedures outlined by the California Native American Heritage Commission (NAHC), in accordance with CHSC, Section 7050.5 and PRC, Section 5097.98, are mandatory and would be followed.*

4.5.6 Mitigation Program

The following mitigation measures would apply to Significant Impact CUL-1, as appropriate, if either the Proposed Project or Alternative 1 is selected.

4.5.6.1 **Threshold 4.5-2 - Cause a substantial adverse change in the significance of an archaeological resource as defined in State CEQA Guidelines, Section 15064.5**

Proposed Project and Alternative 1

CUL/mm-1: Prior to project implementation, a qualified archaeologist shall conduct a cultural resource awareness training for all construction personnel, which shall include the following:

- Review the types of prehistoric and historic resources that may be uncovered;
- Provide examples of common prehistoric and historic archaeological artifacts to examine;
- Review what makes an archaeological resource significant to archaeologists and local Native Americans;
- Describe procedures for notifying involved or interested parties in case of a new discovery;
- Describe reporting requirements and responsibilities of construction personnel;
- Review procedures that shall be used to record, evaluate, and mitigate new discoveries; and
- Describe procedures that would be followed in the case of discovery of disturbed as well as intact human burials and burial-associated artifacts.

CUL/mm-2: In the event that cultural resources are exposed during project implementation, work shall stop in the immediate vicinity, and an archaeologist who meets the Secretary of the Interior’s Professional Qualification Standards shall be retained to evaluate the find and recommend relevant mitigation measures.

CUL/mm-3: In areas of dense vegetation that have not been subject to extensive prior disturbance, an archaeological monitoring plan shall be developed prior to project implementation (**Exhibit 4.5E**). The archaeological monitoring plan shall include (but not be limited to) the following (see also Section 4.17.6):

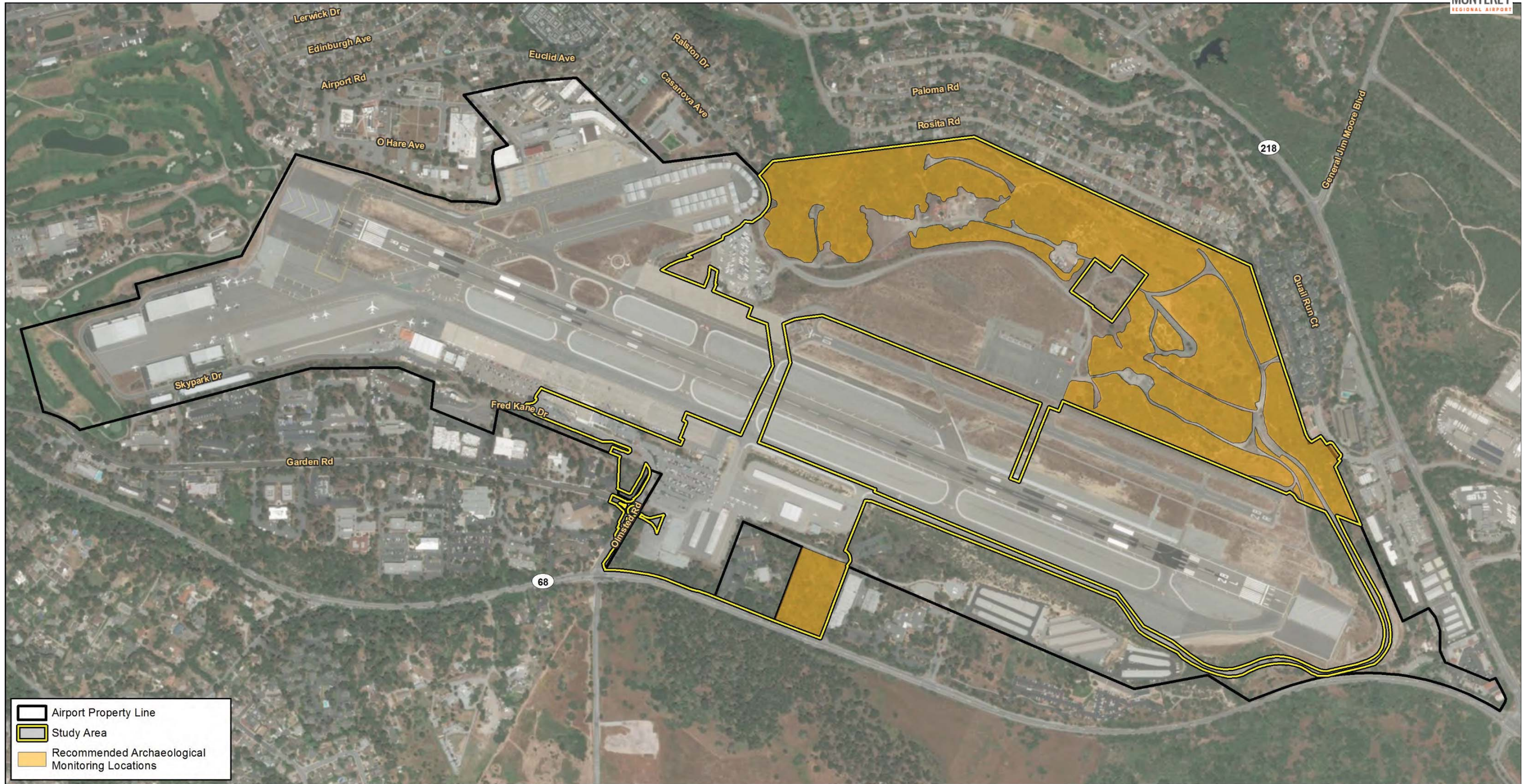
- A list of personnel involved in the monitoring activities;
- Description of how the monitoring shall occur;
- Description of frequency of monitoring (e.g., full time, part time, spot checking);
- Description of what resources are expected to be encountered;
- Description of circumstances that would result in the halting of work at the project site;
- Description of procedures for halting work on the site and notification procedures;
- Description of monitoring reporting procedures; and
- Provide specific, detailed protocols for what to do in the event of the discovery of human remains.

4.5.7 Level of Significance after Mitigation

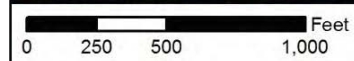
Incorporation of CUL/mm-1 through CUL/mm-3 will mitigate Impact CUL-1 for either the Proposed Project or Alternative 1 to Less than Significant levels and no further mitigation is required (**Table 4.5D**).

TABLE 4.5D
Summary of Potentially Significant Impacts and Mitigation – Cultural Resources
Proposed Monterey Regional Airport Master Plan

Proposed Project	Mitigation Program	Alternative 1	Mitigation Program	Level of Significance after Mitigation
Threshold 4.5-2 - Cause a substantial adverse change in the significance of an archaeological resource as defined in State CEQA Guidelines, Section 15064.5				
Impact CUL-1: Unknown archaeological resources could be adversely impacted by proposed construction	CUL/mm-1 to CUL/mm-3	Same as Proposed Project	CUL/mm-1 to CUL/mm-3	Less than Significant



- Airport Property Line
- Study Area
- Recommended Archaeological Monitoring Locations



1:8,500

Basemap by ESRI, 2018.



Recommended Archaeological Monitoring Locations
Cultural Resources Survey Report
Monterey Regional Airport, Monterey County, Ca

Source: SWCA 2018a

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Chapter Four

4.6 – ENERGY

Several aspects of the Proposed Project and Alternative 1 would require the consumption of energy both during construction activities (temporary) and for the regular operation of the completed facilities (operational). Energy consumption includes the use of fossil or alternative fuels, natural gas, and electricity. This Environmental Impact Report (EIR) section addresses the consumption of all three during construction and operation, as well as the indirect use of fuel by vehicular trips connected with the Proposed Project or Alternative 1. Additional information regarding fossil fuel storage and usage at the Airport is provided in Section 4.9, Hazards and Hazardous Materials as fossil fuels are also a hazardous material. For discussion regarding other utilities that service the Airport (i.e., water supply, wastewater, and solid waste), see Section 4.18, Utilities.

4.6.1 Regulatory Setting

Federal Regulations

There are several federal level policies relating to the use and conservation of energy, including: *Energy Policy and Conservation Act of 1975* (EPCA); *National Energy Policy Act of 1992* (EPACT92); *Energy Policy Act of 2005*; *Energy Independence and Security Act of 2007* (EISA); and the *American Recovery and Reinvestment Act of 2009* (ARRA).

The EPCA creates nationwide fuel economy standards to conserve oil. Per this Act, the National Highway Traffic and Safety Administration must revise existing fuel economy standards and establish new vehicle fuel economy standards. With similar goals to EPCA, EPACT92 supports programs that promote energy efficiency and the use of alternative fuels. It mandates certain federal, state, and local government and private fleets to acquire a certain percentage of light duty alternative fuel vehicles annually. EPACT92 also incorporates financial incentives for businesses and individuals to cover the cost difference between alternative fuel vehicles compared to traditional vehicles.

The *Energy Policy Act of 2005* expands and renews tax credits for electricity generated by qualified energy sources, including landfill gas. It also offers bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification, as well as establishes a federal purchase requirement for renewable energy.

EISA intends to improve vehicle fuel economy and reduce United States (U.S.) dependence on oil. The Act increases the production of renewable fuels to confront global climate change. EISA sets a mandatory renewable fuel standard that requires fuel producers to use a minimum of 36 billion gallons of bio-fuel by 2022, an almost five-fold increase over 2007 levels. Additionally, the Act aims to reduce the U.S. demand for oil through a national fuel economy standard of 35 miles per gallon (mpg) by 2020, which represents a 40 percent increase in fuel economy standards.

ARRA is a stimulus package that incorporates energy-efficiency components, including the appropriation of funds to infrastructure modernization and investments in energy independence and renewable energy technologies.

State Regulations

The State of California has shown through legislative efforts its commitment to energy efficiency measures to conserve resources statewide. State legislation related to energy include: *Warren-Alquist Act*; *Integrated Energy Policy Report* (IEPR); Senate Bill (SB) 1078, *California Renewables Portfolio Standard Program*; SB 2, *Building Homes and Jobs Act*; SB X1-2, *California Renewable Energy Portfolio Standard*; SB 350, *Clean Energy and Pollution Reduction Act of 2015*; Assembly Bill (AB) 1493, *Reduction of Greenhouse Gas Emissions*; *Energy Action Plan* (EAP); AB 1007, *State Alternative Fuels Plan*; the California Building Standards Code (California Code of Regulations [CCR], Title 24); and the California Green Building Standards Code (CalGreen 2016).

The *Warren-Alquist Act* established the California Energy Resources Conservation and Development Commission (now the California Energy Commission [CEC]) and creates a statewide policy to reduce wasteful, uneconomical, and unnecessary energy uses. The goal of the Act is “to improve the environment and to encourage the diversity of energy sources through improvements in energy efficiency and development of renewable energy resources, such as wind, solar, and geothermal energy.”

SB 1389 (IEPR) requires the CEC to assess and forecast all aspects of the energy industry, including supply, production, transportation, delivery and distribution, demand, and prices. The CEC is charged with using these assessments and forecasts to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state’s economy, and protect public health and safety. Every two years, the CEC adopts an IEPR, with an update every other year. The 2017 IEPR summarizes the energy priority areas for California, which include electricity resource and supply plans, electricity and natural gas demand forecasts, natural gas outlooks, transportation energy demand forecasts, energy efficiency savings, integrated resource planning, a barriers study, climate adaptation and resilience, renewable gas, southern California energy reliability, distributed energy resources, strategic transmission investment plans, and existing power plan reliability issues.

SB 1078 established a renewable portfolio standard (RPS) for electricity supply, requiring all electrical sellers to provide 20 percent of their supply from renewable sources by 2017. SB 2 expands this law, mandating procurement from eligible renewable energy resources to 33 percent by 2020. Further, electricity providers subject to the RPS must increase their renewable share by a minimum of one percent annually. SBX1-2 further enforces the mandates set by SB 2.

The *Clean Energy and Pollution Reduction Act* requires electricity generated and sold annually to retail consumers from eligible renewable energy sources to be increased to 50 percent by December 31, 2030. In addition, this Act requires the doubling of energy efficiency savings in electricity and natural gas for retail consumers, through energy efficiency and conservation measures, by December 31, 2030.

AB 1493 amends sections of the Health and Safety Code by requiring the California Air Resources Board (CARB) to create and adopt regulations that attain the highest feasible and cost-effective reduction of greenhouse gas (GHG) emissions from passenger vehicles, light duty trucks, and other noncommercial personal transportation vehicles in the state.

In 2003, the California Public Utilities Commission (CPUC), CEC, and California Power Authority adopted an EAP that served as a single document summarizing California's approach to energy efficiency. Two years later, the CEC and CPUC adopted a section plan to reflect relevant policy changes since 2003. In lieu of creating an entire new plan, the state opted for an update of the 2003 plan that examined the state's ongoing actions in the context of global climate change. The *Energy Action Plan* (2008 update) focuses on several policy areas that all contribute to GHG emissions, including: energy efficiency, demand response, renewable energy, electricity reliability and infrastructure, electricity market share, natural gas supply and infrastructure, research and development, and the changing climate. Additionally, the CPUC has created energy efficiency programs, like smart meters, low-income programs, distribution generation programs, self-generation incentive programs, and a California solar initiative to further incentivize users to reduce their energy consumption.

AB 1007 required the CEC to create a plan for California to increase the use of alternative fuels (i.e., not petroleum-based), which resulted in the preparation of the State Alternative Fuels Plan (SAF Plan). This SAF Plan unveiled strategies and actions for California to take to increase the use of alternative fuels while minimizing the costs to the state, as well as maximizing the economic benefits. The SAF Plan develops fuel portfolios to meet California's petroleum consumption reduction goals to increase the use of alternative fuels, reduce GHG emissions, and increase in-state production of biofuels.

California's *Building Energy Efficiency Standards for Residential and Nonresidential Buildings* (Building Energy Efficiency Standards) (CCR, Title 24, Part 6) was created in 1978 by the CEC to establish a uniform building code that would lower California's energy consumption by providing energy efficiency standards for both residential and nonresidential buildings. Title 24 standards are updated regularly to keep pace with energy efficiency technologies and continually provide clarity on what is required. The 2016 update to the Building Energy Efficiency Standards focuses on several key areas to improve the energy efficiency of newly constructed buildings, as well as additions and alterations to existing buildings. California's Building Energy Efficiency Standards are updated every three years. The 2019 update is designed to improve the energy efficiency of regulated newly constructed residential and nonresidential buildings, building additions, and building alterations. The 2019 Standards are scheduled to take effect on January 1, 2020.

The most significant efficiency improvements to the nonresidential standards include alignment with the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) 90.1 2013 national standards. New efficiency requirements for elevators and direct digital controls are also included in the

nonresidential standards, as well as regulations pertaining to the: building envelope; mechanical systems; indoor, outdoor, and sign lighting; electrical power distribution; and solar readiness.

Part 11 of Title 24 (CalGreen) further establishes a consistent approach to green building. CalGreen sets minimum requirements for new residential and nonresidential construction to reduce GHG emissions through improved efficiency and process improvements. CalGreen also incorporates voluntary measures to encourage nonmandatory building practices that improve public health, safety, and general welfare by promoting more sustainable design. In April 2018, USGBC announced that all California projects pursuing certification under Leadership in Energy and Environmental Design, version 4 (LEEDv4) would enjoy significant streamlining for LEED prerequisites and some credits for projects built to CalGreen's mandatory standards (USGBC website 2018a).

Regional/Local Regulations

The Association of Monterey Bay Area Governments (AMBAG) and Pacific Gas and Electric Company (PG&E) partnered to deliver the AMBAG Energy Watch Program, a regional leader in energy efficiency in Monterey, San Benito, and Santa Cruz counties. This Energy Watch Program has sub-programs that help reduce GHG emissions, including the preparation of GHG inventories, climate action planning support, and energy action strategies. AMBAG Energy Watch reduces energy use in the Monterey Bay region by providing resources to eligible PG&E customers (AMBAG website 2018).

AMBAG also has a *Monterey Bay Regional Energy Plan* (2008 update) with a primary focus on climate change impacts due to GHG emissions. This plan encourages zero net energy design for new buildings, reducing new construction's energy demand. New construction is also encouraged to pre-wire and pre-plumb all new homes for the possible use of solar electricity and solar hot water heating. Expansion of the implementation of transit-oriented development (TOD) is also amplified in this *Monterey Bay Regional Energy Plan* update. This plan also suggests partnership with PG&E to establish the region's baseline energy use by jurisdiction, so that more efforts to reduce electric and natural gas use can be better targeted.

The *2010 Monterey County General Plan* contains the following policy in its Conservation/Open Space Element that promotes the efficient use of energy:

Policy OS-9.6. Development shall incorporate features that reduce energy used for transportation, including pedestrian and bicycle pathways, access to transit, and roadway design as appropriate.

The *City of Monterey General Plan* (as amended March 2016) also incorporates sustainability and energy efficiency into its goals and subsequent policies and programs. A focus of the general plan is to encourage an effective and efficient use of energy in all its critical forms by both the public and private sectors. It identifies the primary sources of energy use as heating and air conditioning for buildings and vehicle transportation:

Conservation Element (e. Energy)

Goal e. Encourage the effective and efficient use of energy in all its critical forms by public and private users alike.

Policy e.1. Encourage energy sources, which provide part or all of the energy needed for buildings.

- Program e.1.1. Consider aesthetically compatible independent energy sources in new public and private buildings.
- Program e.1.2. Encourage energy retrofitting in existing residential and commercial structures.

Policy e.2. Educate the public about energy conservation.

- Program e.2.1. Support public education activities that dramatize cost-saving benefits of energy conservation to local consumers.
- Program e.2.2. Encourage the hotel, motel, and restaurant associations to maintain an energy conservation program on a continual basis.

Policy e.3. Work with other local, state, and federal agencies; public utilities; and community organizations to implement energy conservation and longer-range renewable energy development programs.

4.6.2 Methodology

This EIR uses Appendix F, Energy Conservation, of the *California Environmental Quality Act (CEQA) Guidelines (2017)*, as well as the proposed CEQA updates to the Appendix G guidelines to evaluate the potential energy impact of the Proposed Project and Alternative 1. Energy implications of the Proposed Project and Alternative 1 have been considered, with emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

Construction Energy Impact Analysis

To approximate gallons of fuel used during construction (i.e., temporary energy impacts), outputs for on- and off-road trips have been calculated based on project engineer estimates. For on-road fuel consumption, the number of trips per project phase were multiplied by 60 miles per day, which was the assumed trip duration for each component of on-road construction. This established the number of miles traveled per project phase, which was then multiplied by fuel efficiency standards provided by the U.S. Department of Energy (2015). For construction worker vehicles, the fuel efficiency standard for light duty trucks was assumed to be 17.2 miles per gallon (mpg) (gasoline). For all other on-road activities (i.e., delivery vehicles, earth removal vehicles, and construction debris removal vehicles), a fuel efficiency standard of 7.3 mpg (diesel) was used.

To determine off-road fuel consumption, equipment usage hours, horsepower, and load factor of each equipment type were multiplied to get horsepower-hours per day.¹ Horsepower-hours were then converted to gallons of diesel per day (0.01832 gallons of diesel fuel per horsepower-hour). To establish annual fuel consumption, the gallons per day were multiplied by the anticipated number of construction days.

Operational Energy Impact Analysis

For all development proposed, the operational energy impacts of the Proposed Project and Alternative 1 were estimated using energy consumption rates (i.e., kilowatt hour [kWh] per year and thousands of British thermal units (kBtu) per year) generated by CalEEMod² for various land use types. The model was calibrated by using as similar as possible land use types to the actual average energy usage from 2015 through 2017 for the existing aircraft rescue and firefighting (ARFF) and commercial terminal buildings. (See **Appendix E** for a discussion of the modeling inputs selected for the CalEEMod model to reflect the Airport's existing energy usage.) To be consistent with how the Airport currently reports natural gas usage, the kBtu values generated by CalEEMod were converted to therms. For modeling purposes, it was assumed that proposed hangars would not consume natural gas, as the Airport has indicated they would only use electricity.

To establish the net increase in energy demand due to the full buildout of the Proposed Project or Alternative 1, the existing electric and natural gas demand for the existing commercial terminal building and ARFF building were subtracted from the forecasted future use. The existing energy demand was determined by taking an average of the annual kWh per year and therms per year from 2015 through 2017 for each of these buildings.

PG&E was also contacted regarding the anticipated energy demand to determine their ability to supply the necessary energy. PG&E determines the ability to supply electricity based upon peak load factors. To determine peak energy loads for proposed building components, the Proposed Project and Alternative 1's anticipated future energy consumption for the short- and long-term project components was added to the Airport's existing energy usage (i.e., baseline). Projected solar generation from the Airport's recently completed solar farm was then subtracted from the future anticipated energy demand to determine the amount of overall electricity usage to be supplied by PG&E. Estimated annual electricity demand was then divided by 8,760 hours (i.e., the number of hours in one year) to produce the hourly average demand on the electric grid. The hourly average demands for the short and long terms were then divided by the anticipated peak load factors to determine the anticipated peak loads (in kW). In Monterey, peak load factors can range from 0.4 to 0.6 (Green C., Quest Energy Group 2018).

¹ Equipment usage hours, horsepower, and load factor values are all provided by the California Emissions Estimator Model (CalEEMod) version 2016.3.2. The CalEEMod software model, published by the California Air Pollution Officers Association (CAPCOA) in collaboration with various California air districts, estimates on-road and off-road vehicle emissions and energy requirements. CalEEMod includes emissions factors that are adjusted to local climatic conditions in the area overseen by the Monterey Bay Air Resources District (MBARD).

² Ibid.

Indirect Vehicular Energy Impact Analysis

To calculate indirect vehicular fuel consumption (i.e., long-term trip generation impacts of the Proposed Project and Alternative 1), annual vehicle miles traveled (VMT) estimates for the Proposed Project and Alternative 1 were converted to gallons of fuel use to provide an estimate of the proposed long-term project energy demand. A fuel efficiency standard of 21.6 mpg (gasoline) was used for all long-term estimates, which is the average fuel efficiency of a light duty vehicle.

4.6.3 Existing Conditions

Utilities

Many airport tenants operate as individual units that provide some or all of their own utilities. For energy (i.e., electricity and natural gas), Tarp's Roadhouse, all properties at Stonecreek, Flight Way Self Storage, Sky Park Self Storage, the Quick Turn Around (QTA) Car Facility, Del Monte Aviation, and Monterey Jet Center provide their own PG&E meters for electricity and natural gas. Tarp's Roadhouse, Stonecreek properties, and Flight Way Self Storage are all concentrated on the eastern portion of the Airport, and Sky Park Self Storage, QTA Car Facility, Del Monte Aviation, and Monterey Jet Center are concentrated on the western end of the Airport. None of these locations on the Airport are proposed for any development or redevelopment as part of the Proposed Project or Alternative 1. Further, because all these properties operate as individuals that exclusively lease space from the Airport, their data is unavailable for analysis in this EIR. Thus, energy consumption for these locations is not discussed further. Additional discussion on how utilities are handled at the Airport can be found in Section 4.18.

The Airport currently owns a group of meters that are connected to the PG&E power grid that supplies power to all remaining entities at the Airport. **Exhibit 4.6A** illustrates the existing gas and electrical infrastructure. For electricity on the north side, there is an existing 21 kilovolt (kV) underground electric line that runs from Del Rey Gardens Drive to provide electricity to the existing Navy Flying Club apron. There are no current gas lines near the Navy Flying Club apron.

On the south side, a 21-kV electric line follows Olmsted Road with service lines extending to the various buildings. There are no major distribution lines for electricity located within the proposed terminal apron location, with one exception. An aboveground electrical line runs from Highway 68 to the north, along the eastern border of the Airport's property line, along the southeast general aviation (GA) ramp prior to turning to the east and terminating at the radar site (KHA 2018). A gas main runs down Olmsted Road with two-inch-diameter service lines branching out to various structures, including the southeast hangar area.

A three-acre solar farm was recently constructed at the Airport, providing the Airport with an alternative energy source to offset electric use and cost. The installation is sited in the northeastern quadrant of the Airport, north of the facilities leased by the Navy Flying Club. The solar farm consists of a photovoltaic ground mount system comprised of the photovoltaic modules (solar panels), the controller, and energy storage. Electricity is produced by solar panels through the process of converting light to electricity (voltage) and is then stored and distributed to the end user. The solar array is integrated into the

existing utility infrastructure via underground conduit and is designed to supply up to 95 percent of the primary power needed to operate the buildings on the airport-owned meters³ (MPAD 2016). This system became operational in December 2017 to supplement the Airport’s energy use. **Table 4.6A** illustrates solar generation from December 2017 through April 2018.

Month (Year)	Total Generation (kWh)
December (2017)	75,105
January (2018)	67,223
February (2018)	98,388
March (2018)	110,355
April (2018)	144,138
System Total (as of April 30, 2018)	495,209

Source: Monterey Regional Airport Management 2018b
 kWh = kilowatt hour
 NOTE: Numbers reflect rounding.

The solar array is intended to provide an annual average production of approximately 1.4 million kWh. **Table 4.6B** illustrates estimated output for the next 25 years, all of which would be used to supplement the Airport’s existing and future electric demand.

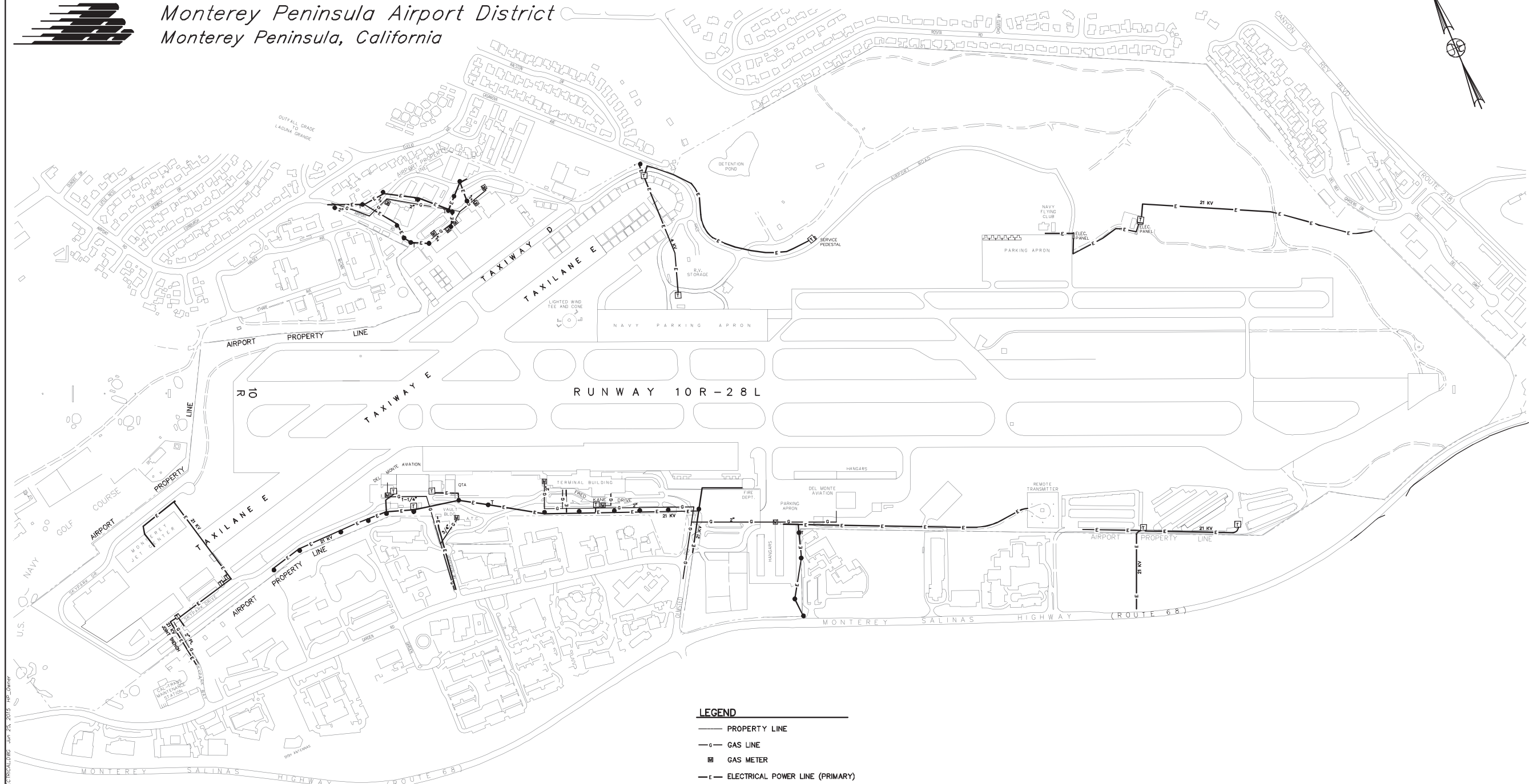
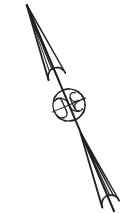
Year (starting in 2018)	Anticipated Solar Electricity Produced (kWh)	Year	Anticipated Solar Electricity Produced (kWh)
1	1,502,208	14	1,407,441
2	1,494,697	15	1,400,404
3	1,487,223	16	1,393,402
4	1,479,787	17	1,386,435
5	1,472,388	18	1,379,502
6	1,465,026	19	1,372,605
7	1,457,701	20	1,365,742
8	1,450,413	21	1,358,913
9	1,443,161	22	1,352,119
10	1,435,945	23	1,345,358
11	1,428,765	24	1,338,631
12	1,421,621	25	1,331,938
13	1,414,513	Total	35,385,939
Annual Average			1,415,438

Source: Monterey Regional Airport Management 2018b
 kWh = kilowatt hour
 NOTE: Numbers reflect rounding.

³ The solar array meets a portion of the electricity needs for all buildings/infrastructure at the Airport, except for: Tarp’s Roadhouse, properties at Stonecreek, Flight Way Self Storage, Sky Park Self Storage, QTA Car Facility, Del Monte Aviation, and the Monterey Jet Center, which provide their own PG&E meters for electricity and natural gas (Monterey Regional Airport Management 2018b).



Monterey Peninsula Airport District
Monterey Peninsula, California



- LEGEND**
- PROPERTY LINE
 - GAS LINE
 - GAS METER
 - E— ELECTRICAL POWER LINE (PRIMARY)
 - UTILITY POLE
 - TRANSFORMER
 - POLE WITH TRANSFORMER

NOTE: ELECTRICAL AND GAS FACILITIES SHOWN ARE BASED ON PG&E FACILITIES MAP INFORMATION. LOCATIONS SHOWN ARE APPROXIMATE ONLY.

MONTEREY PENINSULA AIRPORT DISTRICT Monterey, California		
GAS AND ELECTRICAL SYSTEM		
NEILL ENGINEERS CORP.		CARMEL, CALIFORNIA
OCT. 2011		SCALE 1" = 300'
W.O 770-11D	Registered Civil Engineer No. 29411	SHEET 1 OF 1



REVISED AUGUST 2012
REVISED JUNE 2012

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Fuel

Each fixed base operator (FBO) has fuel storage and delivery capabilities. The Monterey Jet Center has a static fuel farm located on the southwest side of Taxiway E. The fuel farm has capacities of 20,000 gallons of jet fuel (Jet A) and 12,000 gallons of aviation gasoline (AvGas) (100LL). There is also a 1,000-gallon tank for unleaded fuel. The Del Monte Aviation fuel farm is in the southwest portion of the apron leasehold and has capacities of 50,000 gallons for Jet A and 12,000 gallons for AvGas. The Monterey Jet Center and Del Monte Aviation have created a joint fuel consortium to deliver fuel to aircraft, including commercial aircraft. The fuel consortium maintains an 8,000-gallon self-serve AvGas fuel tank on the southeast apron.

The consortium also maintains the fuel delivery trucks. There are four Jet A fuel trucks with a total capacity of 18,000 gallons. Two AvGas trucks can store a total of 1,750 gallons of fuel. There is also a 1,200-gallon truck that carries diesel fuel exclusively. The Monterey Navy Flying Club, on the northeast side of the airfield, also has a 12,000-gallon AvGas tank located on the north GA apron. In total, including the fuel trucks, the Airport currently has the capacity for 88,000 gallons for Jet A and 45,750 gallons for AvGas.

As seen in **Table 4.6C**, based on fuel sales from the last three years (i.e., 2015 to 2017), all aircraft that operate at the Airport consume an annual average of 3.3 million gallons of Jet A and 107,596 gallons of AvGas.

Fuel Type	2015	2016	2017	Annual Average
Jet A	2,234,369	2,454,131	2,492,187	2,393,562
Jet A Airlines	1,037,470	966,492	781,505	928,489
Total Jet A	3,271,839	3,420,623	3,273,692	3,322,051
Total AvGas (100LL)	111,469	104,886	106,432	107,596

Source: Monterey Regional Airport Management 2018a
NOTE: All figures shown are in gallons. Numbers reflect rounding.

Energy Efficiency

The Airport Energy Lighting Program (2004-2012), funded by FAA Airport Improvement Program (AIP) grants, provided the Airport the ability to replace energy-inefficient airfield lighting with energy-efficient options, including light-emitting diode (LED) lights on the taxiways and pilot-controlled lighting (PCL) for Runway 10R-28L. PCL allows pilots to utilize their radio transmitter to activate lighting systems and approach aids during periods the airport traffic control tower (ATCT) is closed. This system allows the airfield lights to remain off when not in use and saves on electrical consumption.

The Airport Terminal Lighting Initiative began in late spring 2009 when MPAD’s Board of Directors approved the Airport Lighting Energy Efficient Capital Improvement Project. This project included the installation of 37 new flight information screens in the commercial terminal building with smart software to program the monitors to turn off when not needed to conserve energy (Coffman Associates 2015).

In 2010, street lighting retrofits from Fred Kane Drive to the north side of the Airport were completed. Energy-efficient induction (ECHED) lights were installed. The induction lamps produce high quality light output and are energy-efficient and long-lasting with minimal maintenance. Two years later in January 2012, the AMBAG, in partnership with PG&E, sponsored a project to install ECHED lights at all parking areas and airfield ramp lighting at the Airport to reduce the amount of inefficient lighting fixtures at the Airport. Inefficient lighting fixtures were replaced with EverLast® Bi-Level Induction luminaires. In 2017, all remaining airfield lighting was updated to LED lighting, as well as newer and fewer airfield regulators.

Additionally, the Airport has several electric vehicle (EV) charging stations in their parking lots that were installed in 2012.

Annual Energy Use

Energy use at the Airport consists of both electricity and natural gas, and as of December 2017, solar. **Table 4.6D** illustrates annual energy use from 2015 to 2017 for 30 facilities/infrastructure at the Airport, including the commercial terminal building, ARFF building, hangar facilities, and miscellaneous energy users (i.e., lighting, gates, non-airport uses, lighted signs, construction). On average (i.e., from 2015 to 2017), the Airport uses approximately 1.5 million kWh of electricity and approximately 37,500 of natural gas.

TABLE 4.6D Total Energy Use Monterey Regional Airport		
Year	Electric (kWh Usage)	Natural Gas (Therms Usage)
2015	1,582,628	29,024
2016	1,530,592	39,939
2017 ¹	1,389,434	43,496
Annual Average	1,500,885	37,486

Source: Monterey Regional Airport Utility Records 2018 (numerous electric and natural gas meters)
 kWh = Kilowatt hour
¹ For 2017, electric utility data is only for January through November. Starting in December 2017, the solar farm came online and is designed to supply up to 95 percent of the primary power needed to operate the buildings on the airport-owned meters.
 NOTE: Numbers reflect rounding.

As of December 1, 2017, up to 95 percent of the electric utility usage was provided by the solar energy generated from the Airport’s solar farm. The Airport’s 24 facilities connected to electric utilities were consolidated prior to the solar farm coming online, so as of December 1, 2017, electric utility data was mostly provided by renewable solar energy.

Commercial Terminal Building

From 2015 to 2017, electricity consumption at the commercial terminal building has annually decreased. For natural gas usage during this same period, usage fluctuated. On average from 2015 to 2017, the commercial terminal building used over 1.1 million kWh and 19,362 therms annually. The average commercial terminal building electric rate from 2015 to 2017 was approximately 16.10 kWh per square feet

(sf) (1,127,084 kWh ÷ 70,000 sf). For natural gas, the average rate was approximately 0.28 therm per sf (19,362 therms ÷ 70,000 sf). **Table 4.6E** shows electric and natural gas usage for 2015 through 2017, as well as the three-year average energy usage.

TABLE 4.6E
Existing Commercial Terminal Building Energy Use
Monterey Regional Airport

Year	Electric Usage (kWh)	Natural Gas Usage (therms)
2015	1,188,060	19,012
2016	1,155,876	20,429
2017	1,037,317	18,646
Annual Average	1,127,084	19,362

Source: Monterey Regional Airport Utility Records (2018) for the commercial terminal building (electric meter #1009483641; gas meter #61022698)
 NOTE: Numbers reflect rounding.

ARFF Building

Electricity use at the ARFF building has steadily declined from 49,844 kWh in 2015 to 44,758 kWh in 2017. For natural gas, use has increased from 1,560 therms in 2015 to 1,714 therms in 2017. On average from 2015 to 2017, the ARFF building used 47,188 kWh and 1,573 therms annually. The average ARFF building electric rate from 2015 to 2017 was approximately 5.55 kWh per sf (47,188 kWh ÷ 8,500 sf). For natural gas, the average rate was approximately 0.19 therm per sf (1,573 therms ÷ 8,500 sf). **Table 4.6F** shows electric and natural gas usage for 2015 through 2017, as well as the three-year average energy usage.

TABLE 4.6F
Existing ARFF Building Energy Use
Monterey Regional Airport

Year	Electric Usage (kWh)	Natural Gas Usage (therms)
2015	49,844	1,560
2016	46,963	1,444
2017	44,758	1,714
Annual Average	47,188	1,573

Source: Monterey Regional Airport Utility Records (2018) for the ARFF building (electric meter #1009479694; gas meter #259931V)
 NOTE: Numbers reflect rounding.

Hangar Facilities

There is a total of approximately 414,800 sf of aircraft storage space at the Airport, including: T-hangars (71,900 sf), box hangars (161,500 sf), and conventional hangars (181,400 sf) (Coffman Associates 2015:Table 1M). Based on a three-year average (2015 through 2017), the hangars used approximately 12,282 kWh and 634 therms of natural gas annually. Energy use in hangars is typically low as much of the hangar space is used exclusively for aircraft storage, which does not require much power. **Table 4.6G** shows electric and natural gas usage for 2015 through 2017, as well as the three-year average energy usage.

TABLE 4.6G
Existing Hangars Energy Use
Monterey Regional Airport

Year	Electric Usage (kWh)	Natural Gas Usage (therms)
2015	17,098	563
2016	10,681	666
2017	9,067	673
Annual Average	12,282	634

Source: Monterey Regional Airport Utility Records (2018) for multiple hangars (Natural Gas Meter #: 28466504. Electric Meter #:1008679282; 1008679337; 1008679279; 1008679335)
 NOTE: Numbers reflect rounding.

Miscellaneous Energy Users

Miscellaneous energy users include airport lighting (i.e., safety lighting, navigation lighting, obstruction lighting, parking lot lighting, lighted signs), gates/fences, office and maintenance facilities, and construction. From 2015 to 2017, these energy users have used an average of approximately 314,330 kWh of electricity and 15,917 therms of natural gas annually, as seen in **Table 4.6H**.

TABLE 4.6H
Existing Miscellaneous Airport Energy Use
Monterey Regional Airport

Year	Electric Usage (kWh)	Natural Gas Usage (therms)
2015	327,626	7,889
2016	317,072	17,400
2017	298,292	22,463
Annual Average	314,330	15,917

Source: Monterey Regional Airport Utility Records (2018) for multiple users (Electric Meter #s 1008716234; 1009848558; 1009539332; 1009574291; 1006706867; 1009714613; 1009549810; 1010192436; 1008679317; 1008887225; 1009479317; 1008679280; 1008679364; 1008679338; 1008679228; 1008679336; 1009917329; 1008679276. Natural Gas Meter #s: 61202578; 61233126)
 NOTE: Numbers reflect rounding.

4.6.4 Thresholds of Significance

The CEQA Guidelines, Appendix G, Environmental Checklist and Appendix F, Energy Conservation (2017) have been used to establish significance thresholds to determine if the Proposed Project or Alternative 1 would have a significant environmental impact on the Airport’s energy demand and efficiency. The Proposed Project or Alternative 1 would result in a significant impact if they would:

- Threshold 4.6-1: Result in wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation;
- Threshold 4.6-2: Require or result in the construction of new energy facilities or the expansion of such facilities to adequately meet projected demand, the construction of which could cause a significant environmental effect; or

- Threshold 4.6-3: Conflict with or obstruct existing energy standards, including a state or local plan for renewable energy or energy efficiency.

4.6.5 Impact Analysis

The Proposed Project and Alternative 1 include the relocation of the southeast hangars, commercial terminal, and ARFF buildings as short-term projects. Proposed long-term aeronautical and non-aeronautical projects under either the Proposed Project and Alternative 1. Proposed projects with potential to impact the Airport's energy consumption include:

- North side GA hangar improvements and relocation (including associated fuel activities)
- Replacement ARFF building
- Replacement commercial terminal building
- Long-term aeronautical development
- Long-term non-aeronautical development

CCR, Title 24, Part 6 building regulations would apply to all new development or redevelopment, including compliance with ASHRAE 90.1; efficiency requirements for elevators and digital controls, as well as energy efficiency measures pertaining to building envelopes; mechanical systems; indoor, outdoor, and sign lighting; electrical power distribution; and solar readiness (Energy/rr-1, Section 4.6.6). Further, CCR, Title 24, Part 11 building regulations (i.e., CalGreen) are now streamlined with LEED requirements, making the LEED certification process more efficient and feasible as it is complementary to building mandates within CalGreen (Energy/rr-2, Section 4.6.6).

4.6.5.1 Threshold 4.6-1 - Result in wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation

Several aspects of the Proposed Project and Alternative 1 would require the consumption of energy both during construction activities and for the regular operation of the completed facilities. Threshold 4.6-1 explores the energy impacts and opportunities associated with the Proposed Project and Alternative 1.

Proposed Project and Alternative 1

Construction Impacts

The following construction-related discussion focuses on proposed short-term projects for which detailed construction information is known. However, proposed long-term projects under both the Proposed Project and Alternative 1 would also result in construction-related energy impacts. These long-term impacts are addressed programmatically in this analysis; quantification of proposed long-term project impacts cannot be provided at this time.

Construction fuel consumption would result from the operation of on-road and off-road equipment and vehicles. On-road sources of energy consumption consider the fuel consumption from: construction workers driving to and from the Airport; delivery vehicles transporting materials to and from the Airport;

earth removal activities both on and off the Airport; and construction debris removal (i.e., solid waste hauled off the Airport). Off-road sources of energy consumption consider the fuel consumption for equipment during each phase of construction.

As seen in **Table 4.6I**, the proposed short-term projects for the Proposed Project would require more fuel during construction for both on- and off-road activities than if Alternative 1 is implemented. This is due to the need to construct both a temporary and permanent ARFF building under the Proposed Project; under Alternative 1, a temporary ARFF building would not be necessary as the permanent relocated ARFF building would be placed on the north GA area rather than on the site of the existing commercial terminal. The Airport would complete the construction of each phase in the most efficient way possible to reduce cost and unnecessary energy consumption, including minimizing construction vehicle idling, using CARB Tier 3 engines when available, and using “clean air” alternative fuel vehicles when available, among other measures (see Section 4.8.6 for mitigation measures and/or regulatory requirements that would be implemented during construction). For either short- or long-term projects under the Proposed Project or Alternative 1, construction fuel consumption would be temporary in nature and not cause long-lasting energy impacts.

TABLE 4.6I
Construction Fuel Consumption (On- and Off-Road) for Short-Term Projects
Proposed Project and Alternative 1

Construction Phase	On-Road Fuel Consumption ¹ (gal)		Off-Road Fuel Consumption ² (gal)	
	Proposed Project	Alternative 1	Proposed Project	Alternative 1
Phase 1	55,473	72,349	3,992	22,186
Phase 2	153,566	153,322	37,309	36,759
Phase 3	5,340	4,014	19,006	6,433
Phase 4	34,544	28,408	9,197	3,751
Phase 5	26,787	4,788	4,771	849
Total	275,710	262,881	74,275	69,978

Sources: Fuel efficiency standards provided by the U.S. Department of Energy, 2015; Construction on- and off-road assumptions provided by KHA 2018, DWL Architects 2017, and Neill Engineers 2017, 2018.
gal = gallon
¹ Includes gallons of fuel used from gasoline and diesel. On-road energy consumption considers all construction vehicle trips, including construction workers, delivery vehicles, earth removal, and construction debris removal.
² Includes gallons of fuel used from diesel only. Off-road energy consumption considers all construction equipment used at the Airport.
NOTE: Numbers reflect rounding.

Lastly, additional energy besides fuel would be consumed during construction (for example, electricity and/or natural gas for construction management trailers); however, this energy consumption would be negligible and thus is not discussed further.

Energy consumption during construction for either proposed short- or long-term projects would result in a Less than Significant impact as it would not be considered wasteful, inefficient, or an unnecessary use of energy.

Short-Term and Long-Term (Programmatic) Project Impacts

Operational energy impacts consider the energy demand of maintaining and operating a building. **Table 4.6J** summarizes the anticipated operational energy demand for the proposed short- and long-term projects. Although the energy outputs (kwh per year and therms per year) from CalEEMod were used to generate the energy demand for the proposed relocated ARFF building and commercial terminal building, the usage shown for each facility is anticipated to be approximately 25 percent less due to their LEED certification. In 2011, the General Services Administration released a report, “Green Building Performance,” that studied 22 LEED certified buildings of all levels (Certified, Silver, Gold, Platinum) and found an average 25 percent reduction in energy consumption.⁴ Because the level of certification attainment for the replacement ARFF building and commercial terminal building is unknown at the time of this EIR, this general reduction rate is assumed to be applicable to both facilities. For the ARFF building, this means it would only consume approximately 54,170 kwh per year and 1,854 therms per year, and for the commercial terminal building, it would demand 1.2 million kwh per year and 13,482 therms per year.

North Side Development

In the short term, the bulk of proposed projects involve shifting existing uses from one part of the Airport to another. More specifically as it relates to energy infrastructure, the southeast GA land uses, which include hangars and an 8,000-gallon fuel tank, are proposed to be relocated to the north side of the Airport where the existing Navy Flying Club operates. In addition to this relocation of land uses, seven box hangars could be added to the north side of the Airport, measuring approximately 100 by 100 feet (i.e., 10,000 sf each; 70,000 sf total). These additional hangars are estimated to use approximately 105,900 kWh annually (**Table 4.6J**). As described previously, the hangars would not use natural gas in the future.

Alternative 1 proposes to also relocate the south side ARFF building to the north side. See below under *South Side Development* for discussion of the energy impact of this proposed facility, which is unrelated to where on the Airport it is located (i.e., Proposed Project would place a permanent replacement facility on south side, whereas Alternative 1 would place the replacement facility on the north side).

In the long term, there would be proposed redevelopment of the Old North Side Industrial Area, which would not introduce any intensification of land uses. An additional 106 hangars are also ultimately planned in future phases of the GA north side buildout. North of the existing Navy Flying Club apron area, the Proposed Project and Alternative 1 could ultimately result in development consisting of up to 400,000 sf of light industrial and 325,000 sf of office space. The additional 106 hangars are anticipated to use approximately 629,745 kWh per year, but no natural gas. Future light industrial development is anticipated to use approximately 3.3 million kWh and 105,545 therms annually, whereas the office space

⁴ The 22 buildings studied reflect different U.S. regional climates, a mix of uses (courthouses and offices), and a mix of build-to-suit leases and federally owned buildings. Sixteen of these buildings were designed to meet or exceed basic LEED certification (two registered buildings [i.e., in pursuit of certification]; three Certified; six Silver; five Gold). The remaining six buildings implemented sustainability strategies to enhance building performance, all of which were designed to meet the requirements of other programs, including ENERGY STAR and the California Title 24 Energy Standard (GSA 2011).

is estimated to demand 6.3 million kWh and 68,656 therms per year (**Table 4.6J**). These long-term projects (106 hangars and non-aeronautical uses) would introduce new energy users at the Airport that would rely upon energy from PG&E.

TABLE 4.6J
Net Operational Annual Energy Consumption for Short-Term and Long-Term Projects
Proposed Project and Alternative 1

Project Area	Unit of Development	Annual Electricity Use (kWh per year)	Annual Natural Gas Use (therms per year)
SHORT-TERM PROJECTS			
Hangars - 7 hangars ¹ (net)	70,000 sf	105,900	0
New ARFF Building	13,400 sf	72,226	2,472
(less existing demand - 2015 - 2017) ²		- 47,188	- 1,573
New Commercial Terminal Building	100,000 sf	1,629,880	17,976
(less existing demand - 2015 - 2017) ²		- 1,127,084	- 19,362
Short-Term Net Energy Consumption		633,734	-487
LONG-TERM PROJECTS			
North Side			
General Light Industry	400,000 sf	3,304,000	105,545
Office Park	325,000 sf	6,353,750	68,656
Hangars - 106 hangars ³	178,398 sf	629,745	0
South Side			
General Office Building	94,000 sf	1,676,020	15,391
High Turnover Restaurant	10,000 sf	327,200	20,793
Medical Office Building	45,000 sf	802,350	7,368
Long-Term Energy Consumption		13,093,065	217,753
Total Net Building Energy Consumption⁴ (Short-term projects [net] + long-term projects)		13,726,799	217,266

Sources: CalEEMod analysis; Monterey Regional Airport Utility Records 2018
 kWh = kilowatt hour; sf = square foot
¹ Assumes seven, 100-foot by 100-foot box hangars.
² Existing utility rates represent the average annual kWh per year usage from 2015 through 2017 for the Airport.
³ Assumes 106, 51-feet by 33-feet T-hangars.
⁴ Net energy consumption refers to the increase in energy demand that would result from the full buildout of the Proposed Project or Alternative 1. Thus, the total net energy consumption in this table does not include the existing energy demand; rather, it illustrates the additional energy demand that would result from implementation of the Proposed Project or Alternative 1 in the short and long terms.
 NOTE: Numbers reflect rounding.

South Side Development

ARFF Facility. Under both the Proposed Project and Alternative 1, the existing ARFF building is proposed to be demolished and a permanent ARFF building is proposed to be constructed. The proposed relocated ARFF building would be constructed using LEED certification practices in keeping with the Airport’s sustainability goals and objectives and thus would demand less energy than what is reported in **Table 4.6J**. (Under the Proposed Project, a temporary ARFF building would first be constructed until the permanent site where the existing commercial terminal is located is available. The size and function of the temporary ARFF building would be approximately the same as the existing structure and no change to energy use is anticipated.) The proposed replacement ARFF is estimated to use approximately 72,226

kWh and 2,472 therms per year (**Table 4.6J**). Compared to the existing ARFF building, the proposed future facility would consume a net increase of approximately 25,038 kWh and 899 therms per year (when comparing the existing energy demand and the CalEEMod output for future energy demand).

Commercial Terminal Building. The relocated commercial terminal building is proposed to have a building footprint of approximately 100,000 sf to address the current inadequacies of the existing building. This proposed facility is anticipated to require approximately 1.6 million kWh per year and 17,976 therms annually. Since the current terminal building used approximately 1.1 million kWh and 19,362 therms in 2017, this would be a net increase of approximately 502,796 kWh, but a net decrease of 1,386 therms per year. As previously stated, due to its LEED certification, the energy consumption would be less than what is reported in **Table 4.6J**.

Non-Aeronautical Development. In the long term, there are two parcels on the south side proposed for non-aviation development along the frontage road to Highway 68. The anticipated uses of these parcels could include approximately 45,000 sf of medical/dental office, 10,000 sf of high-turnover restaurant, and up to 94,000 sf of general office development. The medical/dental office is estimated to require approximately 802,350 kWh and 7,368 therms annually; the 10,000-sf high-turnover restaurant would need 327,200 kWh and 20,793 therms annually; and the general office development would demand approximately 1.7 million kWh and 15,391 therms each year (**Table 4.6J**).

Conclusion. Given the age of the existing commercial terminal building (1950) and ARFF building (1977), the demolition and subsequent erection of new LEED-certified facilities would not cause wasteful or inefficient energy use, despite their increase in size. Rather, the proposed relocated facilities would have to meet required energy performance standards that are more efficient than those in place at the time the existing buildings were constructed, and the energy use in the building would be tracked over time to continually improve upon the baseline energy consumption. Both the relocated ARFF and commercial terminal buildings would also have to completely phase-out chlorofluorocarbon (CFC)-based refrigerants in the new heating, ventilation, and air conditioning (HVAC) system (USGBC website 2018b).

Overall, proposed long-term buildings/facilities associated with the Proposed Project and Alternative 1 would increase the demand for energy resources at the Airport. The proposed buildout on the north and south sides of the Airport, including proposed short- and long-term projects, are anticipated to result in an overall net increase of approximately 13.7 million kWh of electricity and just over 217,000 therms of natural gas per year. As previously shown in **Table 4.6D**, the existing energy usage at the Airport is approximately 1.5 million kWh of electricity and nearly 37,500 therms of natural gas annually. The on-airport solar array produces an annual average of approximately 1.4 million kWhs of electricity (see **Table 4.6B**). The solar farm, therefore, cannot accommodate the net electricity increase associated with the Proposed Project or Alternative 1, in either the short or long term.

Due to California energy efficiency requirements, coupled with the energy-efficient design that LEED mandates, the land uses associated with the Proposed Project and Alternative 1 would operate at a higher energy efficiency than current land uses at the Airport, despite the overall increase in demand for energy. Various federal and state energy regulations would also result in the substantial reduction of the project's energy consumption annually as proposed long-term projects are fully realized. Further,

energy consumption for certain buildings, like the proposed relocated commercial terminal building, would have a net decrease in the future for its energy demand (specifically for natural gas). Energy consumption associated with operation of the Proposed Project and Alternative 1 would not be wasteful or inefficient.

Indirect Vehicular Energy Impacts

Indirect vehicular energy consumption considers the additional vehicle miles traveled (VMT) to and from the Airport that could result from the Proposed Project or Alternative 1. **Table 4.6K** summarizes the anticipated fuel demand the increased vehicular traffic that either the Proposed Project or Alternative 1 proposed projects would create. EIR Section 4.16, Threshold 4.16-5 provides additional information on the calculated VMT.⁵

TABLE 4.6K
Indirect Vehicular Energy Consumption
Proposed Project and Alternative 1

Project Area	Unit of Development	Annual Vehicle Miles Traveled (VMT) ¹	Annual Fuel Consumption (gal) ²
North Side (Short-Term Project Components)			
Hangars	7 hangars	29,195	1,352
North Side (Long-Term Projects)			
General Light Industry	400,000 sf	6,147,656	284,614
Office Park	325,000 sf	6,923,508	320,533
Hangars	106 hangars	435,007	20,139
Total (North Side Projects)		13,535,366	626,637
South Side (Long-Term Projects)			
General Office Building	94,000 sf	1,882,456	87,151
High Turnover Restaurant	10,000 sf	1,534,798	71,055
Medical Office Building	45,000 sf	2,405,236	111,354
Total (South Side Projects)		5,822,490	269,560
Total Buildout		19,357,856	896,197

Sources: Fuel efficiency standards provided by the U.S. Department of Energy, 2015; Construction on- and off-road assumptions provided by KHA 2018, DWL Architects 2017, and Neill Engineers 2017, 2018.
gal = gallon
¹ Based on CalEEMod analysis. See EIR Section 4.16, Threshold 4.16-5 and **Table 4.16Q** for more information.
² Annual fuel consumption is expressed in gallons of gasoline. All vehicles assumed to be light duty with an average fuel economy of 21.6 miles per gallon.
NOTE: Numbers reflect rounding.

For the proposed short-term addition of seven box hangars on the north side of the Airport, an annual vehicular fuel consumption of approximately 1,352 gallons is anticipated. The proposed long-term non-aeronautical development on the north side of the Airport, as well as the additional 106 T-hangars, are anticipated to require approximately 626,637 gallons of vehicular fuel per year. The proposed non-aeronautical development on the south side of the Airport is estimated to consume approximately

⁵ Note that any increase in vehicular fuel consumption associated with the relocated commercial terminal is not considered an impact as part of this EIR as the vehicular fuel consumption associated with the existing terminal building is related to the number of annual enplanements. Enplanements are driven by market factors and regional and national growth in aviation-related industries, regardless of whether the Proposed Project or Alternative 1 is implemented.

269,560 gallons of vehicular fuel annually. However, vehicular efficiency standards mentioned in the regulatory section (Section 4.6.1) are likely to continue improving the fuel efficiency of personal and public vehicles. Thus, this indirect result of the Proposed Project or Alternative 1 would not increase wasteful, inefficient, or unnecessary energy consumption.

In addition, the Proposed AMP's sustainable action plan includes the following initiatives for transportation demand management (TDM) that could encourage transit and bicycle use at the Airport (Coffman Associates 2015:Table D12, #7, 8, 11, and 24):

- Provide incentives, such as rebates and/or preferred parking, for staff vanpools/carpools and alternatively fueled vehicles;
- Provide subsidized bus passes to employees and construction workers;
- Collaborate with local transit operators to expand public transit opportunities to the Airport when transit operators change routes;
- Pursue LEED certification or equivalent for future airport facilities, including a future terminal building...support bicycle use by airport employees and the air traveling public by providing convenient, secure bicycle facilities for use on airport premises.

Energy Reduction Opportunities

Due to the aging infrastructure of existing facilities, there would be multiple energy savings opportunities with projects associated with the Proposed Project and Alternative 1. Proposed project components that would reduce the amount of energy consumed by the Airport during construction and operation include the proposed LEED certification⁶ of the relocated commercial terminal building and ARFF building, as well as solar canopy opportunities atop proposed parking structures.

The Airport has committed to achieving LEED certification for the proposed relocated commercial terminal and ARFF buildings (Section 2.6.3), which would incorporate mandatory energy efficiency measures into the design and construction features (Energy/rr-2, Section 4.6.6). For energy efficiency requirements, there are four LEED prerequisites, or required credits, that the proposed relocated commercial terminal and permanent ARFF buildings would adhere to, including: fundamental commissioning and verification, minimum energy performance, building-level energy metering, and fundamental refrigerant management.

- **Fundamental commissioning and verification:** The intent of this credit is to ensure the overall building – from design and construction to ultimate operation – meets the energy, water, indoor environmental quality, and durability requirements of LEEDv4.

⁶ The Airport would pursue LEED certification under the most current version of LEED at the time of this writing, LEEDv4.

- Minimum energy performance: This credit reduces the environmental and economic harm of buildings by setting a baseline of how much energy they can use. There are several ways to meet the requirements of this credit, all of which rely on the ASHRAE Standard 90.1-2010 as the baseline energy performance standard.
- Building-level energy metering: This credit requires constant monitoring of the building over time and supports positive energy management and ways to continually identify opportunities for energy saving.
- Fundamental refrigerant management: A complete phase-out of CFC-based refrigerants in HVAC systems are required by this credit to reduce stratospheric ozone depletion.

Conclusion

Obtaining LEED certification for the proposed relocated commercial terminal and the relocated ARFF, as well as potential LEED certification of long-term non-aeronautical buildings, would address potential energy impacts of the Proposed Project and Alternative 1 by reducing the inefficient, wasteful, and unnecessary consumption of energy per PRC, Section 21100(b)(3). In addition, the Proposed AMP's sustainable action plan includes TDM measures to reduce the indirect vehicular energy usage associated with the Proposed Project or Alternative 1.

Less Than Significant Impact: Neither the Proposed Project nor Alternative 1 would result in the wasteful, inefficient, or unnecessary consumption of energy during construction or operation, and impacts related to Threshold 4.6-1 would be Less than Significant.

4.6.5.2 Threshold 4.6-2 - Require or result in the construction of new energy facilities or the expansion of such facilities to adequately meet projected demand, the construction of which could cause a significant environmental effect

As discussed under Section 4.6.5.1, the Proposed Project and Alternative 1 would require energy consumption during construction, for building/facility operations, and due to indirect vehicular activity from proposed short- and long-term projects. All construction activities (on- and off-road) would require 349,985 gallons of fuel for the Proposed Project and 332,859 gallons of fuel for Alternative 1 (**Table 4.6I**). For the ultimate operation of the facilities and buildings associated with the proposed long-term projects, the total energy requirements would be approximately 13.7 million kWh and 217,266 therms annually (**Table 4.6J**). Lastly, energy consumption that would indirectly result from the increased vehicular traffic from either the Proposed Project or Alternative 1 would demand almost 900,000 gallons of fuel per year (**Table 4.6K**).

Threshold 4.6-2 analyzes the existing utility connections for both electricity and natural gas to determine if new infrastructure (i.e., new or expanded energy facilities) would be required due to the Proposed Project or Alternative 1.

Proposed Project and Alternative 1

Construction Impacts

No new infrastructure (i.e., new or expanded energy facilities) would be required due to the construction of either the Proposed Project or Alternative 1.

Short-Term and Long-Term (Programmatic) Project Impacts

North Side Development

Electricity and Natural Gas. As discussed, **Exhibit 4.6A** illustrates the existing gas and electric utilities at the Airport. There are not currently any gas lines near the Navy Flying Club apron. Therefore, to the extent that natural gas is required by north GA area hangars or the temporary (Proposed Project) or permanent (Alternative 1) ARFF building, the existing gas line in the Old North Side Industrial Area would need to be extended along Airport Road to the north GA area. For electricity, it is anticipated that power to any new structures can be provided from the existing 21 kV line or the nearby solar farm, depending on how the energy demand is allocated (i.e., provided by PG&E or the onsite solar farm).

As described in Section 4.6.5.1, the Airport's current electricity demand can nearly be met by the existing solar farm's annual kWh production. However, the sum of all projects associated with the Proposed Project and Alternative 1 would require electricity in excess of what the solar farm can supply. The Proposed Project or Alternative 1 would thus rely on energy provided from PG&E. As previously discussed under Section 4.6.2, Methodology, PG&E determines its ability to accommodate energy demand based on peak load.⁷

Table 4.6L shows the Airport's existing annual average electricity demand (2015 - 2017), the Proposed Project and Alternative 1's net increase in electricity demand due to proposed short- and long-term projects, and the projected output of the solar farm at 12 and 22 years of production (**Table 4.6B**), which correspond to the Proposed Project and Alternative 1's proposed short- and long-term projects, respectively. As shown in **Table 4.6L**, the Airport's estimated annual demand for electricity from PG&E for proposed short-term projects is 712,998 kWh and for proposed long-term projects is 13,875,565 kWh. Based on a peak load factor of 0.6, total peak load would be approximately 137 kW (short term) and could be as much as 2,640 kW (long term) (total annual demand ÷ 8,760 hours ÷ 0.6). A peak load factor of 0.6 was selected due to the moderate climate in Monterey and due to the Airport's commitment to implementing energy conservation measures through the LEED certification process.

The peak load anticipated for proposed short-term projects under either the Proposed Project or Alternative 1 is less than what was previously occurring from 2015 through 2017 prior to the onset of the Airport's solar farm. In the long term, if projects assumed in this EIR occur, peak loads would be significantly higher than what was occurring prior to the onset of the Airport's solar farm.

⁷ Electrical peak load factor is a measure of the utilization rate or efficiency of electrical energy usage, where peak load factor = kWh/kW/hours in the period. If a peak load factor is above 0.75, the electrical usage is reasonably efficient; if the load factor is below 0.5, there are periods of very high usage (demand) occurring.

Based on communication with PG&E, both the Proposed Project and Alternative 1’s long-term peak loads would require the replacement of the Airport’s existing transformer (T0636). Since final design of proposed long-term projects are not available, additional coordination with PG&E would be required to determine if the existing utility lines could accommodate the proposed development. However, given the presence of existing infrastructure (electricity) and an existing roadway along which to place an extended gas line, the construction of new facilities to serve future long-term projects would not cause a significant environmental effect. The area where utilities may be extended to, either underground or on aerial utility poles, would be on land that is already developed. No other concerns related to energy provisions have been noted by the service provider (Munro, P., PG&E, Land Agent 2018).

TABLE 4.6L
Anticipated Peak Electric Demand
Proposed Project and Alternative 1

	Existing Annual Average ¹ Electric Demand (kWh) (2015-2017)	Proposed Project/ Alternative 1 Net Demand ² (kWh)	Less Solar Production ³ (kWh)	Total Annual Demand ⁴ from PG&E (kWh)	Average Hourly Demand ⁵ from PG&E (kW)	Peak Load (based on Load Factor of 0.6) ⁶ (kW)
Existing Condition Prior to Solar	1,500,885	N/A	0	1,500,885	171	286
Short-Term Projects	1,500,885	633,734	- 1,421,621	712,998	82	137
Long-term Projects	1,500,885	13,726,799	- 1,352,119	13,875,565	1,584	2,640

kWh = kilowatt hour; kW = kilowatt
¹ Based on airport electricity usage from 2015 - 2017 (refer to **Table 4.6D**).
² Refer to **Table 4.6J**.
³ Refer to **Table 4.6B**. Proposed short-term project components would use solar production for Year 12; proposed long-term project components would use solar production estimates for Year 22.
⁴ Total annual demand = Existing average annual demand (2015-2017) + project demand - solar production
⁵ Average hourly demand = Total annual demand ÷ 8,760 hours per year.
⁶ Peak load factor = kWh/kW/hours in the period. A peak load factor of 0.6 was selected due to the moderate climate in Monterey as well as airport plans for energy conservation. If a peak load factor is above 0.75, the electrical usage is reasonably efficient; if the load factor is below 0.5, there are periods of very high usage (demand) occurring.
 NOTE: Numbers reflect rounding.

Fuel Facilities. With the proposed relocation of GA activity on the north side of the Airport, the Proposed Project and Alternative 1 propose an additional fuel farm in this location; however, this “new” fuel farm would be made up of existing fuel supplies on the Airport and would not increase the overall amount of fuel available. An existing 8,000-gallon AvGas tank is proposed to be relocated from the southeast GA area, as well as an existing fuel tank on the Navy Flying Club apron. Thus, the proposed relocation of existing fuel supplies would not result in new or expanded fuel service that could cause a significant environmental effect and would result in a Less than Significant impact.

The Proposed AMP discusses the possibility of an additional fuel tank on the north side in the long term that would increase the amount of fuel available at the Airport. No information regarding the size or location of such facility is known at this time. Future environmental review would be necessary prior to installation of any such additional storage tanks.

South Side Development

Existing natural gas service lines in the southeast hangar area would need to be relocated to accommodate the proposed relocated commercial terminal complex. It is anticipated that new service lines could be run from the existing gas main in Olmsted Road; however, a more detailed investigation into the gas line capacity would need to be performed in later design stages. Based on preliminary studies, no major distribution lines for electricity are located within the proposed terminal complex location besides the 21-kV line along Olmsted Road, with one exception. There is one aboveground electrical line located on the east side of the southeast apron from Highway 68 that terminates at the radar site. It is likely that a portion of this line will need to be relocated underground or re-aligned on aerial utility poles. Much of the area where utilities may be extended to, either underground or on aerial utility poles, would be on land that is already developed. Further coordination with PG&E would be required at later design stages regarding new service hook-ups and potential utility relocations for the relocated commercial terminal (and ARFF under the Proposed Project) (KHA 2018) (**Exhibit 4.6A**). However, the construction of new service hook-ups and potential utility relocations would not cause a significant impact. There is existing electrical infrastructure that can be upgraded without causing disturbance of previously undisturbed areas and impacts per Threshold 4.6-2 would be Less than Significant.

Conclusion

The Airport has existing electric and gas utilities that could be extended and/or reconfigured to provide for the energy demand of for the Proposed Project or Alternative 1 (both short and long term), subject to further coordination with PG&E once additional information regarding building design is known. Existing electrical infrastructure is located in an existing on-airport roadway along which to place an extended gas line for the north side and in areas developed with parking lots and other pavement on the south side. The construction of new facilities which could cause a significant environmental effect are not anticipated.

Less Than Significant Impact: Neither the Proposed Project nor Alternative 1 would require new or expanded energy facilities that could result in significant environmental effects, and impacts related to Threshold 4.6-2 would be Less than Significant.

4.6.5.3 Threshold 4.6-3 - Conflict with or obstruct existing energy standards, including a state or local plan for renewable energy or energy efficiency

Proposed Project and Alternative 1

Construction and Short-Term and Long-Term (Programmatic) Project Impacts

The Airport complies with all applicable federal, state, and local regulations (see Section 4.6.1) as they relate to energy efficiency mandates, and existing tenants at the Airport are required, by their lease

Proposed Project and Alternative 1

Regulatory Requirements

ENERGY/rr-1: CCR, Title 24, Part 6 building regulations would apply to all new development or redevelopment, including compliance with ASHRAE 90.1; efficiency requirements for elevators and digital controls, as well as energy efficiency measures pertaining to building envelopes; mechanical systems; indoor, outdoor, and sign lighting; electrical power distribution; and solar readiness.

ENERGY/rr-2: CalGreen sets minimum requirements for new residential and nonresidential construction through improved efficiency and process improvements and incorporates voluntary measures to encourage nonmandatory building practices that improve public health, safety, and general welfare by promoting more sustainable design through its LEED Certification process.

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Chapter Four

4.7 – GEOLOGY AND SOILS

The geology and soils analysis presents the geologic conditions for the project site and vicinity and analyzes potential geologic hazards, including whether the Proposed Project or Alternative 1 would: (1) expose people or structures to seismic hazards such as ground rupture, earth movement, and liquefaction and related effects associated with earthquakes; (2) expose people or property to unstable geologic and related conditions such as landslides, expansive soils, and compressible materials; or (3) be subject to geologic, soil, or related conditions that could constrain the project such as shallow groundwater.

4.7.1 Regulatory Setting

Federal Regulations

There are no federally adopted regulations related specifically to geology and soils. However, as discussed in Section 4.10.1, the *Clean Water Act* implements the National Pollutant Discharge Elimination Program (NPDES), which may require stormwater pollution prevention plans (SWPPPs) to control erosion, sedimentation, and other soil-related impacts to water quality.

State Regulations

The State of California has adopted regulations to address geological conditions and soils-related effects, including liquefaction, ground shaking, settlement, and earth movement.

Alquist-Priolo Earthquake Fault Zoning Act

The *Alquist-Priolo (AP) Earthquake Fault Zoning Act* was enacted to avoid construction of buildings used for human occupancy on or adjacent to the surface trace of an active fault. California state law requires that the State Geologist prepare Earth Quake Fault Zone maps and make them available to all affected cities, counties, and state agencies. This information is used to regulate development projects within the zones. The Act also requires completion of a geologic investigation prior to project approval, to demonstrate that proposed buildings will not be constructed across active faults, and/or that appropriate setbacks from such faults (generally 50 feet) are included in the project design of structures for human occupancy. An active fault is one that has ruptured in the last 11,000 years (CDC website 2018).

California Seismic Hazards Mapping Act

The California *Seismic Hazards Mapping Act* (SHMA) of 1990 (Public Resources Code [PRC], Division 2, Chapter 7.8, Section 2690 et seq.) provides a statewide seismic hazard mapping and technical advisory program to assist local agencies in protecting public health and safety relative to seismic hazards. The Act requires preparation of maps to identify areas that may experience liquefaction, earthquake-induced landslides, and amplified ground shaking. The maps, prepared by the California Department of Conservation (CDC), California Geological Survey, are used by cities and counties to identify, evaluate, and mitigate seismic hazards in their land use planning processes. The Act, along with related standards in the Seismic Hazards Mapping Regulations (California Code of Regulations [CCR], Title 14, Division 2, Chapter 8, Article 10, Section 3270 et seq.), also directs local governments to require the completion and review of appropriate geotechnical studies prior to approving development projects.

California Building Code

The California Building Standards Code (CBSC), which is codified in CCR, Title 24, is based on the Uniform Building Code (UBC), which is used widely throughout the United States (U.S.) and has been modified for California conditions. The CBSC augments and supersedes the UBC with stricter requirements to reduce the risks associated with building in seismic zones to the maximum extent practicable. The CBSC is modeled after the International Building Code (IBC). The CBSC is used to regulate and control construction, design, location, and maintenance of buildings within a jurisdiction by establishing minimum standards for structural strength, egress, and building stability. Within the CBSC, five seismic zones (Seismic Zones 0, 1, 2, 3, 4) are established based on the risk of severe ground motion. Zone 0 has the least restrictive requirement and Zone 4 has the most restrictive requirements. Monterey County is classified as Zone 4.

Chapter 18, Soils and Foundations, of the CBSC requires that geotechnical evaluation be conducted that include, among other requirements, a record of the soil profile, evaluation of active faults in the area, and recommendations for foundation type and design criteria that address issues as applicable such as (but not limited to) bearing capacity of soils, provision to address expansive soils and liquefaction, settlement and varying soil strength.

The CBSC provides standards for various aspects of construction, including, but not limited to, excavation, grading, and earthwork construction; preparation of the site prior to fill placement, specification on fill materials, fill compaction, and field testing; retaining wall design and construction; foundation design and construction; and seismic requirements. In accordance with California law, project design and construction would be required to comply with provisions of the CBSC.

NPDES Standards

The State of California's Water Resources Control Board works with the U.S. Environmental Protection Agency (U.S. EPA) to administer the NPDES permit program. Individual projects that have a potential for one acre or more of ground disturbance are required to obtain NPDES coverage under the state's Con-

struction General Permit Order 2009-2009-DWQ (Construction General Permit). Permit conditions typically related to use of the NPDES Construction General Permit include best management practices (BMPs) to reduce erosion and sedimentation through implementation of a construction-specific SWPPP.

Local Regulations

The Monterey Peninsula Airport District (MPAD) Board has adopted all applicable building codes per MPAD Ordinance No. 921, which states in part, “The Monterey Peninsula Airport District hereby adopts by reference the 2016 California Building Standards Code, Title 24, as adopted by the California Building Standards Commission...”

For those projects located within the City of Monterey, the following *City of Monterey General Plan* (2016), Safety Element goal and policy are also applicable:

Goal a. Evaluate seismic safety when reviewing development applications and land uses.

Policy a2. Engineering and geologic investigations should be undertaken for proposed projects within high and moderate seismic hazard zones before approval is given by the City. The entire City is currently within seismic hazard zone IV and these studies are required for almost all new construction except for very minor additions.

4.7.2 Methodology

Baseline information from several airport-specific geotechnical sources have been used to characterize the geologic and soil conditions at the Airport (**Appendix I**): *Preliminary Geotechnical Report for Monterey Peninsula Airport Terminal Building, Parking Structure, Apron Area, and North Side Improvement Areas* (Cornerstone Earth Group 2017); a follow-up letter report by Cornerstone Earth Group, dated May 28, 2018; *Geotechnical Investigation for Monterey Peninsula Airport Northside Access Road, Monterey, California* (Haro et al. 1989); and a technical memorandum prepared to summarize general airport knowledge of soil conditions by the Airport’s engineer (Neill Engineers Corp. 2017). Regional information has been summarized from the *2040 Metropolitan Transportation Plan/Sustainable Communities Strategy and Regional Transportation Plans for Monterey, San Benito and Santa Cruz Counties Final Environmental Impact Report* (State Clearinghouse [SCH] #2015121080) (AMBAG 2018) and the *Draft Environmental Impact Report on the Monterey County 2007 General Plan* (County of Monterey 2007). Proposed Project and Alternative 1 components were then evaluated against known geologic and soil conditions to identify potential impacts and mitigation.

4.7.3 Existing Conditions

Geology/Topography

The Airport is located within the coast range geomorphic province of central California, which has been affected by tectonic forces that produced a complex system of northwest-trending faults known as the San Andreas Fault system. Regional tectonic forces generate an estimated relative motion between the

North American and Pacific tectonic plates of approximately two inches per year. Over time, these forces have created the varied mountains, valleys, and fault-bound blocks present in the county (County of Monterey 2007). The Santa Lucia Mountains, which extend southeast 100 miles from Monterey County, are within the Salina Block. The Salina Block is bound by the San Andreas fault on the east, and by the San Gregorio - Palo Colorado fault to the west. The geologic formations near the Airport consist of granitic basement rocks overlain by a sequence of marine and terrestrial sedimentary rocks.

Published maps covering the regional geology in the general vicinity of the Airport indicate that the site is underlain by Quaternary deposits, which, in turn, overlie bedrock of the Miocene Monterey Formation (Clark et al. 1974; Clark et al. 1997; Greene 1977; Dibblee 2007). The airport property is underlain by three Quaternary age formations: “Dissected older alluvium” (“Qoa”) across much of the airport property; Aromas sand (“Qar”) at the south property line; and “Older stabilized dune and drift sand” (“Qos”) capping the very top of the terrace in the eastern portion of the property (**Exhibit 4.7A**).

Faulting and Seismicity

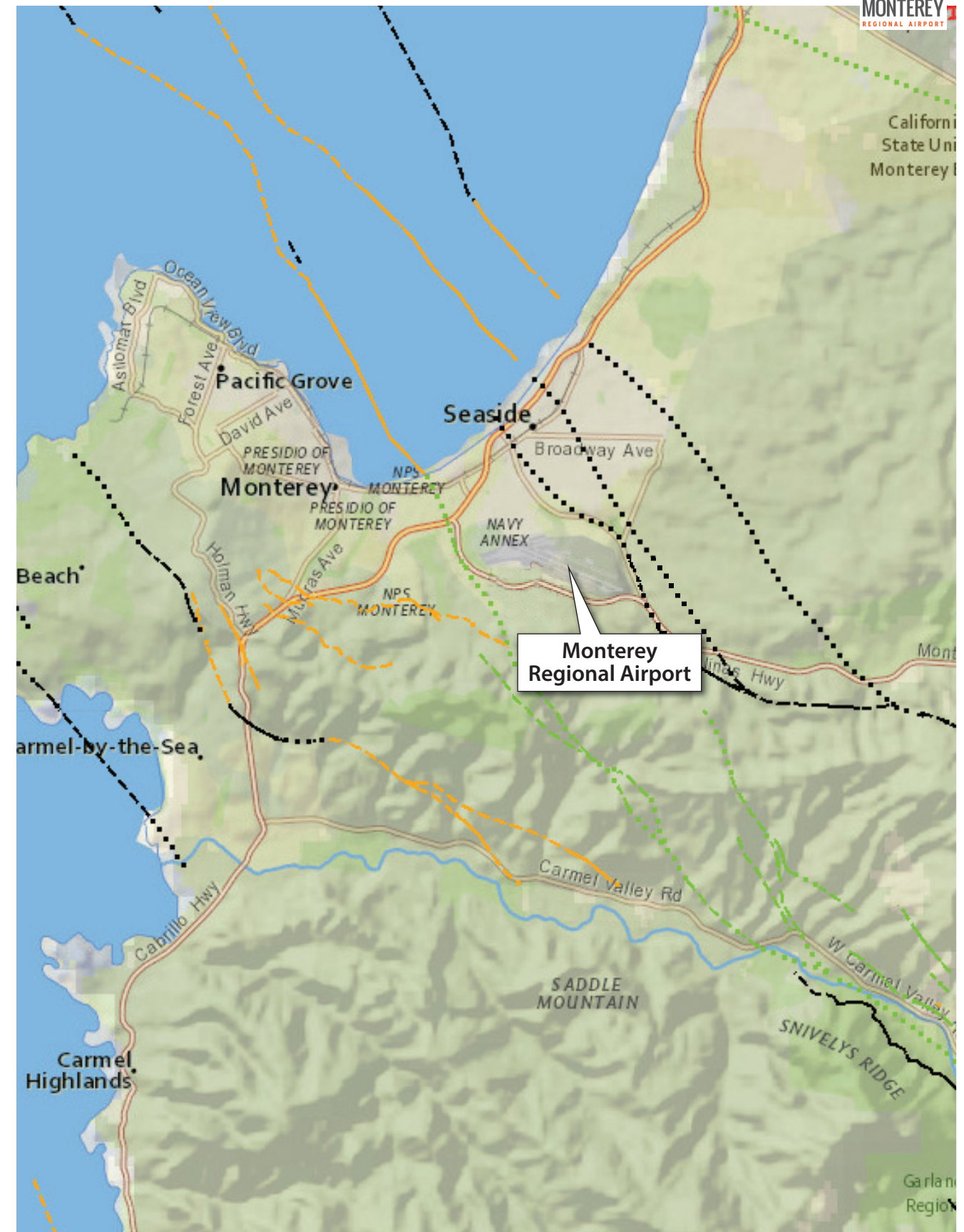
Several significant faults (defined as those considered by the state as capable of generating significant earthquakes) are in the area around the Airport, including the Monterey Bay-Tualarcitos (Navy) fault located 1.1 miles away, the Rinconada fault located 7.7 miles away, and the San Gregorio fault located 9.3 miles away. The Chupine fault, which is not considered by the state as capable of generating significant earthquakes, is located approximately 2.1 miles away. The San Andreas fault is located approximately 25 miles to the northeast; the Airport is not located within a state-designated Alquist Priolo Earthquake Fault Zone (**Exhibit 4.7B**).

Liquefaction

Liquefaction is the phenomenon whereby soils lose shear strength and exhibit fluid-like flow behavior. The Airport is not located within an area covered by the current state mapping for Liquefaction Hazard Zones. However, the Airport is mapped as being in an area of low susceptibility and variable (may range from high to low) susceptibility for liquefaction (Cornerstone Earth Group 2017).

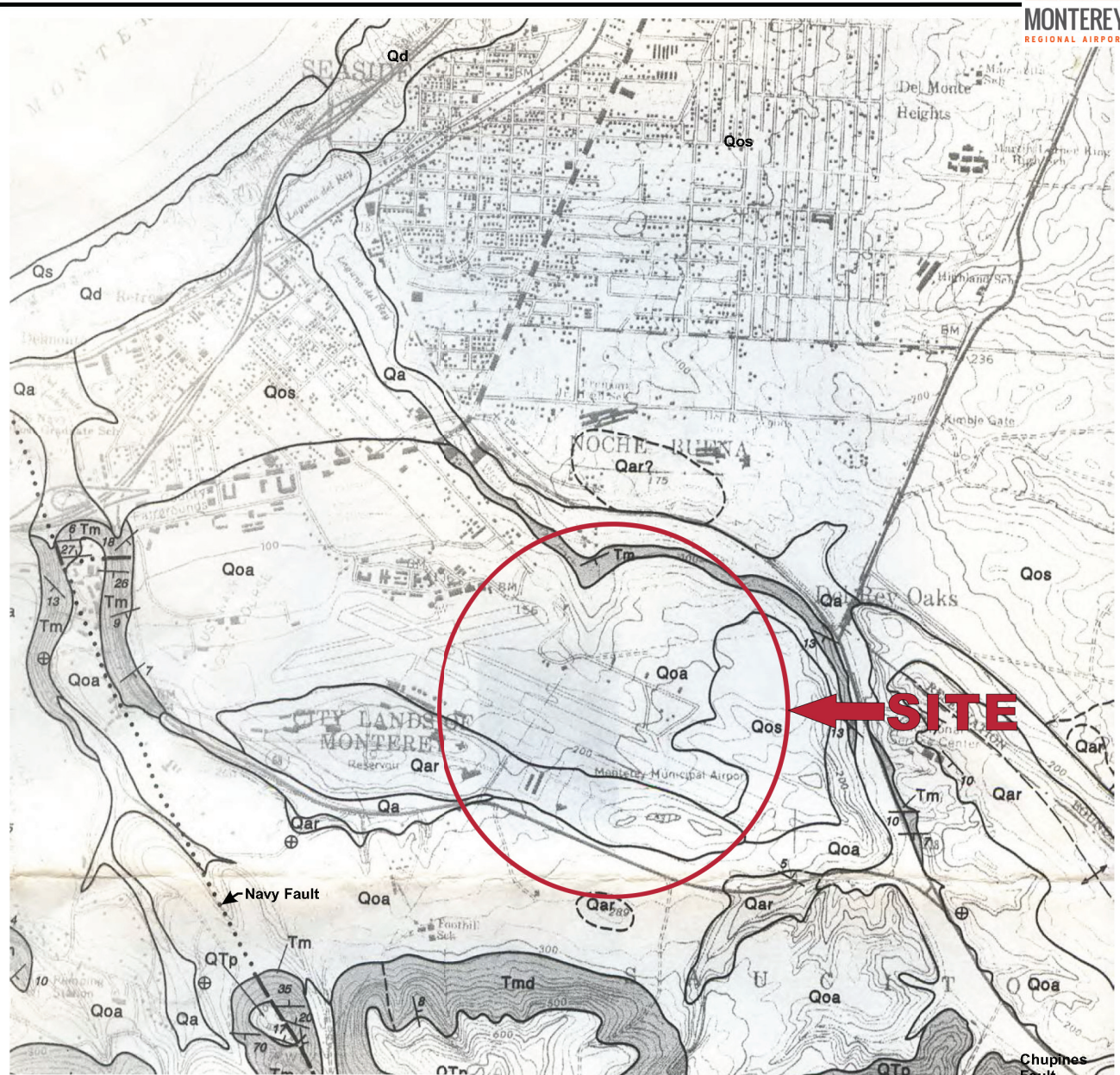
Soils

Exhibit 4.7C depicts soils mapped at the Airport by the U.S. Department of Agriculture, Natural Resources Conservation Services (USDA-NRCS) Web Soil Survey. Generally, the soil conditions at the Airport are comprised mostly of sands varying from silty to clayey sands. The westerly portion of the airfield consists mostly of good quality sandy subgrade. When the airfield was originally constructed, the westerly portion of the Airport was constructed primarily from imported fill material, while the easterly portion was primarily in cut. The fill is evidenced by the higher airfield elevation than the surrounding golf course area and the adjacent Navy property to the north. The excavated cut area for the easterly portion of the airfield is evidenced by a cut slope along the south side of Taxiway “A” and a cut slope north of Runway 10L-28R and Taxiway “C.” The easterly portion of the airfield consists of varying degrees of silty to clayey sands, which are poorer subgrade materials. Correspondingly, the runway structural pavement section is thicker at the east end of the runway than for the west end.



Source: USGS, U.S. Quaternary Faults and Folds Database; Maps by ESRI

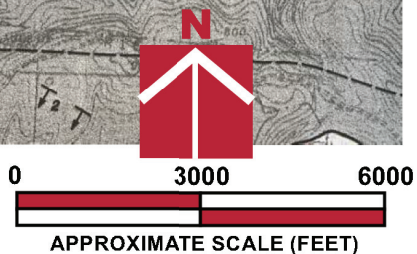
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Geologic Units

- OLDER SURFICIAL SEDIMENTS**
- Qoa** Dissected older alluvium
- Qos** Older stabilized dune and drift sand
- AROMAS SAND**
- Qar** Wind deposited, yellowish-brown to reddish brown fine sand, in placed weakly indurated
- PASO ROBLES FORMATION**
- Qtp** Light gray to tan gravel, sand and clay
- MONTEREY FORMATION**
- Tm** White-weathering siliceous shale; includes Aguajito Shale Member of Bowen, 1965;
- Tmd** White diatomite and shale (Canyon del Ray Member of Bowen, 1965);

Base by Dibblee (2007)



Source: Cornerstone Earth Group 2017

In general, the predominantly sandy soils existing on the Airport provide a suitable subgrade foundation for the airfield pavements. However, the southeasterly area of the Airport contains some of the poorer soils (Neill Engineers 2017). The soils encountered in this area consist of varying degrees of clayey material with subsurface water issues. For example, subsurface water was encountered during the initial construction of the Aircraft Rescue and Firefighting/Safety Building in 1977 and the aircraft parking apron pavement located on the southeast ramp (refer to Exhibit 1C) had to be reconstructed due to prior pavement failures caused by the poor-quality clayey material and wet soil conditions. The reconstruction of the pavements in these areas required installation of subsurface drainage facilities, such as subdrains, curtain walls, drain rock stabilization, pavement stabilization fabric, and thicker structural pavement sections to mitigate the presence of clayey sand soils. Groundwater was encountered in these areas during trench excavation.

Mass grading for Runway 10L-28R, taxiways, and northwest aircraft parking aprons was performed in 1986 (Neill Engineers 2017). The excavation material from the mass grading was used to construct the fill area and fill slopes for the expansion of the parking apron area near the northwest ramp (Exhibit 1C) and for an earth berm located near the northern airport property line near Del Rey Oaks residential properties. These soils generally consisted of native silty-sands. The fill area for the future expansion of the northwest ramp was placed and compacted as engineered fill.

Excavated soil from the grading of the Airport's northwestern detention pond was also used to construct the earth berm located on the north side. During the excavation of the detention pond, significant groundwater was encountered near the pond bottom (Neill Engineers 2017). The bottom of the pond was very unstable due to high groundwater. The soil at the detention pond is classified as a sandy clay.

The southwest ramp area (Exhibit 1C) generally consists of silty sands (Neill Engineers 2017). During the roadway construction for Sky Park Drive, groundwater was encountered along the cut slopes on the southside of the roadway. A sub-drain had to be installed along the southwesterly portion of the cut slope west of Sky Park Way. The northerly portion of Sky Park Drive was constructed mostly with fill material. This northerly portion of Sky Park Drive was previously utilized as a dumping/disposal site. As a result, isolated settlement areas in the roadway had occurred and is still occurring due to the underlying material shifting or organic material decomposing or degradation underneath. Fills for the roadway construction and adjacent fill areas are approximately at 15- to 20-foot depths.

4.7.4 Thresholds of Significance

The following thresholds of significance have been taken from the *California Environmental Quality Act* (CEQA) Guidelines, Appendix G (2017). Significant impacts to geology and soils would occur if the Proposed Project or Alternative 1 would:

- Threshold 4.7-1: Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:



Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Af	Aquic Xerofluvents	0.7	0.1%
AkD	Arnold loamy sand, 9 to 20 percent slopes, MLRA 15	49.4	9.9%
AkF	Arnold loamy sand, 15 to 50 percent slopes, MLRA 15	10.3	2.1%
BbC	Baywood sand, 2 to 15 percent slopes	350.0	70.0%
Df	Dune land	18.8	3.8%
NcC	Narlon loamy fine sand, 2 to 9 percent slopes	0.3	0.1%
OaD	Oceano loamy sand, 2 to 15 percent slopes	69.9	14.0%
Rb	Rindge muck, 0 to 2 percent slopes, MLRA 14	0.3	0.1%
ShE	Santa Ynez fine sandy loam, 15 to 30 percent slopes	0.3	0.1%
Xd	Xerorthents, dissected	0.0	0.0%
Totals for Area of Interest		499.9	100.0%

Source: USDA-NRCS Web Soil Survey

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- 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;
- Strong seismic ground shaking;
- Seismic-related ground failure, including liquefaction; or
- Landslides;
- Threshold 4.7-2: Result in substantial soil erosion or the loss of topsoil;
- Threshold 4.7-3: Be located on a geologic unit or soils that are unstable, or that would become unstable as a result of the project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse;
- Threshold 4.7-4: Be located on expansive soil creating substantial risks to life or property;
- Threshold 4.7-5: Have soils incapable of adequately supporting the use of septic tanks or alternate wastewater disposal systems where sewers are not available for the disposal of waste water.

4.7.5 Impact Analysis

- 4.7.5.1 Threshold 4.7-1 – Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: 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; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides**

Proposed Project and Alternative 1

Construction and Short-Term Project Impacts

The Airport is not located within a state-designated Alquist-Priolo Earthquake Fault Zone and there are no known surface expressions of fault traces which cross the Airport; therefore, fault rupture hazard is not considered a significant geologic hazard at the Airport. However, moderate to severe earthquakes could cause strong ground shaking. As part of a preliminary geotechnical investigation, development areas associated with the proposed safety enhancement project component were screened for liquefaction and seismic compaction of unsaturated soils.

Soils most susceptible to liquefaction are loose, non-cohesive soils that are saturated and are bedded with poor drainage, such as sand and silt layers bedded with a cohesive cap. Loose to medium dense sandy soils that are unsaturated can settle during strong seismic shaking. Therefore, the liquefaction

potential and the potential for seismic compaction of the unsaturated sandy soils in the anticipated locations of the relocated hangars (north side) and the relocated commercial terminal complex (south side) was evaluated (Cornerstone Earth Group 2017). This would include the proposed relocated aircraft rescue and firefighting (ARFF) building, which would be located near the proposed relocated commercial terminal complex under the Proposed Project and near the proposed relocated hangars under Alternative 1.

A follow-up assessment was also conducted to address additional aspects of the Proposed Project and Alternative 1 (Cornerstone Earth Group 2018) (**Appendix I**). Based on these geotechnical evaluations, the consequences of liquefaction and/or seismic compaction (dry sand shaking) could result in a very small settlement on the order of ¼- to ½-inch, depending on the finished floor level of the planned buildings. This amount of settlement would not be a limitation in building type and height. Impacts related to geologic or seismic-related hazards associated with the proposed buildings would be Less than Significant. As previously discussed, the MPAD Board has adopted all applicable California building codes. In addition, the required project-specific geotechnical investigation would identify design and construction methods to address potential ground rupture effects for other facilities such as utilities and pavement. Such measures may include the use of engineered fill, appropriate subgrade design and reinforced concrete, and shorter pipeline lengths with flexible joints. The Proposed Project and Alternative 1 would be required to comply with design standards, grading, and construction practices to avoid or reduce seismic hazards.

Further, the new terminal building would replace the existing terminal building, which was constructed under less stringent building codes with less stringent seismic requirements. The new terminal, along with other new construction, would be designed, located, and built in compliance with the most up-to-date building code requirements of the CBC and MPAD applicable at the time of development, which would ensure that potential impacts associated with exposing people or structures to substantial risk related to ground shaking and liquefaction and related impacts would be less than significant.

The proposed “north side” road alignment was evaluated in 1989 (Haro et al. 1989) for approximately 5,000 feet where it would traverse west from Del Rey Gardens Drive to the airport plateau.¹ Since no known faults cross the project area, surface rupture in the vicinity of the “north side” road also appears remote. Due to the medium-dense to dense cohesive subsurface soils and the absence of saturated soils, the likelihood of liquefaction is very unlikely. In addition, the existing slope is statically stable. However, due to proximity to the active San Gregoria Fault Zone, some slope failure could occur during seismic events, for example, toe slump, which are small shallow slope failures. This is a concern that can be addressed in the design phase using horizontal benches to catch the toe slump (Haro et al. 1989). Impacts related to geologic or seismic-related hazards of the proposed “north side” road would be Less than Significant.

¹ Based on conversations with the Airport Engineer, site conditions have remained stable in the area and the geologic and soil overview in this study remain valid (Neill Engineers Corp., telephone communications during June 2018).

Construction and Long-Term Project Impacts (Programmatic)

Although areas of the Airport that could support long-term projects have not been analyzed for specific geologic and soil conditions, based on the preliminary geologic investigations conducted on the short-term project areas, proposed long-term projects are not anticipated to create a substantial adverse impact related to seismic hazard risks. Regulatory requirements for project-specific geotechnical studies and compliance with established building codes would ensure that these impacts are Less than Significant (see GEO/rr-1 through GEO/rr-4).

Less than Significant Impact: *Although the Proposed Project or Alternative 1 would expose people or structures to a risk related to seismic hazards including ground rupture, ground acceleration, liquefaction and dynamic settlement, the effect would not constitute a substantial adverse impact. As such, impacts related to Threshold 4.7-1 would be Less than Significant for construction and operations.*

4.7.5.2 Threshold 4.7-2 - Result in substantial soil erosion or the loss of topsoil

Proposed Project and Alternative 1

Construction and Short-Term and Long-Term (Programmatic) Project Impacts

The soils present at the proposed development areas of the Airport consist of fine to medium sands with fine contents generally less than 30 percent. These types of soils are highly subject to erosion from wind and water. Thus, both during and after construction for proposed short- and long-term projects under the Proposed Project or Alternative 1, substantial soil erosion could occur and final slopes in sand are recommended to be 3:1 (horizontal to vertical) or flatter. When the proposed retaining walls for the relocated commercial terminal building and apron are constructed, temporary vertical elements for face stability will likely be necessary (Cornerstone Earth Group 2017).

The soils for the proposed “north side” road generally consist of sands with varying degrees of silt and clay binder and cementation. Based on the previous geotechnical investigation report (Haro et al. 1989), the proposed roadway alignment is compatible with the area soils, provided appropriate geotechnical recommendations are incorporated in the design and construction of the project. While the sandy-type soil provides a stable foundation for structural support, it is a highly erodible material and will require some type of treatment if left unprotected and subject to erosion. Some localized erosion has already occurred and has been mitigated over the years, and erosion control will be mandatory for this project component (see GEO/rr-5).

Proposed construction and operation of short- or long-term projects for either the Proposed Project or Alternative 1 could result in substantial soil erosion and/or loss of topsoil due to the types of soils present in the development areas. This is a Potentially Significant impact. See Section 4.7.6 for mitigation.

Significant Impact GEO-1: *The Proposed Project and Alternative 1 could cause substantial soil erosion, including a loss of topsoil.*

4.7.5.3 Threshold 4.7-3 - 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 offsite landslide, lateral spreading, subsidence, liquefaction or collapse

Proposed Project and Alternative 1

Construction and Short-Term Project Impacts

A slope stability analysis was also conducted as part of the preliminary geotechnical investigation for both static and seismic stability to determine the potential for landslide or other instability issues in the study areas, including where engineered fill slopes and/or soil deposition is proposed. The calculations from the stability analysis indicate acceptable factors of safety with respect to slope movement under static and seismic loading conditions (Cornerstone Earth Group 2017; 2018).

Impacts related to geologic or soil instability hazards can occur from several different conditions:

1. Manufactured slopes cut into sandy, unstable soils can produce slope failure, such as localized landslides;
2. Loose surface sands can create instability for building foundations; and
3. Groundwater and wet soils located too close to subsurface foundations and pavements can create subsurface instability.

Based on the borings, the fill and native soil beneath the “north side” road alignment as it goes up the hill to the west of Del Rey Gardens Drive consists of loose to dense sand with varying degrees of silt and clay binder and cementation, with an upper one to five feet of loose topsoil (Haro et al. 1989). Soil density generally increases with depth, and groundwater was not encountered. Cut slopes necessary to construct the proposed roadway could result in slope instability; geotechnical solutions to counteract this tendency would be necessary.

Soil borings taken as part of the geotechnical investigation on the north side of the Airport identified undocumented fill and poorly graded sand with silt. These are areas that could be developed with future hangars, as well as light industrial or office buildings north of the GA hangar relocation area. Beneath the fill, the borings encountered the native loose, poorly graded sand with silt to depths of only five feet, followed by medium dense, poorly graded sand with silt and very dense silty sand to the maximum depths explored (approximately 14 feet). Groundwater was not encountered and is likely very deep or present in isolated perched layers.

Stabilization of the subgrade for proposed projects on the south side of the Airport (i.e., relocated commercial terminal complex and apron areas) is likely to be needed since native soils and undocumented fill material, especially soils with high fine contents, such as clays, silts, clayey sands and silty sands, can become unstable due to high moisture content. This high moisture content can occur due to high in-situ moisture contents, winter rains, or overwatering during construction, or a combination of these causes. When moisture contents increase over the optimum conditions, the more likely the soils are to soften and yield from construction loading or become unworkable during placement or compaction. In several of the development areas under the Proposed Project and Alternative 1, the upper five feet of loose to medium dense sands are followed by dense to very dense sands and very stiff clays below a depth of five feet in isolated areas (Cornerstone Earth Group 2017; 2018). There are several methods to address potentially unstable soil conditions and facilitate fill placement and trench backfill. These methods should be vetted, and recommendations made, during a site/project-specific geotechnical investigation and/or engineering report prepared by a qualified geotechnical expert. See Section 4.7.6.

Based on preliminary geotechnical investigation, impacts related to geologic or soil instability hazards associated with the proposed “north side” road, loose sands located at the north side GA hangars, and shallow groundwater under the proposed relocated commercial terminal complex and apron are Potentially Significant. See Section 4.7.6 for mitigation.

Construction and Long-Term Project Impacts (Programmatic)

Although areas of the Airport that could support proposed long-term projects have not been analyzed for specific geologic and soil conditions, based on the preliminary geologic investigations conducted on the short-term project component areas, proposed long-term projects, such as hangars and light industrial or office buildings, are likely to require the over-excavation and re-compaction of the undocumented fill and loose native soils to prevent adverse effects of the potentially unstable soil conditions. This type of earthwork mitigation is common for projects with similar soil conditions. Regulatory requirements for project-specific geotechnical studies and compliance with established building codes would ensure that these potential impacts are Less than Significant (see GEO/rr-1 through GEO/rr-4).

Significant Impact GEO-2:

The Proposed Project and Alternative 1 could expose persons and structures to unacceptable factors of safety with respect to static slope movement and other slope instability issues due to the presence of geologic and soil instability hazards present at locations of proposed short-term projects.

4.7.5.4 Threshold 4.7-4 - Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property

Proposed Project and Alternative 1

Construction and Operational Impacts - Short- and Long-Term Projects

For the most part, expansive soils were only encountered in isolated areas based on soil borings taken as part of preliminary geotechnical investigation (Cornerstone Earth Group 2017). Samples from seven of the borings were used to perform plasticity index (PI) determination tests. The test results were used to evaluate plasticity and expansion potential of the proposed new terminal apron and taxiway bearing soils and to evaluate the plasticity and expansion potential of soils beneath the proposed commercial terminal and other proposed structures. The PI test results for under the commercial terminal site indicate none to moderate soil expansion potential; tests from the soils beneath the new terminal apron indicate none to low soil expansion potential (Cornerstone Earth Group 2017).

Proposed parking structures under the Proposed Project and Alternative 1 were also evaluated. The Proposed Project includes a four-level parking garage to be located south of the relocated commercial terminal and a two-level parking garage located west of the relocated commercial terminal. In these areas, dense to very dense sands and very stiff clays below a depth of five feet and groundwater was encountered below a depth of 25 feet (Cornerstone Earth Group 2017; 2018). Based on the location of the borings conducted by the geotechnical investigation, similar soil conditions could occur in the future development areas along the Highway 68 frontage. Thus, expansive soils in these areas could occur; however, spread footing foundations to counter these soil conditions are feasible. See Section 4.7.6.

Expansive soil conditions associated with the proposed relocated commercial terminal and apron, associated parking structures, as well as other proposed long-term projects such as buildings and roads under either the Proposed Project or Alternative 1, could require design solutions for isolated expansive soil conditions. However, these solutions are standard engineering practices. Overall, based on the PI testing, potential impacts related to expansive soils, which occur in only isolated areas, are Less than Significant.

Less than Significant:

Project components of the Proposed Project or Alternative 1, such as the commercial terminal apron, could require construction solutions to address specific expansive soil conditions in isolated areas. However, these solutions are standard engineering practices and potential impacts related to expansive soils are Less than Significant per Threshold 4.7-4.

4.7.5.5 Threshold 4.7-5 - 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

Proposed Project and Alternative 1

Construction and Short-Term and Long-Term (Programmatic) Project Impacts

The Proposed Project and Alternative 1 do not propose the use of septic tanks nor do the proposed short-term projects include alternative waste water disposal systems. If future long-term projects introduce alternative waste water disposal systems such as grey water separation and reuse, project-specific analyses would be required at that time (see GEO/rr-1 through GEO/rr-4).

4.7.6 Mitigation Program

The following mitigation measures would apply to Significant Impacts GEO-1 and GEO-2, if either the Proposed Project or Alternative 1 is selected.

4.7.6.1 Threshold 4.7-2 - Result in substantial soil erosion or the loss of topsoil

Proposed Project and Alternative 1

GEO/mm-1: Final manufactured slopes shall not exceed the geotechnical investigation recommendations provided per GEO/mm-2 and all exposed surfaces shall be vegetated or otherwise protected from erosion as recommended in a site/project-specific erosion control plan.

For projects disturbing one acre or more, a SWPPP shall be prepared subject to approval by the Central Coast Regional Water Quality Control Board (see also GEO/rr-5). The erosion control plan or SWPPP shall include BMPs, as well as measures to address site/project-specific concerns. At a minimum, all slopes shall be vegetated by hydroseeding or other landscape ground cover.

4.7.6.2 Threshold 4.7-3 - 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 offsite landslide, lateral spreading, subsidence, liquefaction or collapse

Proposed Project and Alternative 1

GEO/mm-2: Prior to submittal on the building plans and calculations for any buildings, including parking structures, to the appropriate reviewing engineer or Building Department for plan check review, a qualified geotechnical consultant shall prepare a design-level geotechnical investigation report performed in accordance with the current California Building Code, and related Code requirements, which

are in effect at the time the project is being designed (see also GEO/rr-1). The investigation shall include field exploration, laboratory testing, engineering analysis and geotechnical recommendations for earthwork and foundations. The project plans and calculations shall incorporate the geotechnical recommendations from the geotechnical consultant.

GEO/mm-3: Prior to plan check approval, the geotechnical consultant shall perform a geotechnical review of the project plans and specifications to confirm the geotechnical recommendations have been incorporated into the project construction documents. A plan review letter from the geotechnical consultant shall be submitted to the reviewing engineer or Building Department for review and approval.

GEO/mm-4: The geotechnical consultant shall be retained to perform geotechnical observation and testing for the project during construction. At the completion of construction and at intervals specified by the reviewing engineer or Building Department, the geotechnical consultant shall prepare summary letters documenting that the soil conditions encountered were compatible with the proposed foundation, slab-on-grades for the parking structures, and other buildings and that the geotechnical recommendations have been implemented by the contractor as required in the project plans and specifications.

Regulatory Requirements

GEO/rr-1: Chapter 18, Soils and Foundations, of the CBSC requires that geotechnical evaluation be conducted that include, among other requirements, a record of the soil profile, evaluation of active faults in the area, and recommendations for foundation type and design criteria that address issues as applicable such as (but not limited to) bearing capacity of soils, provision to address expansive soils and liquefaction, settlement and varying soil strength.

GEO/rr-2: The Seismic Hazards Mapping Act, along with related standards in the Seismic Hazards Mapping Regulations (CCR, Title 14, Division 2, Chapter 8, Article 10, Section 3270 et seq.), directs local governments to require the completion and review of appropriate geotechnical studies prior to approving development projects.

GEO/rr-3: For those project components located within the City of Monterey, the following Safety Element policy is applicable:

Policy a2. Engineering and geologic investigations should be undertaken for proposed projects within high and moderate seismic hazard zones before approval is given by the City. The entire City is currently within seismic hazard

zone IV and these studies are required for almost all new construction except for very minor additions.

GEO/rr-4: In accordance with California law, project design and construction would be required to comply with provisions of the CBSC. The MPAD Board has adopted all applicable building codes per MPAD Ordinance No. 921.

GEO/rr-5: Individual projects that have a potential for one acre or more of ground disturbance are required to obtain NPDES coverage under the state’s Construction General Permit Order 2009-2009-DWQ (Construction General Permit) and incorporate BMPs to reduce erosion and sedimentation through implementation of a construction-specific SWPPP.

4.7.7 Level of Significance after Mitigation

Incorporation of GEO/mm-1 through GEO/mm-4 will fully mitigate potential impacts of Impacts GEO-1 and GEO-2 to Less than Significant levels. No further mitigation is required (**Table 4.7A**).

TABLE 4.7A Summary of Potentially Significant Impacts and Mitigation – Geology and Soils Proposed Monterey Regional Airport Master Plan				
Proposed Project	Mitigation Program	Alternative 1	Mitigation Program	Level of Significance after Mitigation
Threshold 4.7-2 – Result in substantial soil erosion or the loss of topsoil				
<u>Impact GEO-1</u> : Erosion or loss of topsoil	GEO/mm-1; GEO/rr-5	Same as Proposed Project	GEO/mm-1; GEO/rr-5	Less than Significant
Threshold 4.7-3 – 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 offsite landslide, lateral spreading, subsidence, liquefaction or collapse				
<u>Impact GEO-2</u> : Expose persons and structures to unacceptable factors of safety with respect to static slope movement and other slope instability issues	GEO/mm-2 through GEO/mm-4; GEO/rr-1 through GEO/rr-4	Same as Proposed Project	GEO/mm-2 through GEO/mm-4; GEO/rr-1 through GEO/rr-4	Less than Significant

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Chapter Four

4.8 – GREENHOUSE GAS EMISSIONS

Implementation of the Proposed Project and Alternative 1 would result in the emission of greenhouse gases (GHG) both during construction activities (temporary) and during the regular operation of the completed facilities (operational). This section addresses GHG emissions associated with proposed construction activities and operation of the proposed short- and long-term project components. Operational GHG emissions include those associated with building energy use (electrical and natural gas) and changes in vehicular activity. Additionally, this section includes a discussion of the change in carbon associated with removal or addition of vegetation, referred to as carbon sequestration.

4.8.1 Regulatory Setting

Gases that absorb and re-emit infrared radiation in the atmosphere are called greenhouse gases (GHGs). The GHGs that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO₂), methane (CH₄), nitrous oxides (N₂O), fluorinated gases, such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are primarily determined by natural processes, such as oceanic evaporation. GHGs are emitted by both natural processes and human activities. Of these gases, CO₂, CH₄ and N₂O are emitted in the greatest quantities from human activities. Emissions of CO₂ are largely byproducts of fossil fuel combustion, whereas CH₄ results from off-gassing associated with agricultural practices and landfills. N₂O is produced by microbial processes in soil and water, including those reactions that occur in fertilizers that contain nitrogen, fossil fuel combustion, and other chemical processes.

Different types of GHGs have varying global warming potentials (GWPs). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO₂) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as “carbon dioxide equivalent” (CO₂e) and is the amount of a GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane has a GWP of 25, meaning its global warming effect is 25 times greater than carbon dioxide on a molecule-per-molecule basis (AMBAG 2018:267).

Globally, climate change has the potential to affect numerous environmental resources through potential impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. Long-term trends have found that

each of the past three decades has been warmer than all the previous decades in the instrumental record and the decade from 2000 through 2010 has been the warmest.

The global combined land and ocean temperature data show an increase of about 0.89 degree Celsius ($^{\circ}\text{C}$) (0.69 $^{\circ}\text{C}$ to 1.08 $^{\circ}\text{C}$) over the period 1901 to 2012, and about 0.72 $^{\circ}\text{C}$ (0.49 $^{\circ}\text{C}$ to 0.89 $^{\circ}\text{C}$) over the period 1951 to 2012 when described by a linear trend. Several independently analyzed data records of global and regional land-surface air temperature (LSAT) obtained from station observations are in agreement that LSAT, as well as sea surface temperatures have increased. In addition to these findings, there are identifiable signs that global warming is currently taking place, including substantial ice loss in the Arctic over the past two decades (IPCC 2014).

Potential impacts of climate change in California may include loss in snow pack, sea level rise, more extreme heat days per year, more high-ozone days, more large forest fires and more drought years (AM-BAG 2018:268).

Federal Regulations

The United States (U.S.) Supreme Court in *Massachusetts et al. v. Environmental Protection Agency et al.* held that the U.S. Environmental Protection Agency (U.S. EPA) has the authority to regulate motor vehicle GHG emissions under the federal *Clean Air Act* (CAA). The U.S. EPA began regulating such GHGs under the CAA in 2011, following its endangerment finding. Of relevance to this analysis, the U.S. EPA's GHG regulations include regulations governing transportation and mobile sources. Standards for mobile sources have been established pursuant to Section 202 of the CAA.

State Regulations

Executive Order (EO) S-3-05, signed on June 1, 2005, established greenhouse gas emission reduction targets and created a coordination and monitoring process involving the Secretary of CalEPA and heads of other state agencies to meet the reduction targets. The identified statewide reduction targets include: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and, by 2050, reduce GHG emissions to 80 percent below 1990 levels.

The *California Global Warming Solutions Act of 2006* (Assembly Bill [AB] 32) established a statewide cap on GHG emissions in 2020, based on 1990 levels, to ensure that the provisions of EO S-3-05 are met. AB 32 required the California Air Resources Board (CARB) to prepare a scoping plan to outline an approach to reduce GHG emissions in California to meet this goal. CARB approved the first scoping plan in 2008, which was updated in 2014.

On September 8, 2016, the California Governor signed Senate Bill (SB) 32 (SB 32) into law, extending AB 32 by requiring the state to further reduce GHGs to 40 percent below 1990 levels by 2030. SB 32 is intended, in part, to put the state on the right track to achieve the 2050 reduction target set forth in EO S-3-05. SB 32 requires CARB to develop technologically feasible and cost-effective regulations to achieve the targeted 40 percent GHG emission reduction. In an effort to do so, CARB adopted the *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target*

(Scoping Plan) in late 2017, which calls for emissions reductions at the state level that meet or exceed the statewide GHG target, and notes that additional effort will be needed to maintain and continue GHG reductions to meet the mid- (2030) and long-term (2050) targets (AMBAG 2018:270-271).

In 2008, SB 375 was passed, requiring metropolitan planning organizations to prepare a sustainable communities strategy (SCS). The Association of Monterey Bay Area Governments (AMBAG) serves as the Lead Agency for a tri-county region (San Benito County, Santa Cruz County, and Monterey County) to prepare this strategy, which integrates land use and transportation planning with the goal of reducing GHG emissions in accordance with targets set by the state for each region. Under SB 375, the SCS must:

- Identify existing and future land use patterns;
- Identify transportation needs and the planned transportation network;
- Consider statutory housing goals and objectives;
- Identify areas to accommodate long term housing needs;
- Identify areas to accommodate eight-year housing needs;
- Consider resource areas and farmland; and
- Comply with federal law for developing a metropolitan transportation plan (MTP).

Beginning October 1, 2018, and as recently updated by CARB in March 2018,¹ AMBAG's SCS must achieve a three percent reduction by 2020 and six percent reduction by 2035 in per capita passenger vehicle GHG emissions relative to 2005 levels.

Regarding vehicle emissions, AB 1493 required CARB to develop and implement regulations to reduce automobile and light-truck GHG emissions. Known as the Pavley regulations, these stricter emissions standards apply to model year 2009 through 2016 automobiles and light trucks. CARB also has adopted the Advanced Clean Cars Program, which combines the control of smog-causing pollutants and GHG emissions for new automobiles and light trucks with model years 2017 through 2025. The U.S. EPA granted California the authority to implement GHG emission reduction standards for new passenger cars, pick-up trucks, and sport utility vehicles on June 30, 2009 (CARB 2017b).

Regarding energy emissions, in 2002, California established its Renewables Portfolio Standard (RPS) Program, with the goal of increasing the percentage of renewable energy in the state's electricity mix. The RPS milestones include targets requiring retail sellers and publicly-owned utilities to procure 33 percent and 50 percent of their electricity from eligible renewable energy resources by 2020 and 2030, respectively; interim milestones also are established by the RPS Program.

Additionally, California's *Building Energy Efficiency Standards for Residential and Nonresidential Buildings* (Building Energy Efficiency Standards) (California Code of Regulations [CCR], Title 24, Part 6) are promulgated by the California Energy Commission (CEC) in order to establish a uniform building code that lowers California's energy consumption by providing energy efficiency standards for both residential and nonresidential buildings. Title 24 standards are updated regularly (approximately every three years)

¹ In September 2010, CARB adopted the following original targets for AMBAG: a zero percent reduction by 2020 and five percent reduction by 2035 in per capita passenger vehicle GHG emissions relative to 2005 levels.

to keep pace with energy efficiency technologies and continually provide clarity on what is required. The 2016 update to the Building Energy Efficiency Standards are currently in effect. The 2019 update is scheduled to take effect on January 1, 2020. The California Green Building Standards Code (CCR, Title 24, Part 11) also contains mandatory and voluntary measures for residential and nonresidential buildings that address planning and design, water efficiency and conservation, material conservation and resource efficiency, and environmental quality.

Local Regulations

AMBAG’s Energy & Climate Action Planning Program includes the AMBAG Energy Watch, which supports local climate change efforts by completing GHG inventories for local government operations. In addition, the AMBAG Energy Watch standardizes GHG inventories for regional comparability, provides periodic updates to community-wide GHG inventories for all 21 AMBAG member jurisdictions, performs ongoing GHG inventory technical support, and supports community engagement on climate change mitigation. Furthermore, the AMBAG Energy Watch program works closely with each member jurisdiction to develop Energy Action Strategies, which are standalone plans that quantify and reduce residential and non-residential energy consumption and related GHG emissions (AMBAG 2018:274).

AMBAG’s 2040 *Metropolitan Transportation Plan/Sustainable Communities Strategy* (MTP/SCS) was adopted on June 13, 2018. The 2040 MTP/SCS considers improvements to the region’s multimodal transportation system, including the closure of critical road network gaps that hinder access to jobs and daily needs. The Transportation Agency for Monterey County’s (TAMC) most recent regional transportation plan (RTP) is the *2018 Monterey County Regional Transportation Plan* and was included in the certified EIR prepared for AMBAG’s 2040 MTP/SCS (SCH #2015121080). The 2018 RTP was adopted on June 27, 2018 per SB 375.

The Monterey Bay Air Resources District (MBARD) does not have an adopted GHG emissions threshold in cases where MBARD is not the Lead Agency. MBARD is currently in the process of developing GHG emissions thresholds for evaluating projects under CEQA. Since MBARD has no adopted thresholds for GHGs, MBARD encourages lead agencies to consider a variety of metrics for evaluating GHG emissions and related mitigation measures as they best apply to the specific project (AMBAG 2018:274).

The City of Monterey prepared its climate action plan (CAP) in March 2016. The CAP includes the following GHG reduction target for the City of Monterey: reduce GHG emissions to 15 percent below 2005 levels (as an estimate of 1990 levels) by 2020. The CAP also includes recommendations for community engagement and investment in infrastructure.

4.8.2 Methodology

The following text outlines the methodology used to prepare the analyses for this section. In cases where the quantitative methodology discussed below is not suitable for evaluating GHG effects, a qualitative discussion is presented.

Construction Impacts

The methodology to evaluate the significance of GHG effects includes quantification of emissions with computer software and comparison of those results to the thresholds discussed below. As stated in Section 4.3, Air Quality, GHG emissions from construction activity were modeled for each of the alternatives using California Emission Estimator Model (CalEEMod) Version 2016.3.2 (CAPCOA 2017). The inputs used to calculate the air pollutant emissions in Section 4.3 were also used to calculate GHG emissions. As previously noted, the CalEEMod software model, published by the California Air Pollution Control Officers Association (CAPCOA) in collaboration with various California air districts, estimates on-road vehicle emissions, such as those from dump trucks or light-duty work trucks, and off-road vehicle emissions, such as heavy construction equipment. CalEEMod inputs for worker trips, haul trips, equipment activity, disturbed ground surface area, and material quantities are based on engineering estimates (where available) and the construction schedule discussed in Section 2.7.2. CalEEMod includes emissions factors that are adjusted to local climatic conditions in the area overseen by MBARD.

Proposed short-term projects modeled in CalEEMod for construction-related GHG emissions estimate purposes included the proposed relocation and construction of GA north side hangars, the relocated commercial terminal complex and ARFF, and the proposed “north side” and Highway 68 frontage roads. Detailed, building-specific information for construction of long-term projects was not available. Therefore, default construction values in CalEEMod were used to represent the air pollutant emissions associated with construction of these facilities. For purposes of the proposed long-term projects, the emission estimates assumed construction of 400,000 sf of light industrial development, 325,000 sf of office park development, and 106 additional aircraft storage hangars on the Airport’s north side. CalEEMod includes emissions factors for light industrial development and office park development. Aircraft storage hangars are not included in CalEEMod; therefore, construction of the hangars is represented by the default values of a warehouse facility with the same square footage as the proposed hangars. Proposed south side, long-term projects modeled in CalEEMod included 10,000 sf of high-turnover restaurant development, 45,000 sf of medical/dental office development, and 94,000 sf of general office development. These land uses are included in CalEEMod, and the default values were used for the modeling of construction-related GHG emissions.

Carbon Sequestration Impacts

Carbon sequestration is the process by which CO₂ is removed from the atmosphere and deposited into a carbon reservoir (e.g., vegetation). Trees and vegetation take in CO₂ from the atmosphere during photosynthesis, break down the CO₂, store the carbon within plant parts, and release the oxygen back into the atmosphere.

For purposes of the proposed short-term projects, two models were used to estimate the carbon loss associated with removal of trees and vegetation, as well as the carbon gain from planting new trees. The analysis of loss of sequestered carbon from removing trees and the carbon sequestration associated with planting new trees is based on calculation tools included in the i-Tree software package. Specifically, carbon values were calculated for all mapped trees onsite, as well as projected values associated with proposed tree plantings. The i-Tree model is a sophisticated model that takes into account specific

tree variables to provide an estimate of carbon sequestration per tree removed or replanted. Trees sequester CO₂ while they are actively growing, and the amount of CO₂ sequestered depends on the type of tree.

To evaluate the loss of sequestered carbon associated with overall removal of vegetation other than trees, the calculation methodology and default values provided in the CalEEMod User's Guide (Appendix A Calculation Details) were used (CAPCOA 2017). To calculate potential CO₂ emissions associated with the one-time change in carbon sequestration capacity of a vegetation land use type, CalEEMod utilizes data and formulas based on the IPCC reports. Planting trees that will sequester new CO₂ is considered in CalEEMod to result in a one-time carbon-stock change. Consistent with CalEEMod, which is the industry standard criteria air pollutant and GHG emissions estimator model, this analysis assumes that the sequestered carbon from planting new trees is a one-time occurrence.

CalEEMod also allows the user to calculate one-time carbon sequestration loss based on changes in land use cover using general land cover types. This approach was used to calculate carbon sequestration change from the proposed long-term projects on the Airport's north side under the Proposed Project and Alternative 1. Following completion of the north side's short-term projects, it is estimated that 54.7 acres of forest, shrubland, and grassland would remain on the north side. With implementation of the long-term projects, existing vegetation within these areas could be removed. The 54.7-acre area, therefore, was subject to further analysis. The proposed long-term projects located on the Airport's south side would be within areas of disturbance already accounted for in the evaluation of carbon sequestration change for the proposed short-term projects along Highway 68, for example, the proposed Highway 68 frontage road and potential drainage improvements. As such, an evaluation of the carbon sequestration change associated with these long-term projects already is provided for by the assessment of the short-term projects described above.

Operational Impacts

Operational GHG emissions from the existing condition and Proposed Project or Alternative 1 improvements are associated with changes in vehicular emissions from traffic that would result from future development projects. These GHGs were modeled with CalEEMod with the same inputs described in Section 4.3. Operational GHG emissions estimated by CalEEMod also include emissions from energy use (electrical and natural gas) associated with operating new buildings.

As previously discussed in this EIR, no changes to the airfield or terminal (gate) capacity are proposed under the Proposed Project or Alternative 1. Aircraft operational GHG emissions associated with the cumulative growth forecast approved by the Federal Aviation Administration (FAA) for planning purposes (see **Appendix B**) are addressed in Section 5.5.8. The standard methodology for analyzing air emissions conditions at airports involves the use of a computer simulation model. Specifically, FAA has approved the Aviation Environmental Design Tool (AEDT) for calculating aircraft operational emissions for environmental documentation. Using the same inputs, AEDT is also used to model noise exposure contours. Additional information regarding the model may be found in **Appendix K**.

4.8.3 Existing Conditions

Increasing concentrations of GHGs in the atmosphere are thought to cause global climate change, a phenomenon that can also have local impacts (IPCC 2014; U.S. Global Change Research Program 2009). Scientific measurements show that Earth's climate is warming; concurrent atmospheric events include warmer air temperatures, increased sea level rise, increased storm activity, and an increased intensity in precipitation events.

Federal Emissions Inventory

Total U.S. GHG emissions were 6,586.7 million metric tons (MMT or gigatonne) CO₂e in 2015. Total U.S. emissions have increased by 3.5 percent since 1990. However, emissions decreased by 2.3 percent from 2014 to 2015. The decrease from 2014 to 2015 was a result of multiple factors, including: (1) substitution from coal to natural gas consumption in the electric power sector; (2) warmer winter conditions in 2015 resulting in a decreased demand for heating fuel in the residential and commercial sectors; and (3) a slight decrease in electricity demand. Since 1990, U.S. emissions have increased at an average annual rate of 0.2 percent. In 2015, the industrial and transportation end-use sectors accounted for 29 percent and 27 percent of CO₂ emissions (with electricity-related emissions distributed), respectively. Meanwhile, the residential and commercial end-use sectors accounted for 16 percent and 17 percent of CO₂ emissions, respectively (AMBAG 2018:267).

California Emissions Inventory

Based on CARB's *California Greenhouse Gas Inventory for 2000-2015*, California produced 440.4 MMT CO₂e in 2015. The largest single source of GHG in California is transportation, contributing 39 percent of the state's total GHG emissions. Industrial sources are the second-largest source of the state's GHG emissions, contributing 23 percent (CARB 2017a). California emissions are due in part to its large size and large population compared to other states. However, the state's mild climate reduces California's per capita fuel use and GHG emissions as compared to other states.

Aviation Emissions

As outlined in FAA's *Aviation Emissions and Air Quality Handbook* (FAA 2015:15), "GHG emissions associated with aviation are principally in the form of CO₂ and are generated by aircraft, APUs (auxiliary power units), GSE (ground support equipment), motor vehicles, and an assortment of stationary sources. For the most part, CO₂ emissions from these sources arise from the combustion of fossil fuels (e.g., jet fuel, Avgas, diesel, gasoline, compressed natural gas [CNG]) and are emitted as by-products contained in the engine exhausts. Other GHGs associated with airport operations include CH₄ and N₂O, water vapor (H₂O), soot, and sulfates - but are emitted by airports to a far lesser extent than CO₂. Emissions of HFCs (hydrofluorocarbons), PFCs (perfluorinated chemicals), and SF₆ (sulfur hexafluoride) are most commonly linked with refrigeration, air conditioning, and other coolants."

In terms of U.S. contributions, the U.S. Government Accountability Office (GAO) reports that "domestic aviation contributes about 3 percent of total carbon dioxide emissions, according to EPA data,"

compared with other industrial sources, including the remainder of the transportation sector (20 percent) and power generation (41 percent) (U.S. GAO 2009). The International Civil Aviation Organization (ICAO) also estimates that GHG emissions from aircraft account for roughly three percent of all anthropogenic GHG emissions globally (ICAO 2010).

Airport-Specific Emissions

Aircraft Emissions

Table 4.8A summarizes the GHG emissions resulting from aircraft operations at the Airport based on aircraft operations and fleet mixes in 2015. FAA’s AEDT was used to calculate existing airport operational emissions using the same modeling inputs for the noise exposure contours discussed in Section 4.12 (**Appendix K**). FAA’s *Aviation Emissions and Air Quality Handbook*, Version 3, Update 1, Appendix C – Emissions Inventory for Greenhouse Gases, provides a calculation in which kilograms of fuel burned during operations are converted to metric tons (MT) CO₂e.

TABLE 4.8A Aircraft Operation Greenhouse Gas Emissions Inventory - Existing Condition (2015) Monterey Regional Airport				
Year	Metric Tons/Year			
	CO ₂	CH ₄	N ₂ O	CO ₂ e ¹
2015	4,245.3	2.9	297.4	4,545.6

Source: AEDT analysis (**Appendix E**)
¹ Emissions of CO₂, CH₄, and N₂O were converted to CO₂e using global warming potentials of 1, 25, and 298, respectively, as contained in the United Nation’s Intergovernmental Panel on Climate Change, Fifth Assessment Report (IPCC 2009).
 NOTE: Numbers reflect rounding.

Building Operational Emissions

Based on the GHG Inventory completed as part of the sustainability plan for the Proposed Airport Master Plan (Proposed AMP), total GHG building operational emissions for the Airport in 2013 were 903 MT CO₂e (Coffman Associates 2015:Appendix D, Table B-2). **Table 4.8B** presents the estimated 2015 operational GHG emissions from the existing commercial terminal, aircraft rescue and firefighting (ARFF) building, and southeast hangars based on their known utility demand. These facilities were selected for modeling because they would be altered as part of the Proposed Project and Alternative 1 and, therefore, represent the only elements of the Airport where change would occur as part of the proposed improvements.² Totals for each of the listed facilities include GHG emissions for energy, water, and wastewater consumption related to operation of the buildings.

Airport land uses are not included in CalEEMod. Therefore, similar land uses were selected to represent the existing facilities. Specifically, the approximate 70,000-square foot (sf) existing terminal is represented by 11,200 sf of light industrial space and 58,800 sf of government office space in CalEEMod. For

² The emissions data presented does not reflect GHG emissions for other facilities and sources at the Airport; air pollutant sources are not known for each airport tenant, and an airport-wide GHG emissions inventory is beyond the scope of this EIR based on the parameters of the Proposed Project.

the ARFF, a public facility land use, with 8,400 sf of building space, was selected. The southeast hangar areas were modeled using light industrial land uses totally approximately 126,000 sf. The model year for the calculations is 2015.

The emissions estimates presented in Table 4.3C were calculated used default CalEEMod settings. For calibration, the CalEEMod results for the commercial terminal and ARFF were compared to actual energy consumption information for the commercial terminal and ARFF. In both cases, the difference in the CalEEMod and actual energy consumption results was less than two percent. Additional information regarding energy use may be found in Section 4.6.

TABLE 4.8B
Operational Greenhouse Gas Emissions Inventory - Existing Condition
(2015) Monterey Regional Airport

Existing Airport Building	Metric Tons/Year			
	CO ₂	CH ₄	N ₂ O	CO ₂ e ¹
Existing Terminal				
Energy Use	67.1	<0.01	<0.01	67.5
Solid Waste Disposal	70.9	4.2	<0.01	175.5
Water Use	4.5	0.5	<0.01	19.4
Subtotal	142.5	4.7	<0.01	262.5
Existing ARFF				
Energy Use	8.5	<0.01	<0.01	8.5
Solid Waste Disposal	2.3	0.1	<0.01	5.6
Water Use	0.1	<0.01	<0.01	0.3
Subtotal	10.8	0.1	<0.01	14.5
Existing Southeast Hangars				
Energy Use	23.3	<0.01	<0.01	23.5
Mobile (vehicular emissions)	94.8	<0.01	0.0	95.0
Solid Waste Disposal	24.0	1.4	<0.01	59.6
Water Use	9.2	0.9	<0.01	39.7
Subtotal	151.4	2.4	<0.01	217.7
Total	304.8	7.2	<0.01	494.7

Source: CalEEMod analysis (**Appendix E**)
¹ Emissions of CO₂, CH₄, and N₂O were converted to CO₂e using global warming potentials of 1, 25, and 298, respectively, as contained in the United Nation’s Intergovernmental Panel on Climate Change, Fifth Assessment Report (IPCC 2009).
 NOTE: Numbers reflect rounding.

Vehicular Emissions

Based on the GHG Inventory completed as part of the sustainability plan for the Proposed AMP, total GHG vehicular emissions for the Airport in 2013 were 1,972 MT CO₂e (Coffman Associates 2015:Appendix D, Table B-2), and included both passenger and employee motor vehicles. Vehicle GHG emissions associated with the southeast hangars to be removed were also included in this EIR’s existing GHG inventory (see **Table 4.8B**) as changes in vehicle activity would occur as a result of the demolition of these buildings and, as such, vehicle activity associated with the southeast hangars has been quantified. A user-input value of 62 vehicle trips per day for the entire hangar development was used based on information provided in the *Traffic Impact Analysis Report for the Monterey Regional Airport’s Proposed Mas-*

ter Plan and Associated Development Projects, Monterey County, California (**Appendix M**). Existing vehicle trips (and thus emissions) specific to the existing ARFF and the existing terminal have not been quantified since trips associated with these facilities would shift from the existing location to the proposed location and no meaningful change in vehicular emissions would occur. Similarly, emissions associated with vehicle trips from existing tenants have not been quantified as there will be no change in activity as a result of the Proposed Project or Alternative 1.

Based on the utility usage for the commercial terminal and the ARFF, as well as utility and vehicular emissions from the southeast hangars, approximately 494.7 MT CO₂e is produced annually in the project area under existing conditions.

4.8.4 Thresholds of Significance

As discussed above, SB 32 and the 2017 Scoping Plan have been enacted and adopted, respectively, to enable the State of California to meet the goal of reducing GHGs to 40 percent below 1990 levels by 2030. However, due to the comparative recency of these actions, few, if any, air quality management districts have adopted thresholds which address these statewide goals. As previously discussed, MBARD does not have an adopted GHG emissions threshold for cases where MBARD is not the Lead Agency. Instead, MBARD encourages lead agencies to consider a variety of metrics for evaluating GHG emissions and related mitigation measures as they best apply to the specific project.

A review of the GHG thresholds for the Bay Area Air Quality Management District (BAAQMD) and the San Luis Obispo Air Pollution Control District (SLOAPCD), which are adjacent to the jurisdiction of MBARD, indicates that no updates have been made since the adoption of SB 32 and the 2017 Scoping Plan. BAAQMD acknowledges that an update is underway but does not provide a timeline for the update (BAAQMD 2018). The SLOAPCD website does not include information regarding that district's plans to update its GHG thresholds.

There also are no widely established or readily accepted thresholds of significance for GHG emissions for airport-related projects. The state CEQA Guidelines affirm the discretion of lead agencies to establish their own significance thresholds, provided such thresholds are supported by substantial evidence. Specifically, Section 15064.4 of the state CEQA Guidelines discusses the significance evaluation process for GHG emissions and identifies the following criteria for determining whether a project's impacts would have a significant impact related to GHG emissions:

- (1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
- (2) Whether the project emissions exceed a threshold of significance that the Lead Agency determines applies to the project;
- (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and

must reduce or mitigate the project’s incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

In the absence of available GHG significance thresholds adopted by other agencies with subject matter expertise that would meet the state goal of reducing GHGs to 40 percent below 1990 levels by 2030, the Airport, as Lead Agency for this EIR, has identified the following thresholds for use in this analysis:

- Threshold 4.8-1: Result in a net increase in GHG emissions by 2035 compared to existing 2015 conditions;
- Threshold 4.8-2: Conflict with the AMBAG *Metropolitan Transportation Plan and the Sustainable Communities Strategy* goals to reduce GHG emissions; or
- Threshold 4.8-3: Conflict with applicable local GHG reduction plans.

4.8.5 Impact Analysis

4.8.5.1 Threshold 4.8-1 - Result in a net increase in GHG emissions by 2035 compared to existing 2015 conditions

Proposed Project

Construction Impacts

Implementation of the Proposed Project would generate GHG emissions related to construction activities for approximately 11 years (2019-2029). Construction-related air pollutant emissions vary based on the duration and level of activity at issue. As such, the level of activity and corresponding level of GHG emissions would vary each year based on improvements undertaken.

Construction-related GHG emissions tend to be temporary and short in duration but have the potential to contribute to impacts to environmental resources. **Table 4.8C** summarizes the MT CO₂e per year of GHGs for each construction year for the Proposed Project, based on engineering estimates for each of the proposed short-term projects. The table also includes GHG estimates associated with construction of proposed long-term projects under the Proposed Project. It should be noted that the GHG emissions estimate for proposed long-term projects represent a worst-case scenario in which all construction activity associated with the long-term projects occurs simultaneously.

As noted in the table, emissions of CO₂, CH₄ and N₂O were converted to CO₂e using global warming potentials of 1, 25, and 298, respectively, as contained in the United Nation’s Intergovernmental Panel on Climate Change, Fifth Assessment Report (IPCC 2009). Based on the CalEEMod results, the annual construction-related CO₂e emissions would range between 80 and 1,309 MT CO₂e annually during the period analyzed.

To evaluate the construction-only GHG emissions, the total construction emissions for the proposed short-term projects have been amortized over the projected operational lifetime of the proposed improvements, which is assumed to be 30 years. The amortized amount is included in the comparison of the baseline condition emissions total from 2015 to estimated emissions for 2040. This is consistent with the guidance contained in *Beyond 2020 and Newhall: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California* (California Association of Environmental Professionals [AEP] 2016), which recommends this approach since, “Construction emissions, as a one-time emissions source, are not the primary focus of most of GHG reduction planning and constitute only a small part of the state’s overall inventory.” This guidance document addresses the most current statewide GHG reductions outlined in SB 32. When amortized over the 30-year period assumed to be the life of the facilities, construction GHGs would be approximately 327 MT CO₂e per year.

TABLE 4.8C
Construction Greenhouse Gas Emissions Inventory¹ (Short-Term and Long-Term Projects)
Proposed Project

Year	Construction Emissions (Metric Tons/Year)			
	CO ₂	CH ₄	N ₂ O	CO ₂ e ²
Short-Term Project Components				
2019	1,305.2	0.1	0.0	1,308.8
2020	1,305.2	0.1	0.0	1,308.8
2021	1,305.2	0.1	0.0	1,308.8
2022	1,230.5	0.2	0.0	1,236.4
2023	1,168.1	0.2	0.0	1,203.7
2024	227.8	0.0	0.0	228.9
2025	181.8	0.0	0.0	182.7
2026	79.6	<0.01	0.0	80.0
2027	313.8	0.1	0.0	315.3
2028	442.1	0.1	0.0	444.2
2029	504.7	0.1	0.0	506.0
Long-Term Project Components				
2035 ³	1,679.7	0.1	0	1,683.2
Total	9,743.7	1.1	0.0	9,806.8
30-Year Amortization	324.8	<0.01	<0.01	326.9

Source: CalEEMod analysis (**Appendix E**)

¹ Includes emissions from on-road (worker and truck trips) and off-road (construction equipment) sources. Represents maximum daily greenhouse gas emissions during the construction year.

² Emissions of CO₂, CH₄, and N₂O were converted to CO₂e using global warming potentials of 1, 25, and 298, respectively, as contained in the United Nation’s Intergovernmental Panel on Climate Change, Fifth Assessment Report (IPCC 2009).

³ Represents maximum daily emissions during a construction year for all long-term projects (2035) and represents a scenario in which all construction activity occurs simultaneously.

NOTE: Numbers reflect rounding.

Carbon Sequestration. Implementation of the Proposed Project would result in a loss of sequestered carbon due to tree and vegetation removal onsite but would also sequester new carbon by planting trees onsite. **Table 4.8D** presents the estimated net change in sequestered carbon resulting from implementation of the Proposed Project. As shown in the table, the net change in sequestered CO₂ from implementation of the Proposed Project is approximately 3,100 MT CO₂e.

Proposed Project	Metric Tons CO₂
Loss of Sequestered Carbon in Trees (Short-Term Projects)	1,402.81
Loss of Sequestered Carbon in Vegetation (Short-Term Projects)	380.61
Gain of Sequestered Carbon from Tree Plantings (Short-Term Projects)	(844.73)
Short-Term Project Components	938.69
Loss of Sequestered Carbon in Trees and Vegetation (Long-Term Projects - north side) ¹	2,160.8
Net Change	3,099.5

Source: Dudek 2018 (**Appendix K**, Table 7); Coffman Associates analysis (long-term projects - north side)
¹ Areas of proposed long-term projects on the south side would be located within the areas of disturbance already accounted for in proposed short-term projects along Highway 68, for example, the proposed Highway 68 frontage road and potential drainage improvements.
 NOTE: Numbers reflect rounding.

Short-Term Project Impacts

Table 4.8E presents the estimated operational GHG associated with the proposed relocated southeast hangars, commercial terminal, and ARFF buildings using CalEEMod. Operational GHG emissions were calculated based on the same methodology outlined for air pollutant emissions described in Section 4.3.

Beginning in approximately 2022, additional vehicle trips could occur on the north side following the proposed construction of seven hangars. As discussed in Section 4.16, no new vehicular trips are associated with the proposed commercial terminal and commercial terminal apron relocation; the number of aircraft gate positions (five) would remain the same as the existing terminal. Additionally, it is assumed that trips associated with the proposed relocated ARFF would shift from the existing location to the proposed location and no meaningful change in vehicular GHG emissions would occur. Therefore, only the changes in vehicle activity associated with development of the proposed north side hangars is included in the short-term operational analysis. As noted in the table, the totals include the net increase in vehicular operational emissions only for the north side hangars.

As summarized in **Table 4.8E**, in the short term, approximately 383.7 MT per year of CO₂e are anticipated based on the relocated commercial terminal, ARFF, and southeast hangars.

TABLE 4.8E
Operational Greenhouse Gas Emissions Inventory (Short-Term Projects)
Proposed Project (2022)¹

Proposed Airport Building	Metric Tons/Year			
	CO ₂	CH ₄	N ₂ O	CO ₂ e ²
Relocated Terminal				
Energy Use	95.9	<0.01	<0.01	96.5
Solid Waste Disposal	19.9	1.2	<0.01	49.3
Water Use	6.5	0.7	<0.01	27.8
Subtotal	122.3	1.8	<0.01	173.5
Relocated ARFF				
Energy Use	13.2	<0.01	<0.01	13.3
Solid Waste Disposal	3.5	0.2	<0.01	8.8
Water Use	0.1	<0.01	<0.01	0.5
Subtotal	16.8	0.2	<0.01	22.6
Relocated North Side Hangars				
Energy Use	33.0	0.0	0.0	33.2
Mobile (vehicular emissions)	13.9	0.0	0.0	13.9
Solid Waste Disposal	34.0	2.0	0.0	84.3
Water Use	13.1	1.3	0.0	56.2
Subtotal	94.0	3.4	0.0	187.6
Total	233.1	5.4	0.1	383.7

Source: CalEEMod analysis (**Appendix E**)

¹ 2022 reflects anticipated completion date of project components listed in this table.

² Emissions of CO₂, CH₄, and N₂O were converted to CO₂e using global warming potentials of 1, 25, and 298, respectively, as contained in the United Nation’s Intergovernmental Panel on Climate Change, Fifth Assessment Report (IPCC 2009).

NOTE: Numbers reflect rounding. Also, although the Proposed Project and Alternative 1 would result in the replacement of these existing land uses and their associated emissions, no quantitative credit is taken for the replacement of the buildings in the impact assessment provided below. Instead, the impact assessment conservatively assumed that the existing conditions baseline associated with these existing buildings is zero pounds per day for each of the referenced criteria air pollutants. Note, however, that the impact assessment does reflect only the net increase in vehicular-related emissions associated with the hangars.

Long-Term Project Impacts (Programmatic)

CalEEMod was also used to model proposed long-term projects on both the north side and the south side of the Airport beginning in 2035. This Proposed Project long-term buildout scenario contains opportunities for a variety of non-aviation land uses. Representative land uses for purposes of this analysis include general light industrial, office park, and hangar development on the north side of the Airport, and high-turnover restaurant, medical-dental office, and general office on the south side of the Airport. These non-aviation land uses were chosen for evaluation to represent a conservative assessment of the possible future development upon airport buildout. The traffic analysis associated with these long-term non-aviation land uses was only considered at a programmatic level. Project-specific traffic studies and other environmental analyses may be required before any of these non-aviation land uses could be developed.

For purposes of this analysis, it was assumed that future north side projects could include construction of 400,000 sf of light industrial development, 325,000 sf of office park development, and 106 aircraft

storage hangars. CalEEMod includes building operational and vehicle emissions factors for light industrial development and office park development. South side proposed projects modeled in CalEEMod includes 10,000 sf of high-turnover restaurant development, 45,000 sf of medical/dental office development, and 94,000 sf of general office development. These land uses are included in CalEEMod, and the default operational values were used for the modeling. A user-input value of 149 trips per day for the entire 106-unit hangar development was used for the hangars based on information provided in the EIR Traffic Study.

Table 4.8F summarizes the estimated GHG emissions associated with proposed north side and south side long-term projects. As shown in **Table 4.8F**, in the long term, approximately 11,549 MT per year of CO₂e are anticipated based on proposed long-term projects on the north and south sides of the Airport under the Proposed Project.

Project Components	Metric Tons/Year			
	CO ₂	CH ₄	N ₂ O	CO ₂ e ¹
South Side				
Energy Use	232.4	0.0	0.0	233.7
Mobile (vehicular emissions)	2,916.2	0.2	0	2,920.8
Solid Waste Disposal	140.6	8.3	0.0	348.2
Water Use	8.1	0.8	0.0	34.6
Subtotal	3,297.3	9.3	0	3,537.3
North Side				
Energy Use	929.4	0.0	0.0	934.9
Mobile (vehicular emissions)	6,462.2	0.4	0.0	6,471.3
Solid Waste Disposal	162.0	9.6	0.0	401.4
Water Use	47.7	4.9	0.1	204.5
Subtotal	7,601.3	14.9	0.1	8,012.1
Total	10,898.6	24.2	0.1	11,549.4

Source: CalEEMod analysis (**Appendix E**)
¹ Emissions of CO₂, CH₄, and N₂O were converted to CO₂e using global warming potentials of 1, 25, and 298, respectively, as contained in the United Nation’s Intergovernmental Panel on Climate Change, Fifth Assessment Report (IPCC 2009).
 NOTE: Numbers reflect rounding.

Conclusion

Table 4.8G summarizes the estimated GHG emissions associated with the Proposed Project based on the information presented in the previous tables. It is important to note that the scope of these estimates focuses on the operational and vehicular emissions associated with the proposed north side project components, a one-year portion of the 30-year amortized construction emissions, emissions associated with utilities for the operation of the passenger terminal, and the net decrease in carbon sequestration.

TABLE 4.8G Greenhouse Gas Emissions Inventory (Short-Term and Long-Term Projects)	
Proposed Project	
Project Components	Metric Tons/Year (CO₂e¹)
Short-Term Projects	
Operational Emissions	383.7
30-Year Amortized Construction	326.9
Sequestered Carbon Net Change	938.69
Total (Short-Term Projects)	1,649.29
Long-Term Projects	
Operational Emissions	11,549.4
30-Year Amortized Construction	326.9
Loss of Sequestered Carbon	2,160.8
Total (Long-Term Projects)	14,037.1
TOTAL (Short-Term and Long-Term Projects)	15,686.39
Comparison to Existing Condition	
Existing Condition	494.7
Difference (Incremental Increase)	+15,191.7
Source: CalEEMod analysis (Appendix E)	
NOTE: Numbers reflect rounding.	

As indicated in the table, GHG emissions associated with the Proposed Project are projected to increase when compared to 2015 in both the short-term and long-term scenarios.³ Construction emissions and the loss of sequestered carbon, as well as the operation of both short-term and long-term project components, would increase the Airport’s overall GHG emissions for the Proposed Project. Therefore, GHG emissions associated with the Proposed Project are Potentially Significant.

Significant Impact GHG-1: *Since projected future GHG emissions associated with the Proposed Project would increase above estimated 2015 levels, impacts of the Proposed Project related to GHG emissions are Potentially Significant under Threshold 4.8-1.*

Alternative 1

Construction Impacts

Similar to the Proposed Project, in the short-term, Alternative 1 would result in construction over a 10-year period, but with a different phasing schedule. **Table 4.8H** summarizes the estimated construction-related GHG emissions associated with Alternative 1 and the 30-year GHG amortization of the emissions. Based on the CalEEMod results, the annual construction-related CO₂e emissions for Alternative 1 would

³ It should be noted that the Airport has constructed a solar array that came on-line at the end of 2017 and will continue to be operational for the foreseeable future. For purposes of this analysis, the solar generation capacity of that array was considered and used to reduce the GHG emissions associated with the Airport’s 2015 energy demand. The solar array meets approximately 95 percent of the electricity needs for all existing buildings/infrastructure at the Airport, except for: Tarp’s Roadhouse, properties at Stonecreek, Flight Way Self Storage, Sky Park Self Storage, the Quick-Turnaround Area (QTA) Car Facility, Del Monte Aviation, and the Monterey Jet Center, which provide their own meters for electricity and natural gas (Airport Management 2018).

range between 77 and 1,309 MT CO₂e annually during the periods analyzed. The table also includes GHG estimates associated with proposed long-term projects for Alternative 1. It should be noted that the GHG emissions estimate for proposed long-term projects represents a worst-case scenario in which all construction activity associated with the long-term projects occurs simultaneously. When amortized over the 30-year period assumed to be the life of the facilities, construction GHGs would be approximately 271 MT CO₂e per year.

TABLE 4.8H
Construction Greenhouse Gas Emissions Inventory¹ (Short-Term and Long-Term Projects)
Alternative 1

Year	Construction Emissions (Metric Tons/Year)			
	CO ₂	CH ₄	N ₂ O	CO ₂ e ²
Short-Term Project Components				
2019	1,305.2	0.1	0.0	1,308.8
2020	377.1	0.0	0.0	378.0
2021	77.0	0.0	0.0	77.4
2022	1,230.5	0.2	0.0	1,236.4
2023	1,168.1	0.2	0.0	1,203.7
2024	227.8	0.0	0.0	228.9
2025	366.1	0.1	0.0	367.4
2026	906.8	0.2	0.0	912.0
2027	281.7	0.0	0.0	282.6
2028	442.1	0.1	0.0	444.2
Long-Term Project Components				
2035 ³	1,679.7	0.1	0	1,683.2
Total	8,062.1	1.0	0.0	8,122.6
30-Year Amortization	268.7	<0.01	<0.01	270.8

Source: CalEEMod analysis (**Appendix E**)
¹ Includes emissions from on-road (worker and truck trips) and off-road (construction equipment) sources. Represents maximum daily emissions during the construction year.
² Emissions of CO₂, CH₄, and N₂O were converted to CO₂e using global warming potentials of 1, 25, and 298, respectively, as contained in the United Nation’s Intergovernmental Panel on Climate Change, Fifth Assessment Report (IPCC 2009).
³ Represents maximum daily emissions during a construction year for all long-term projects and represents a scenario in which all construction activity occurs simultaneously.
 NOTE: Numbers reflect rounding.

Carbon Sequestration. Similar to the Proposed Project, Alternative 1 would result in a loss of sequestered carbon due to tree and vegetation removal onsite but would also sequester new carbon by planting trees onsite. **Table 4.8I** presents the estimated net change in sequestered carbon resulting from implementation of Alternative 1. As shown in the table, the net change in sequestered CO₂ from implementation of Alternative 1 is approximately 3,100 MT CO₂.

Alternative 1	Metric Tons CO₂
Loss of Sequestered Carbon in Trees (Short-Term Projects)	1,415.22
Loss of Sequestered Carbon in Vegetation (Short-Term Projects)	368.87
Gain of Sequestered Carbon from Tree Plantings (Short-Term Projects)	(844.73)
Short-Term Project Components	939.4
Loss of Sequestered Carbon in Trees and Vegetation (Long-Term Projects - north side) ¹	2,160.8
Net Change	3,100.2

Source: Dudek 2018 (**Appendix K**, Table 7); Coffman Associates analysis (Long-Term projects - north side)
¹ Areas of proposed long-term projects on the south side would be located within the areas of disturbance already accounted for in proposed short-term projects along Highway 68, for example, the proposed Highway 68 frontage road and potential drainage improvements.
 NOTE: Numbers reflect rounding.

Short-Term Project Impacts

Operational GHG emissions from Alternative 1 would be similar to the Proposed Project and are summarized in **Table 4.8E**. In the short term, approximately 383.7 MT per year of CO₂e are anticipated based on the proposed relocated commercial terminal, ARFF, and southeast hangars, which is less than what occurred in 2015.

Long-Term Project Impacts (Programmatic)

Operational GHG emissions from Alternative 1 in the long term would be similar to the Proposed Project and are summarized in **Table 4.8F**. As shown in **Table 4.8F**, in the long term, approximately 11,549 MT per year of CO₂e are anticipated based on future potential buildout of the north and south sides of the Airport under Alternative 1.

Conclusion

Table 4.8J summarizes the estimated GHG emissions associated with Alternative 1 based on the information presented in the previous tables. It is important to note that the scope of these estimates focuses on the operational and vehicular emissions associated with the north side development, a one-year portion of the 30-year amortized construction emissions, emissions associated with utilities for the operation of the passenger terminal, and the net increase in carbon sequestration.

As indicated in the table, GHG emissions associated with Alternative 1 are projected to increase when compared to the 2015 in both the short-term and long-term scenarios. Construction emissions and the loss of sequestered carbon, as well as the operation of both short-term and long-term project components, would increase the Airport’s overall GHG emissions for Alternative 1. Therefore, GHG emissions associated with Alternative 1 are Potentially Significant.

TABLE 4.8J Greenhouse Gas Emissions Inventory (Short-Term and Long-Term Projects) Alternative 1	
Alternative 1 Components	Metric Tons/Year (CO₂e¹)
Short-Term Projects	
Operational Emissions	383.7
30-Year Amortized Construction	270.8
Sequestered Carbon Net Change	939.4
Total (Short-Term Projects)	1,593.9
Long-Term Projects	
Operational Emissions	11,549.4
30-Year Amortized Construction	270.8
Loss of Sequestered Carbon	2,160.8
Total (Long-Term Projects)	13,981.0
TOTAL (Short-Term and Long-Term Projects)	15,574.9
Comparison to Existing Condition	
Existing Condition	494.7
Difference (Incremental Increase)	+15,080.2

Source: CalEEMod analysis (**Appendix E**).
NOTE: Numbers reflect rounding.

Significant Impact GHG-2 (Alt. 1): *Since projected future GHG emissions associated with Alternative 1 would increase above estimated 2015 levels, impacts of Alternative 1 related to GHG emissions are Potentially Significant under Threshold 4.8-1.*

4.8.5.2 Threshold 4.8-2 - Conflict with the AMBAG Metropolitan Transportation Plan and the Sustainable Communities Strategy goals to reduce GHG emissions

Proposed Project and Alternative 1

Construction and Short-Term and Long-Term (Programmatic) Project Impacts

As previously stated, AMBAG recently updated its MTP/SCS. The 2040 MTP/SCS was adopted on June 13, 2018. To the extent that the 2040 MTP/SCS is implemented, it would exceed the GHG emission reduction targets set by CARB in 2010 and meet the GHG emission reduction targets set by CARB in 2018 by achieving a three percent per capita reduction for 2020 and a six percent per capita reduction for 2040 (AMBAG 2018:ES-7). The 2040 MTP/SCS demonstrates that the Monterey Bay region will meet these targets by focusing housing and employment growth in urbanized areas; protecting sensitive habitat and open space; and investing in a transportation system that provides residents, workers and visitors with transportation options that are more effective and diverse (AMBAG 2018:4-38). Of the topics listed above, investments in a transportation system that is more effective and diverse pertains to the Proposed Project and Alternative 1.

TAMC’s 2018 RTP, which updates the congestion management program for Monterey County (AMBAG 2014), includes a list of transportation investments to achieve regional GHG emission targets and sup-

port the 2018 MTP/SCS under consideration by AMBAG. It also includes transportation demand management (TDM) measures to improve the ability of county residents to meet daily needs without having to drive. The Proposed AMP includes its own set of TDM measures as part of its sustainable action plan (Coffman Associates 2015:Table D12, #7, 8, and 24). These include:

- Provide incentives, such as rebates and/or preferred parking, for staff vanpools/carpools and alternatively fueled vehicles;
- Provide subsidized bus passes to employees and construction workers; and
- Collaborate with local transit operators to expand public transit opportunities to the Airport when transit operators change routes.

Roundabouts are also discussed as an important strategy for achieving the RTP's goals, as they allow for free movement of vehicles at intersections, which reduces vehicle emissions, and have been proved safer than signalized intersections (TAMC 2018:38). The Proposed Project and Alternative 1's proposed roundabout at Olmsted and Garden Roads is consistent with this RTP goal.

The 2040 MTP/SCS emphasizes a regional land use scenario that promotes mixed use and infill development in existing commercial corridors in combination with high-quality transit service and improved bicycle and pedestrian infrastructure. Mixed use and infill projects would help reduce vehicle miles traveled (VMT) because they would locate people closer to existing goods and services, thereby resulting in shorter vehicle trips, and they would locate people closer to existing transportation hubs, thereby encouraging the use of alternative modes of transit (e.g., buses) and resulting in fewer vehicle trips (AMBAG 2018:244).

The 2040 MTP/SCS includes a list of projects that have been incorporated into the plan. Included is the "construction of a new terminal building, roads and surface parking at the Monterey Airport (sic)" (AMBAG 2018:62). Suburban Commercial/Mixed Use land use on non-aviation airport parcels along Highway 68 are also included (AMBAG 2018:Figure 3). The land use scenario envisioned by the draft 2040 MTP/SCS promotes the development of existing vacant or underutilized properties to locate people closer to existing employment, goods and services within established communities (AMBAG 2018:387).

The proposed roundabout at Olmsted and Garden Roads is consistent with the GHG emission reduction and traffic safety goals, and proposed light industrial, commercial, office, and retail employment at the Airport would provide additional employment opportunities within the county, which could reduce the average work trip travel time within the region. The Proposed Project and Alternative 1 would not conflict with the AMBAG MTP/SCS (or the TAMC RTP, which is incorporated into the AMBAG MTP/SCS) and potential impacts related to Threshold 4.8-2 are Less than Significant.

Less than Significant Impact:

The Proposed Project and Alternative 1 would not conflict with the Metropolitan Transportation Plan and the Sustainable Communities Strategy goals to reduce GHG emissions. This is a Less than Significant impact per Threshold 4.8-2.

4.8.5.3 Threshold 4.8-3 - Conflict with applicable local GHG reduction plans

Proposed Project and Alternative 1

Construction and Short-Term and Long-Term (Programmatic) Project Impacts

As reported in the City of Monterey's CAP, the city reduced GHG emissions by 29.7 percent between 2005 and 2012. The City of Monterey CAP includes recommendations for community engagement and infrastructure investments to further reduce GHG emissions. The CAP recommends that the city hold collaborative workshops to share lessons learned about implementation of energy efficiency programs. The CAP recommends that local businesses and staff at key institutions such as the Naval Postgraduate School, Presidio of Monterey, Defense Language Institute, and Monterey Peninsula College be invited. The City of Monterey acknowledges that many of these organizations may have already adopted sustainability plans and initiatives, but all parties could benefit from sharing this information.

The CAP recommendations regarding infrastructure investment largely pertain to a light rail transportation system that would not apply to the Airport. However, the CAP infrastructure recommendations also promote the use of solar energy to meet GHG reduction targets. The Proposed AMP includes a sustainable action plan which includes a summary of the Airport's sustainability successes, several of which reduce the Airport's energy consumption. Projects undertaken by the Airport to reduce electrical use include the Airport Terminal Lighting Initiative, installation of airfield light-emitting diode (LED) lighting, street lighting improvements on Fred Kane Drive, and parking lot lighting improvements. Information about these improvements at the Airport were shared with the public during the information workshops held as part of the AMP process. This information was also made available to the public through a project-specific website. Additionally, the previously mentioned three-acre solar farm was constructed at the Airport and became fully operational in December 2017.

Utilizing the energy generated by the on-airport solar farm to support future development, as well as obtaining Leadership in Energy and Environmental Design (LEED) certification for the relocated commercial terminal, the relocated ARFF and future non-aeronautical buildings would decrease GHG emissions in the short term (refer to Section 2.6.3 for more information about the energy conservation features of the Proposed Project and Alternative 1). As discussed in Section 4.6, the electricity consumption for new development at the Airport is anticipated to be approximately 25 percent less due to their LEED certification. Additionally, Title 24, Part 6 building regulations would apply to all new development or redevelopment, including compliance with ASHRAE 90.1 energy standards; efficiency requirements for elevators and digital controls, as well as energy efficiency measures pertaining to building envelopes; mechanical systems; indoor, outdoor, and sign lighting; electrical power distribution; and solar readiness. Further, Title 24, Part 11 California building regulations (i.e., CalGreen) are now streamlined with LEED requirements, making the LEED certification process more efficient and feasible as it is complementary to building mandates within CalGreen.

In addition, the Proposed AMP's sustainable action plan includes TDM measures, discussed above, to reduce the indirect vehicular energy usage associated with the Proposed Project or Alternative 1. The

Proposed Project and Alternative 1 would not conflict with applicable local GHG reduction plans, and potential impacts related to Threshold 4.8-3 are Less than Significant.

Less than Significant Impact: The Proposed Project and Alternative 1 would not conflict with implementation of applicable local GHG reduction plans. This is a Less than Significant impact of Threshold 4.8-3.

4.8.6 Mitigation Program

Proposed Project and Alternative 1

No mitigation is required for the Less than Significant impacts identified in Section 4.8.5. However, as indicated in the analysis above, increases in GHG emissions would occur as a result of the Proposed Project or Alternative 1 due to temporary construction GHG emissions, a loss of sequestered carbon, and vehicular activity associated with proposed additional hangars and proposed long-term non-aeronautical projects. Operational building GHG emissions of proposed short-term projects are anticipated to decrease due to the proposed LEED certification for the relocated commercial terminal and ARFF buildings, which will decrease energy demand, as well as the continued use of solar energy for these buildings, but operational building GHG emissions would increase in the long-term due to proposed future projects. Overall, the increases in GHG emissions would be minimized to the extent feasible due to implementation of TR/mm-6 (Proposed Project) or TR/mm-9 (Alternative 1), TR/mm-10, and portions of the biology mitigation program in Section 4.4.6.

TR/mm-6 (Proposed Project) and TR/mm-9 (Alternative 1) require that offsite truck hauling operations for proposed short- and long-term construction project components at the Airport shall not occur during the hours of 7:00 AM through 9:00 AM or 4:00 PM through 6:00 PM, Monday through Friday, to avoid peak hour traffic conditions thereby reducing congestion. TR/mm-10 requires that VMT be evaluated as part of project-specific review and discretionary approval for future long-term project components. Where project-level significant impacts are identified, implementing agencies shall identify and implement measures that reduce VMT. Examples of measures that reduce VMT include infill development, mixed use and transit-oriented development, complete street programs, reduced parking requirements, and providing alternative transportation facilities, such as bike lanes and transit stops. Several mitigation measures for impacts to biological resources (Section 4.4.6) include actions that reduce the carbon footprint of the Airport by conserving habitat or replacing individual plants or trees affected by future airport development.

The following measures focus on reduction of GHGs from construction and sequestered carbon, as well as the continuation of the Airport's existing GHG-reduction practices.

GHG/mm-1: The following measures for construction vehicles and/or equipment shall be implemented:

1. All off-road, diesel-powered construction equipment greater than 50 horsepower shall be equipped with U.S. EPA Tier 3 (or greater) engines;

2. Construction vehicles shall minimize idling time either by shutting equipment off when not in use or reducing the time of idling to no more than three minutes;
3. All diesel equipment used for the project shall meet State of California diesel equipment requirements and be registered through the Statewide Portable Equipment Registration Program or the Diesel Off-Road Online Reporting System;
4. The contractor shall use “clean air” alternate fuel vehicles when available;
5. The contractor shall reduce electrical generator usage wherever possible; and
6. The contractor shall use an MBARD-approved low carbon fuel for construction equipment when available.

GHG/mm-2: The following measures for construction administration shall be implemented:

1. The contractor shall encourage carpools for construction worker commutes; and
2. The contractor shall reduce electricity use in the construction office by using compact fluorescent bulbs, powering off computers every day, and demonstrating the efficiency of heating and cooling units.

GHG/mm-3: The Airport shall provide language in future tenant lease agreements to require the use of high-efficiency equipment, including EnergyStar certified appliances and LED or equivalent interior and exterior lighting, where applicable.

GHG/mm-4: The Airport shall continue to provide and maintain electric vehicle (EV) charging stations in the relocated commercial terminal parking lot.

GHG/mm-5: In coordination with Monterey-Salinas Transit, the public transit agency serving Monterey County, the Airport will provide a transit bus stop to serve the relocated commercial terminal.

4.8.7 Level of Significance After Mitigation

Table 4.8K summarizes Potentially Significant impacts related to GHG emissions for the Proposed Project and Alternative 1 (Impacts GHG-1 and GHG-2). Upon implementation of GHG/mm-1 through GHG/mm-5 (as well as TR/mm-6 or TR/mm-9, TR/mm-10, and the biology mitigation program in Section 4.4.6 - see previous discussion in Section 4.8.6), potentially significant impacts related to GHG emissions would be reduced.

However, GHG impacts would remain Potentially Significant and Unavoidable because post-project emissions would not be reduced to 2015 levels.

TABLE 4.8K Summary of Potentially Significant Impacts and Mitigation – Greenhouse Gas Emissions Proposed Monterey Regional Airport Master Plan				
Proposed Project	Mitigation Program	Alternative 1	Mitigation Program	Level of Significance after Mitigation
Threshold 4.8-1 - Result in a net increase in GHG emissions by 2035 compared to existing 2015 conditions				
Impact GHG-1/GHG-2: Future GHG emissions would increase above 2015 levels.	GHG/mm-1 through GHG/mm-5	Same as Proposed Project	GHG/mm-1 through GHG/mm-5	Significant and Unavoidable

Chapter Four

4.9 – HAZARDS AND HAZARDOUS MATERIALS

The following analysis addresses the types of hazards that could occur due to the Proposed Project or Alternative 1: hazards associated with the subject property's use, storage and handling of hazardous materials in relation to proposed development; hazards related to the potential presence of hazardous materials that could potentially affect human health and/or the environment; safety hazards to people residing or working in the project area; and potential interference with an adopted emergency response or evacuation plan. These are listed as potential hazards in the *California Environmental Quality Act* (CEQA) Guidelines, Appendix G (2017).

The analysis provided below is limited as follows: the Proposed Project and Alternative 1 would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code, Section 65962.5; they would not be located in the vicinity of a private airstrip; nor would they be adjacent to a wildlands area. These topics are not discussed in this section (please refer to the Notice of Preparation (NOP)/Initial Study (**Appendix A**)).

4.9.1 Regulatory Setting

Federal Regulations

Hazardous Materials and Waste

Several federal laws have been passed governing the handling, transportation, and disposal of hazardous materials, chemicals, substances, and wastes, including: *Resource Conservation Recovery Act* (RCRA) (as amended by the *Federal Facilities Compliance Act of 1992*); *Comprehensive Environmental Response, Compensation, Liability Act* (CERCLA); *Hazardous Materials Transportation Act*; *Occupational Safety and Health Act*; *Toxic Substances Control Act*; Executive Order (EO) 12088, Federal Compliance with Pollution Control Standards; and the air toxics provision of the *Clean Air Act* (CAA).

Resource Conservation Recovery Act (RCRA). RCRA, Subtitle C, governs the generation, treatment, storage, and disposal of hazardous wastes through comprehensive life cycle, or "cradle to grave," tracking requirements. In 1984, RCRA was amended to create a national priority for waste minimization, which Subtitle D establishes for solid waste disposal sites and practices. RCRA requires states to develop plans for the management of wastes within their respective jurisdictions. The Act also has standards for the treatment, storage, and disposal of hazardous wastes, as codified in Code of Federal Regulations (CFR), Title 40, Part 260.

Comprehensive Environmental Response, Compensation, Liability Act (CERCLA). The discovery of environmental issues caused by disposal sites prompted the passage of CERCLA, which provides for cleanup of any release of a hazardous substance (excluding petroleum) into the environment. Also known as the Superfund program, CERCLA establishes prohibition and requirements concerning closed and abandoned hazardous waste sites, as well as placing liability on the hazardous waste emitters for cleanup. When no responsible party can be identified for cleanup, CERCLA has a trust fund to provide for cleanup. The Hazard Ranking System (HRS) is a component of CERCLA that provides the United States (U.S.) Environmental Protection Agency (U.S. EPA) with a mechanism to place uncontrolled waste sites on the National Priorities List (NPL) for cleanup activities.

Hazardous Materials Transportation Act. This Act governs hazardous materials that could be excavated from construction or activities in a project site which may require offsite transport. The *Hazardous Materials Transportation Act* is administered by the Research and Special Programs Administration of the U.S. Department of Transportation (DOT). This Act has extensive regulations aimed at ensuring the safe transport of hazardous materials via all modes of transportation (i.e., boat, rail, highways, air, pipelines). This Act includes provisions for material classification, packaging, marking, labeling, placarding, and shipping documentation.

Occupational Safety and Health Act. This Act is a U.S. labor law that aims to ensure employers provide employees with an environment free from recognized hazards, including the exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions. This Act ensures worker and workplace safety, which is accomplished through research efforts of the National Institute for Occupational Safety and Health, as well as the Occupational Safety and Health Administration (OSHA), both of which were created by this Act.

Toxic Substances Control Act. This Act regulates the use, handling, and disposal of hazardous materials. This Act authorizes the U.S. EPA to oversee reporting, record-keeping, testing requirements, and restrictions related to chemical substances and/or mixtures. The *Toxic Substances Control Act* addresses the production, importation, use, and disposal of specific chemicals, including polychlorinated biphenyls (PCBs), asbestos, radon, and lead-based paint.

Executive Order 12088, Federal Compliance with Pollution Control Standards. EO 12088 mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved. This EO requires that federal agencies comply with federal, state, and local pollution control requirements. EO 12088 requires a federal agency to notify and consult with its regulator regarding a compliance plan and schedule when the regulator has violated an applicable pollution control standard.

Clean Air Act (CAA). The air toxins provisions of the CAA give authority to U.S. EPA to develop and enforce regulations to protect the public from exposure to airborne contaminants that are known to be hazardous to human health. Per Section 112 of the CAA, U.S. EPA establishes National Emission Standards for Hazardous Air Pollutants (NESHAP), which includes both asbestos and lead. These air toxin regulations specify work practices for asbestos that must be followed during building demolition and renovations

(U.S. EPA website 2016). In addition, the Monterey Bay Air Resources District (MBARD) regulates hazardous air pollutants (HAPs) (see *Local Regulations* below).

Airport Safety

The Airport, as a Class I commercial service airport, is required to have an Airport Operating Certificate (AOC) per CFR, Title 14, Part 139 (Part 139) in addition to meeting numerous federal regulations. These regulations include standards for the marking and lighting of areas used for operations, firefighting and rescue equipment and services, the handling and storing of hazardous materials, the identification of obstructions, and safety inspection and reporting procedures. Further, there are Federal Aviation Administration (FAA) advisory circulars (ACs) that describe standards for all aspects of an airport's design, of which the following apply to the Proposed Project and Alternative 1:

- AC 150/5060-5, *Airport Capacity and Delay* (FAA 1983)
- AC 150/5200-33B, *Hazardous Wildlife Attractants On or Near Airports* (FAA 2007)
- AC 150/5210-15A, *Aircraft Rescue and Firefighting Station Building Design* (FAA 2008)
- AC 150/5300-13A, *Airport Design*, as amended (FAA 2014a)
- AC 150/5320-5D, *Airport Drainage Design* (FAA 2013a)
- AC 150/5340-1L, *Standards for Airport Markings* (FAA 2013b)
- AC 150/5360-9, *Planning and Design Guidelines for Airport Terminal Building Facilities at Nonhub Locations* (FAA 1980)¹
- AC 150/5360-13, *Planning and Design Guidelines for Airport Terminal Facilities* (FAA 1988)²
- AC 150/5370-10G, *Standards for Specifying Construction of Airports* (FAA 2014b)³

AC 150/5300-13A and CFR, Title 14, Part 77 (Part 77) establish standards and notification requirements for objects affecting navigable airspace. The Part 77 regulations allow the FAA to identify potential aeronautical hazards to prevent or minimize adverse impacts to the safe and efficient use of navigable airspace.

FAA standards dictate that runway protection zones (RPZs) should be under the airport's control either through avigation easements to prevent land use incompatibilities or by owning the property outright. FAA's *Interim Guidance of Land Uses within a Runway Protection Zone* (FAA 2012) states, "Airport owner control over the RPZ land is emphasized to achieve the desirable protection of people and property on the ground. Although FAA recognizes that in certain situations the airport sponsor may not fully control land within an RPZ, the FAA expects the airport sponsor to take all possible measures to protect against and remove or mitigate incompatible land uses."

The FAA requires airport sponsors to maintain a safe operating environment, which means they must conduct a wildlife hazard assessment (WHA) and prepare a wildlife hazard management plan (WHMP) when there has been a wildlife strike (FAA 2016, Fact Sheet - FAA Wildlife Hazard Mitigation Program).

¹ AC 150/5360-13A (draft) is under FAA review. When published, it will cancel both AC 150/5360-9 and AC 150/5360-13A.

² Ibid.

³ AC 150/5370-10H (draft) is under FAA review. When published, it will cancel AC 150/5370-10G.

The WHMP identifies the specific actions an airport will take to mitigate the risk of wildlife strikes on or near the airport. The Monterey Regional Airport’s WHMP contains numerous strategies and techniques that are to be implemented for wildlife management (MPAD 2013).

State Regulations

Hazardous Materials and Waste

State hazardous materials regulations and programs include: the California Health and Safety Code, California Fire Code, California Unified Program Administration (CUPA), and California *Hazardous Waste Control Law* (HWCL), and other various titles and sections within the California Code of Regulations (CCR).

California Health and Safety Code. The California Health and Safety Code establishes a system that ensures compliance with the state Division of Occupational Safety and Health (Cal/OSHA), including monitoring of activities at a work site to provide a high level of oversight. The prime contractor is expected to intervene when instances of non-compliance occur. Those doing asbestos and lead abatement must have special training and be registered with Cal/OHSA to ensure that hazardous materials are properly handled.

California Fire Code. The California Fire Code (CCR, Title 24, Chapter 9) is the primary means for authorizing and enforcing procedures to ensure the safe handling and storage of substances that could pose a threat to public health and safety. The California Fire Code regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. In conjunction with the California Building Code, the California Fire Code utilizes a hazard classification system to determine what protective measures are required to protect the public from fire danger, including (but not limited to): construction standards, separations from property lines, and specialized equipment. To ensure that these safety measures are met, the California Fire Code employs a permit system based on hazard classification.

The California Fire Code (2016 edition), including appendix chapters, has been adopted as the Fire Code of the Airport, regulating and governing the safeguarding of life and property from fire and explosion hazards arising from the storage, handling, and use of hazardous substances, materials, and devices, and from conditions hazardous to life or property in the occupancy of building and premises.

California Unified Program Administration (CUPA). CUPA’s purpose is to consolidate efforts across multiple environmental and emergency response programs to streamline the administrative requirements, permits, inspections, and enforcement activities. These programs include:

- Hazardous materials release response plans and inventories, including the California Environmental Reporting System (CERS)
- California Accidental Release Prevention Program (CalARP)
- Underground Storage Tank Program
- Aboveground Petroleum Storage Act Program

- Hazardous Waste Generator and Onsite Hazardous Waste Treatment Programs
- California Uniform Fire Code: Hazardous material management plans and hazardous material inventory statements

Hazardous Waste Control Law (HWCL). HWCL is the primary hazardous waste governing law in California. It implements RCRA as a “cradle to grave” waste management system in the state. This law places the onus on generators to determine if their waste products are hazardous and to guarantee their proper management. The HWCL also provides criteria regarding the reuse and recycling of hazardous wastes used or reused as raw materials. It exceeds federal requirements because it mandates source reduction planning, as well as more stringent permitting for facilities that treat hazardous materials. This law is under the administration of the California EPA’s Department of Toxic Substances Control (DTSC) which oversees the Hazardous Waste Tracking System to follow hazardous wastes shipments through the state.

California Code of Regulations, Title 8 and Title 17. Given the potential to encounter asbestos and/or lead-based paint during demolition activities, CCR, Title 8, *Industrial Relations* and MBARD regulations could apply (see discussion under *Local Regulations*). Per Title 8, any person who encounters asbestos contaminated materials must have access to an adjacent decontamination area that includes labeled bags and containers for the disposal of contaminated protective equipment. For lead, protective work clothing and equipment must be provided (free of charge) to all employees who could encounter lead.

Title 17, Division 1, Chapter 8: Accreditation, Certification, and Work Practices for Lead-Based Paint and Lead Hazards requires contractors to assume any pre-1978 structure that has not been tested for lead to be covered with lead-based paint. If an area with presumed lead-based paint is exposed, contractors must contain the area and use lead safe work practices to demonstrate compliance with the California Department of Public Health or applicable local regulatory agency. Additionally, any building contractor doing lead abatement must have a special certification from the California Department of Health Services and be registered with Cal/OSHA. Title 8 (Section 1532.1) sets a permissible exposure limit that states “the employer shall assure that no employee is exposed to lead at concentrations greater than 50 micrograms per cubic meter of air averaged over an eight-hour period.” (See Section 4.18.3 for additional regulations regarding the proper handling and disposal of asbestos and lead-based paint.)

State NPDES Stormwater Permit Program. The California State Water Resources Control Board is responsible for administering the National Pollutant Discharge Elimination System (NPDES) program within the state. While focused primarily on stormwater discharges rather than hazardous materials, both the statewide General Industrial Permit (Order 2014-0057-DWQ) and the Construction General Permit (Order 2009-009-DWQ) require implementation of stormwater pollution prevention plans (SWPPPs) that contain best management practices (BMPs) to prevent any type of pollutant from entering waters of the U.S. at levels that would be inconsistent with established pollutant levels under the *Clean Water Act*. For more information, see Section 4.10.1.

Airport Land Use Compatibility

The *State Aeronautics Act* and the *California Airport Land Use Planning Handbook* (Handbook) establishes airport safety zones as a part of its requirement for preparation of an airport land use compatibility plan as a fundamental tool used by the airport land use commission (ALUC) in fulfilling its purpose of promoting airport land use compatibility. The law (Section 21675[a] of the Public Utilities Code) describes the compatibility plans as having two primary purposes: (1) to “provide for the orderly growth of each public airport and the area surrounding the airport within the jurisdiction of the commission...” and (2) to “safeguard the general welfare of the inhabitants within the vicinity of the airport and the public in general.” Monterey County has established an ALUC and adopted the *Comprehensive Land Use Plan for Monterey Peninsula Airport* (CLUP) (1987) and is in the process of updating that plan (as an airport land use compatibility plan [ALUCP]).⁴ The updated ALUCP will provide guidance for future land uses within the Airport Influence Area (AIA)⁵ related to public safety and airport compatibility.

Policies contained in the CLUP that pertain to the safety of people residing or working in the project area include the following:

Policy 5. The appropriate jurisdictions, whenever possible, shall pursue measures such as home acquisition, land acquisition, and noise insulation retrofitting to increase the compatibility of these uses (“these uses” are described in 4.9.1.3, Existing Conditions).

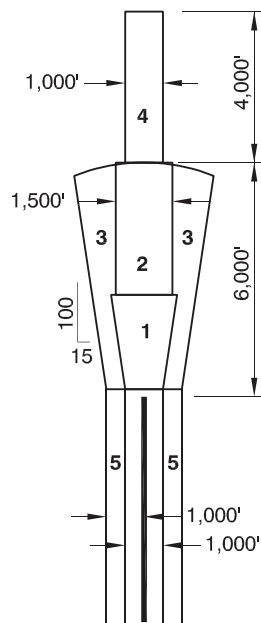
Policy 6. It is the policy of ALUC to keep clear zones free of structures and obstacles; concentrations of people shall be limited to ten persons on an annual average, and no more than 25 persons at any one time on each net acre. Every attempt will be made to mitigate existing and potential incompatible uses.

However, since the adoption of the CLUP, the existing conditions on and around the Airport have changed, including the surrounding land uses and safety compatibility zones. The delineation of safety compatibility zones in the Handbook (Caltrans 2011) are shown on **Exhibit 4.9A**. The example provided for large air carrier safety compatibility zones in the Handbook do not differ from those provided in the previously adopted Handbook from 2002; however, given the significant changes the airfield has undergone since the adoption of the CLUP, including the removal of Runway 9-24 and the construction of parallel Runway 10L-28R, the safety compatibility zones of the CLUP are no longer reflective of the existing conditions at the Airport.

Of relevance to this discussion are the compatibility policies the Handbook provides within each of the safety compatibility zones, which include the following:

⁴ Note that the Draft ALUCP is currently undergoing CEQA review and has not been formally adopted by the ALUC.

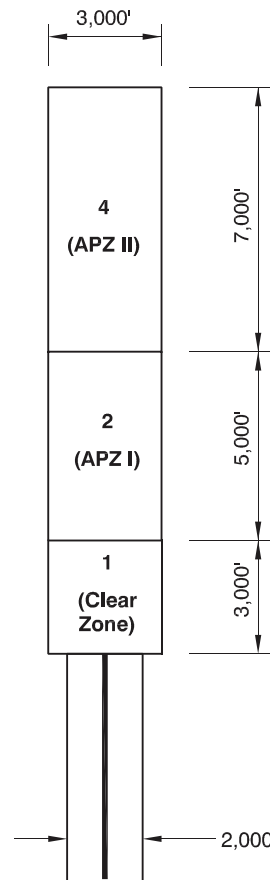
⁵ An Airport Influence Area is the area in which current or future airport-related noise, overflight, safety, and/or airspace protection factors may significantly affect land use compatibility or necessitate restrictions on those uses. The AIA is the area, which establishes the ALUC’s jurisdictional authority and boundary.



Large Air Carrier Runway

Assumptions:

- Minimal light-aircraft general aviation activity
- Predominately straight-in and straight-out flight routes
- Approach visibility minimums < 3/4 mile
- Zone 1 = 1,000' x 1,750' x 2,500'



Military Runway for Large Aircraft

Assumptions:

- Military airport
- Predominately straight-in and straight-out flight routes (must modify for turning routes and traffic pattern activity)

Legend

1. Runway Protection Zone (Clear Zone)
2. Inner Approach/Departure Zone (Accident Potential Zone I)
3. Inner Turning Zone
4. Outer Approach/Departure Zone (Accident Potential Zone II)
5. Sideline Zone

Notes:

1. RPZ (Zone 1) size in the large air carrier runway example is as indicated by FAA criteria for the approach type assumed. Adjustment may be necessary if the approach type differs.
2. See Figure 3A for factors to consider regarding other possible adjustments to these zones to reflect characteristics of a specific airport runway.
3. See Figures 4B through 4G for guidance on compatibility criteria applicable with each zone.

These examples are intended to provide general guidance for establishment of airport safety compatibility zones. They do not represent California Department of Transportation standards or policy.

Source: California Airport Land Use Planning Handbook, Figure 3B, 2011

- **Safety Zone 1: Runway Protection Zone (RPZ).** These zones are trapezoidal-shaped areas (i.e., most similar to the clear zones in the CLUP) located at ground level beyond each runway end. This zone – ideally – should be entirely clear of all obstructions as the accident risk is very high. Per 2011 Handbook recommendations, this zone should have no uses and the prohibition of all new structures and residential uses is advised. Airport ownership of this property is encouraged.
- **Safety Zone 2: Inner Approach/Departure Zone (IADZ).** The IADZ encompasses area that is overflown at low altitudes, typically only 200 to 400 feet above runway elevation. The accident risk level is high. Basic compatibility policies in this zone normally allow for agricultural uses with non-group recreational uses; low-hazard materials storage and warehouses; and low-intensity light industrial uses, such as aircraft repair services. Land uses that should be limited, avoided, or altogether prohibited include: office buildings, non-residential and residential uses, multi-story uses with high density, shopping centers and restaurants, and uses that would attract large quantities of people (i.e. theaters, large office complexes, schools, hospitals, stadiums).
- **Safety Zone 3: Inner Turning Zone (ITZ).** This zone consists of locations where aircraft are turning from the base to final approach legs of the standard traffic pattern and are descending from traffic pattern altitude. The ITZ also includes the area where departing aircraft typically complete the transition from takeoff power and flap settings to a climb mode and have begun to turn to their enroute heading. There is a moderate to high accident risk level in the ITZ. Land uses normally allowed and discouraged in this safety zone are the same as Safety Zone 2.
- **Safety Zone 4: Outer Approach/Departure Zone (OADZ).** The OADZ is situated along the extended runway centerline beyond the Safety Zone 2 area with approaching aircraft at less than traffic pattern altitude. The accident risk level is moderate. Land uses normally acceptable in Safety Zone 4 include agriculture, storage and warehouses, industrial uses, restaurants, and retail. Land uses that should be limited and avoided include low density residential and high-intensity retail and office buildings. Schools, hospitals, and stadiums should all be prohibited.
- **Safety Zone 5: Sideline Zone (SZ).** The SZ encompasses the close-in area parallel to runways. The accident risk level is considered low to moderate within the SZ. Uses allowed in Safety Zone include those allowed in Zone 4; however, these uses would be subject to height limitations for airspace protection. All common aviation-related activities are normally allowed, so long as FAA height limit criteria are met. Uses that should be limited in this area include office and other commercial uses at low intensities. Uses that should be avoided or prohibited include residential, high-intensity non-residential uses, group recreational uses, schools, and hospitals.
- **Safety Zone 6: Traffic Pattern Zone (TPZ).** This safety zone includes all area outside of the aforementioned safety zones on and around an airport’s property. Aircraft maneuvers typical in this zone are aircraft within a regular traffic pattern and pattern entry routes, with altitudes ranging from 1,000 to 1,500 feet above the runway. The aircraft accident risk level is low within the TPZ. Residential uses are normally allowed in Safety Zone 6; however, noise and overflight impacts should be considered where ambient noise levels are low. Schools, hospitals, and processing and storage

of bulk quantities of hazardous materials should be limited in this zone, and outdoor stadiums or similar uses with very high intensities should be avoided.

Local Regulations

Monterey County Environmental Health Division

Local regulatory agencies include the Monterey County Environmental Health Division. The Monterey County Environmental Health Division is responsible for managing the use, storage, and disposal of hazardous materials in amounts over a specific threshold, which varies depending on the type and use of materials. The Environmental Health Divisions maintains an inventory of hazardous materials users and works with users to develop plans that ensure hazardous materials are safely used, stored, transported, and disposed.

Goal S-5 of the *Monterey County General Plan (2010)* addresses emergency preparedness: “Assure the County is prepared to anticipate, respond and recover from emergencies.” Policies that support this goal include the continued improvement of emergency services for all areas of the county and the development of a hazard mitigation plan, among others. After the adoption of the county’s general plan, the *Monterey County Multi-Jurisdictional Hazard Mitigation Plan (2014)* was updated to reflect the existing hazard-related vulnerabilities of Monterey County and subsequent hazard mitigation techniques.

Monterey Bay Air Resources District

Additional local regulators include MBARD, which protects from the harmful effects of air pollutants. MBARD maintains Rule 424 (NESHAP), which provide clarity on MBARD’s enforcement authority regarding the emission of HAPs. Rule 424 applies to all new stationary sources of air pollutions and all modified or reconstructed stationary sources of air pollution (MBARD website 2018a).

Newly discovered asbestos-containing material must be left in place until MBARD is notified and, if necessary, an abatement permit issued. Depending on the type, amount and composition of the material, an abatement contractor may have to be hired to remove it. Specifically, MBARD has an asbestos program for compliance and enforcement of asbestos renovation. The purpose of the asbestos program is to protect the public from uncontrolled emissions of asbestos through enforcement of the Federal Asbestos Standard and Air District Rule 424. The program covers most renovations and demolition projects in the North Central Coast Air Basin. Elements of the program include survey and notification requirements prior to beginning a project, as well as work practice standards and disposal requirements. The program operates on a “cradle to grave” basis through the regulation of all aspects related to the handling of asbestos materials from discovery and removal through transportation and disposal (MBARD 2018b).

Monterey Regional Airport

The Airport maintains a spill prevention, control, and countermeasure (SPCC) plan (MPAD 2017b), which is implemented by the fuel consortium of the two fixed base operators (FBOs) (Monterey Jet Center and Del Monte Aviation) operating at the Airport. These FBOs are required to conduct SPCC plan training for their staff, and airport maintenance staff conducts SPCC plan inspections. The purpose of the SPCC plan is to prevent the discharge of gasoline, oil, and diesel fuel into or upon a navigable water of the U.S., or adjoining shorelines, wetlands or rivers. Navigable waters in the region include Monterey Bay, which receives water from Del Monte Lake, which in turn receives runoff from the in-ground stormwater collection system at the Airport.

The Airport has a *Hazardous Materials Business Response Plan* (2017a) that contains a business response plan and an emergency response/contingency plan clarifying how to handle a hazardous materials release that is observed or anticipated. The Airport is required to immediately report any release or threatened release of a hazardous materials to the Monterey County Health Department and the Officer of Emergency Services.

When a hazardous materials release is observed or anticipated, the following steps must be followed:

1. Determination of the existence or potential of a hazardous material. Unidentified substances and vapors encountered are assumed toxic or hazardous until proved otherwise.
2. The location of any incident involving hazardous materials must be immediately ascertained and the Fire Department should be contacted to respond.
3. The Airport Police, Operations Personnel, or assigned staff will act as the Business Emergency Coordinator and contact 911. The Fire Department Incident Commander notifies the Monterey County Health Department to activate the emergency response plan. Tenants and neighbors on all sides of the Airport are notified, as necessary.
4. First personnel to the scene must protect responders and bystanders from injury or contamination by securing the area and establishing perimeter until the Fire or Police Departments arrive to assume responsibility.
5. Upon the arrival of the Fire or Police Department, it must be determined if an evacuation is necessary, and if so, how many tenants or surrounding neighbors must be evacuated.⁶ In major incidents, the county and/or city Disaster Officials will be involved, and the evacuation, reception, and care will be followed as described in the *Monterey County Multi-Jurisdictional Hazard Mitigation Plan*.
6. The party responsible for the clean-up must be determined by the cause of the incident.

⁶ There is an element of the *Hazardous Materials Business Response Plan* that has a dedicated evacuation plan that would be followed in the event of an evacuation.

7. Appropriate steps would be taken to decontaminate all victims and response personnel and provide necessary medical services.
8. If 911 is called, County Communications is responsible for dispatching all necessary ambulances and coordinating the reception of victims at appropriate hospitals.

In addition, there are varying response procedures depending on the type of hazardous materials incident. For fires, the fire alarm is sounded and an advisement that hazardous materials are involved is indicated. The Monterey County Emergency Operational Coordinator and Monterey County Health Department are notified immediately, and the Fire Department Incident Commander is consulted. These emergency management agencies assist in the implementation of the Airport's evacuation plan.

When there is a potential for hazardous materials of any type to enter drainage ditches or waterways, 911 is called and the Fire Department Incident Commanders make the necessary notifications.

There are several ways in which a natural gas leak could occur, including in large transmission lines, in the secondary mains, and in the lines connecting mains to buildings on airport property. The Pacific Gas and Electric Company (PG&E) is responsible for responding to all such incidents. Additionally, in the event of breaks or leaks, or the smell of natural gas, 911 is called and fire departments are dispatched. In the event of major incidents, a Scene Management Officer is required, as in other hazardous material incidents. For all other spills or leaks, 911 and the Monterey County Health Department are notified.

4.9.2 Methodology

Impacts to public safety regarding the handling and transport of hazardous materials and wastes that could occur due to implementation of the proposed projects have been evaluated. The evaluation of existing environmental conditions is based on the Airport's compliance with applicable federal, state, and local laws. Online environmental databases were also accessed to determine if there are known hazardous materials storage or contamination at the Airport. These databases included: U.S. EPA's Environmental Justice Screening (EJSCREEN) and Mapping Tool (Version 2017) and the California EPA DTSC's Cortese List and EnviroStor online tool. In addition, previous fuel spills and asbestos and lead contamination disposal efforts are documented in the Existing Conditions section (4.9.3).

The potential for hazards-related impacts was based on an assessment of existing conditions and the likelihood that implementation of the Proposed Project or Alternative 1 would result in the disruption of existing hazardous conditions through the demolition of existing facilities or result in discharges during construction of the improvements. This effort included the following: (1) documentation of the existing and historic uses of the Airport; (2) the Airport's hazardous waste practices; (3) existing fuel handling, transport, storage facilities and activities; and (4) known discharges, investigations, and remediation activities.

An inventory of the closest schools to the Proposed Project or Alternative 1 development or fuel storage areas that could be affected by hazardous materials or emissions was also conducted. There are two

preschools located within ¼-mile of the Airport: the Casanova Oak Knoll Park Center Preschool at 735 Ramona Avenue and the Del Rey Oaks Christian Preschool at 841 Rosita Road.

The potential for the Proposed Project or Alternative 1 to create or result in increased risk of exposing surrounding populations or the environment to hazardous materials due to operation of the Proposed Project or Alternative 1 was assessed in light of the following: (1) the existing fuel management programs in place at the Airport; and (2) the spill prevention and response protocols. This information was obtained through review of existing documentation, existing lease agreements with airport tenants, and consultations with airport staff.

To evaluate the Proposed Project and Alternative 1's potential aircraft safety hazards to people residing or working in the project area, this EIR uses safety zones that are based on current state regulations (2011 Handbook). The 1987 CLUP is out of date, does not represent the current conditions at the Airport, and is not based on the updated safety zones now implemented by the state through the ALUCP process. For example, in addition to the updated safety zone criteria, since the 1987 CLUP's adoption, the Airport has closed Runway 9-24 and opened a second parallel runway, Runway 10L-28R, which also altered the Airport's 1987 safety zones. (A consistency analysis related to the 1987 CLUP from a planning perspective is contained in Section 4.12).

The Airport's emergency response procedures are used to analyze the impact that implementation of the Proposed Project or Alternative 1 would have on the Airport's ability to handle and respond to emergencies.

4.9.3 Existing Conditions

Airport Activities Involving the Use or Storage of Hazardous Materials

Airport activities involve the use, handling, storage, transport, and disposal of hazardous materials and/or wastes that are subject to federal, state, and local laws and regulations. A hazardous material is any item or agent that can pose a danger to individual health and to the environment. The term generally applies to certain raw materials or products purchased from outside suppliers that are stored and used at a facility. Hazardous and regulated materials found at the Airport are listed with the CERS. Information found in CERS includes facilities that handle hazardous materials, site maps, chemical inventories, underground and aboveground storage tanks, and emergency response plans.

The main activities involving the use of hazardous materials at the Airport are associated with fueling, maintenance, and repair of aircraft and airport-related vehicles, ground support equipment (GSE) as well as emergency firefighting services. Such activities are associated with the Airport's two FBOs, Monterey Jet Center and Del Monte Aviation, both of which have fuel storage and delivery capability, and the aircraft rescue and firefighting (ARFF) building, which stores and requires the transport of hazardous materials. Fuel storage facilities and businesses that handle hazardous materials located at the Airport are required to comply with all applicable regulations. Only minor maintenance and repairs of commercial aircraft and airport vehicles are allowed at the Airport, thereby reducing the number and quantities of other hazardous materials as well as their potential impacts. All MPAD hangars are

classified as “S-5” Group III Aircraft Hangars, which means that no repair work is allowed, except for the exchange of parts, and maintenance requiring no open flame, flame-producing devices, welding, torch cutting, torch soldering, doping, spray painting, or the used of Class I or II flammable liquids. Tenants are not allowed to store combustible materials or other hazardous materials within a hangar. The Airport Fire Department completes annual inspections of all hangars and buildings to ensure compliance with fire code requirements.

Based on Section 24 of the Airport’s hangar rental agreement between the Airport and private parties, the tenant is liable and responsible for:

- a. Removal of any hazardous substances and waste
- b. Costs associated with storage or use of hazardous substances
- c. Any damages to persons, property, and the premises or Airport
- d. Any claims resulting therefrom
- e. Any fines imposed by a governmental agency
- f. Any other liability as provided by law
- g. Reporting any release of hazardous materials to the Airport district (i.e., MPAD)
- h. Placing a drip pan under each engine of stored aircraft

Fuel Handling and Storage

Aviation fuel is a specialized type of petroleum-based fuel used to power and propel aircraft. The aviation activities at the Airport use two types of aviation fuel: aviation gasoline (AvGas) and jet fuel (Jet A). Both types of fuels are stored at the Airport. AvGas is the only remaining lead-containing transportation fuel. Lead has been found to be a toxic substance, and several petitions and lawsuits are demanding the U.S. EPA pursue an endangerment finding for leaded AvGas. The agency is expected to make a final determination of avgas in 2018. Replacement of AvGas by 2018 is anticipated through the Piston Aviation Fuels Initiative (PAFI).

Each FBO at the Airport has fuel storage and delivery capabilities. The Monterey Jet Center has a static fuel farm located on the southwest side of Taxiway E. The fuel farm has capacities of 20,000 gallons of Jet A and 12,000 gallons of AvGas. There is also a 1,000-gallon tank for unleaded fuel. The Del Monte Aviation fuel farm is in the southwest portion of the apron leasehold and has capacities of 50,000 gallons for Jet-A and 12,000 gallons for AvGas. The Monterey Jet Center and Del Monte Aviation have created a joint fuel consortium to deliver fuel to aircraft, including commercial aircraft. The fuel consortium maintains an 8,000-gallon self-serve AvGas fuel tank on the southeast apron. The consortium also maintains the fuel delivery trucks. There are four Jet A fuel trucks with a total of 18,000-gallon capacity. Two AvGas trucks can store a total of 1,750 gallons of fuel. There is also a 1,200-gallon truck that carries diesel fuel exclusively. The Monterey Navy Flying Club, on the northeast side of the airfield, also has a 12,000-gallon AvGas tank located on the north GA apron. In total, including the trucks, the Airport currently has the capacity for 88,000 gallons for Jet A and 45,750 gallons for AvGas (Coffman Associates 2015).

As discussed in the preceding paragraph, the fuel storage tank located on the north GA apron is operated by the Navy Flying Club. The Navy Flying Club is under the auspices of the U.S. Department of Navy and is required to follow the procurement policies and procedures set forth by the Navy. Currently, fuel delivery to the north GA area is escorted by FBO personnel from the south side of the Airport starting at one of the FBOs to the fuel tank at the north GA apron. The fuel truck is met by Navy Flying Club personnel at the vehicle gate and escorted to fuel the tank. Based on historical data and usage, the fuel tank is filled via fuel delivery tanker approximately six times a year averaging about 8,600 gallons per load.

All personnel conducting fueling activities at the Airport are required to receive training that is approved by FAA. Furthermore, all fueling operations are subject to emergency response plan, spill response plan, and SWPPP compliance, among others. These plans must meet the approval of the Airport and county and state health and water quality officials.

Spill Management and Releases

The Airport's current SPCC plan, dated November 2017 and prepared in compliance with 40 CFR Part 112 "Oil Pollution Prevention," outlines the requirements for both the prevention of and response to oil and oil product discharges, which in this case, includes jet fuel, AvGas, diesel, and unleaded gasoline. The Airport has also prepared an operations manual to encompass all aspects of fueling operations at the Airport.

In the event of fuel spills, the onsite ARFF station is notified and called to the scene for all fuel spills. Tanker truck and into-plan (fuel dispensing) operators are primarily responsible for clean-up and containment; however, ARFF personnel intervene to prevent a fire, contain the spill, and/or prevent spilled fuel from entering the storm drain system. Small spills are cleaned up using absorbent pads and materials stored at the Airport. In the event of a major spill, the Hazardous Materials Response Team is called to the scene. Clean-up and further containment are the responsibility of the FBOs, and into-plan operators, among others, who contract with various spill response companies. The Airport has spill response contractors available on-call 24 hours a day, 7 days a week.

All fueling facilities have permits from the appropriate agencies regarding fuel-related emissions.

Historically, a number of small fuel spills have occurred throughout the airfield but rarely result in releases to the storm drain or off the property. The Airport maintains records of spills and leaks of hazardous materials that occur on the Airport, a summary of which is provided in **Table 4.9A**. Every spill reported was cleaned either by the Airport or by a third party primarily using an absorbent material. As reflected in **Table 4.9A** below, between 2015-2017, the Airport recorded no fuel spills or other incidents that resulted in releases that extended off the airfield. All minor spills were contained and properly remediated. No incidents required treatment, removal, or disposal of contaminated soils. All releases were effectively remediated (cleaned up) and regulatory case files have been closed regarding these incidents. Therefore, these past incidents represent no significant impact on the environment regarding hazardous materials.

The Airport’s compliance with applicable regulatory requirements as well as the stringent fuel safety protocols routinely implemented ensure the risks related to jet fuel transport, storage, and handling are minimized to the maximum extent possible.

**TABLE 4.9A
Record of Hazardous Material Spills and Leaks
Monterey Regional Airport**

Date	Location of Spill	Type of Material	Estimated Quantity Spilled	Clean Up Response
2015				
1/5/2015	Monterey Jet Center	Jet A Fuel	5 gallons	Cleaned with absorbent
5/15/2015	Golden Tee	Raw Sewage	10 gallons	Public Works
8/17/2015	Monterey Jet Center	Jet A Fuel	15 gallons	Cleaned with absorbent
10/16/2015	Monterey Jet Center	Jet A Fuel	5 gallons	Jet Center employees
12/4/2015	200 Fred Kane	Hydraulic Fluid	50 gallons	Cleaned with absorbent
2016				
6/26/2016	Monterey Jet Center	Jet A Fuel	10 gallons	Jet Center employees
8/20/2016	120 Olmsted Way	Jet A Fuel	3 gallons	Cleaned with absorbent
11/17/2016	Monterey Jet Center	Jet A Fuel	5 gallons	Cleaned with absorbent
2017				
3/6/2017	Monterey Jet Center	Jet A Fuel	2 gallons	Jet Center employees
6/17/2017	Monterey Jet Center	Jet A Fuel	2 gallons	Jet Center employees
8/14/2017	200 Fred Kane	Jet A Fuel	15 gallons	Airport employees
8/21/2017	100 Sky Park Drive	Jet A Fuel	5 gallons	Cleaned with absorbent

Source: Monterey Regional Airport Management 2018. Record of Spills and Leaks, May.

Maintenance Activities

Hazardous wastes generated during the maintenance of aircraft typically include shop waste such as used oil, transmission and hydraulic fluids, and other industrial waste such as oily rags, spent cartridges, etc. Shop wastes are stored in approved containers until they are transported and properly disposed. Airport maintenance building operations include the limited use of small quantities of paints, mineral spirits, batteries, cleaning solvents, and petroleum products. Maintenance services at existing hangars store materials used to maintain aircraft, fueling, and vehicles and house containers used for oil, coolant or waste oil, or fuel.

All the existing tanks at the Airport meet mandated leak protection and detection standards. Similarly, oil/water separators, located at wash-racks near aircraft maintenance facilities, are routinely cleaned and monitored. Hazardous materials usage and disposal practices include the ongoing implementation of employee training programs.

Aviation-related hazardous materials storage and waste management is a function of the type and size of the aircraft hangar and the work performed. No hangars are equipped with fire-rated rooms, although a fire-rated cabinet/locker could be installed by a tenant if approved by MPAD prior to installation.

Site Investigations

Previous construction at the Airport has not resulted in the uncovering of any hazardous materials and many areas proposed for development on the Airport have been previously disturbed, thus posing an unlikely chance of unknown hazardous materials being uncovered during construction (MPAD 2012). Further, the Airport does not maintain a list of regulated substances (Monterey Regional Airport Management 2018). Per U.S. EPA's EJSCREEN and Mapping Tool (Version 2017) and the California EPA DTSC Cortese List, there are no toxic release facilities on airport property (U.S. EPA website 2018; California DTSC website 2018).

There are no Superfund or brownfield sites in proximity to the Airport; the closest such site is at the former U.S. Army post, Fort Ord (U.S. EPA website 2018). In addition, the state's Cortese List indicates that there are no sites at the Airport on the state's cleanup list (California DTSC website 2018). The closest site on the Cortese List is approximately two miles west on 153 Webster Street in the City of Monterey. The Airport was a former military base and there are five former U.S. Army Corps of Engineer (USACE) wells (2002) located on the northwestern area of the Airport. These wells have been remediated and are being investigated by the Airport as a viable source of non-potable water to serve the Airport and/or other users (Allterra 2015). There are no Phase 1 Environmental Due Diligence Assessments (EDDAs) or Preliminary Site Investigations available related to past land acquisitions at the Airport (Monterey Regional Airport Management 2018).

Asbestos-Containing Materials

Buildings with potential to contain hazardous materials based on the date constructed (i.e., prior to the outlaw of lead-based paint and/or asbestos) include the commercial terminal building, ARFF building, and buildings in the northwest area of the Airport (i.e. Old North Side Industrial Area). The Airport abides by all applicable requirements and federal, state and local rules and regulations pertaining to the handling, removal, and storage of asbestos and/or lead-based paint materials when those facilities need repair or are to be demolished. The most information is known about hazardous materials for the commercial terminal building as it was tested for asbestos and lead contamination in 2004.

Several building materials in the commercial terminal building contained asbestos when tested, including: roofing, drywall (in the mechanical area), decorative drywall (in the main terminal stairwell, sprayed on ceiling, linoleum, stairwell flooring, drywall (in the American Eagle offices), baseboard and mastic (in multiple locations), drywall (in the stairwell), and mudded joints. Although not tested, the aircell pipe insulation is known to contain asbestos, which is in the attic spaces throughout the first floor. Additionally, some of the tested materials did not contain asbestos in the samples, but are suspected to still contain asbestos, including the plaster, acoustic ceiling tiles, false ceiling panels, carpet, texturing, linoleum, baseboard mastic, drywall, vinyl floor tiles, window caulking, roofing, edge mastic, duct mastic, roof mastic, and silver paint. Other materials in the terminal building, including wood, plastic, glass, metal, rubber, and concrete, are not suspected to contain asbestos and thus would not require sampling prior to their disturbance (Hazard Management Services, Inc 2004).

Asbestos abatement work was performed in January 2007 in the Golden Tee Restaurant (on the second floor in the west end of the building), west end baggage area (on the first floor), Budget rental car offices, snack bar, gift shop, west end passenger ticketing and waiting area (on the first floor), and certain American Eagle offices (on the first floor in the east end of the building). Asbestos-containing drywall joint compound, plaster, sprayed-on ceiling, pipewrap joints, aircell, roofing materials, and vinyl floor tile and mastic were removed in the commercial terminal building. Despite the abatement work, asbestos-containing materials still exist throughout the building. In July 2007, additional asbestos abatement work was performed in the mechanical room of commercial terminal building (Hazard Management Services, Inc 2004, 2007).

Lead-Based Paint

For lead, the painted structural components of the terminal building were visually inspected for damaged and/or deteriorating paint conditions. A portion of each exposed paint surface seen within the interior and exterior of the main terminal building, which included (but was not limited to) walls, ceilings, windows, doors, baseboards, trim, gutters, soffits, decks, and railings. Of the 227 readings taken, 158 surfaces were below 0.05 micrograms/centimeter squared (mg/cm^2) for lead. Lead-based paint over $1.0 \text{ mg}/\text{cm}^2$ was found on metal roof flashing, metal roof vents, wood cabinets, concrete floors, ceramic tiles, and drywall walls. Chip samples were also collected from interior off-white drywall, exterior beige stucco, and white drywall, all of which indicated the lead present was below the reporting limit. Recommended abatement for lead-containing paint included training for any worker to come in contact with the material, as well as proper lead work practices (Hazard Management Services, Inc 2004; 2007).

Airport Land Use Compatibility

At the time of the CLUP's adoption in 1987, there were several land uses in proximity to the Airport that were considered incompatible because they either: penetrated the clear zone, created a safety hazard, or were noise impacted. The uses that were considered a safety hazard in 1987 included: Monterey County Fairgrounds, Monterey Peninsula Unified School District and Foothill School, motels and commercial uses between N. Fremont Street and Fairground Road, commercial uses at Highway 68 and Canyon Del Rey Boulevard, York School, Ryan Ranch Industrial Park, Santa Catalina School, Villa Del Monte, Del Monte Gardens, Del Monte Vocational Skill Center, Del Monte Beach Area, Naval Postgraduate School, commercial and business uses between Del Monte Avenue and Casa Verde Way, Oak Grove area, Del Monte Beach townhouses, The Oaks, Meadow Oaks, and Fisherman's Flat Area.

Airport Safety

Currently, there are non-standard conditions (i.e., existing facilities that do not comply with current FAA design standards) present at the Airport, which are discussed in detail in Section 2.5.1, but listed below for reference:

- Runway 10R-28L to Taxiway "A" centerline to centerline separation
- Hold line separation from the Runway 10R-28L centerline
- Aircraft parking area separation from the Runway 10R-28L centerline

- High energy runway crossings
- Taxiway connector geometry
- Part 77 obstructions

As discussed in Chapter Two, there are several existing Part 77 obstructions at the Airport, including the commercial terminal building, the ARFF building, and several obstructions in a privately-owned parcel off Airport property. Specifically, the terminal building is located approximately 500 feet from the Runway 10R-28L centerline and penetrates the Part 77 transitional surface. There is presently obstruction lighting in place to alert pilots to the obstruction. The ARFF building is also within the Part 77 transitional surface. The privately-owned 5.5-acre parcel of land approximately 800 feet east of the Highway 68/Olmsted Road intersection also contains numerous obstructions to Runway 10R-28L (see Exhibit 2A in Chapter Two).

Emergency Response

The Airport has a *Hazardous Materials Business Response Plan* (MPAD 2017b) which contains an emergency response/contingency plan module (per CFR, Title 14, Section 139.325) that addresses emergency procedures for all parts of the facility, including who to contact depending on the type and nature of the emergency. This plan calls for the evacuation of facilities when certain alarm signals sound, including bells, horns/sirens, verbal (i.e., shouting), and other public-address systems.

The emergency response/contingency plan provides phone numbers for emergency contacts, post-incident contacts, emergency resources, and the nearest hospital. It describes evacuation procedures in the event the Airport needs to clear all employees, contractors, and other personnel to a safe location in an orderly manner. The evacuation map is prominently displayed throughout the Airport. Part of the evacuation plan describes exit routes that should be utilized depending on a person's location at the Airport, including:

- **Airport District Administrative Offices:** proceed to the upper short-term parking lot.
- **Terminal Unsecured Public Areas:** Use the nearest exit that is not blocked and proceed to the lower premium short-term parking lot.
- **Terminal East Holdroom Secured Public Area:** Proceed through the south emergency exit door leading into the ticketing area. If blocked, proceed to the West Holdroom or exit into the main lobby using the exit next to the checkpoint.
- **Terminal West Holdroom Secured Public Area:** Proceed through the Gate 1 boarding door. If blocked, proceed into the main lobby. If both exits are blocked, proceed onto the Airport Operations Area via Gates 2 and 3 (the doors will automatically unlock when the roll-up fire gate is lowered).

Airports certificated under Part 139 are required to provide ARFF services during air carrier operations and to maintain its equipment and personnel based on the established ARFF index. The Airport's ARFF facility is located on the airfield at the east end of the commercial apron and falls within ARFF Index B

on a scale from A to E, with A applicable to the smallest aircraft and E applicable to the largest aircraft (based on wingspan). The facility is owned by the Airport and staffed by the City of Monterey. It houses three engines and a command vehicle and has five bays.

Wildlife Hazards

The Airport is situated approximately 1.5 miles east of the Monterey Bay shoreline and within the Pacific Flyway. The Pacific Flyway is a major north-south route of travel for migratory birds, extending from Alaska to South America. Migratory birds utilize this corridor both in the spring and fall, following food sources, heading to breeding grounds, or traveling to wintering sites. Numerous species of birds have been identified on and adjacent to the Airport (MPAD 2013).

A large variety of wildlife live near the Airport in addition to the many species of birds that pass through the area. The Airport has retained the United States Department of Agriculture (USDA) Wildlife Services in the past to investigate and manage coyotes and black-tailed deer within airport property. Furthermore, small mammals, such as the California ground squirrel, have been observed in areas adjacent to the runways and taxiways.

The geographic location within the Pacific Flyway and the wildlife habitats on and adjacent to the Airport provide for a significant wildlife presence that includes both resident and seasonal population. From September 1990 through December 2010, 19 wildlife strikes have been reported at the Airport (**Table 4.9B**). Of these reported strikes, all but one involved birds, while one included foxes on the runway. These strikes did not result in any human injuries; however, aircraft damage did occur in a few instances (MPAD 2013).

Month	Number of Strikes
January	3
February	2
March	1
April	0
May	0
June	3
July	0
August	1
September	1
October	1
November	5
December	2
Total Strikes from September 1990 - December 2010	19

Source: MPAD 2013:Table 2C

The Airport is enclosed with perimeter fencing but large and medium-sized mammals, such as black-tailed deer and coyotes, in addition to turkeys, were observed during a wildlife hazard assessment in 2011 breaching the fencing and gaining access to the airfield. **Table 4.9C** provides a summary of all the

types of wildlife found on and around the Airport and how they pose as a threat to the safe and efficient operation of the Airport.

**TABLE 4.9C
Wildlife Hazard Summary
Monterey Regional Airport**

Wildlife Guild	Hazardous Movements	Seasons/Conditions
Waterfowl	Canada geese and other waterfowl congregate at ponds located on Monterey Pines Golf Course.	All year. Increased activity in the fall and winter.
Raptors	Red-tailed hawks and other raptors forage in the infield areas and perch on various airport structures. Turkey vultures soar within MRY's airspace.	All year.
Shorebirds	Killdeer and black-bellied plover forage in the infield areas and stand on the runways.	All year.
Gulls	Most prevalent west of the airport but occasionally perch on airport structures.	All year. Increased activity in the fall and winter.
Blackbirds/ Starlings	These birds forage in the infield areas and regularly roost on the northwest side of the airport.	All year. Increased activity in the fall and winter.
Turkeys	Observed mainly on the northeast and southeast areas of the airport in small groups.	Observed by airport personnel beginning in March 2012.
Coyotes	Use east end of the airport as a movement corridor.	All year.
Black-tailed Deer	Use north side of the airport.	All year.

Source: MPAD 2013:Table 2E

4.9.4 Thresholds of Significance

The CEQA Guidelines, Appendix G (2017) was used to establish significance thresholds to determine if the Proposed Project or Alternative 1 would have significant environmental impacts related to Hazards or Hazardous Materials. The Proposed Project or Alternative 1 would result in a significant impact if they would:

- Threshold 4.9-1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Threshold 4.9-2: 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;
- Threshold 4.9-3: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school;
- Threshold 4.9-4: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area; or
- Threshold 4.9-5: Impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

4.9.5 Impact Analysis

4.9.5.1 Threshold 4.9-1 - Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials

Future activity at the Airport under both the Proposed Project and Alternative 1 would involve the use, transport, or disposal of hazardous materials, all of which are heavily regulated. However, the proposed hangars would generally only be used for storage purposes. Language in tenant leases for non-commercial airport hangars states, “The District hereby rents to tenant (Hangar 3) for storage of aircraft used for general aviation, non-commercial operations, and for storage of materials related to operation of the stored aircraft, and other reasonable use as long as the principle use of the hangar is aircraft storage.”

However, commercial businesses with specific needs may also be located within the proposed GA hangar short- or long-term projects. For example, an existing commercial business consisting of a maintenance/repair and overhaul facility could be relocated from the southeast GA area to the north GA area. The existing commercial business currently has a revocable license agreement to perform maintenance on aircraft on an on-call basis. However, spray painting, open flame torch work arc welding, sand blasting, and paint stripping are expressly prohibited in the lease agreement, and the Licensee must take all necessary precautions to prevent its activities from causing any hazardous material release to occur on the Airport, including, but not limited to any release into soil, groundwater, sewage, or storm drainage system.

Although the specifics of proposed long-term non-aeronautical projects are not known at this time, no heavy industrial land uses would be allowed. The Airport already implements a *Hazardous Materials Business Response Plan* that all fuel operators at the Airport are required to follow. In addition, individual businesses are required to register all hazardous materials with the U.S. EPA as well as state and local regulatory agencies.

Proposed Project and Alternative 1

Construction Impacts

The Proposed Project and Alternative 1 would result in a variety of demolition, relocation, and construction activities. The demolition and construction activities would involve the use, storage, and handling of hazardous and non-hazardous materials as well as the generation of hazardous waste. Additionally, hazardous materials such as asbestos-containing materials and lead-based paint may be encountered during demolition and relocation activities.

Based on previous demolition projects at the Airport, there are potential hazardous material releases that could result from the demolition of older buildings on airport property, including the existing commercial terminal building and existing ARFF. As discussed above, asbestos and lead-based paint are known hazardous materials that would be encountered during the demolition of the existing commercial terminal building. The ARFF building, buildings in the Old North Side Industrial Area, and some hangars were also constructed prior to 1978 (i.e., the year lead-based paints were banned) and thus present a possibility of hazardous materials. The requirements of MBARD Rule 424 (NESHAP) would be triggered

due to the proposed demolition of the ARFF building and commercial terminal building, as well as the northwest industrial area and some hangars. Rule 424 contains the investigation and reporting requirements for asbestos. These regulatory requirements would ensure that impacts related to the demolition of older buildings on the Airport are Less than Significant. See Section 4.9.6.

Since the construction of the proposed project requires ground disturbance, there is a possibility that unknown hazardous sites or materials could be disturbed. This is a Potentially Significant impact. However, all hazardous materials used or generated as part of construction activities would be regulated by existing federal, state, and local regulations. (See Section 4.18.3 regarding solid waste disposal for a complete discussion on the proper disposal methods for these hazardous materials likely to be encountered at the Airport.)

Short-Term Project Impacts

With the proposed expansion of GA activity on the north side of the Airport, the Proposed Project and Alternative 1 would provide an additional fuel farm on the north side of the Airport. An existing 8,000-gallon AvGas tank is proposed to be relocated from the southeast GA area to the north side. The existing fuel tank on the Navy Flying Club apron would also be relocated to consolidate both tanks on the GA apron near the proposed new and relocated north side hangars. Currently, fuel delivery to the north GA area is escorted by FBO personnel from the south side of the Airport starting at one of the FBOs to the fuel tank at the north GA apron. This procedure would not change with the proposed relocated tanks.

The Proposed Project or Alternative 1 proposed short-term projects would not increase the amount or type of fuel transported, used, or disposed of at the Airport, and any potential fuel spill that could result from the relocation of these fuel tanks would be required to follow the procedures described in the *Hazardous Materials Business Response Plan*, as well as the SPCC plan. Therefore, since the Airport has procedures and plans in place that are applied to all fuel storage at the Airport, impacts related to the relocation of the existing fuel tanks would be Less than Significant. See Section 4.9.6.

Long-Term Project Impacts (Programmatic)

Proposed long-term development under the Proposed Project and Alternative 1 would include additional airport safety improvements, GA hangars, and various types of non-aeronautical development. Although specific details regarding future use of hazardous materials, if any, are not known at this time, any future development and tenants would be required to comply with all applicable regulatory requirements regarding the handling, storage, or disposal of hazardous materials both by law and by the terms of their lease with the Airport. See Section 4.9.6.

Much of the Airport's existing fuel storage is currently located on the southwest apron of the Airport. This location is adequate for the bulk of fuel storage needs. It also provides ready access for fuel delivery tankers. Neither the Proposed Project nor Alternative 1 provide for additional fuel storage capacity. If the FBOs indicate a need for additional fuel storage capacity, additional tanks could potentially be accommodated in the southwest apron area; however, such facilities are not proposed at this time. Future environmental review would be necessary prior to installation of any such additional storage tanks.

Less than Significant Impacts: **Demolition of the existing commercial terminal and ARFF buildings, as well as the Old North Side Industrial Area and some hangars, under the Proposed Project and Alternative 1 would be likely to expose workers to asbestos and lead paint. This impact per Threshold 4.9-1 would be Less than Significant due to the enforcement of regulatory requirements.**

Under either the Proposed Project or Alternative 1, construction workers could be exposed to HAPs during the operation of construction equipment. This impact per Threshold 4.9-1 would be Less than Significant due to the enforcement of regulatory requirements.

The Airport has procedures and plans in place that are applied to all fuel storage at the Airport and these procedures and plans would remain applicable to the Proposed Project or Alternative 1 fuel storage; therefore, impacts related to the relocation of the existing fuel tanks would be Less than Significant (Threshold 4.9-1).

Proposed long-term project tenants would be required to comply with all applicable regulatory requirements regarding the handling, storage, or disposal of hazardous materials both by law and by the terms of their lease with the Airport. Thus, impacts related to Threshold 4.9-1 would be Less than Significant.

Significant Impact HAZ-1: **Since the construction of the Proposed Project and Alternative 1 proposed projects would require ground disturbance, there is a possibility that unknown hazardous sites or materials could be disturbed. This is a Potentially Significant impact per Threshold 4.9-1.**

4.9.5.2 Threshold 4.9-2 - 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

Proposed Project and Alternative 1

Construction Impacts

During construction under the Proposed Project and Alternative 1, contractors would be held responsible for reporting any discharges of hazardous materials or other substances; BMPs would be used and the required NPDES General Construction Permit would minimize the potential adverse effect to the public and environment. These regulatory requirements would ensure that impacts related to the use of hazardous materials and/or accidental spills during construction under the Proposed Project or Alternative 1 would be Less than Significant. See Section 4.9.6.

Short-Term Project Impacts

As previously mentioned, the relocation of two existing fuel tanks, one 8,000-gallon AvGas tank from the southeast area and one 12,000-gallon tank on the north GA apron, would not increase the amount of hazardous materials at the Airport, but rather relocate them within airport property. Currently fuel delivery to the north GA area is escorted by FBO personnel from the south side of the Airport starting at one of the FBOs to the fuel tank at the north GA apron. This procedure would not change with the proposed relocated tanks. The Airport's current SPCC plan () would be expanded to ensure proper protections are in place for the new north side fuel farm to prevent the discharge of gasoline, oil, and diesel into any nearby water bodies.

Any fuel spill that could occur because of the relocation or permanent siting of these fuel tanks would also be subject to the regulations and policies of the Airport's *Hazardous Materials Business Response Plan* (2017). Therefore, since the Airport has procedures and plans in place that are applied to all fuel storage at the Airport, impacts related to potential accidents due to the relocation of existing fuel tanks would be Less than Significant.

Long-Term Project Impacts (Programmatic)

Proposed long-term projects under the Proposed Project and Alternative 1 would include additional airport safety improvements, GA hangars, and various types of non-aeronautical development. Although specific details regarding future use of hazardous materials, if any, are not known at this time, any future development and tenants would be required to comply with all applicable regulatory requirements regarding potential spills of hazardous materials both by law and by the terms of their lease with the Airport. See Section 4.9.6.

Less than Significant Impacts: Under either the Proposed Project or Alternative 1, the use of hazardous materials during construction per Threshold 4.9-2 would be Less than Significant due to the enforcement of regulatory requirements.

The Airport has procedures and plans in place to contain and clean up any fuel spills at the Airport; therefore, impacts related to the relocation of the existing fuel tanks would be Less than Significant (Threshold 4.9-2) under the Proposed Project and Alternative 1.

4.9.5.3 Threshold 4.9-3 - Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school

Proposed Project and Alternative 1

Construction Impacts

The only construction impacts that could occur within ¼ mile of an existing or proposed school would be for proposed long-term development and would be the same under either the Proposed Project or Alternative 1. The Casanova Oak Knoll Park Center Preschool located at 735 Ramona Avenue would be within ¼ mile of proposed redevelopment of the Old North Side Industrial Area. The Del Rey Oaks Christian Preschool at 841 Rosita Road could be located within ¼ mile of future proposed non-aeronautical development located north of the north side GA area depending on future site plans developed for the north side.

As discussed previously under Sections 4.9.5.1 and 4.9.5.2, the operation of construction equipment would release HAPs. However, Rule 424 (NESHAP) is enforced by MBARD and applies to all new stationary sources of air pollutions and all modified or reconstructed stationary sources of air pollution. Contractors would also be held responsible for reporting any discharges of hazardous materials or other substances; BMPs would be used and the required NPDES General Construction Permit would minimize the potential adverse effect to the public and environment. These regulatory requirements would ensure that construction impacts related to the emissions of hazardous emissions and/or use of hazardous materials and/or accidental spills within ¼ mile of a school under the Proposed Project or Alternative 1 would be Less than Significant. See Section 4.9.6.

Short-Term Project Impacts

The relocation of two AvGas fuel tanks, one 8,000-gallon tank and another 12,000-gallon tank to the north side of the Airport would not locate fueling activities within ¼ mile of the Casanova Oak Knoll Park Center and Del Rey Oaks Christian preschools. The Casanova Oak Knoll Park Center Preschool is approximately ¾ mile from the proposed fuel farm on the north GA apron, while the Del Rey Oaks Christian Preschool is approximately ½ mile away. The Monterey Navy Flying Club, on the north side of the airfield, already has a 12,000-gallon AvGas tank located on the north GA apron. Since the relocation of the 8,000-gallon AvGas tank from the southeast ramp and the 12,000-gallon fuel tank from the Navy Flying Club would not increase the amount of fuel located within ¼ mile of a school, impacts to existing schools would be Less than Significant.

Long-Term Project Impacts (Programmatic)

Proposed long-term projects under the Proposed Project and Alternative 1 would include additional airport safety improvements, GA hangars, and various types of non-aeronautical development. Although specific details regarding future use of hazardous materials, if any, are not known at this time, any future development and tenants would be required to comply with all applicable regulatory requirements regarding the use of hazardous materials both by law and by the terms of their lease with

the Airport. Any proposed future use of hazardous materials or the handling of hazardous waste within ¼ mile of a school due to the proposed redevelopment of the Old North Side Industrial Area or future non-aeronautical development north of the north side GA area would be Less than Significant. See Section 4.9.6.

Less than Significant Impacts: Under either the Proposed Project or Alternative 1, temporary construction impacts related to the emissions of hazardous emissions and/or use of hazardous materials and/or accidental spills within ¼ mile of a school per Threshold 4.9-3 would be Less than Significant due to the enforcement of regulatory requirements.

The proposed north GA fuel farm under the Proposed Project and Alternative 1 would be located more than ¼ mile from an existing school and impacts related to Threshold 4.9-3 would be Less than Significant.

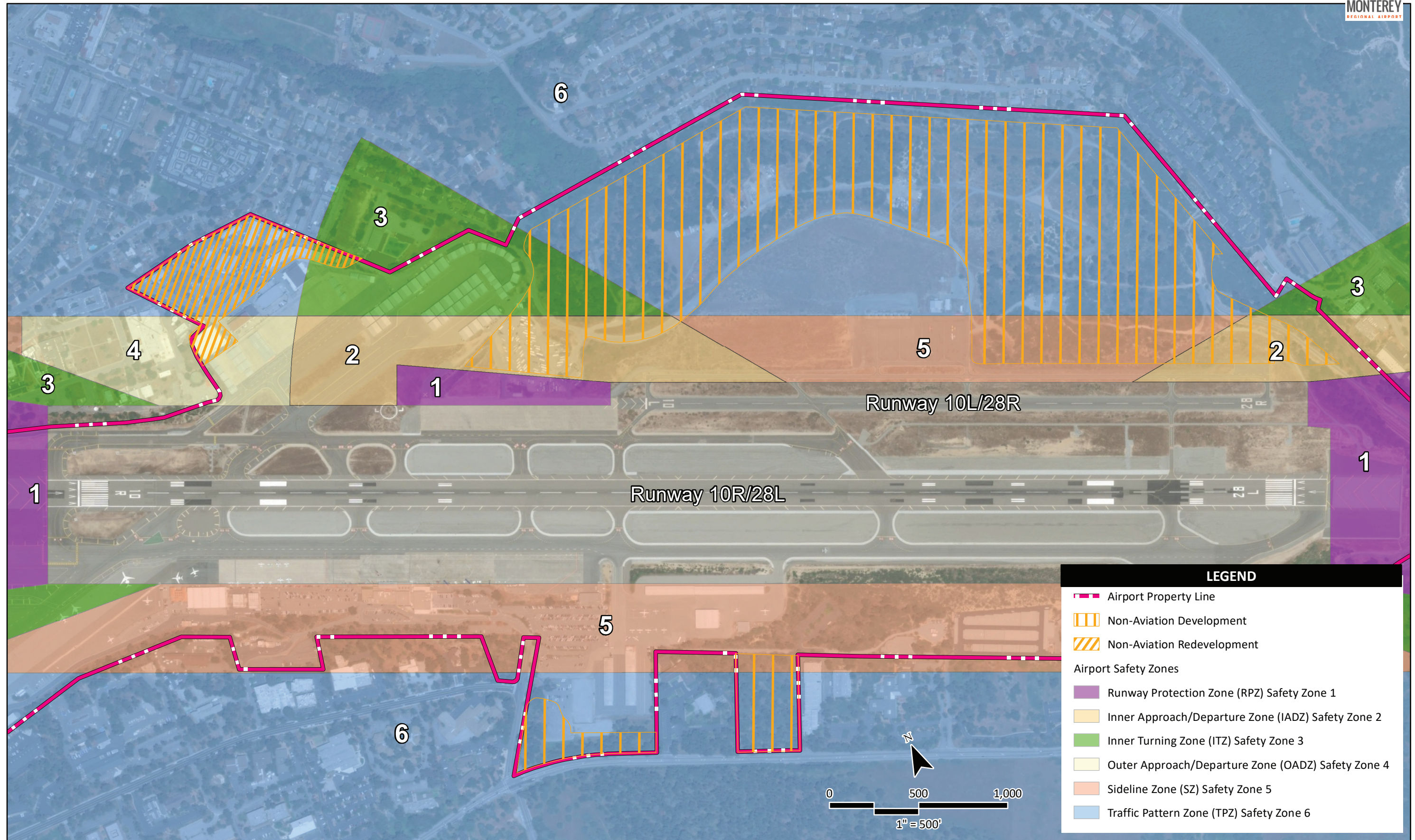
In the long term, any proposed future use of hazardous materials or the handling of hazardous waste within ¼ mile of a school (Threshold 4.9-3) due to the proposed redevelopment of the Old North Side Industrial Area or proposed long-term non-aeronautical development north of the north side GA area would be Less than Significant under the Proposed Project and Alternative 1.

4.9.5.4 Threshold 4.9-4 - For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area

Proposed Project and Alternative 1

The Proposed Project and Alternative 1 do not alter the flight patterns, the runway lengths, or pavement strengths of the Airport. No change in the critical aircraft for the Airport is anticipated through the planning horizon for the Proposed Project or Alternative 1 and, thus, the Airport Reference Code for design standards at the Airport would also remain the same (i.e., the Airport would remain at D-III). See Section 2.5.1 for a discussion of the Airport’s critical aircraft. Therefore, the safety zones that will be required to be provided in the updated ALUCP for the Airport would not be changed by the Proposed Project or Alternative 1. These zones are shown in **Exhibit 4.9B** and are based on the Airport’s existing (2015) runway configuration, approved airport layout plan (2016), and current state regulations (i.e., the 2011 Handbook). Safety hazards for people residing or working in the area around the Airport as a result of the Proposed Project or Alternative 1 are Less than Significant.

The Proposed Project and Alternative 1 would also introduce construction activities and new on-airport land uses into the existing safety zones of the Airport. These aspects of the Proposed Project and Alternative 1 projects are discussed in the sections below.



LEGEND

- Airport Property Line
- Non-Aviation Development
- Non-Aviation Redevelopment

Airport Safety Zones

- Runway Protection Zone (RPZ) Safety Zone 1
- Inner Approach/Departure Zone (IADZ) Safety Zone 2
- Inner Turning Zone (ITZ) Safety Zone 3
- Outer Approach/Departure Zone (OADZ) Safety Zone 4
- Sideline Zone (SZ) Safety Zone 5
- Traffic Pattern Zone (TPZ) Safety Zone 6

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Construction Impacts

During construction of all aspects of the Proposed Project and Alternative 1, construction safety procedures would be implemented and followed by all construction workers at the Airport per FAA AC 150/5370-2G, *Operational Safety on Airports During Construction* (2017). All areas of airport property affected by the construction projects associated with the Proposed Project and Alternative 1 would be identified, as well as other areas, such as the location of haul routes and material stockpiles, to ensure there is minimal interference between construction activities and airport operations. Both a construction safety and phasing plan (CSPP) and safety plan compliance document (SPCD) would be developed for each on-airfield construction project to ensure the safety of all construction workers and airport users. The Airport is required by the FAA to adhere to these construction safety regulations, and, thus, these requirements would be implemented prior to and during construction of all projects associated with the Proposed Project and Alternative 1. With implementation of these regulatory requirements, construction-related safety hazards would be a Less than Significant impact.

Short-Term Project Impacts

Both the Proposed Project and Alternative 1 propose to relocate several existing aeronautical uses (such as GA hangars, the ARFF, and the commercial terminal). Up to seven new hangars or sites for hangars and new public access roads are also proposed. These types of land use are considered by state regulations to be acceptable types of land use within all safety zones of an Airport with the exception of the Airport's RPZ. Since none of the proposed relocations or roadways would be located within an RPZ, the exposure to safety hazards at an airport in the short term as a result of the Proposed Project or Alternative 1 is Less than Significant.

Proposed development for both the Proposed Project and Alternative 1 also includes the acquisition of a 5.5-acre area on the south side of the Airport to provide the Airport with the ability to prevent the construction of any structure or growth of large trees at a height that would constitute a hazard to air navigation as defined in Part 77. FAA AC 150/5300-13A, section 105(f) states, "Off-airport development can have a negative impact on current and future operations when it *creates obstacles to the safe and efficient use of the airspace surrounding the airport* (emphasis added). Consider off-airport conditions and land acquisition needs when designing the ultimate airport configuration..." No land use changes are proposed for this parcel. The existing buildings' use will continue as is, and thus acquisition by the Airport would not increase the number of people working on the Airport. Therefore, impacts related to safety hazards would be Less than Significant.

Long-Term Project Impacts (Programmatic)

Exhibit 4.9B illustrates the proposed location of the long-term projects for the Proposed Project and Alternative 1 that involve non-aeronautical development and redevelopment are shown on **Exhibit 4.9B** relative to the Safety Compatibility Zones of the 2011 Handbook. The Proposed Project and Alternative 1 are identical regarding proposed on-airport non-aeronautical redevelopment and development. The Proposed Project and Alternative 1 propose non-aeronautical projects that could increase the number of people working on the Airport in the long term, including:

- Commercial or office development on two parcels (3.2 acres and 3.6 acres) on the south side of the Airport. Proposed development areas would be primarily within Safety Zone 6, which has the least safety risk;
- Redevelopment of approximately nine acres of the Old North Side Industrial Area on the northwest side of the Airport. This redevelopment area is primarily within Safety Zone 6, with small portions of the area within Safety Zone 3 or 4.
- Office or light industrial development of the north side of the Airport (approximately 92 acres). Some portions of this development area are within Safety Zones 2, 3 or 5.

These proposed projects and the potential safety hazards to people working in these areas are discussed in the paragraphs below and depicted graphically on **Exhibit 4.9B**:

Proposed South Side Long-Term Projects. The south non-aeronautical project areas (described in Section 2.1.6.3) could be developed with several uses per the City of Monterey’s zoning code under the Proposed Project or Alternative 1. The 3.2-acre parcel is entirely within Safety Zone 6 (**Exhibit 4.9B**). This zone is the least restricted, allowing a variety of uses, including residential, commercial, and industrial. In urban settings (like that of the area surrounding the Airport), there are no density restrictions on residential or nonresidential uses in Safety Zone 6. The proposed commercial component of this parcel would have a Less than Significant impact on the safety of those working or residing in the area given its adherence to recommended density limitations, as well as the compatibility of the types of uses proposed.

The 3.6-acre parcel is also located along Highway 68 and is within Safety Zones 5 and 6 (**Exhibit 4.9B**). As previously stated, there are few restrictions on the development types and densities in Safety Zone 6; in Safety Zone 5, uses allowed include agriculture, non-group recreational, low-hazard materials storage and warehouses, low-intensity light industrial uses, restaurants, and retail. The Proposed Project and Alternative 1 recommend the development of a two-story office building(s) that would comprise approximately 94,000 sf (per City of Monterey zoning regulations). Although the proposed development type – office – is not explicitly stated as being an allowed use, this type of use is similar to commercial development, like retail and restaurants, that are considered acceptable. However, there are maximum nonresidential intensities that are recommended in urban zones like this parcel, which state intensities should stay between 100 to 150 people per gross acre, on average. Therefore, the proposed office development on this parcel would have a Potentially Significant impact related to safety hazards if constructed within Safety Zone 5. Mitigation would be necessary to ensure that the intensity recommendations of the state safety zones are met. See Section 4.9.6.

Proposed Old North Side Industrial Area Redevelopment. The Old North Side Industrial Area is within Safety Zones 3, 4, and 6 (**Exhibit 4.9B**). As previously stated, there are few restrictions on the development types and densities in Safety Zone 6. In Safety Zone 4, uses allowed include agriculture, non-group recreational, low-hazard materials storage and warehouses, low-intensity light industrial uses (i.e. aircraft or auto repair services), restaurants, and retail. Permitted uses in Safety Zone 3 are low-hazard materials storage, mini-storage, warehouses, light industrial uses, agricultural uses, and non-group recreational uses. The Old North Side Industrial Area is presently fully developed with light

industrial/commercial uses, including several active commercial businesses providing automobile and motorcycle service facilities. Any redevelopment that is proposed to occur would not increase the concentration of persons (as described in Section 2.6.2.7) and would result in a Less than Significant impact related to safety hazards.

Proposed North Side Development. Many of the proposed long-term project areas on the north side of the Airport are within Safety Zone 6 where there is the most leniency in the types of land uses allowed (**Exhibit 4.9B**). Proposed north side long-term projects could include approximately 25 acres of office, light industrial, or flex space in one- or two-story buildings. All these proposed uses are considered compatible in Safety Zone 6, and there are no density restrictions as this is an urban setting. Impacts of the development of 25 (or more) acres of this area between the north side GA area and existing berm are therefore considered Less than Significant.

Approximately 4.3 acres of the proposed north side long-term project areas are within the Caltrans Handbook's recommended Safety Zone 3, where permitted uses include low-hazard materials storage, mini-storage, warehouses, light industrial uses like aircraft or auto repair services, agriculture, and non-group recreational uses (**Exhibit 4.9B**). The allowed uses align with preliminary plans for the development of this area. There are, however, maximum nonresidential intensities with which the development would have to adhere. Specifically, for urban settings like this, there is a maximum of 150 people per gross acre. To avoid significant impacts related to safety hazards, any non-aeronautical development proposed in this 4.3-acre area of Safety Zone 3 would require mitigation. See Section 4.9.6.

Approximately 5.5 acres on the west side of the north area, and approximately 3.5 acres on the east side of the north area, are within the Safety Zone 2 (**Exhibit 4.9B**). These combined nine acres typically allow agriculture, non-group recreational uses, low-hazard materials storage, warehouses, low-intensity light industrial uses, and auto or aircraft repair services. It is recommended that single-story office buildings are limited in this zone, and multi-story uses are avoided altogether. Suggested maximum nonresidential intensities in Safety Zone 2 is between 60 to 80 people per gross acre. As described above, this area is preliminarily proposed for light industrial, office, or flex space with buildings between one- and two-stories. In these two areas of the north side non-aeronautical long-term project components, two-story buildings could result in Potentially Significant impacts, and mitigation would be necessary to protect Safety Zone 2 areas from incompatible development. See Section 4.9.6.

The last safety zone that the proposed north side long-term project areas lie within is Safety Zone 5 (**Exhibit 4.9B**). Uses allowed in Safety Zone 5 include all common aviation-related activities, as well as agriculture, non-group recreational, low-hazard materials storage and warehouses, low-intensity light industrial uses, restaurants, and retail. The proposed non-aeronautical uses would all be allowable uses in this zone, if there are no airspace penetrations. Impacts related to safety hazards are, therefore, Less than Significant.

RPZ Protection. Implementation of the Proposed Project or Alternative 1 would also result in property rights acquisition of off-airport properties for purposes other than development. The Proposed Project and Alternative 1 recommend the acquisition of controlling rights for off-airport lands that fall within the Runway 28 RPZs (Safety Zone 1). The FAA directs airports to own or control their RPZ areas and, if

possible, maintain them clear of incompatibilities, such as roads, structures, and places of gathering. However, the Airport does not currently own or control all the Runway 28L RPZ lands. Approximately 20 acres are currently undeveloped and proposed for fee simple acquisition as part of the Proposed Project and Alternative 1. Approximately 14 acres are developed lands that are proposed for aviation easements (i.e., the Airport will need to work with the City of Del Rey Oaks to ensure appropriate zoning is in place). In lieu of fee-simple acquisition, a combination of aviation easements and zoning can also have the desired result of protecting the Airport from encroachment. The utilization of either fee-simple acquisition, an aviation easement, or zoning would all provide a Beneficial Impact in terms of protecting the RPZs by preventing any further incompatible development that would result in increased safety risks to people working or residing in these areas.

Beneficial Impact: **Controlling development and property rights of the Runway 28 RPZ would provide the Airport with the ability to limit increase any further incompatible development that would result in increased safety risks to of those working or residing in these areas and would be a Beneficial Impact related to Threshold 4.9-4.**

Less Than Significant Impacts: **Safety hazards for people residing or working on or near the Airport as a result of construction activities or proposed short-term projects of the Proposed Project or Alternative 1 are Less than Significant per Threshold 4.9-4 due to the enforcement of regulatory requirements and existing airport policies and procedures.**

The safety of people would not be impacted from proposed long-term non-aeronautical development on the 3.2-acre parcel under the Proposed Project or Alternative 1 on the south side of the Airport. Safety risks would be Less than Significant per Threshold 4.9-4.

The proposed redevelopment of the Old North Side Industrial Area would not increase the concentration of people working on airport property. Safety risks would be Less than Significant per Threshold 4.9-4.

Proposed long-term non-aeronautical projects within Safety Zone 4 on the north side of the Airport would result in a Less than Significant impact related to Threshold 4.9-4.

***Significant Impact HAZ-2:* Proposed long-term non-aeronautical projects on the southern 3.6-acre parcel within proposed Safety Zone 5 could allow for a greater concentration of people than what is recommended in the Handbook (2011).**

Significant Impact HAZ-3: *Proposed long-term non-aeronautical projects in the 4.3-acre area within proposed Safety Zone 3 on the north side of the Airport could allow for a greater concentration of people than what is recommended in the Handbook (2011).*

Significant Impact HAZ-4: *Proposed long-term non-aeronautical projects in two areas on the north side (approximately 5.5 acres and approximately 3.5 acres) within proposed Safety Zone 2 could exceed the nonresidential intensities specified by the Handbook (2011).*

4.9.5.5 Threshold 4.9-5 - Impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan

An airport’s emergency plan addresses essential emergency-related and deliberate actions planned to ensure the safety of, and emergency services for, the airport populace and the community in which the airport is located. For certificated airports (Part 139), the use of the guidelines and standards in FAA AC 150/5200-31C, *Airport Emergency Plan* (2010), are mandatory. Airport emergency plans intend to save lives, protect property, and protect public health for emergencies that occur on an Airport or adjacent property. Threshold 4.9-5 thus concentrates on projects that relate to or impact the Airport’s ability to effectively respond to emergencies, both on and off airport property.

Proposed Project

Construction Impacts

No impacts to adopted emergency response plans and emergency evacuation plans would occur during the Proposed Project’s construction activity. A temporary ARFF building would be constructed to maintain acceptable levels of service per Part 139 certification standards and in compliance with state regulations until such time as the relocated permanent ARFF building is operational. All proposed construction activities resulting in temporary access restrictions to areas under construction would be kept clear and unobstructed at all times in accordance with applicable FAA, State Fire Marshal, and Fire Code regulations (refer to PS/rr-2, Section 4.14.6). In addition, Airport Road, Olmsted Road, and Fred Kane Drive are proposed to remain open during construction. Public access to the airport terminal and public parking outside of the construction activities are proposed to be maintained during the construction period to ensure that adequate access for emergency vehicles would be available.

Short-Term Project Impacts

As part of the Proposed Project, a temporary ARFF building would be installed on the Navy Flying Club apron. This building would take access from Airport Road west to Fremont Street until a new “north side” road is constructed or until a new permanent ARFF building is constructed in the location of the existing terminal building. An approximate 12-foot wide, 630-foot long ARFF service road would be constructed from the edge of the north GA apron to the primary runway to provide acceptable response times from the building to the midpoint of Runway 10R-28L. The temporary relocation of the ARFF

building would not interfere with on-airport response times per the emergency response/contingency plan found in the Airport's *Hazardous Materials Business Response Plan* as response times for the ARFF would remain acceptable. However, all proposed short-term projects recommended within the Proposed Project, including the relocation of GA hangars to the north side and relocation of the commercial terminal, would need to be addressed in an updated emergency response/contingency plan. With the incorporation of this regulatory requirement, short-term impacts to an adopted emergency response plan or emergency evacuation plan would be Less than Significant.

The temporary ARFF location would require the short-term use (approximately five to seven years) of an emergency route through the Casanova Oak Knoll (CONA) neighborhood. Prior to the construction of a "north side" road, if the ARFF facility needed to respond to an emergency on the east side of the Airport, the responding vehicle would have to travel west on Airport Road to Fremont Street, ultimately reaching Highways 68 or 218 to drive back east. The resulting response times for off-airport emergencies would be longer (more than five minutes) than the response time from the existing ARFF building (see also Section 4.14.5). The temporary ARFF location would thus affect emergency response times, as well as increase undesirable impacts to the CONA neighborhood by causing additional traffic on Airport Road. In the short-term (five to seven years), this would result in a Potentially Significant and Unavoidable Impact.

Once the commercial terminal building has been relocated, in the Proposed Project the existing terminal building would be demolished to make room for a permanent ARFF building constructed in the same location (see Exhibit 2C). Response times from the permanent location would be the same as from the existing facility, thus having no impact on the Airport's ability to respond to emergencies on the airfield. No changes to off-airport response times would occur since the new ARFF would still have south side access from Olmsted Road via Fred Kane Drive. Impacts would be Less than Significant.

Long-Term Project Impacts (Programmatic)

Proposed long-term projects, in addition to the ultimate construction of a new "north side" road, would change the existing emergency procedures and routes that the existing emergency response/contingency plan outlines. This plan would be revised to incorporate the development components of the Proposed AMP to ensure that they would not impair or interfere with implementation of the emergency response/contingency plan. With the incorporation of this regulatory requirement, long-term impacts to an adopted emergency response plan or emergency evacuation plan would be Less than Significant.

Less Than Significant Impacts:

For on-airport emergencies, there would not be an impairment to implementation of the Airport's emergency response/contingency plan due to the construction of a temporary ARFF building. Response times would remain acceptable from this temporary facility and would be a Less than Significant impact related to Threshold 4.9-5.

The permanent ARFF building would provide the Airport with a firefighting facility that would support the Airport's emergency response goals and would be a Less than Significant impact related to Threshold 4.9-5.

Proposed short-term and long-term projects under the Proposed Project would change the existing emergency procedures and routes in the Airport's emergency response/contingency plan. This would be Less than Significant per Threshold 4.9-5 due to the enforcement of regulatory requirements and existing airport policies and procedures.

Significant Impact HAZ-5:

In the short term, without another "north side" access road, there would be a decline in off-airport emergency response times as long as the temporary ARFF building is in use on the north side of the Airport (see also Significant Impact PS-1, Section 4.14.5).

Alternative 1

Construction Impacts

No impacts to adopted emergency response plans and emergency evacuation plans would occur during Alternative 1 construction activity. The proposed relocated ARFF building would be constructed to maintain acceptable levels of service per Part 139 certification standards and in compliance with state regulations before the existing ARFF building is demolished.

Short-Term Project Impacts

As opposed to the construction of a temporary ARFF building prior to the construction of a permanent ARFF building as suggested by the Proposed Project, Alternative 1 would permanently relocate the existing ARFF building to the north side GA area. Operationally, moving the ARFF to the north side would remove its emergency activity away from the commercial terminal and FBO areas, which would reduce the amount of congestion on the south side of the airfield. The permanent ARFF location on the north side under Alternative 1 meets FAA standards for response times on a Part 139-certificated airport.

Alternative 1 would also construct a "north side" road in the first phase of the safety enhancement project, rather than as a separate project as planned in the Proposed Project, to remove the need for additional traffic to use Airport Road, even in the short term. One of the reasons to prioritize this "north side" road would be to accommodate the relocation of the ARFF building on the north side of the Airport. If the proposed north side ARFF facility was to respond to a call east of the Airport via the proposed "north side" road, response times are estimated to be approximately eight minutes faster than the response time from the existing ARFF building. The construction of a "north side" road would therefore increase the safety and efficiency of the Airport in the event of an off-airport emergency.

Similar to the Proposed Project, other short-term projects recommended within Alternative 1, including the proposed relocation of GA hangars and ARFF to the north side, proposed relocation of the commercial terminal, and proposed construction of a new “north side” road, would need to be addressed in an updated emergency response/contingency plan. Once a new “north side” road is constructed and the ARFF building is relocated, additional emergency routes would be available. Although response times would improve in Alternative 1, the reconfiguration of the Airport would change the existing emergency procedures and routes that the existing emergency response/contingency plan module of the *Hazardous Materials Business Response Plan* outlines. This plan would need to be revised to incorporate the development components of the Proposed AMP to ensure that they would not impair or interfere with implementation of the emergency response/contingency plan. With the incorporation of this regulatory requirement, impacts would be Less than Significant.

Long-Term Project Impacts (Programmatic)

Similar to the Proposed Project, proposed long-term projects under Alternative 1 would change the existing emergency procedures and routes that the existing emergency response/contingency plan outlines. This plan would be revised to incorporate the development components of the Proposed AMP to ensure that they would not impair or interfere with implementation of the emergency response/contingency plan. With the incorporation of this regulatory requirement, long-term impacts to an adopted emergency response plan or emergency evacuation plan would be Less than Significant.

Less Than Significant Impacts: For on-airport emergencies, there would not be an impairment to implementation of the Airport’s emergency response/contingency plan as a result of the ARFF building’s permanent relocation to the north side of the airfield and the construction of a “north side” road. Emergency response times required by the FAA in the event of an emergency on airport property would be maintained and would be a Less than Significant impact related to Threshold 4.9-5.

Proposed short-term and long-term projects under Alternative 1 would change the existing emergency procedures and routes in the Airport’s emergency response/contingency plan. This would be Less than Significant per Threshold 4.9-5 due to the enforcement of regulatory requirements and existing airport policies and procedures.

4.9.6 Mitigation Program

No mitigation program would be required for the Less than Significant impacts or Beneficial Impacts identified In Section 4.9.5. Potentially Significant Impacts have been identified under Thresholds 4.9-1 and 4.9-4. The following mitigation measures would apply if the Proposed Project or Alternative 1 is approved. In addition, numerous regulatory requirements will be enforced as described below.

4.9.6.1 Threshold 4.9-1 - Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials

Proposed Project or Alternative 1

HAZ/mm-1: Phase 1 (site inspection) and, if recommended based on the results of the Phase 1 report, Phase 2 (sampling and/or modeling) environmental site assessments shall be performed prior to construction for all ground disturbance activities for either Proposed Project or Alternative 1 projects. Recommendations regarding the need to remediate any contaminants shall be implemented, as necessary.

4.9.6.2 Threshold 4.9-4 - For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area

Proposed Project or Alternative 1

HAZ/mm-2: The northern part of the 3.6-acre southern parcel within Safety Zone 5 shall remain as undeveloped open space.

HAZ/mm-3: Proposed non-aeronautical projects in the 4.3-acre area on the north side of the Airport within Safety Zone 3 shall not exceed the non-residential intensity maximums described in the 2011 Handbook for Safety Zone 3.

HAZ/mm-4: The 9.0 acres of land in the north side within Safety Zone 2 shall only be developed with light industrial uses and/or be preserved as open space consistent with the recommendations described in the 2011 Handbook for Safety Zone 2.

Regulatory Requirements

HAZ/rr-1: All fuel operators at the Airport shall be required to follow the Airport’s *Hazardous Materials Business Response Plan* (2017). In addition, individual businesses shall be required to register all hazardous materials with the U.S. EPA as well as state and local regulatory agencies.

HAZ/rr-2: MBARD Rule 424 (NESHAP) shall be implemented, as applicable, to the demolition of the ARFF building and commercial terminal building, as well as the northwest industrial area and some hangars. Rule 424 contains the investigation and reporting requirements for asbestos as well as rules regarding HAPs.

HAZ/rr-3: Any fuel spill that occurs at the proposed fuel farm shall be subject to the regulations and policies of the Airport’s *Hazardous Materials Business Response Plan* and the Airport’s current SPCC plan. Any future proposed development and

tenants shall be required to comply with all applicable regulatory requirements regarding spills of hazardous materials both by law and by the terms of their lease with the Airport. In addition, physical modifications to the fueling facilities may require a technical amendment to a SPPC plan. Said amendment, if necessary, shall be prepared in compliance with the requirements of the U.S. EPA as provided for in CFR, Title 40, Section 112.

HAZ/rr-4: Contractors shall be held responsible for reporting any discharges of hazardous materials or other substances; BMPs shall be used and required NPDES General Construction Permits shall enforced.

HAZ/rr-5: Any future proposed projects and tenants shall be required to comply with all applicable regulatory requirements regarding use of hazardous materials both by law and by the terms of their lease with the Airport.

HAZ/rr-6: A construction safety and phasing plan (CSPP) and safety plan compliance document (SPCD) shall be developed for each on-airfield construction project to ensure the safety of all construction workers and airport users. The Airport is required by FAA to adhere to these construction safety regulations, and, thus, these requirements shall be implemented prior to and during construction of all projects associated with the Proposed Project and Alternative 1.

HAZ/rr-7: The Airport’s emergency response/contingency plan shall be updated to ensure that the new routes available for emergency response, as well as the new airfield and landside development, are accurately reflected in the Airport’s emergency response procedures.

HAZ/rr-8: Prior to the start of demolition or construction at the facilities, an asbestos abatement work plan shall be prepared in compliance with federal, state, and local regulations for any necessary removal and disposal of such materials (including, but not limited to, CFR Title 40, Part 61, Subpart M and CCR, Title 8, Section 1529) and shall include:

1. Demolition plans and specifications for incorporating any necessary abatement measures for the removal of materials containing asbestos or assumed to contain asbestos in compliance with federal, state, and local regulations;
2. A licensed Cal/OSHA contractor, certified by the Contractors State License Board (CSLB) and registered with Cal/OSHA, shall perform all “asbestos-related work” that disturbs asbestos-containing materials or asbestos-containing construction materials at the facilities;
3. All persons who may come into contact with any asbestos-containing material during demolition, construction, and maintenance at the facilities shall be

notified in writing to avoid removal or disturbance of the asbestos-containing material;

4. Any suspect material not identified but assumed to contain asbestos disturbed during the course of demolition shall require a cease work order and examination by a California Department of Industrial Relations Division of Occupational Safety and Health certified asbestos consultant;
5. All known asbestos containing material or asbestos-containing construction material, to the extent that the asbestos-containing material or asbestos-containing construction material becomes friable, must be removed prior to demolition; and
6. Asbestos-containing waste material that is generated during demolition at the facilities shall be properly handled and disposed of in compliance with applicable federal, state, and local regulations.

HAZ/rr-9

Prior to the start of any construction/demolition at the facilities, a lead-based paint/lead containing paint abatement work practice plan shall be prepared in compliance with federal, state, and local regulations (including, but not limited to CCR, Title 17, Sections 37000-37100) for any necessary removal and disposal of such materials. This plan must include the following (CCR, Title 8, Section 1532.1[e], Lead - Methods of Compliance):

1. Protective work clothing and equipment;
2. Housekeeping practices;
3. Hygiene facilities, practices, and regulated areas; and
4. Applicable good work practices

HAZ/rr-10

All transportation of hazardous materials at the facilities is regulated at the federal and state levels and requires compliance with all federal, state, and local regulations pertaining to hazardous materials to ensure that the risk associated with the use and storage of materials, after transport to the Airport, is minimal. All hazardous materials shall be handled in full compliance with applicable requirements, and the necessary permits maintained by the Airport. Carriers responsible for the transportation of hazardous materials are required to have a hazardous materials transportation license, issued by the California Highway Patrol (CHP). All fuel deliveries from suppliers within California will comply with all applicable requirements of the CHP's biennial inspection of terminals (BIT) program.

4.9.7 Level of Significance after Mitigation

For both the Proposed Project and Alternative 1, incorporation of HAZ/mm-1 and the above regulatory requirements would mitigate Potentially Significant Impacts related to the use, storage, and accidental release of hazardous materials (Thresholds 4.9-1 through 4.9-3) and the Airport's emergency response/contingency plan (Threshold 4.9-5), to Less than Significant. In addition, HAZ/mm-2 through

HAZ/mm-4 would mitigate Potentially Significant impacts related to the Proposed Project or Alternative 1 under Threshold 4.9-4 (Impacts HAZ-2 through HAZ-4) to Less than Significant.

The Proposed Project would result in one Significant and Unavoidable Impact (Impact HAZ-5) (Threshold 4.9-5) as there are no mitigation options to decrease the response time for emergencies on the east side of the airfield while the Airport operates the ARFF building from the temporary facility on the north side of the airfield.

Table 4.9D summarizes the potentially significant impacts and associated mitigation measures. In addition to the mitigation measures provided in **Table 4.9D**, compliance with applicable federal, state, and local requirements, including emergency response plans, spill response plans, SWPPP, SPCC plans, BMPs, and the regulatory requirements provided above and currently in place at the Airport, would be required for the Proposed Project or Alternative 1.

**TABLE 4.9D
Summary of Potentially Significant Impacts and Mitigation – Hazards and Hazardous Materials
Proposed Monterey Regional Airport Master Plan**

Proposed Project	Mitigation Program	Alternative 1	Mitigation Program	Level of Significance After Mitigation
Threshold 4.9-1 - Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials				
<u>Impact HAZ-1</u> : Since the construction of proposed project components under the Proposed Project and Alternative 1 require ground disturbance, there is a possibility that unknown hazardous sites or materials could be disturbed.	HAZ/mm-1	Same as Proposed Project	HAZ/mm-1	Less than Significant
Threshold 4.9-4 - For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area				
<u>Impact HAZ-2</u> : Future non-aeronautical on the south side of the Airport could penetrate protected airspace.	HAZ/mm-2	Same as Proposed Project	HAZ/mm-2	Less than Significant
<u>Impact HAZ-3</u> : Future non-aeronautical development on the north side of the Airport could exceed intensities set forth in the 2011 Handbook for Safety Zone 3.	HAZ/mm-3	Same as Proposed Project	HAZ/mm-3	Less than Significant
<u>Impact HAZ-4</u> : Future non-aeronautical development on the north side of the Airport could exceed intensities set forth in the 2011 Handbook for Safety Zone 2.	HAZ/mm-4	Same as Proposed Project	HAZ/mm-4	Less than Significant
Threshold 4.9-5 - Impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan				
<u>Impact HAZ-5</u> : In the short term, without a “north side” access road, there would be a decline in off-airport emergency response times.	None available	Not applicable	Not applicable	Significant and Unavoidable

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Chapter Four

4.10 – HYDROLOGY AND WATER QUALITY

This Environmental Impact Report (EIR) section addresses the Proposed Project and Alternative 1's impact on several related aspects of water resources: water quality (surface water and groundwater); groundwater supply; existing drainage patterns; and stormwater drainage system capacity. Based on the Initial Study completed on the Proposed Project (**Appendix A**), there is no potential for water-related hazards, such as flooding, seiches, tsunamis, or mudflows, as a result of the project. Therefore, these aspects of hydrology are not discussed in this section.

4.10.1 Regulatory Setting

Federal Regulations

Clean Water Act. The *Clean Water Act* (CWA), formerly known as the *Federal Water Pollution Control Act of 1972* and/or the *Federal Water Pollution Control Act of 1948*, as amended in 1961, 1966 and 1970, provides the federal government's framework for regulating discharges of pollutants into "waters of the United States" (WOTUS) and setting water quality standards for surface waters. The term WOTUS has been interpreted (or re-interpreted) by the United States (U.S.) Environmental Protection Agency (U.S. EPA) in various guidance documents, as well as by the federal courts, in a number of rulings. However, as a general rule, WOTUS include the following:

- Traditional navigable waters and adjacent wetlands;
- Relatively permanent non-navigable tributaries¹ that have a continuous flow at least seasonally (typically three months) and wetlands that directly abut those tributaries.

Section 303(d) of the CWA requires states to identify waters where current pollution control technologies alone cannot meet the water quality standards set for that waterbody. Every two years, states are required to submit a list of impaired waters plus any that may soon become impaired to the U.S. EPA for approval. The impaired waters are prioritized based on the severity of the pollution and the designated use of the waterbody (for example, human recreation). States must establish the total maximum daily load(s) (TMDLs) of the pollutant(s) in the waterbody for impaired waters on the list (U.S. EPA website 2018).

¹ The United States Army Corps of Engineers (USACE) determines its jurisdiction over non-navigable, non-relatively permanent waters (non-RPW), wetlands adjacent to tributaries of non-RPW, and wetlands not directly abutting non-navigable but relatively permanent waters after making a significant nexus finding.

Section 401 of the CWA and its provisions ensure that federally permitted activities comply with the federal CWA and state water quality laws. In California, Section 401 is implemented through a review process that is conducted by the State Water Resources Control Board (SWRCB) and its nine regional water quality control boards (RWQCBs) and is triggered by the Section 404 permitting process (see discussion below).

Section 402 of the CWA created the National Pollutant Discharge Elimination System (NPDES) program to authorize point source discharges of pollutants to WOTUS consistent with the CWA. In terms of water quality, a point source is a single discharge source, such as a pipe coming from a wastewater treatment plant. However, the federal *Water Quality Control Act of 1987* amended the CWA to include regulation of certain discharges of pollutants in stormwater runoff under the NPDES program. In California, NPDES permitting authority has been delegated to the SWRCB.

Under Section 404 of the CWA, the U.S. Army Corps of Engineers (USACE) issues both individual and nationwide CWA Section 404 permits for discharges of fill into WOTUS and establishes and monitors conditions of said permits.

Safe Drinking Water Act. The federal *Safe Drinking Water Act* (SDWA) applies to every public water system in the United States. Airports are typically classified as noncommunity water systems, which indicates that they have a public water system that serves the public but does not serve the same people year-round. California has been delegated the authority to implement this federal regulation. The SDWA prohibits federal agencies from funding actions that would contaminate a U.S. EPA-designated sole source aquifer² or its recharge area. (The closest sole source aquifers to the Airport are the Santa Margarita and Scotts Valley aquifers, located approximately 30 miles north [USGS 2017].)

State/Regional Regulations

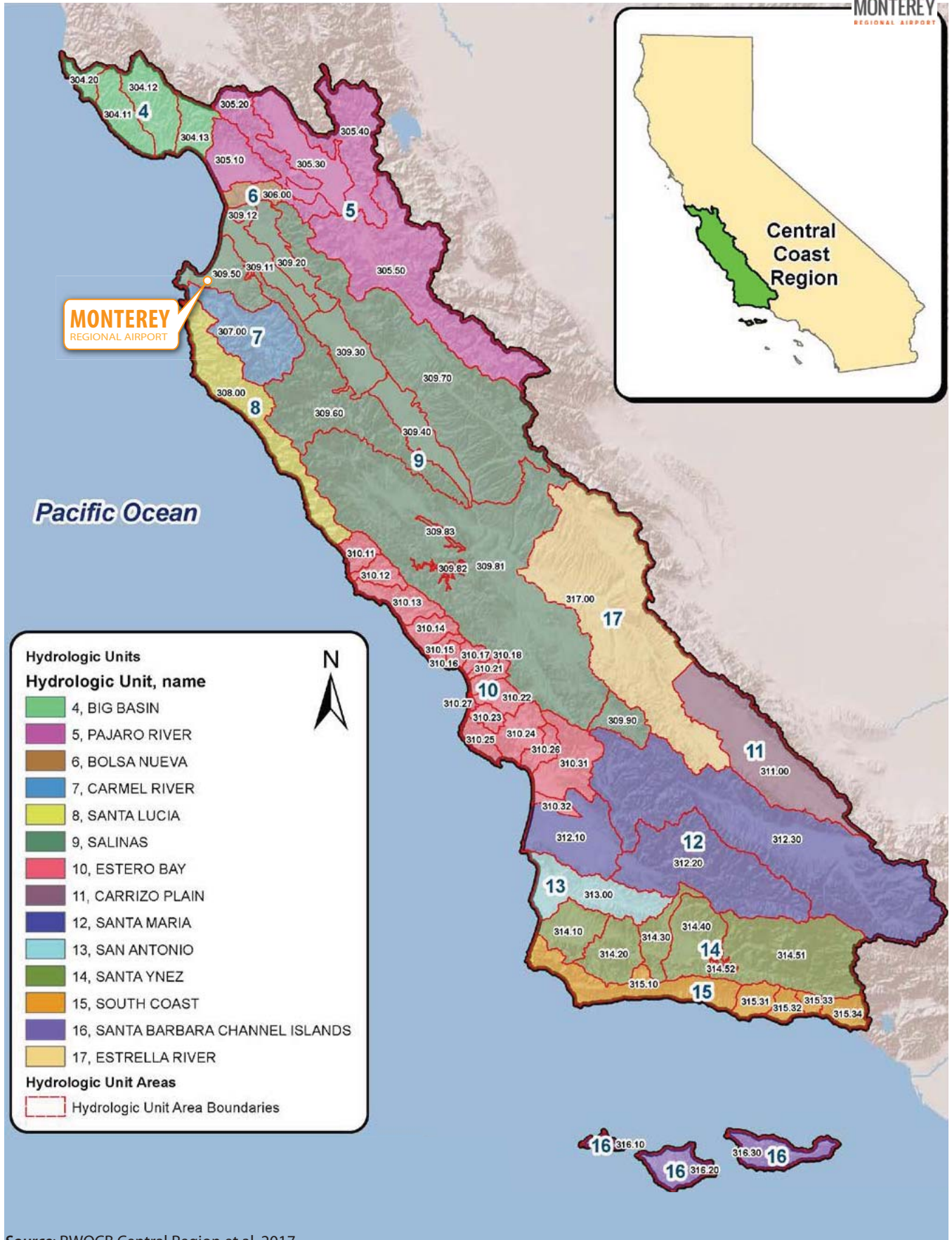
Porter-Cologne Water Quality Control Act of 1967. State water resources are protected under the *Porter-Cologne Water Quality Control Act of 1967* (Porter-Cologne Act), which became Division Seven of the State Water Code, and established RWQCBs to oversee water quality on a day-to-day basis at the regional/local level. Each RWQCB is directed to formulate and adopt water quality control plans for all areas within its region. Monterey County is under the administration of the Central Coast RWQCB, located in San Luis Obispo.

Water Quality Control Plan for the Central Coast Region. The applicable regional water quality control plan for the Monterey area (Region 3) is the *Water Quality Control Plan for the Central Coast Region* (Basin Plan), September 2017 Edition. This Basin Plan covers 378 miles of mainland coast, 11,274 square miles of land, and 53 groundwater basins (**Exhibit 4.10A**). The Airport is located within the Salinas Hydrologic Unit (309.50 - Monterey Peninsula) (**Exhibit 4.10B**) and is underlain by the Salinas Valley groundwater basin (3-4.08 Seaside subbasin) (**Exhibit 4.10C**) (RWQCB Central Coast Region et al. 2017).

² A sole source aquifer is an aquifer that supplies at least 50 percent of the drinking water consumed in the area it overlays.



Source: RWQCB Central Region et al. 2017



Hydrologic Units

Hydrologic Unit, name

- 4, BIG BASIN
- 5, PAJARO RIVER
- 6, BOLSA NUEVA
- 7, CARMEL RIVER
- 8, SANTA LUCIA
- 9, SALINAS
- 10, ESTERO BAY
- 11, CARRIZO PLAIN
- 12, SANTA MARIA
- 13, SAN ANTONIO
- 14, SANTA YNEZ
- 15, SOUTH COAST
- 16, SANTA BARBARA CHANNEL ISLANDS
- 17, ESTRELLA RIVER

Hydrologic Unit Areas

- Hydrologic Unit Area Boundaries

Source: RWQCB Central Region et al. 2017



Source: California Department of Water Resources 2013

The Basin Plan includes waste discharge restrictions (WDRs) on individuals, communities, and businesses whose water discharges can affect water quality. It also sets TMDLs for sediment, pathogens, nitrate-nitrogen, fecal coliform, toxicity and pesticides, and nitrogen compounds and orthophosphate for various watersheds and waterbodies to address surface water quality impairments. Anyone proposing to discharge waste that could affect the quality of surface or groundwaters must make a report of the waste discharge to the Central Coast RWQCB or SWRCB, as appropriate.

Water quality objectives of the Basin Plan include specific water quality standards for ocean water, including Monterey Bay, for dissolved oxygen concentration, pH (potential of hydrogen) value, and radioactivity; standards for all inland surface waters, enclosed bays, and estuaries for color, tastes and odors, floating material, suspended material, settleable material, oil and grease, biostimulatory substances, sediment, turbidity, pH, dissolved oxygen, temperature, toxicity, pesticides, chemical constituents, other organics, and radioactivity. The Basin Plan also includes standards for specific beneficial uses of water, such as municipal and domestic supply, contact and non-contact recreation, cold and warm fresh water habitat, fish spawning, marine habitat, and shellfish harvesting. It also contains groundwater standards, including those for irrigation.

Specific permits or other approvals used by the Central Coast RWQCB to ensure that the Basin Plan water quality objectives are met include the following:

- Section 401 Water Quality Certifications (previously discussed under *Federal Regulations*). The Central Coast RWQCB can recommend to the SWRCB that it grant, deny, or condition certification of federal permits or licenses that may result in a discharge to WOTUS.
- NPDES Permits (previously discussed under *Federal Regulations*). The SWRCB/RWQCBs work with the U.S. EPA to administer the NPDES permit program, including the regulation of stormwater (Section 402[p]). Federal regulations (CFR, Title 40, Section 122.26) require certain industrial facility owners and/or operators to obtain stormwater discharge permits. The specific types of facilities that need coverage are dependent upon the facility's Standard Industrial Classification Code. The program is primarily directed at manufacturing facilities, oil and gas extraction facilities, transportation maintenance facilities (trucking and mass transit), and construction sites (with greater than five acres of land disturbance).
 - Caltrans Statewide NPDES Permit. The California Department of Transportation (Caltrans) was issued the nation's first statewide stormwater NPDES permit (Order 99-06-DWQ) in 1999 by the SWRCB. The Caltrans Permit requires Caltrans to regulate nonpoint source discharge from its properties, facilities, and activities. The Caltrans Permit requires development of a program for communication with local agencies and coordination with other municipal stormwater permitting (MS4) programs where those programs overlap geographically with Caltrans facilities. As part of the permit, Caltrans is required to create and annually update a stormwater management plan (SWMP) that is used to outline the regulation of pollutant discharge caused by current and future construction, as well as maintenance activities. SWMP requirements apply to discharges from Caltrans stormwater conveyances, including catch basins and drain inlets, curbs, gutters,

ditches, channels, and storm drains. The SWMP must be approved by the SWRCB and, as specified in the permit, it is an enforceable document. Caltrans' policies, manuals, and other guidance related to stormwater are intended to facilitate implementation of the SWMP. Caltrans also requires all contractors to prepare and implement a program to control water pollution effectively during the construction of all projects (AMBAG 2018).

- MS4 General Permits. Municipalities with populations greater than 100,000 must participate in an MS4. Monterey County and the Monterey Peninsula cities of Carmel-by-the-Sea, Del Rey Oaks, Monterey, Pacific Grove, Sand City, and Seaside are participating members of the Monterey Regional SWMP. Participating members collaborate on projects and other permit-related activities to satisfy a number of their individual MS4 General Permit requirements (AMBAG 2018).
- Industrial General Permits. Requirements of NPDES Industrial General Permits (IGPs) include the development of a stormwater pollution prevention plan (SWPPP) and stormwater runoff monitoring. The facility-specific document includes: a site description, facility processes, pollutant sources, stormwater management system, employee education and training program, and measures proposed to eliminate non-stormwater discharges. Minimum monitoring and reporting requirements include: sampling and analysis of four pollutant indicator parameters, wet and dry weather stormwater conveyance system inspections, and annual reporting. The Central Coast RWQCB can recommend additional monitoring parameters based on the presence of specific pollutant sources.

The Airport operates under an Industrial General Stormwater Permit (Order NPDES No. CAS000001), which requires it to: (1) eliminate unauthorized non-stormwater discharge; (2) develop and implement a SWPPP; and (3) monitor stormwater discharge to ensure that state water quality standards are being maintained in accordance with the Airport's approved SWPPP. The airport property does not contain any features indicative of WOTUS. Since it is not subject to Section 404 of the CWA, it is also not subject to Section 401 of the CWA.

- Construction General Permits. Individual projects that have a potential for one acre or more of ground disturbance are required to obtain NPDES coverage under the state's Construction General Permit Order 2009-2009-DWQ (Construction General Permit). Permit conditions typically related to use of the NPDES Construction General Permit include best management practices (BMPs) to reduce erosion and sedimentation through implementation of a construction-specific SWPPP. The construction SWPPP is a project-specific document which deals primarily with reducing pollutant sources associated with erosion and sediment transfer and chemicals used at construction sites. The monitoring requirements are less stringent than the facility-specific SWPPP described above and no sampling is required.
- Resolution R3-2013-0032, Post-Construction Requirements for Development in the Central Coast Region. The installation of new impervious surface requires a SWMP to prevent offsite discharge from events up to the 85th percentile 24-hour rainfall event as determined from local rainfall data, which for Monterey is 0.82 inches and is encompassed by the five-year storm event. Compliance must be

achieved by optimizing infiltration with retention of the remaining volume achieved via storage, rain-water harvesting, and/or evapotranspiration.

Sustainable Groundwater Management Act. The *Sustainable Groundwater Management Act* (SGMA) empowers local agencies to form groundwater sustainability agencies (GSAs) to sustainably manage groundwater and requires groundwater sustainability plans (GSPs) to be developed for medium- and high-priority groundwater basins. For medium- and high-priority groundwater basins in Monterey County, local GSAs include, but are not limited to: the Salinas Valley Basin Groundwater Sustainability Agency and the Monterey Peninsula Water Management District (MPWMD) (California DWR 2017). All GSPs are required to be completed by January 31, 2020 and updated every five years thereafter (AMBAG 2018).

MPWMD is charged with allocating water within the Monterey Peninsula region, permitting the use of water credits for each jurisdiction/district, and regulating some aspects of water production and distribution by private purveyors (i.e., California American Water [CalAm]). One of the responsibilities of MPWMD is to balance water supply and demand through the MPWMD Water Allocation Program and to carefully track how much of the allotted water has been used by member jurisdictions. MPWMD evaluates a project's water demand and issues a water permit for the project as depicted on the final construction plans.

Antidegradation Policy. California's antidegradation policy, formally known as the Statement of Policy with Respect to Maintaining High Quality Waters in California, restricts degradation of surface and ground waters. It protects waters where existing water quality is higher than necessary for the protection of beneficial uses. Any actions with the potential to adversely affect water quality must be: 1) consistent with the maximum benefit to the people of the state; 2) must not unreasonably affect present and anticipated beneficial use of the water; and 3) must not result in water quality less than prescribed in water quality plans and policies (RWQCB Central Coast Region et al. 2017).

California Green Building Standards Code. The California Green Building Standards Code (CalGreen) includes mandatory measures for residential and nonresidential development. Section 5.106.1 requires newly constructed nonresidential projects and additions of less than one acre to prevent the pollution of stormwater runoff because of construction through compliance with a local ordinance or implementing BMPs that address soil loss and good housekeeping to manage equipment, materials, and wastes (AMBAG 2018).

Local Regulations

The *2010 Monterey County General Plan Conservation/Open Space Element* includes the following goals and policies related to hydrology and water quality that, while not directly applicable to the Airport, have been provided as general guidance (County of Monterey 2010):

Policy OS-3.1. Best Management Practices to prevent and repair erosion damage shall be established and enforced.

Policy OS-3.3. Criteria for studies to evaluate and address, through appropriate designs and BMPs, geologic and hydrologic constraints and hazards conditions, such as slope and soil instability, moderate and high erosion hazards, and drainage, water quality, and stream stability problems created by increased stormwater runoff, shall be established for new development and changes in land use designations.

Policy OS-3.5. The County shall regulate activities on slopes to reduce impacts to water quality and biological resources.

The Monterey County Code, Chapter 16.14, Urban Stormwater Quality Management and Discharge also controls the entry of urban pollutants into stormwater that may enter the county storm drain system, located primarily in the unincorporated Urbanized Areas.

The policies of local jurisdictions, such as the cities of Del Rey Oaks and Monterey, related to water quality and surface drainage are applicable to the Airport since some stormwater runoff leaves the airport property and crosses or is deposited within these other adjacent jurisdictions.

The *General Plan Update for the City of Del Rey Oaks* includes the following goals and policies in its Open Space/Conservation Element (1997):

Goal 2. Preserve and protect the water quality, runoff, flow, and other resources of the Canyon Del Rey Drainageway.

Policy C/OS-5b. The City should actively communicate and coordinate with surrounding jurisdictions and water agencies in preventing erosion, pollution and siltation of the Canyon Del Rey drainage system.

Policy C/OS-9. The City should continue to communicate and coordinate with surrounding jurisdictions in preventing channel erosion and siltation in Del Rey Oaks due to increased water runoff from urban development in upland areas.

The City of Monterey has the following general plan or neighborhood area plan goals and policies (City of Monterey 2016; City of Monterey 1985):

Conservation Element Goal b.1. Protect creeks, lakes, wetlands, beaches, and Monterey Bay from pollutants discharged to the storm drain system.

Conservation Element Goal b.2. Minimize particulate matter pollution with erosion and sediment control in waterways and on construction sites and with regular street sweeping on City streets.

Safety Element Policy c.4. Design projects to: (1) maximize the amount of natural drainage that can be percolated into the soil, and (2) minimize direct overland runoff onto adjoining properties, water courses, and streets. This approach to handling stormwater reduces the need for costly storm drainage improvements, which are often miles downstream. Building coverage and paved surfaces must

be minimized and incorporated within a system of porous pavements, ponding areas, and siltation basins.

Casanova-Oak Knoll Neighborhood Plan Policy 21. Determine the adequacy of drainage facilities and the impacts of proposed development.

4.10.2 Methodology

Water Quality

The analysis of impacts to water quality relies heavily on the principles and discharge prohibitions contained in the 2017 Basin Plan, which reflect the Central Coast RWQCB objectives and, thus, NPDES permit conditions for the region. These items are enforced through the NPDES permitting process. Therefore, this impact analysis evaluates the amount of pollutants discharged during qualifying storm events³ from 2015 through 2017 as reported in the Airport's required stormwater sampling. Based on the Airport's existing and future amounts of impervious surface, the potential for increases in water pollutants and possible exceedances of the IGP standards have been estimated.

Groundwater Supplies

In June 1993, MPWMD established a water allocation for each jurisdiction within its District (Ordinance No. 70), based on the development of the Paralta Well in the Seaside Groundwater Basin (308 acre-feet⁴ [AF] per month), as well as the creation of a District Reserve with 50 AF per month for regional projects with public benefit. Two years later, Ordinance 73 was adopted which eliminated the District Reserve and allocated the remaining 34.72 AF of water equally to the eight jurisdictions (4.34 AF per month per jurisdiction) (MPWMD 2017). Between the Airport's Paralta Well allocation (3.76 AF) and MPWMD Water Allocation Program (District Reserve) (4.34 AF), the Airport has an overall allocation of 8.10 AF of water per month; 5.20 AF of the Airport's MPWMD monthly groundwater allocation remains unused. Additional groundwater outside the MPWMD allocation is used from on-airport wells (see Section 4.18 for additional information on the Airport's wells). The impact analysis uses this information, as well as future water use estimates, to evaluate potential groundwater impacts.

Drainage Patterns and Drainage Systems

To identify potential impacts related to stormwater runoff from proposed projects, pre- and post-runoff volumes have been estimated and the need for onsite stormwater retention has been evaluated in light of the Central Coast RWQCB's Resolution R3-2013-0032.

³ A qualifying storm event is defined as a precipitation event that: 1) produces a discharge for at least one drainage area; and 2) is preceded by 48 hours with no discharge from any drainage area.

⁴ An acre-foot is a water measurement defined by the volume of water necessary to cover one acre of surface area to a depth of one foot and is most commonly used to describe groundwater volume and usage. It is equal to 43,560 cubic feet or 325,851 gallons.

In addition, potential impacts to downstream stormwater drainage systems within Caltrans right-of-way have been identified. Local policies of the cities of Del Rey Oaks and Monterey have also been considered in determining if project-related drainage impacts would be significant.

4.10.3 Existing Conditions

4.10.3.1 Surface Water

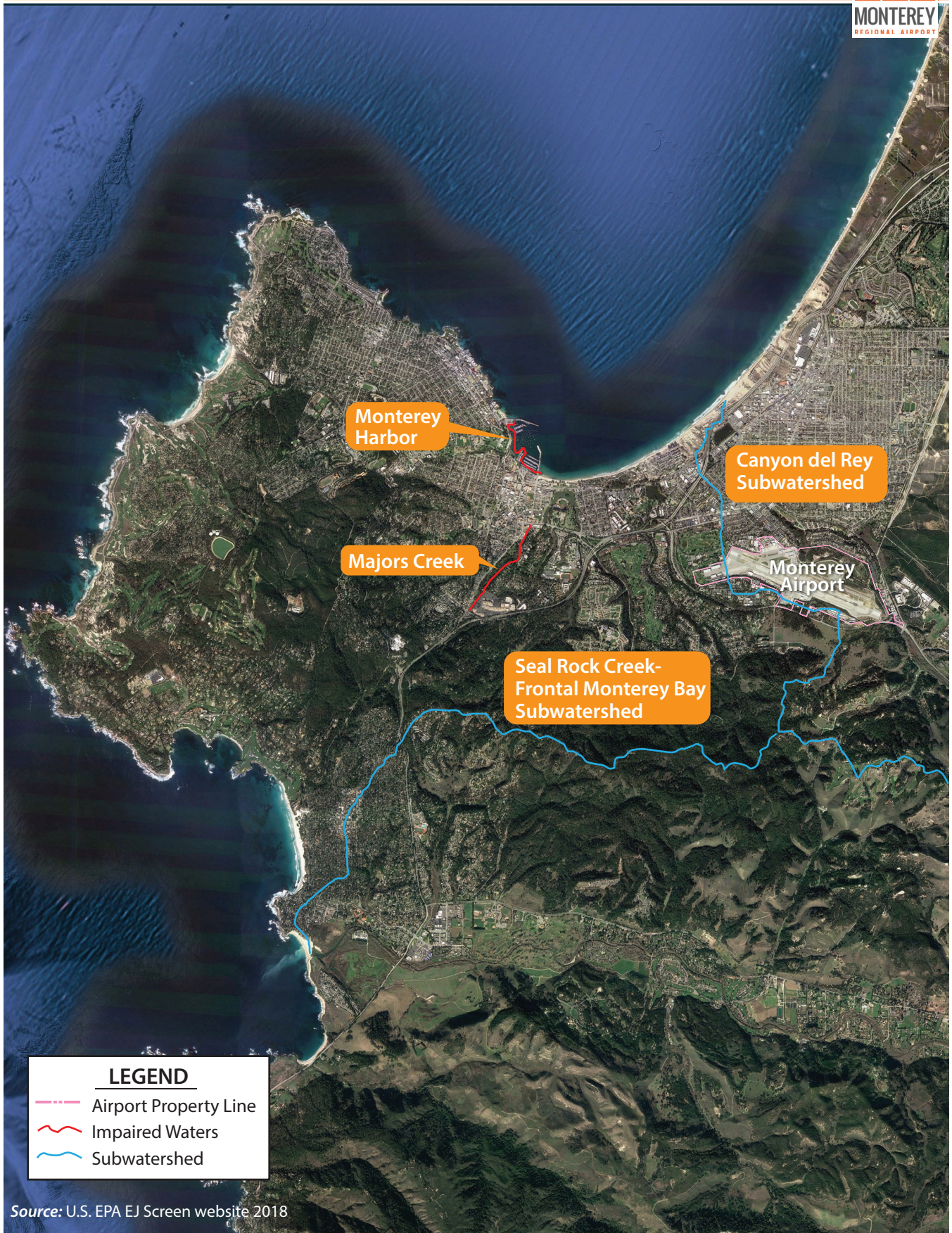
Impaired Waters

The Airport is located within the Canyon del Rey and Seal Rock Creek-Frontal Monterey Bay subwatersheds of the Salinas River Valley watershed (**Exhibit 4.10D**) (U.S. EPA EJ Screen website 2018). The Salinas River is the third longest river in California and runs the length of both Monterey County and the Pajaro River Valley, which begins in San Benito County and runs through southeastern Santa Cruz County (Regional Water Management Group [RWMG] 2013). The California Integrated Regional Water Management (IRWM) planning process prioritizes regional water-related efforts by identifying and implementing water management solutions throughout that region. The Monterey Peninsula area (one of four geographic areas covered by the IRWM for the Monterey Bay area) lies between the Salinas River and the Big Sur coast, from Point Lobos on the south to Sand City on the north (AMBAG 2017).

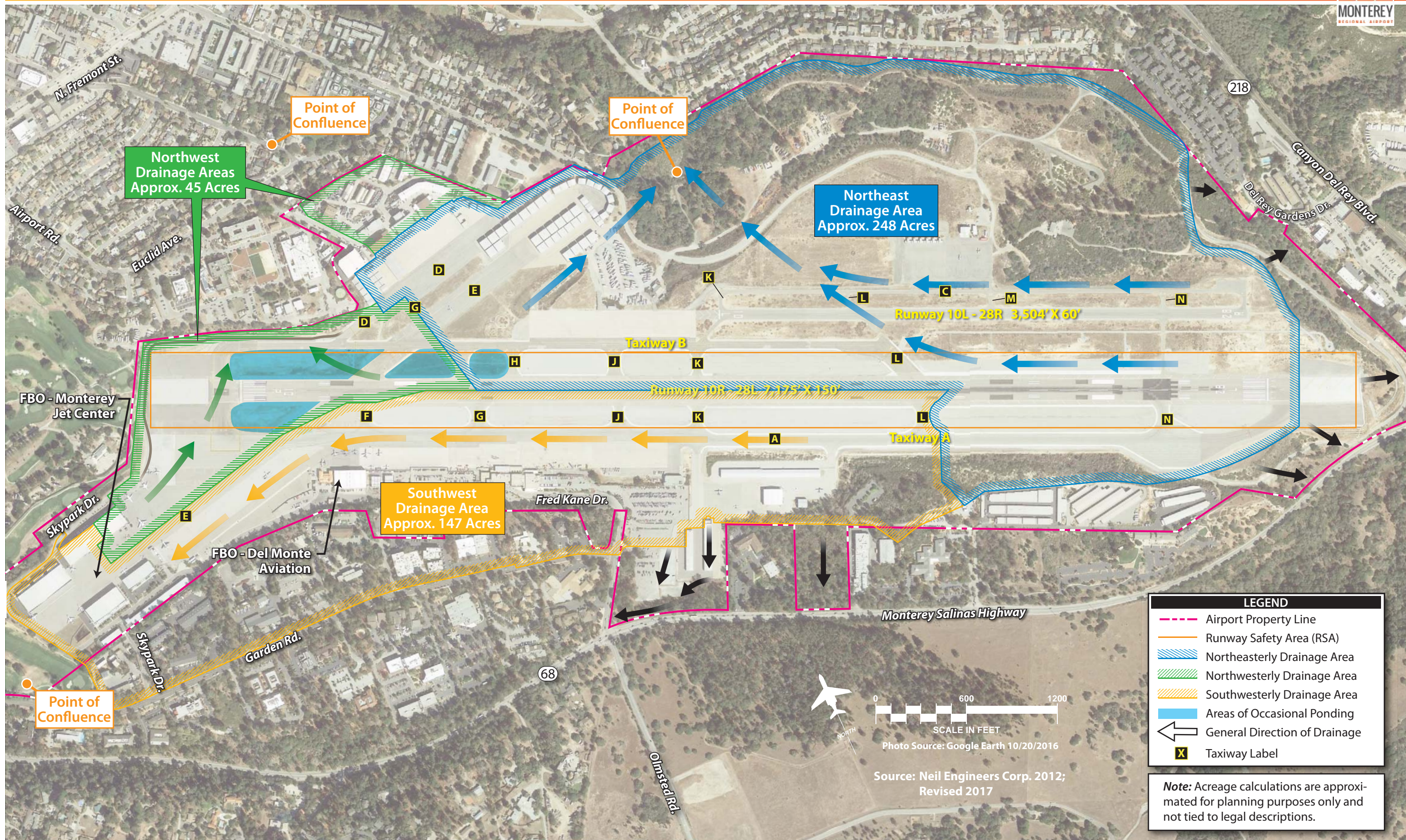
The SWRCB has prepared a list of impaired water bodies in the State of California, including the major water bodies in the greater Monterey Bay area. Due to the prevalence of agriculture in the Salinas River Valley, pesticide-laden runoff is one of the primary sources of surface water contamination. However, stormwater flowing over roadways and other transportation facilities also carries urban pollutants through natural drainage systems or man-made storm drain facilities to a body of surface water. Polluted runoff has impaired the ocean as well as inland waterways. The following water bodies located approximately 1.75 miles west and northwest of the Airport, respectively, are listed on a CWA Section 303(d) list (Impaired Waters List): Majors Creek and the Monterey Harbor (**Exhibit 4.10D**). Airport stormwater does not drain into these compromised water bodies.

On-Airport Stormwater

There are three primary drainage areas that collect and discharge stormwater runoff from the Airport's developed areas (**Exhibit 4.10E**). These drainage areas convey stormwater into drainage facilities of adjacent municipalities as described below. **Table 4.10A** summarizes the drainage areas in terms of: total area; impervious area; pervious area; percent impervious; and the runoff (Q) for a five-year, 24-hour storm event (KHA 2018). The existing drainage system at the Airport includes pipe culverts under the taxiways and runways that have been designed for a five-year storm event per Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5320-5D, *Airport Drainage Design*, Section 2-2.4.2 (FAA 2013). An analysis of existing storm drain deficiencies using a five-year, 24-hour storm event was completed and is shown in **Exhibit 4.10F**. Several of the main storm drains within the infield are currently operating above capacity (i.e., are deficient) during a five-year storm event. As discussed in the forthcoming impact analysis (Section 4.10.5), the Proposed Project and Alternative 1 development areas would not contribute significant additional runoff to these deficient storm drains. The Airport is currently addressing the



Source: U.S. EPA EJ Screen website 2018



LEGEND

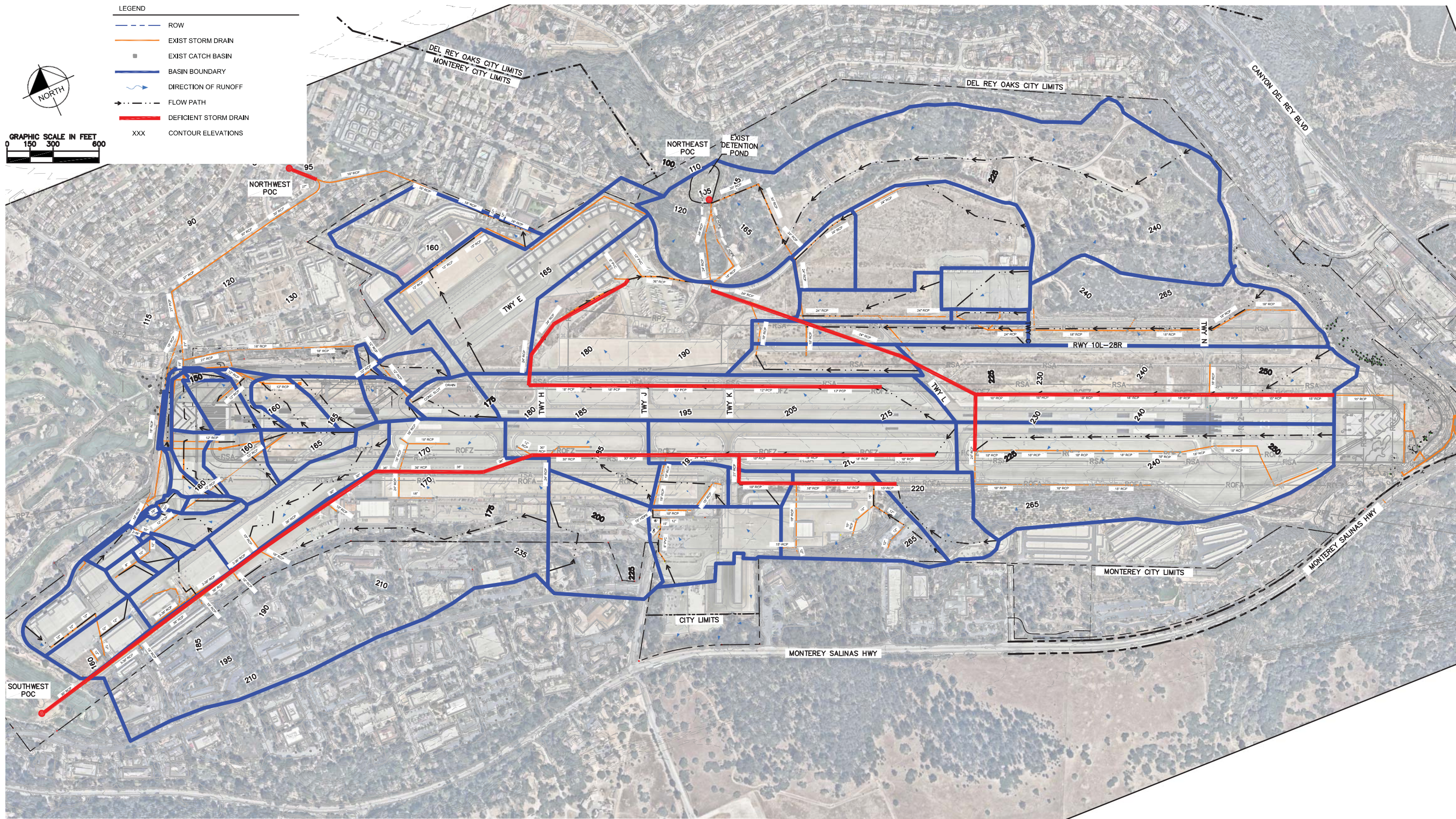
- Airport Property Line
- Runway Safety Area (RSA)
- Northeasterly Drainage Area
- Northwesterly Drainage Area
- Southwesterly Drainage Area
- Areas of Occasional Ponding
- ← General Direction of Drainage
- X Taxiway Label

Note: Acreage calculations are approximated for planning purposes only and not tied to legal descriptions.



Source: Neil Engineers Corp. 2012;
Revised 2017

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Source: Kimley-Horn Associates 2018

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issue on a project-by-project basis, as other construction projects at the Airport affecting the drainage system occur.

TABLE 4.10A
Existing Hydrologic Conditions
Monterey Regional Airport

Drainage Area	Total Area (acres)	Pervious Area (acres)	Impervious Area (acres)	Percent Impervious	5-Year, 24-hour Event Runoff (cfs)
Northeast (Outfall 3)	248	137	111	45%	158
Southwest (Outfall 1)	147	51	96	65%	137
Northwest (Outfall 2)	45	12	33	73%	62

Source: KHA 2018
 cfs = cubic feet per second

- Northeasterly Drainage Area (Outfall 3).** This drainage basin is approximately 248 acres and consists of the airfield area north of the centerline of the main Runway 10R-28L between the east end of the runway and connector Taxiway “G,” including Taxiway “B,” Runway 10L-28R, taxiways, aircraft parking areas, and the entire undeveloped northside area. During a five-year, 24-hour storm, runoff at the point of confluence (POC) (i.e., the junction of the drainage flows for the drainage area) (**Exhibit 4.10E**) is 158 cubic feet per second (cfs).

Stormwater in this area is collected by a series of catch basins and storm drain pipes that discharge into a large detention pond located at the northside of the Airport, which functions as the POC. The pond was designed to provide approximately 409,000 cubic feet of available pond storage and to accommodate future development (Neill Engineers 2017). For example, it will allow the 10-year existing storm to pass but will detain the difference between the projected 100-year future developed runoff and the existing 10-year runoff. The detention pond drains into a natural drainage channel that runs along Rosita Road in Del Rey Oaks before entering Canyon Del Rey Creek, and ultimately ends up in Laguna Grande Lake in Seaside.

- Southwesterly Drainage Area (Outfall 1).** This drainage basin is approximately 147 acres and consists generally of the area south of the main Runway 10R-28L centerline between Taxiway “E” and Taxiway “L,” including the corresponding segment of Taxiway “A,” the southside aircraft parking ramp areas, the Airport’s terminal building area and parking lots, fixed base operator (FBO) areas, and all the areas to the south and southwest. During a five-year, 24-hour storm, runoff at the confluence point (**Exhibit 4.10E**) is 137 cfs.

Stormwater runoff is collected by a system of catch basins and storm drain pipes. The storm drain trunk line for this drainage area runs downhill along Taxiway “A” beginning at connector Taxiway “L” through the infield safety areas, then across and along Taxiway “A.” It then turns in the southwest-erly direction through the Del Monte Aviation and Monterey Jet Center FBO sites, crosses Sky Park

Drive through the Monterey Pines (Navy) Golf Course, and ultimately connects into the City of Monterey storm drain system along Highway 68 where it discharges into Del Monte Lake located at the Navy Postgraduate School.

- Northwesterly Drainage Area (Outfall 2). This 45-acre drainage area is comprised of two sections. The westerly portion consists generally of the northwesterly part of the airfield area from Taxiway “E” to the west, including the westerly portion of Taxiway “B” and the northerly portion of the Monterey Jet Center FBO site. The northerly portion of this drainage basin includes the Old North Side area. During a five-year, 24-hour storm, runoff at the confluence point (**Exhibit 4.10E**) is 62 cfs.

The westerly end of this drainage area drains toward the adjacent Navy Golf Course and Navy property to the north. The runoff is collected by a system of catch basins and storm pipes that connect to the Navy storm drain facilities before entering the City of Monterey facilities on Airport Road, ultimately ending up in Laguna Grande Lake in Seaside. Ponding occasionally occurs on the west side of the infield in the natural areas during certain storm events (**Exhibit 4.10E**).

In the northeast part of the Airport above Del Rey Gardens Drive, stormwater runoff is not captured by a stormwater conveyance system (**Exhibit 4.10E**). Rather, runoff flows down the hill and onto Del Rey Gardens Drive before ending up in the Canyon Del Rey Creek located along Highway 218. Along the eastern on-airport vehicle service road, stormwater runoff is diverted in swales located along the sides of the road. This stormwater is directed to an underground storm drain vault prior to releasing it to the storm drain collection system in the Highway 68 right-of-way to ensure that the post-construction runoff from the recent Runway Safety Area Improvements Project (RSA Project) is not more than the pre-construction runoff quantities associated with the ten-year storm.

Areas south of the airfield along airport frontage with Highway 68 drain towards storm drain facilities located within the Highway 68 right-of-way. There are two retention ponds located next to the highway that allow the percolation of stormwater into the groundwater for recharge of the ground water basin. These ponds also help to ensure that stormwater entering the Caltrans storm drain system do not overload the facilities.

On-Airport Stormwater Monitoring

From 2015 through 2017, the Airport experienced four qualifying storm events (November 2015, March 2016, February 2017, and November 2017). Based on the information within the California Water Board’s Storm Water Multiple Application and Report Tracking System (SMART), the Airport’s stormwater did not exceed the numeric action levels (NALs)⁵ set forth by the state’s IGP, even for the highest sampled values (**Table 4.10B**). This indicates that the BMPs implemented through the Airport’s SWPPP are effective in managing the stormwater per the IGP.

⁵ An NAL exceedance indicates that the BMPs being implemented are not effective in reducing pollutants; however, an NAL exceedance is not a violation of the IGP. NALs are commonly calculated as an average of all sample results.

TABLE 4.10B
Stormwater Monitoring - Years 2015 through 2017
Monterey Regional Airport

Parameter	Numeric Action Level ¹	Units	Highest Sampled Value	Date of Highest Sampled Value	Location of Highest Sampled Value
pH	6.0-9.0	pH units	6.0 to 7.0	Multiple dates	All outfalls
Total Suspended Solids	100	mg/L	29.0	Nov. 2, 2015	Outfall 2
Oil and Grease	15	mg/L	2.1	Nov. 2, 2015	Outfall 3
Zinc	0.26	mg/L	0.12	Feb. 2, 2017	Outfall 2
Copper	0.0332	mg/L	0.019	Nov. 2, 2015	Outfall 2
Lead	0.262	mg/L	0.012	Nov. 2, 2015	Outfall 2
Nickel	1.02	mg/L	0.005	Multiple dates	All outfalls
Chemical Oxygen Demand	120	mg/L	51.0	March 11, 2016	Outfall 1

Sources: Envriion Strategy Consultants, Inc. 2018; SMART reports for Monterey Regional Airport, Years 2015 through 2017.
 pH = potential of Hydrogen; mg/L = milligrams per liter

¹ The state’s Industrial General Permit provides numeric action levels (NAL) so that permit holders can gauge whether their stormwater program is effective. An NAL exceedance indicates that the best management practices are not effective in reducing pollutants; however, an NAL exceedance is not a violation of the IGP. NALs are commonly calculated as an average of all sample results. However, for purposes of this table, only the highest sample value is shown.

4.10.3.2 Groundwater

Local Groundwater Supply

The total usable storage of water in the Monterey Peninsula area is estimated at 37,500 AF (MPWMD 2014). Groundwater from the Carmel River and Seaside Basins comprise the majority of this water supply, while the Los Padres Dam and Reservoir on the Carmel River account for less than two percent of total storage. The Airport is located on the southernmost portion of the Salinas Valley-Seaside Area Groundwater Basin. The Seaside Groundwater Basin underlies a hilly coastal plain that slopes northward toward the Salinas Valley and westward toward Monterey Bay. Groundwater extraction near the coast increased markedly beginning in 1995, resulting in declining water levels and depletion of groundwater storage. Although sustainable yield from the Seaside Basin is estimated at 2,880 AF per year (AFY), basin-wide groundwater withdrawals in recent years have been on the order of 5,600 AFY. In 2006, a Final Decision was rendered that adjudicated the basin and set a three-year goal aimed at reducing annual extractions to 3,000 AFY, which is termed the “natural safe yield” (MPWMD 2014).

The Airport uses groundwater that it receives from MPWMD (Paralta Well allocation and District Reserve Share). See Section 4.18.1.3. The Airport has an overall allocation of 8.10 AF per month, of which 5.20 AF remains unused based on water permits issued to the Airport from 1993 - March 31, 2017 (Monterey Regional Airport 2017). In addition to groundwater through its MPWMD allocation, the Airport has eight water wells located around the Airport. Section 4.18.1.3 contains more information regarding the uses and associated infrastructure of these eight on-airport wells.

The north side well system is served by a shallow aquifer located in the Canyon Del Rey area that is located outside the adjudicated Seaside Groundwater Basin boundary, and is, therefore, not subject to the MPWMD adjudication limits (Allterra 2015). The aquifer consists of saturated, relatively unconsolidated quaternary aged deposits, including eolian, alluvial, and marine terrace deposits with a

depth of approximately 78.5 feet below ground surface (bgs). The north side well system infrastructure is adequate to accommodate a sustainable combined pumping rate of approximately 66.2 gpm, which equates to approximately 34,318,080 gallons annually (approximately 8.75 AF per month) (Allterra 2015).

Although there are two retention ponds located in the southern part of the Airport and one detention basin in the northwest corner that allow the percolation of stormwater into the groundwater for recharge of the groundwater basin, for the most part, the Airport, and especially the infield area, does not serve as a groundwater recharge area. The only natural ground areas of the infield are highly compacted. In addition, FAA AC 150/5200-33B, *Hazardous Wildlife Attractants On or Near Airports* (2007) limits the potential for groundwater recharge at airports for safety purposes as pooling waters are a wildlife attractant. FAA AC 150/5200-33B, Section 2-3 states that, where possible, stormwater detention ponds should be designed, engineered, constructed, and maintained for a maximum 48-hour detention period after the design storm, remain completely dry between storms, and located away from the Air Operations Area (AOA).

Local Groundwater Quality

In the Seaside Coastal Subarea, monitoring has focused on the potential for seawater intrusion and other contaminants. This monitoring effort has not indicated substantial changes in water quality or revealed any evidence of seawater intrusion in either groundwater basin (MPWMD 2014).

The Airport does not monitor the quality of its on-airport groundwater wells. However, this well water is not used as a potable water source. Currently, airport maintenance staff are the only party using the north side wells. The water from the north side wells is transported via a water truck that brings the water to landscaped areas. Due to the slow pumping rate, the water is only used for landscaping purposes and for construction projects at the Airport, when feasible.

4.10.4 Thresholds of Significance

The following thresholds of significance have been taken from the *California Environmental Quality Act* (CEQA) Guidelines, Appendix G (2017). Significant impacts to hydrology and water quality would occur if the Proposed Project or Alternative 1 would:

- Threshold 4.10-1: Violate any water quality standard or waste discharge requirements or otherwise substantially degrade water quality, including substantial erosion or siltation;
- Threshold 4.10-2: Substantially deplete groundwater supplies or substantially interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table;
- Threshold 4.10-3: Substantially alter the existing drainage pattern of the site or area, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or offsite;
or

- Threshold 4.10-4: 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.

4.10.5 Impact Analysis

Implementation of the Proposed Project or Alternative 1 would result in both construction activity (temporary) and permanent changes to impervious surface located in the south and north parts of the Airport. Both these actions could have effects on the hydrology and water quality at the Airport. The following impact analysis also includes a discussion of operational impacts to existing drainage patterns and subsequent impacts to existing or planned drainage systems.

To facilitate the discussion of the above thresholds in the discussion to follow, **Exhibits 4.10G, 4.10H, and 4.10I** graphically depict the various areas of proposed short-term projects (i.e., the first ten years). The existing and proposed impervious areas are discussed below:

- **Subarea 1 (Exhibit 4.10G)**. Subarea 1 encompasses the proposed relocation of the southeast hangars and a temporary or permanent ARFF building to the northeast ramp area. It also includes two proposed roads: an ARFF service road from the northeast ramp to the primary runway and the western portion of the proposed “north side” road. Existing impervious surface includes pavement and buildings and is approximately 223,005 square feet (sf). Under either the Proposed Project or Alternative 1, the new amount of impervious surface would be approximately 678,095 sf.
- **Subarea 2 (Exhibit 4.10H)**. Subarea 2 encompasses the proposed relocated commercial terminal apron area. The existing impervious surface is approximately 513,765 sf and includes both pavement and buildings. Under either the Proposed Project or Alternative 1, the new amount of impervious surface would be approximately 655,381 sf.
- **Subarea 3 (Exhibit 4.10I)**. Subarea 3 encompasses proposed parking along Fred Kane Drive, as well as a permanent ARFF building under the Proposed Project. Existing impervious surface includes pavement and the existing commercial terminal building and is approximately 228,629 sf. Under the Proposed Project, the amount of impervious surface would be approximately 289,463 sf; under Alternative 1, the amount of impervious surface would be approximately 255,863 sf. This equates to an increase in approximately 60,834 sf of impervious surface for the Proposed Project and an increase of 27,234 sf of impervious surface for Alternative 1. The primary differences between the two alternatives is that under the Proposed Project additional vehicular parking would be provided on the northwest corner of Olmsted and Garden Roads and a new ARFF building would be located on the site of the existing terminal building.
- **Subarea 4 (Exhibit 4.10I)**. Subarea 4 encompasses the landside portions of the proposed commercial terminal complex and the proposed Highway 68 frontage road. Both the proposed 5.5-acre land acquisition parcel and the 3.6-acre airport-owned parcel located east of the southeast GA ramp area are included in this subarea. Existing impervious surface includes pavement and buildings and is approximately 390,708 sf; 296,281 sf are located on the Airport and 94,427 sf are located on the adjacent 5.5-acre privately-owned parcel.

The primary differences between the Proposed Project and Alternative 1 are two-fold: 1) vehicular parking for the commercial terminal under the Proposed Project would be a four-level parking structure, while under Alternative 1 a surface parking lot would be provided; and 2) a loop road is proposed for the Highway 68 frontage road under the Proposed Project, while under Alternative 1, the frontage road would be a cul-de-sac. As a result, the Proposed Project would have approximately 412,237 sf of impervious surface, resulting in an increase in impervious surface of approximately 21,529 sf. Alternative 1 would have approximately 466,908 sf of impervious surface, resulting in an increase in impervious surface of approximately 76,200 sf.

- **Subarea 5 (Exhibit 4.10G).** Subarea 5 encompasses the eastern portion of the proposed “north side” road, which would drain towards Del Rey Gardens Drive. There is no existing impervious area within this subarea. Thus, with construction of the proposed “north side” road, the additional amount of impervious surface would be approximately 21,781 sf under either the Proposed Project or Alternative 1.

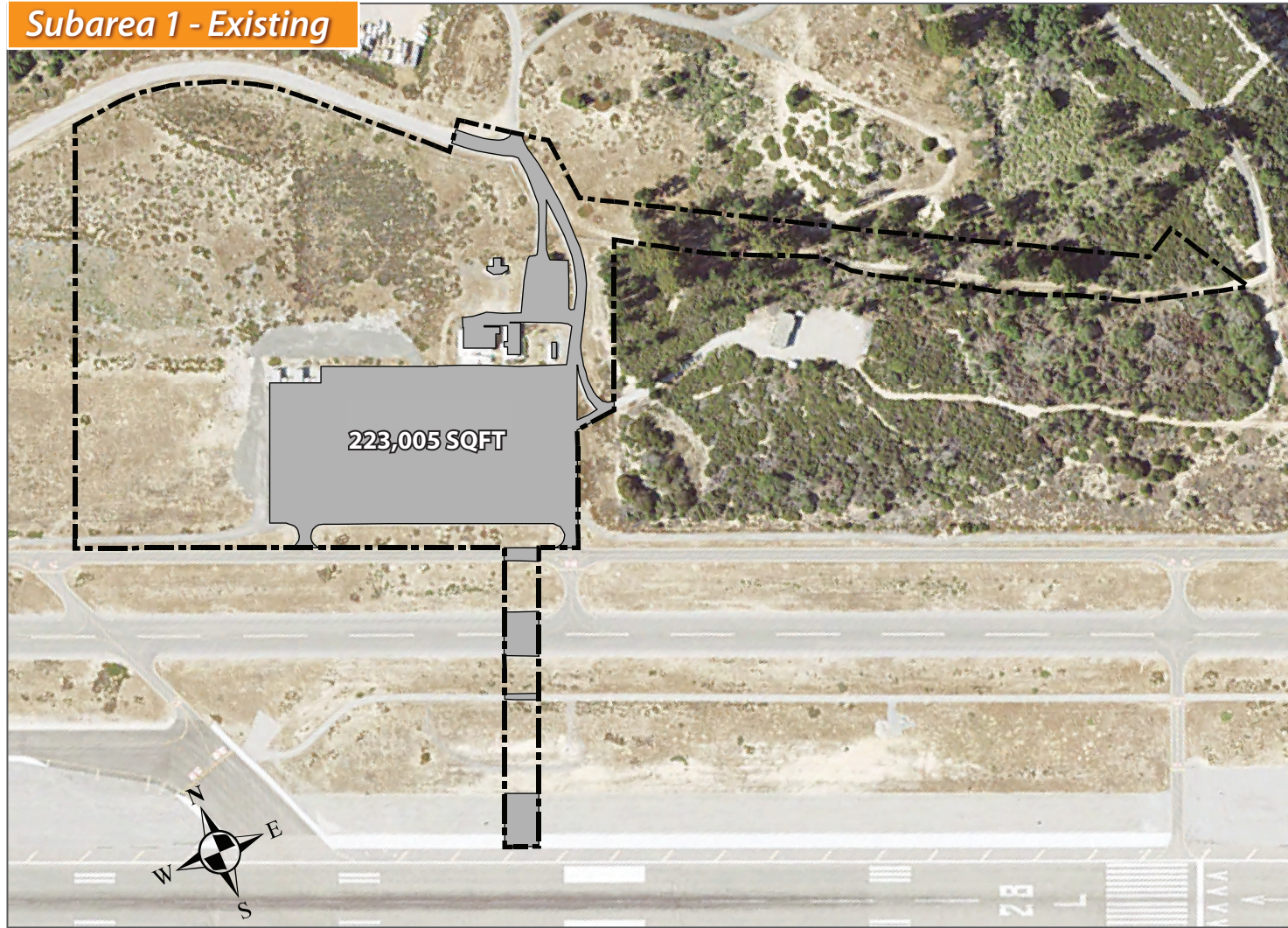
Table 4.10C provides a summary of the existing and proposed impervious amounts in the areas of the Airport proposed for development. As can be seen in the table, the Airport has approximately 11,432,594 sf of impervious surface. The Proposed Project would result in an approximate 6.1 percent increase (700,850 sf) over the amount of existing impervious surface at the Airport, while Alternative 1 would result in an approximate 6.3 percent increase (721,921 sf). The new airport totals shown in **Table 4.10C** include net new impervious surface due to proposed short-term projects, as well as the incorporation of existing impervious surface (buildings and pavement) within a private parcel proposed for acquisition. As discussed previously under Methodology (Section 4.10.2), these changes in impervious surface have been used to evaluate potential impacts to water quality and drainage patterns per Thresholds 4.10-1 through 4.10-4 in the following discussion.

Subarea	Existing (sf)	Proposed Project (sf)	Alternative 1 (sf)
1 - Northeast GA ramp & western portion of proposed “north side” road	223,005	678,095	678,095
2 - Southeast GA ramp (northern portion)	513,765	655,381	655,381
3 - Fred Kane Drive & parking areas	228,629	289,463	255,863
4 - Southeast GA ramp (southern portion) & new landside projects ¹	390,708	412,237	466,908
5 - Eastern portion of proposed “north side” road	0	21,781	21,781
Subarea Subtotals	1,356,107	2,056,957	2,078,028
AIRPORTWIDE TOTALS	11,432,594	12,133,444	12,154,515

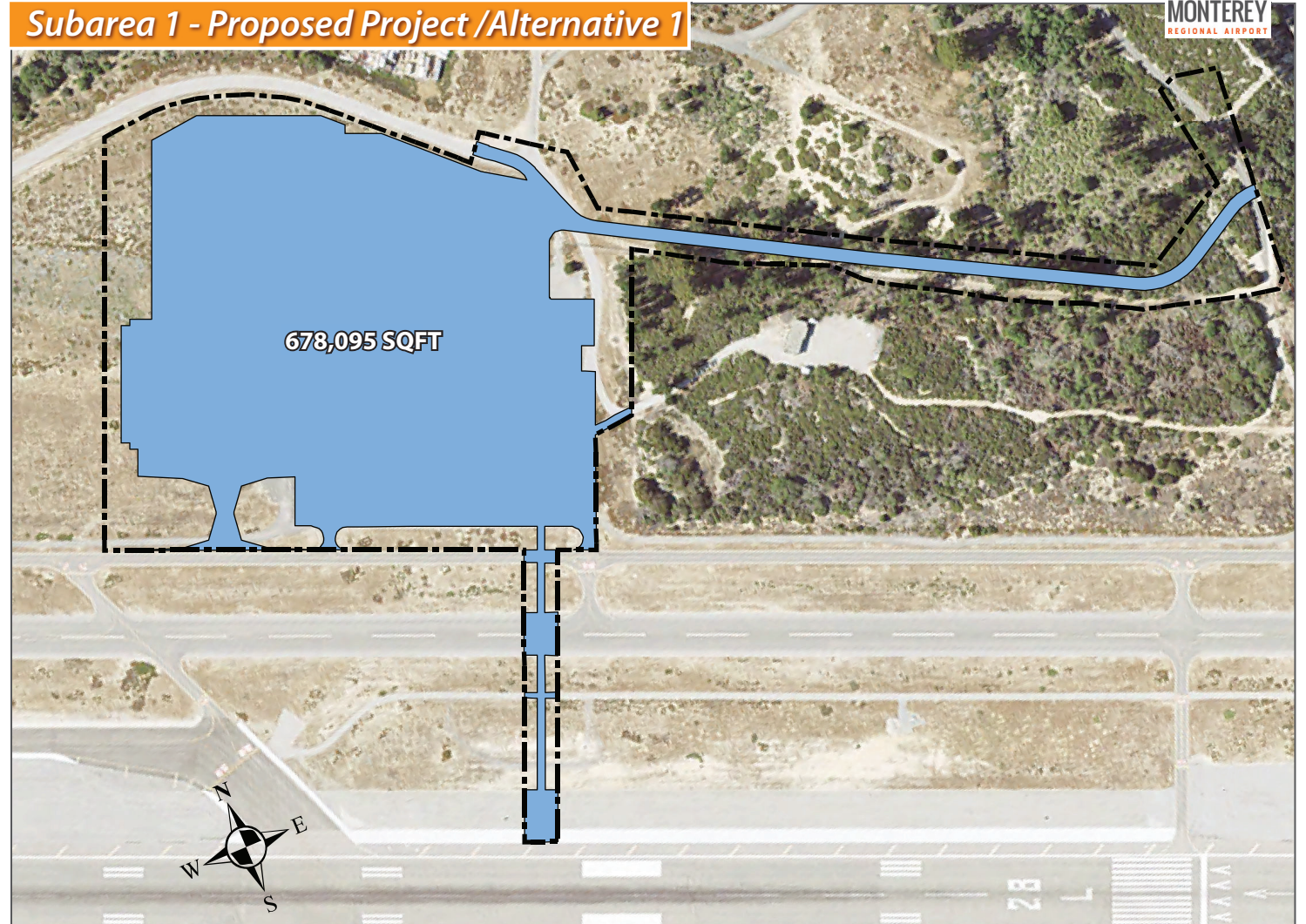
sf = square feet (buildings and pavement)
¹ Includes the 5.5-acre proposed land acquisition parcel, which contains 94,427 sf of impervious surface in the existing condition.

In the long term, proposed projects could include additional hangars and related taxiway pavement, non-aeronautical buildings, roadways, parking lots, and a wash rack in the north GA hangar area. The amount of impervious surface for proposed long-term projects cannot be quantified at this time. Impacts are, therefore, evaluated at a programmatic level only.

Subarea 1 - Existing



Subarea 1 - Proposed Project /Alternative 1



Location of Subareas 1 and 5

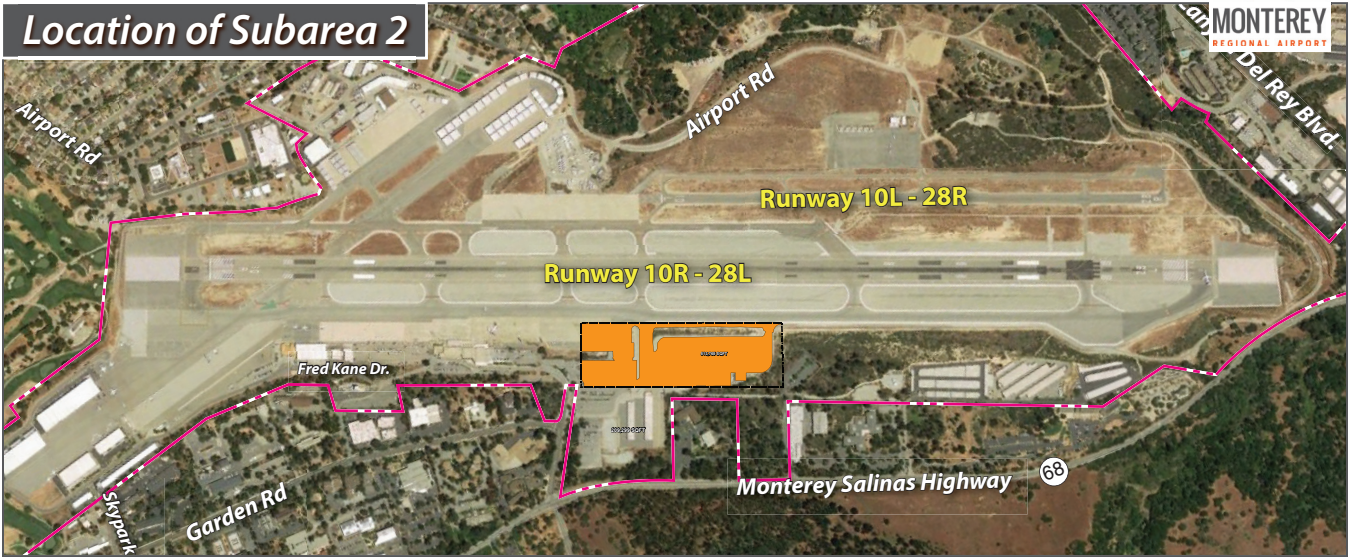


Subarea 5 - Proposed Project /Alternative 1



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Location of Subarea 2



Subarea 2 - Existing



Subarea 2 - Proposed Project /Alternative 1



4.10.5.1 **Threshold 4.10-1 - Violate any water quality standard or waste discharge requirements or otherwise substantially degrade water quality, including substantial erosion or siltation**

Proposed Project and Alternative 1

Surface Water Quality Standards

Short-Term and Long-term (Programmatic) Project Impacts. As previously discussed, the Airport operates under an IGP, which requires it to: (1) eliminate unauthorized non-stormwater discharge; (2) develop and implement a SWPPP; and (3) monitor stormwater discharge to ensure that state water quality standards are being maintained in accordance with the Airport's approved SWPPP. As each future project component occurs, the Airport's SWPPP would be updated (subject to approval of the Central Coast RWQCB) to account for the amount or location of additional impervious surface. The Central Coast RWQCB is responsible for ensuring that permit conditions appropriately reflect the objectives and principles of the most current Basin Plan (2017).

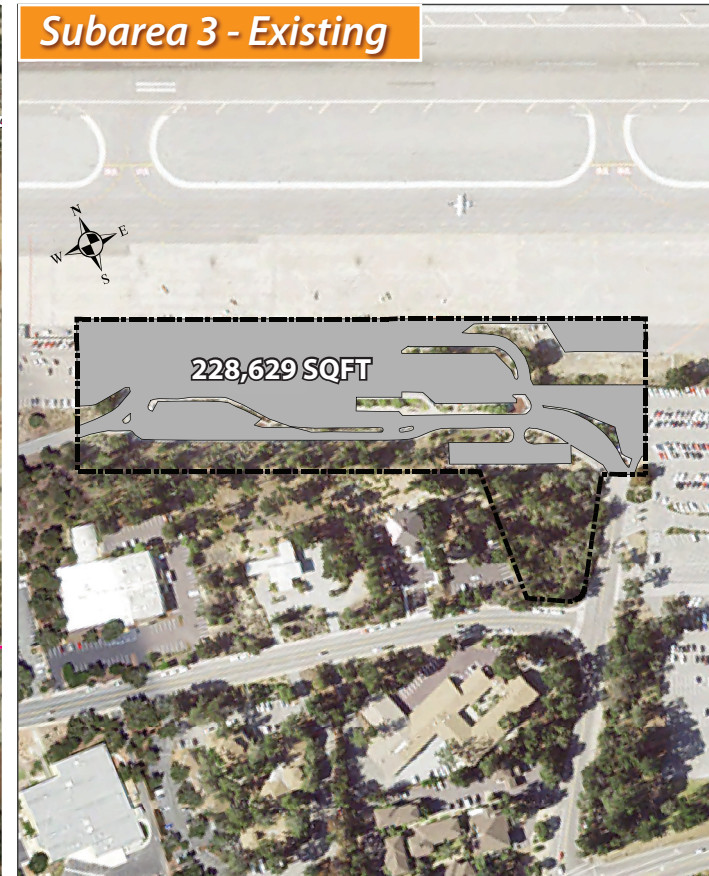
As shown in **Table 4.10C**, overall, the Airport has approximately 11,432,594 sf of impervious surface (262.5 acres). As a result of the proposed short-term projects, the amount of impervious surface at the Airport would increase by approximately 6.1 percent under the Proposed Project and approximately 6.3 percent under Alternative 1. Pollutants and chemicals associated with airport activities could run off the new taxilanes, aprons, roadways, parking lots, and other new impervious surfaces potentially flowing into the stormwater system, and eventually, into nearby bodies of water. These pollutants could include but are not limited to: heavy metals from auto or aircraft emissions, oil, grease, debris, and air pollution residues. Landscaping fertilizers and pesticides can cause further adverse effects on water quality. Accidental spills of pollutants, such as fuel, could also occur. If left untreated, contaminated stormwater can result in the incremental degradation of water quality.

As shown previously in **Table 4.10B**, the Airport is not currently experiencing stormwater pollutant levels above the NALs, even for the highest sampled value over the past three years (2015 through 2017). In **Table 4.10D**, the approximate six percent increase in additional impervious surface for proposed short-term projects was applied proportionately to the highest pollutant levels currently experienced at the Airport. An approximate 10 percent increase in additional impervious surface for proposed long-term projects was also applied proportionately. In the long term, it is anticipated that increases in impervious surface (other than buildings) would be primarily due to additional vehicular parking lots and internal roads for the non-aeronautical development planned for the north and south sides of the Airport, as well as pavement related to taxilanes serving proposed hangar development and an extension of Taxiway "B."

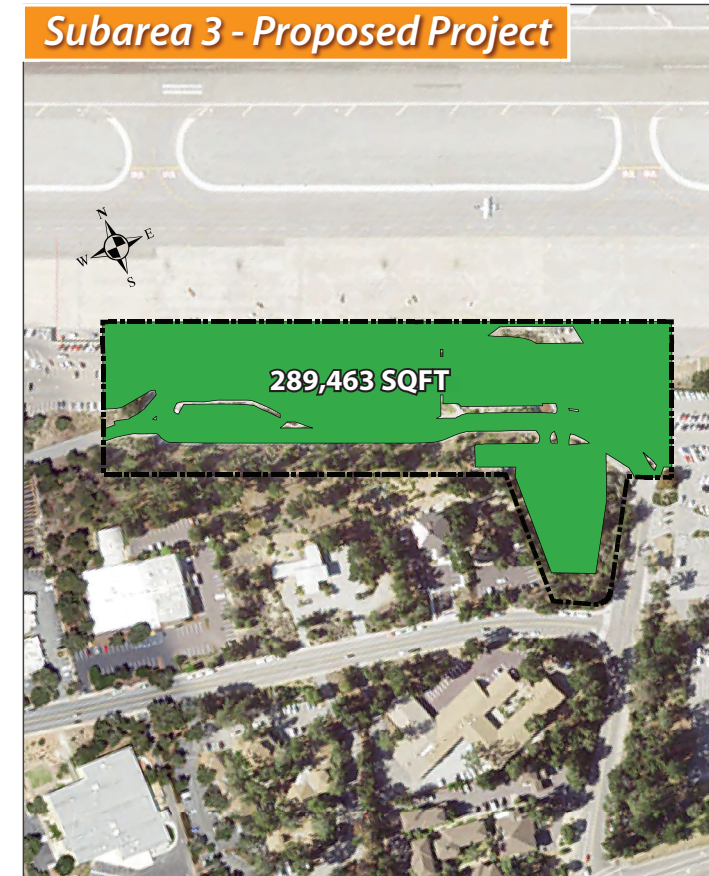
Location of Subareas 3 and 4



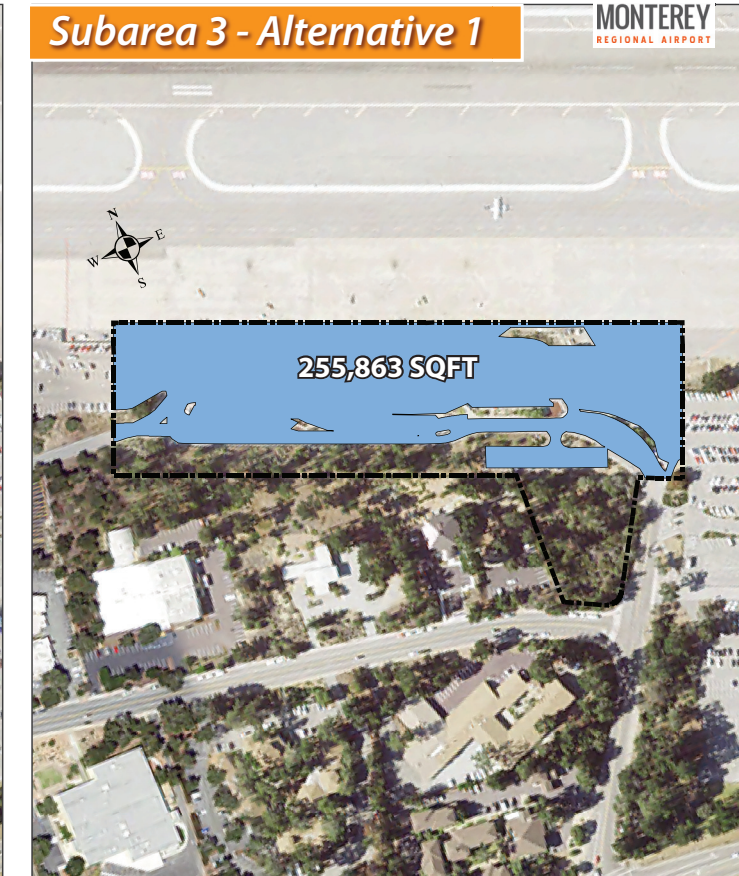
Subarea 3 - Existing



Subarea 3 - Proposed Project



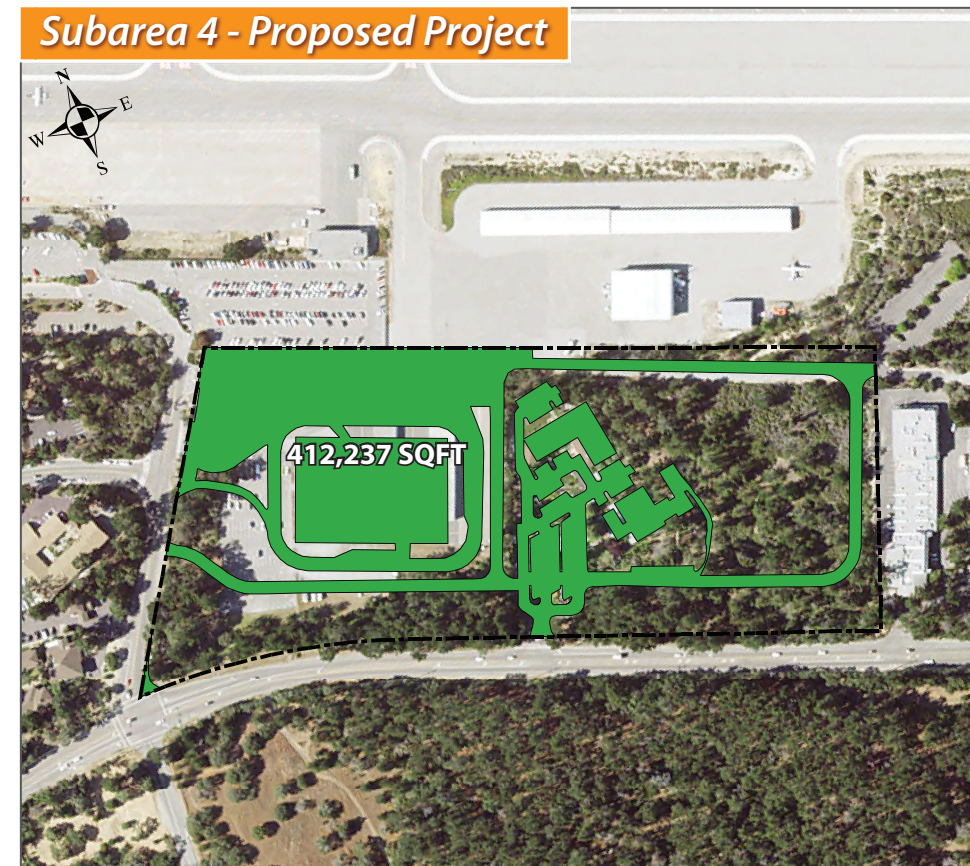
Subarea 3 - Alternative 1



Subarea 4 - Existing



Subarea 4 - Proposed Project



Subarea 4 - Alternative 1



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TABLE 4.10D
Future Stormwater Pollutant Levels
Proposed Project and Alternative 1

Parameter	Numeric Action Level ¹	Units	Highest Sampled Value (2015 - 2017)	Short-Term Projects Future Highest Value ² (Theoretical)	Long-Term Projects Future Highest Value ³ (Theoretical)	Over Numeric Action Level?
pH	6.0-9.0	pH units	6.0 to 7.0	N/A	N/A	N/A
Total Suspended Solids	100	mg/L	29.0	30.7	31.9	No
Oil and Grease	15	mg/L	2.1	2.2	2.31	No
Zinc	0.26	mg/L	0.12	0.13	0.13	No
Copper	0.0332	mg/L	0.019	0.20	0.21	No
Lead	0.262	mg/L	0.012	0.13	0.13	No
Nickel	1.02	mg/L	0.005	0.005	0.006	No
Chemical Oxygen Demand	120	mg/L	51.0	54.1	56.1	No

pH = potential of Hydrogen; N/A = not applicable; mg/L = milligrams per liter
¹ The state’s Industrial General Permit provides Numeric Action Levels (NAL) so that permit holders can gauge whether their stormwater program is effective. An NAL exceedance indicates that the best management practices are not effective in reducing pollutants; however, an NAL exceedance is not a violation of the IGP.
² Assumes a proportionate six percent increase in pollutant levels based on a six percent increase in impervious surface for proposed short-term projects under either the Proposed Project or Alternative 1.
³ Assumes a proportionate ten percent increase in pollutant levels based on a ten percent increase in impervious surface for proposed long-term projects under either the Proposed Project or Alternative 1.

The proposed short-term and long-term project theoretical future pollutant values shown in **Table 4.10D** would remain below the NALs for all pollutants currently monitored at the Airport under either the Proposed Project or Alternative 1. For comparison purposes, even if the Airport increased its impervious surface by 50 percent, a proportionate increase in water pollutants would not cause an increase in pollutants above the NALs.

One specific proposed long-term project, a future wash rack, would have unique concerns. Generally, wastewater from the washing or rinsing of aircraft must be directed to the sanitary sewer system, rather than a storm drain so that dirt or other pollutants are treated at a wastewater treatment plant prior to being released into WOTUS. An impervious wash surface, such as concrete, protected by berms or swales and a drain fitted with an oil separator, would be required to direct all wastewater into the sewer system. The amount of wastewater pollutants allowed with such an improvement would be specified prior to operation by the Airport.

Since the theoretical future runoff pollutant values for both the proposed short- and long-term projects would remain below the NALs for all pollutants currently monitored at the Airport, potential impacts of short- or long-term projects under either the Proposed Project or Alternative 1 would be Less than Significant.

Construction Impacts. During and immediately after construction activities, erosion and sedimentation can cause a degradation of water quality due to stormwater runoff. As discussed in Section 4.7, Geology and Soils, several of the potential construction areas contain erodible soils. On the north side of the

Airport where the southeast GA hangars and a temporary or permanent ARFF are proposed to be located, the soils consist of fine to medium sands with fine contents generally less than 30 percent. These types of soils are highly subject to erosion from wind and water (Cornerstone Earth Group 2017). This is also the case on the south side of the Airport in the commercial terminal and apron relocation area.

The soils for the proposed “north side” road generally consist of sands with varying degrees of silt and clay binder and cementation. Based on a geotechnical report completed on the proposed “north side” road, the sandy-type soil is a highly erodible material and would require some type of treatment if left unprotected and subject to erosion. Some localized erosion has already occurred and has been mitigated over the years (Haro et al. 1989).

The sites of long-term construction have not been identified and would need to be evaluated at the time that development proposals are available. However, based on the general airport information available in the preliminary geotechnical investigations completed for the project components discussed above, a similar potential for erosion is anticipated in these other areas of the Airport.

Similar to the operational impacts discussed above, an NPDES General Construction Permit would be required for all construction projects that would disturb greater than one acre. Acquisition of a General Construction Permit is dependent on the preparation of a SWPPP that contains specific BMPs to control the discharge of pollutants, including sediment, into the local surface water drainages. Specific BMPs may include, but are not limited to: berms, silt fencing, fiber mats or rolls, mulches, slope drains, and other erosion control methods. All exposed slopes would be hydroseeded or provided with other landscape cover. Based on the demonstrated effectiveness of the Airport’s BMPs and SWPPP, potential impacts of short- or long-term construction under both the Proposed Project and Alternative 1 would be Less than Significant. In addition, mitigation measures provided in Section 4.7.6, GEO/mm-1 through GEO/mm-4, would provide additional assurance that impacts related to construction water quality are avoided.

Groundwater Quality Standards

Short-Term and Long-term (Programmatic) Project Impacts. The discussion presented above regarding the water quality of surface waters could also apply to groundwater quality. The Airport does not use groundwater as a potable water source and is not required to monitor groundwater quality from the on-airport wells. However, although very little groundwater recharge occurs on the Airport itself, drainage features containing airport-related stormwater, such as Canyon Del Rey Creek, Laguna Grande Lake, and Del Monte Lake, could percolate water containing pollutants into the underlying groundwater basin. Since the theoretical future runoff pollutant values would remain below the NALs for all pollutants currently monitored at the Airport, this potential indirect impact of short- or long-term projects under either the Proposed Project or Alternative 1 would be Less than Significant.

Less than Significant:

The Airport’s current operational SWPPP (in addition to mandated construction SWPPPs) would provide adequate BMPs to treat future project-related stormwater as indicated by the low levels of

pollutants identified through its stormwater monitoring program. Impacts related to water quality standards for the Proposed Project and Alternative 1 during both the operational and construction stages are Less than Significant per Threshold 4.10-1.

4.10.5.2 Threshold 4.10-2 - Substantially deplete groundwater supplies or substantially interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table

Proposed Project and Alternative 1

Short-Term and Long-term (Programmatic) Project Impacts

In terms of groundwater recharge, the increase in impervious surface due to the Proposed Project or Alternative 1 would not substantially interfere with groundwater recharge. There are very few areas on the Airport where surface water is retained, and the Airport does not serve as an effective groundwater recharge area. As previously noted, FAA AC 150/5200-33B states that stormwater detention ponds should be designed, engineered, constructed, and maintained for a maximum 48-hour detention period after the design storm and remain completely dry between storms.

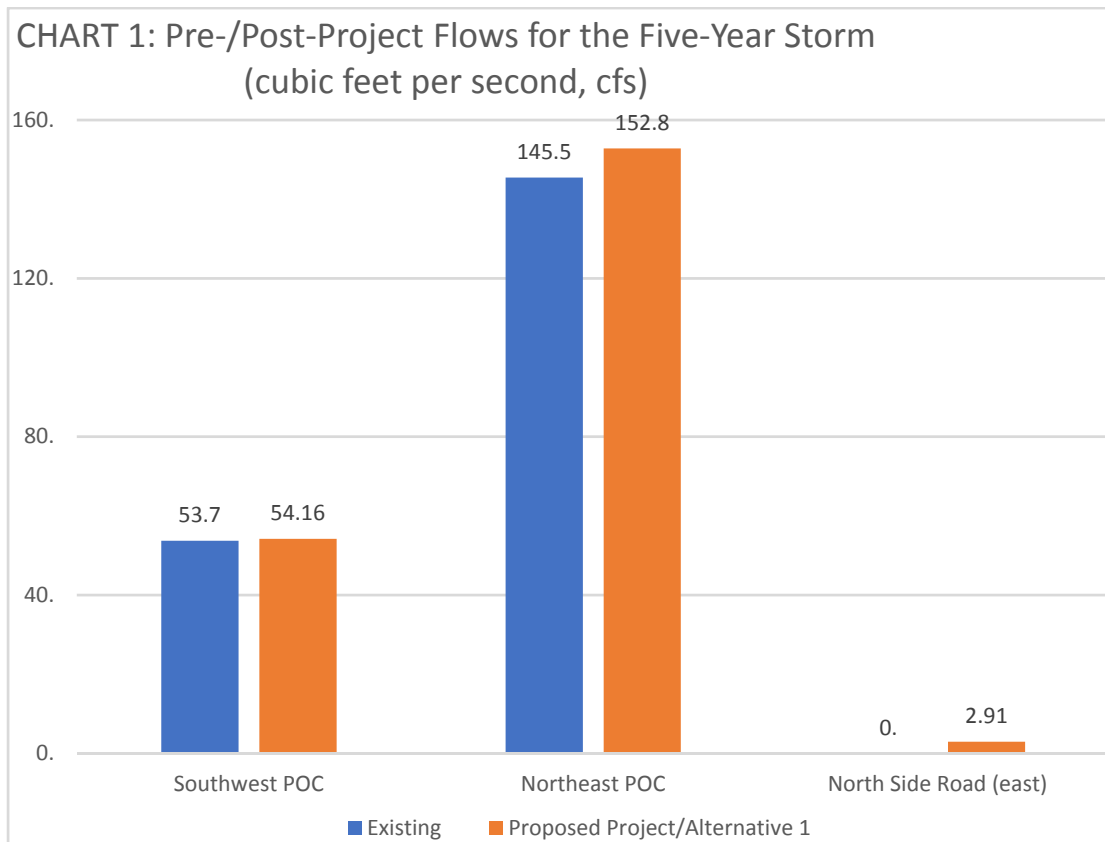
Water supply for the Proposed Project and Alternative 1 is discussed in this EIR in Section 4.18.1.3 and comes from the underlying groundwater basins, either from MPWMD wells or on-airport wells. As concluded in Section 4.18.1.5, Threshold 4.18.1-1, proposed short-term projects under either the Proposed Project or Alternative 1, for example, seven additional hangars with one additional restroom in the northeast GA hangar area and larger building spaces for the relocated ARFF and commercial terminal buildings, could require additional groundwater (approximately 1.05 AF per year) (refer to Table 4.18C). The additional demand can be accommodated by the Airport's existing groundwater allocation from MPWMD. In addition, both the new ARFF and commercial terminal would be LEED certified, which would ensure that water-conservation measures are incorporated into building design (see Section 4.18.1.5 for additional information on the required water conservation components of LEED certification). Therefore, the proposed short-term projects would have Less than Significant impacts on groundwater supply.

In the long term, proposed projects (worst case) could include 106 new hangars on the north side (with additional groundwater use if provided with restrooms) and non-aeronautical development on both the south and north sides of the Airport. Other groundwater uses could occur from a proposed aircraft wash rack, landscaping, and construction water needs. Water for these uses could be provided from on-airport wells using non-potable water. In this case, the specific proposed uses would have minimal effect on groundwater supplies as the subject groundwater basin is relatively unconstrained. Conversely, a water permit from MPWMD could be requested, especially for the aircraft wash rack.

Full buildout of the Proposed Project or Alternative 1 (including long-term worst case) could demand as much as 63.55 AF per year of water (refer to Table 4.18C), approximately 1.18 AF above the Airport's existing available annual entitlements of 62.37 AF. The Airport's existing groundwater entitlement could

24-hour rainfall event as determined from local rainfall data. In Monterey, the 85th percentile 24-hour rainfall event is encompassed by the five-year storm event. Compliance must be achieved by optimizing infiltration with retention of the remaining volume achieved via storage, rainwater harvesting, and/or evapotranspiration.

Tables 1 and 2 of the technical drainage memorandum within **Appendix I** show the future five-year storm runoff quantities in cfs by drainage subbasin. The drainage subbasin letters correspond to the existing hydrology exhibit (Exhibit 1, **Appendix I**); the proposed hydrology for either the Proposed Project or Alternative 1 is shown on Figures 1 (south side) and 2 (north side) of **Appendix I**. **Chart 1** below summarizes this information and provides a pre- and post-runoff flow comparison of the five-year storm for those areas that drain to the existing airport storm drain system. Calculations were also made for the part of the proposed “north side” road that would drain east towards Del Rey Gardens Drive within the northwest drainage area (**Exhibit 4.10E**).



POC = point of confluence

Source: Kimley-Horn Associates 2018.

Based on the hydraulic analysis, the proposed airside improvements would create a slight increase in the flow of stormwater to the southwest POC under either the Proposed Project or Alternative 1 (refer to **Exhibit 4.10E**). The increase is slight enough to be negligible. Flow to the northeast POC (i.e., the existing detention basin) would also be increased under either the Proposed Project or Alternative 1. The existing detention basin was designed to accommodate future development on the north side of the Airport,

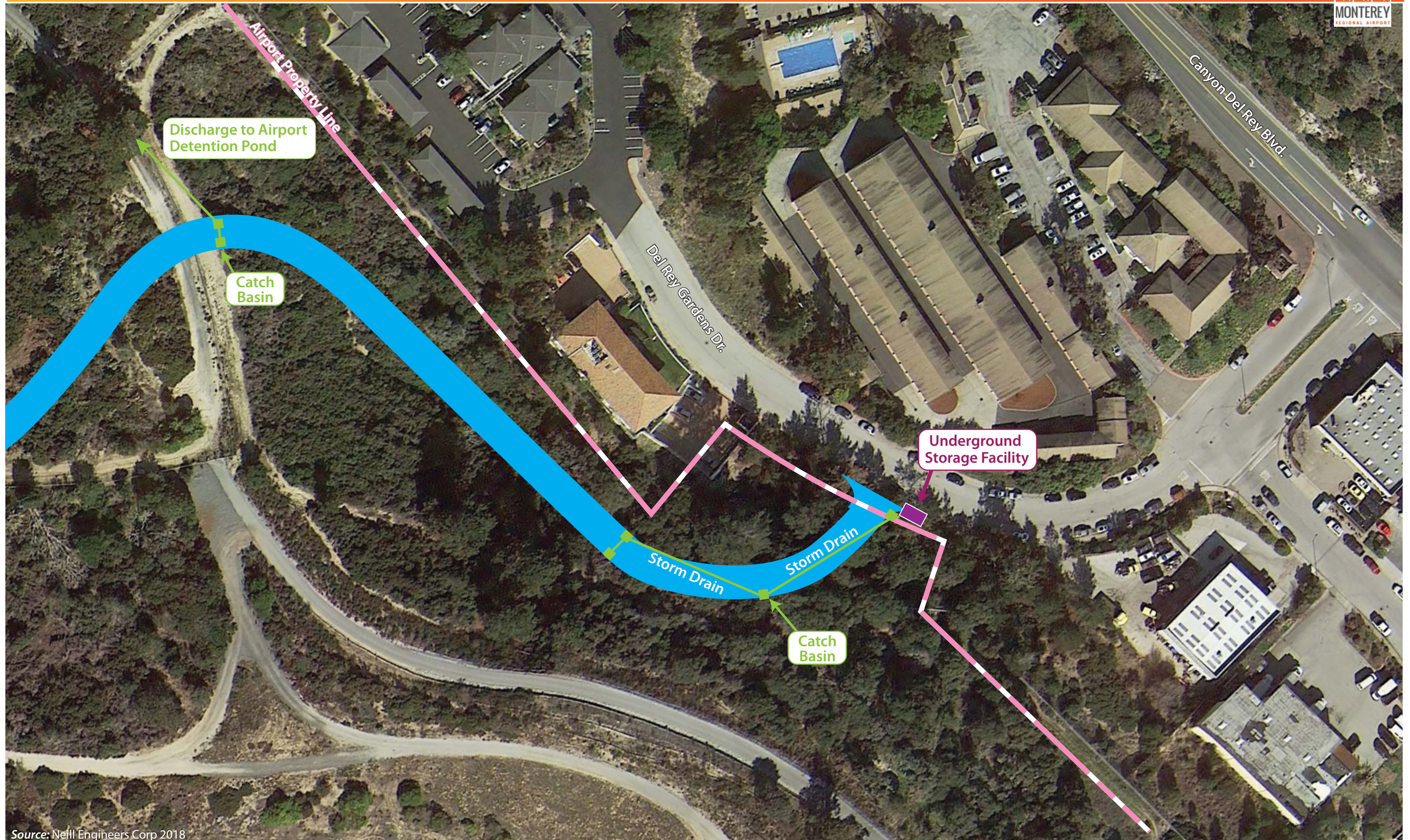
including the portion of the new “north side” road that would drain in a westerly direction; improvements to the detention basin to handle additional runoff would not be necessary (KHA 2018).

Drainage from the “north side” road flowing east towards Del Rey Gardens Drive would be intercepted by two proposed catch basins (**Exhibit 4.10J**). One would be positioned at the midpoint of the proposed “S” curve to capture runoff at that point and redirect it west to the Airport’s onsite detention pond (northeast POC). A second catch basin would be located at the edge of pavement where the new “north side” road would connect to Del Rey Gardens Drive. This catch basin would direct the stormwater into an underground storage vault. This facility would be sized to hold runoff from the existing 10-year flows (pre-construction) to the future 100-year (post-construction) flows. According to the project engineer, the existing runoff from a 10-year storm for the portion of the new “north side” road between the two proposed catch basins would be approximately 0.38 cfs, while the future 100-year storm would be approximately 1.78 cfs (**Appendix I**).

Based on this difference of 1.4 cfs, the underground storage vault would need to hold between 168 and 180 cubic feet of stormwater. Eventually, the stormwater would be released to Del Rey Gardens Drive, which discharges to Canyon Del Rey Creek. The Airport’s stormwater from this discharge area currently flows down the natural slope to the Del Rey Gardens Drive pavement and on to Canyon Del Rey Creek. Thus, the proposed “north side” road drainage infrastructure would reduce the potential for flooding of areas downstream along Del Rey Gardens Drive by containing drainage up to the 100-year storm and releasing it gradually. This would also be consistent with the City of Del Rey Oaks Open Space/Conservation Element goals and policies to protect the Canyon Del Rey drainage system water quality, runoff, and flow (Section 4.10.1).

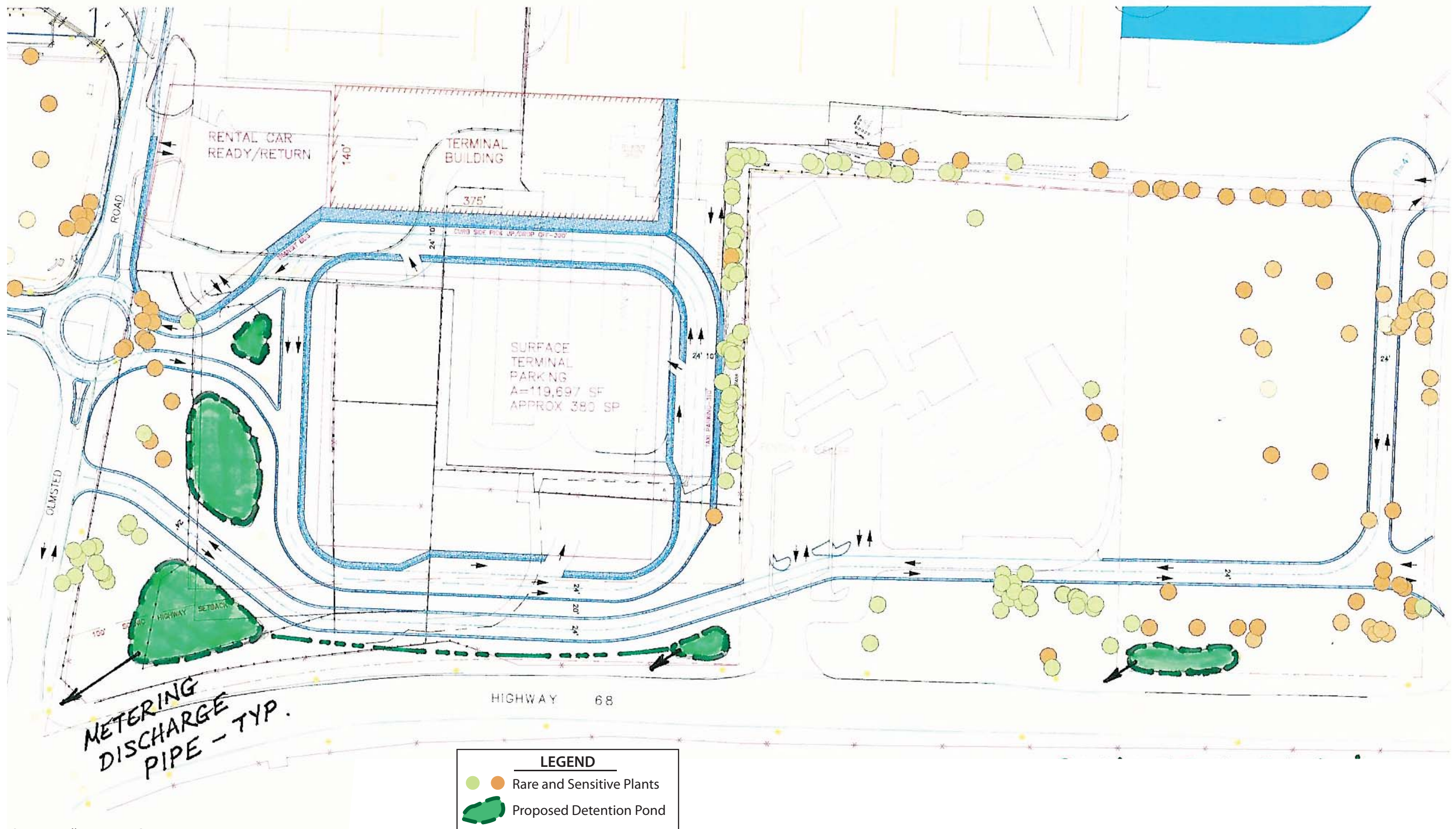
On the south side of the Airport, landside areas south of the proposed terminal relocation, as well as the 5.5-acre and 3.6-acre parcels located to the east, would drain from the Airport into drainage systems within the right-of-way of Highway 68. In this case, Caltrans policies regarding pre- and post-construction runoff rates and City of Monterey goals and policies (Section 4.10.1) have also been considered. Similar to the drainage from the eastern portion of the new “north side” road discussed above, runoff would be directed to detention areas that would be sized to hold runoff from the existing 10-year flows (pre-construction) to the future 100-year (post-construction) flows. These holding areas could be ponds incorporated into the landscaped setback along Highway 68 or in underground storage tanks below pavement, such as parking lots. According to the project engineer, the existing runoff from a 10-year storm for the Highway 68 frontage areas, including the terminal parking area, is approximately 4.92 cfs, while the future 100-year storm would be approximately 8.93 cfs (**Appendix I**). Based on this difference of 4.01 cfs, a series of ponds or holding tanks would be needed with a total storage of between 7,300 and 7,500 cubic feet. **Exhibit 4.10K** shows a conceptual plan illustrating one potential option. The ponds would also be required to meet FAA mandates for detention ponds per FAA AC 150/5200-33B and City of Monterey policies.

Areas along Fred Kane Drive west of Olmsted Road are proposed for vehicular parking lots, including a rental car/ready-return just west of the proposed relocated terminal building. These areas are currently primarily impervious surface that drains to the Airport’s existing storm drain system. No significant changes to the amount of stormwater runoff would occur with the one exception of a new proposed



Source: Neill Engineers Corp 2018

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Source: Neill Engineers Corp 2018

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vehicular lot on the northwest corner of Olmsted and Garden Roads under the Proposed Project. In this area, an existing vegetated slope (pervious surface) would be graded to make the proposed parking area and approximately 39,600 sf of new impervious surface would be created. An underground storage system may be necessary to detain the water prior to its release into an existing 18-inch-diameter storm drain (**Exhibit 4.10L**).

In conclusion, all stormwater leaving the Airport would meet the Central Coast RWQCB’s Resolution R3-2013-0032 mandate to prevent offsite discharge from events greater than the 85th percentile 24-hour rainfall event as determined from local rainfall data. In addition, stormwater that would be directed into Caltrans facilities would not be greater than the existing 10-year storm. Meeting these metrics would satisfy both RWQCB and Caltrans concerns. City of Del Rey Oaks and City of Monterey policies would also be considered. Future long-term projects would have similar analyses required prior to the design of appropriate drainage infrastructure. Therefore, impacts to drainage patterns and surface runoff rates would be Less than Significant.

Less than Significant Impact: Post-construction runoff for proposed short-term and long-term projects under the Proposed Project or Alternative 1 would include storm drainage features that allow the Airport to meet the Central Coast RWQCB’s Resolution R3-2013-0032 mandate as well as Caltrans, City of Del Rey Oaks, and City of Monterey policies for stormwater systems, as appropriate. This is a Less than Significant impact per Threshold 4.10-3.

4.10.5.4 Threshold 4.10-4 - 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

Proposed Project and Alternative 1

Short-Term and Long-term (Programmatic) Project Impacts

The discussion above under Threshold 4.10-3 addresses stormwater runoff rates and patterns and their potential to affect off-airport stormwater conveyance systems. Threshold 4.10-4 addresses upgrades that would need to occur to the Airport’s stormwater system to accommodate project-related stormwater flows. As shown on **Exhibit 4.10F**, the Airport’s existing stormwater system operates at or above capacity for the five-year, 24-hour storm at several locations on the Airport. The existing storm drains were analyzed using the computer program StormCAD. The StormCAD modeling results are included in an appendix to the technical drainage memorandum in **Appendix I**.

Currently, the deficient storm drains are being upgraded as individual airport projects require it (Morello, C., Monterey Regional Airport, Senior Manager of Development and Environment 2018). Based on the referenced StormCAD modeling results, new storm drains would need to be installed and some existing infrastructure would need to be upsized as shown on Figures 1 (south side) and 2 (north side) of **Appendix I** under either the Proposed Project or Alternative 1. The details of these upgrades cannot be

finalized until final project design. However, since the necessary storm drain upgrades are planned to be completed as short-term or long-term projects require them, future exceedances of the existing system due to the Proposed Project or Alternative 1 would be avoided, and related impacts are Less than Significant.

As discussed under Threshold 4.10-1, stormwater pollutants are likely to be present in stormwater runoff if left untreated. Impacts listed under Threshold 4.10-1 are also applicable to Threshold 4.10-4 and need not be repeated.

Less than Significant: Future exceedances of the existing airport storm drain system due to the Proposed Project or Alternative 1 would be avoided by planned upgrades to the system based on final project design. This is a Less than Significant impact per Threshold 4.10-4.

4.10.6 Mitigation Program

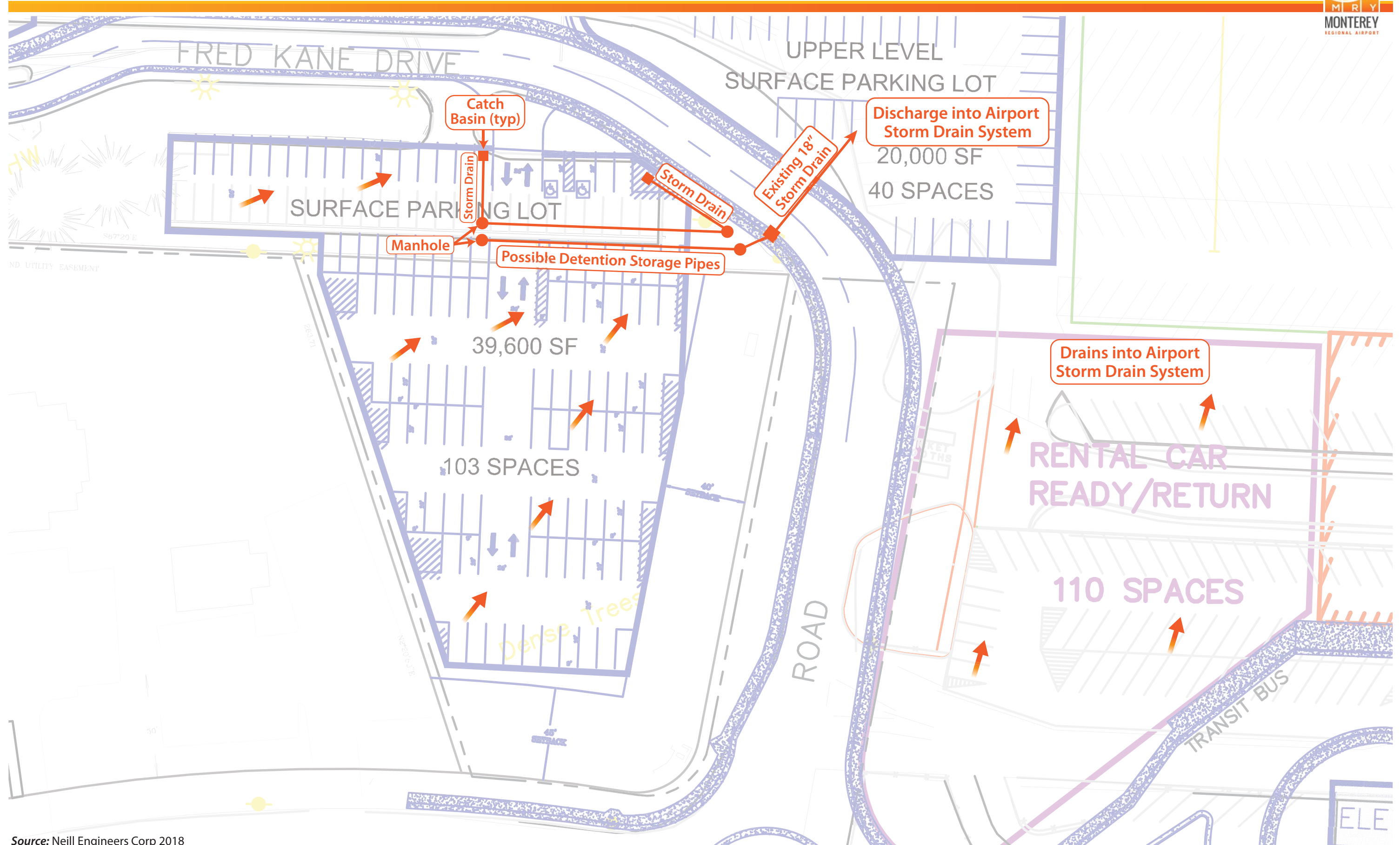
No mitigation would be required for the Less than Significant impacts identified under Thresholds 4.10-1 through 4.10-4. Mitigation measure HYD/mm-1 would apply to either the Proposed Project or Alternative 1 to mitigate Impact HYD-1. No further mitigation is necessary.

HYD/mm-1: Proposed long-term projects shall not proceed without a guaranteed water source that has been approved by the MPWMD and that shows that adverse groundwater impacts to constrained basins would not occur. Securing such a water source would involve mitigation recommended in the Utilities section of this EIR (UTIL/mm-1 through UTIL/mm-3).

Regulatory Requirements

HYD/rr-1: Individual projects that have a potential for one acre or more of ground disturbance are required to obtain NPDES coverage under the state’s Construction General Permit Order 2009-2009-DWQ (Construction General Permit). Permit conditions typically related to use of the NPDES Construction General Permit include BMPs to reduce erosion and sedimentation through implementation of a construction-specific SWPPP.

HYD/rr-2: The installation of new impervious surface requires a SWMP per Resolution R3-2013-0032 of the Central Coast RWQCB to prevent offsite discharge from events up to the 85th percentile 24-hour rainfall event as determined from local rainfall data, which for Monterey is 0.82 inches and is encompassed by the five-year storm event. Compliance must be achieved by optimizing infiltration with retention of the remaining volume achieved via storage, rainwater harvesting, and/or evapotranspiration.



Source: Neill Engineers Corp 2018

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HYD/rr-3: The Airport operates under an Industrial General Stormwater Permit (Order NPDES No. CAS000001), which requires it to: (1) eliminate unauthorized non-stormwater discharge; (2) develop and implement a SWPPP; and (3) monitor stormwater discharge to ensure that state water quality standards are being maintained in accordance with the Airport’s approved SWPPP.

HYD/rr-4: MPWMD is charged with allocating water within the Monterey Peninsula region, permitting the use of water credits for each jurisdiction/district, and regulating some aspects of water production and distribution by private purveyors (i.e., CalAm). One of the responsibilities of MPWMD is to balance water supply and demand through the MPWMD Water Allocation Program and to carefully track how much of the allotted water has been used by member jurisdictions. MPWMD evaluates a project’s water demand and issues a water permit for the project as depicted on the final construction plans.

4.10.7 Level of Significance After Mitigation

Table 4.10E summarizes the potentially significant impacts related to hydrology and water quality for the Proposed Project and Alternative 1 (Impact HYD-1). Upon implementation of HYD/mm-1, potentially significant impacts to hydrology and water quality would be Less than Significant.

TABLE 4.10E Summary of Potentially Significant Impacts and Mitigation – Hydrology and Water Quality Proposed Monterey Regional Airport Master Plan				
Proposed Project	Mitigation Program	Alternative 1	Mitigation Program	Level of Significance After Mitigation
Threshold 4.10-2 - Substantially deplete groundwater supplies or substantially interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table				
<u>Impact HYD-1</u> : Proposed long-term projects could use an increase of approximately 1.18 AF per year of groundwater (worst case), which would exceed the Airport’s existing allotment.	HYD/mm-1; HYD/rr-4 (see also UTIL/mm-1- UTIL/mm-3)	Same as Proposed Project	HYD/mm-1; HYD/rr-4 (see also UTIL/mm-1- UTIL/mm-3)	Less than Significant

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Chapter Four

4.11 – LAND USE AND PLANNING

This section describes the existing land uses both on and off the Airport and assesses the impact of the Proposed Project and Alternative 1 on these uses. Additionally, the section identifies the plans and policies of applicable planning documents and the consistency of the Proposed Project and Alternative 1 with these policies. The following Land Use and Planning questions from the Initial Study (**Appendix A**) were found to be Less than Significant and are not discussed further in this section - Would the project:

- Physically divide an established community?
- Conflict with any applicable habitat conservation plan or natural community conservation plan?

4.11.1 Regulatory Setting

One aspect of land use planning considered under the *California Environmental Quality Act* (CEQA) is the consistency of the project with relevant planning documents. California Government Code, Section 65300 requires each county and city to “adopt a comprehensive, long-term general plan for the physical development of the county or city, and of any land outside its boundaries which in the planning agency’s judgment bears relation to its planning.” Land use in proximity to the Airport is controlled by several jurisdictions, including Monterey County, the cities of Monterey and Del Rey Oaks, and the federal government. General plans for the three local jurisdictions provide land use guidance for the areas closest to the Airport: City of Del Rey Oaks, City of Monterey, and Monterey County. The extent of each of these jurisdictions is illustrated on **Exhibit 4.11A**. Thus, the land use section of this Environmental Impact Report (EIR) is based, in part, on the following sources:

- *General Plan Update for the City of Del Rey Oaks* (City of Del Rey Oaks 1997)
- *City of Monterey General Plan* (City of Monterey 2016)
- *Casanova-Oak Knoll Neighborhood Plan* (City of Monterey 1985)
- *Monterey City Code, Chapter 38, Zoning Ordinance* (City of Monterey 2017)
- *2010 Monterey County General Plan* (County of Monterey 2010)

The Airport is also affected by policies contained in state and regional plans, such as the *Water Quality Control Plan for the Central Coastal Basin* (RWQCB Central Coast Region 2017) and metropolitan transportation plans (AMBAG 2018). The various impact sections of this EIR (for example, Section 4.10, Hydrology and Water Quality and Section 4.16, Traffic/Transportation) contain summaries of these applicable planning documents and evaluate the consistency of the Proposed Project and Alternative 1 with policies applicable to the specific resource category being evaluated. In addition, the county’s airport

land use commission (ALUC) planning documents and the *California Airport Land Use Planning Handbook* (Handbook) (Caltrans 2011) have also been used in this section.

Land use and planning regulations that are applicable to airports, generally, are described below.

Federal Regulations

Land use at airports is guided by a Federal Aviation Administration (FAA)-approved airport layout plan (ALP), a technical set of drawings that is a graphical representation of the long-term development plan for the airport. Per FAA Advisory Circular (AC) 150/5070-6B, *Airport Master Plans*, an update of the ALP drawing set should be an element of the airport master plan study but can be an appropriate alternative to a full master plan whenever the fundamental assumptions of the previous master plan have not changed (FAA 2015, as amended). As discussed further in Section 1.4 of this EIR, as part of an airport master plan per AC 150/5070-6B, FAA only approves the following elements:

- Forecasts of demand
- Airport layout plan

Code of Federal Regulations (CFR), Title 14, Part 77 (Part 77) establishes standards and notification requirements for objects affecting navigable airspace. Part 77 regulations allow FAA to identify potential aeronautical hazards to prevent or minimize adverse impacts to the safe and efficient use of navigable airspace. As a part of this process, FAA reviews buildings (aeronautical and non-aeronautical) on a case-by-case basis through its Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) program review (i.e., Form 7460). If approved, the subject building receives “Form 7460” clearance, which indicates that the building conforms to maximum permissible height standards and would not create a hazard to aircraft.

FAA’s authority to protect the navigable airspace from obstructions and other hazards, including existing and proposed structures, is predominantly derived from United States Code (USC), Title 49, Section 44718. However, Section 44718 does not provide specific authority for the FAA to regulate or control off-airport real property. Nevertheless, FAA does have authority to require that sponsors of new objects that could be airspace obstructions submit notice to the agency prior to the construction.¹ Persons failing to comply with the provisions of Part 77 are subject to civil penalty under Section 902 of the *Federal Aviation Act of 1958*, as amended and pursuant to USC, Title 49, Section 46301(a) (Caltrans 2011).

FAA standards dictate that runway protection zones (RPZs) should be under the Airport’s control either through avigation easements to prevent land use incompatibilities or by owning the property outright. FAA’s *Interim Guidance of Land Uses within a Runway Protection Zone* (FAA 2012) states, “Airport owner control over the RPZ land is emphasized to achieve the desirable protection of people and property on the ground. Although FAA recognizes that in certain situations the airport sponsor may not fully control

¹ Part 77, Subpart B, Notice of Construction or Alteration requires that FAA be notified of any proposed construction or alteration of objects within 20,000 feet of a runway and having a height that would exceed a 100:1 imaginary surface (1 foot upward per 100 feet horizontally) beginning at the nearest point of the runway. This requirement applies to all runways more than 3,200 feet in length.

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land within an RPZ, the FAA expects the airport sponsor to take all possible measures to protect against and remove or mitigate incompatible land uses.”

FAA also requires that an airport sponsor prepare a Land Assurance letter pursuant to USC, Title 49, Section 47107(a)(10). This letter specifies that appropriate action has been or will be taken, to the extent reasonable, to restrict the use of land next to or near the Airport to uses that are compatible with normal airport operations. The intent of the letter is to indicate that the Airport will work with the cities of Monterey and Del Rey Oaks to restrict the use of land adjacent to, or in the immediate vicinity of, the Airport to activities and purposes compatible with Airport operations, including the landing and takeoff of aircraft, as well as to support and encourage compatible land uses surrounding the airport boundaries through regular communication with the county ALUC (Monterey Regional Airport, letter to L. Suttmeier, FAA 2018).

State Regulations

Many of the applicable land use regulations related to airports are related to noise and are described in Section 4.12 of this EIR. The Aeronautics Division of the California Department of Transportation (Caltrans) enforces the California Airport Noise Regulations (California Code of Regulations [CCR], Title 21, Section 5000 et seq.). These regulations establish the 65 decibel (dB) Community Noise Equivalent Level (CNEL) noise contour as the maximum level of noise acceptable for residential land uses. (See Section 4.12 for a complete discussion of noise indicators and regulations.) This criterion level has been chosen for reasonable persons residing in urban residential areas where houses are of typical California construction and may have windows partially open. It has been selected with reference to speech, sleep, and community reaction. Airports are responsible for achieving compliance with these regulations through noise abatement procedures, land acquisition, land use restrictions, acquisition of property, or sound insulation of structures.

In California, ALUCs were established per Public Utilities Code (PUC), Section 21670. The role of the ALUC is to “formulate a comprehensive plan that will provide for the orderly growth at each public use airport and the area surrounding the airport within the jurisdiction of the commission” (PUC, Section 21675). ALUCs have no jurisdiction over existing land uses, federal, state and tribal lands, or the operation of airports but provide consistency determinations on future local land use proposals. By state law (PUC, Section 21674[e] and 21675 [a]), an airport land use compatibility plan (ALUCP) is required to be updated if a new ALP or airport master plan is prepared and adopted. In addition, applicable general plans must be updated to conform to the ALUCP (California Government Code, Section 65302.3) or the applicable local jurisdiction must overrule the ALUCP policies consistent with state statutory requirements.

The land use compatibility plan within the ALUCP is intended to provide for an airport’s 20-year planning horizon. The purpose of the plan is to “protect the public from the adverse effects of aircraft noise, to ensure that people and facilities are not concentrated in areas susceptible to aircraft accidents, and to ensure that no structures or activities adversely affect navigable air space.”

The Monterey County ALUC is in the process of completing the environmental documentation for an update to the 1987 *Comprehensive Land Use Plan for Monterey Peninsula Airport*² (CLUP) (SCH# 2018051006); the public review period for a draft Mitigated Negative Declaration closed on June 4, 2018. The 1987 CLUP is based upon outdated guidance, is no longer representative of the Airport's current runway configuration (the crosswind runway has been closed, and the primary runway is no longer proposed to be extended to 7,600 feet) or the Airport's recent Runway Safety Area Improvement Project (RSA Project); the Airport's 20-year projected noise exposure contours are significantly smaller than those provided in the existing CLUP.

A new ALUCP for the Airport will comply with the standards and policies of the 2011 Handbook. The Handbook provides updated guidance on the state's policies and guidelines related to airport land use compatibility planning.³ The ALUCP update for the Airport, which must be approved by Caltrans, is being developed based upon established runways in the December 2016 FAA-approved ALP and corresponding Part 77 airspace drawing, as well as the FAA-approved aviation activity forecasts developed for the Proposed Airport Master Plan (Proposed AMP) and the noise exposure contours based upon the approved forecasts. The runway configuration and corresponding Part 77 airspace drawing do not change from the existing condition in the Proposed AMP. Therefore, the Proposed AMP would be consistent with the ALUCP and further changes to the updated ALUCP would not be required as a result of Proposed AMP, if approved.

Regional Regulations

The Association of Monterey Bay Area Governments (AMBAG) is a joint powers authority that is governed by elected officials from each city and county (Monterey, Santa Cruz, and San Benito counties) within its region. It prepares numerous regional transportation plans, provides sustainable community strategies, and develops a regional housing needs allocation plan. Its regional housing, population, and employment forecasts are utilized in a variety of ways.

In Monterey County, the Transportation Agency for Monterey County (TAMC) is responsible for preparing a countywide regional transportation plan (RTP), which is then incorporated into the AMBAG's metropolitan transportation plan/sustainable communities strategy (MTP/SCS). As discussed in Section 4.16.1, TAMC's most recent RTP was adopted on June 27, 2018. (The 2040 MTP/SCS Final EIR [SCH #2015121080] also encompasses the RTP for Monterey County and was certified by AMBAG on June 13, 2018.) **Exhibit 4.16A** of Section 4.16.1 contains a comprehensive list of the RTP's goals, policy objectives, and performance standards, and serves the same function as a congestion management plan for the county.

² Monterey Regional Airport was previously named Monterey Peninsula Airport.

³ The current CLUP (1987) is based on the *California Airport Land Use Planning Handbook* from July 1983. The 2011 Handbook contains updated guidance that have been used to evaluate airport land use safety zones within this EIR (see Section 4.9.5, Exhibit 4.9A). Other 2011 Handbook requirements incorporate federal airspace protection policies, provide updated noise compatibility criteria, and require that potential buyers of real estate within an Airport Influence Area be made aware that the subject property of interest may be affected by airport annoyances. An "airport influence area," also known as an "airport referral area," is the area in which current or future airport-related noise, overflight, safety, or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses as determined by an airport land use commission."

The 2018 RTP uses the same growth forecasts for the county's airports as the previous 2014 RTP, which are based on a *Regional Airport System Plan* prepared by AMBAG in 2006. For Monterey Regional Airport, the *Regional Airport System Plan* projected 172 based aircraft in 2020 and 184 based aircraft in 2025. Annual aviation operations were projected to be 92,890 in 2020 and 98,850 in 2025. This growth is characterized in the 2018 RTP as "moderate" and recognizes that capital upgrades to the county's airports could be needed. Minor land acquisition, navigational aids, aircraft hangars, and runway extensions are called out as the types of capital upgrades that could be needed to support increased business travel. For purposes of comparison, the aviation forecasts approved by FAA for use in the Proposed AMP are for 160 based aircraft in 2018, 175 based aircraft in 2023, and 187 based aircraft in 2028; annual operations in the FAA-approved forecasts are 58,100 in 2018, 64,600 annual operations in 2023, and 72,158 annual operations in 2028 (**Appendix B**). Actual airport numbers for 2015 were 113 based aircraft and 67,292 annual operations.

Realistically, airport forecasts are just predictions based on known market factors and regional and national trends. As discussed in FAA AC 150/5070-6B, Section 703, demand forecasts should include the following: national, regional, and local economic characteristics; demographic characteristics; geographic attributes, such as geographic distances between populations and centers of commerce within an airport's service area; aviation-related factors; and other factors, such as fuel price changes, availability of aviation fuels, currency restrictions, changes in the level and type of aviation taxes, and political developments. Actual numbers at an airport can vary from year to year based on various anomalies.

Local Regulations

The county's Resource Management Agency (RMA) brings together a range of land use functions, including building services, environmental services, planning department, public works, and parks. RMA's role is to ensure safe building construction, plan for future needs of the county, manage infrastructure and county facilities, and protect natural resources. The county's *2010 Monterey County General Plan* was adopted in 2010. It includes the following eight elements: Land Use; Circulation; Conservation and Open Space; Safety; Public Services; Agriculture; Economic Development; and Housing, as well as numerous area plans.

The only county-owned land in proximity to the Airport is zoned as Residential Estate or Open Space. In addition, the Airport is in proximity to Highway 68, a county-designated scenic highway. Thus, the following summary of county general plan elements focuses on the Land Use, Circulation, and Conservation and Open Space Elements. A discussion of the consistency of the Proposed Project and Alternative 1 with these elements of the county's general plan is provided in Section 4.11.5, Threshold 4.11-3.

- **Land Use Element:** This element establishes policies to designate the general distribution and intensity of land uses within the county. The main vision of this element is to encourage growth within or near developed/developing areas to reduce impacts to agricultural production, natural resources, or public services.

- Circulation Element: This element identifies the general location and extent of existing and proposed major transportation facilities for vehicle, rail, air, water, and bicycle transportation. Its goals relate to: major roadways; movement of people and goods; scenic highways; and public transit.
- Conservation and Open Space Element: This element addresses scenic resources, mineral resources, soils, marine and river resources, biological resources, archaeological resources, paleontological resources, Native American resources, energy resources, and air quality.
- Safety Element: This element addresses both the state-mandated safety and noise elements. It establishes policies and programs to protect the public from risks associated with seismic, geologic, flood, and wildfire hazards, as well as identifies sources of noise and provides policies addressing existing and foreseeable noise problems.

City of Del Rey Oaks

The *General Plan Update for the City of Del Rey Oaks* was last updated in 1997. The general plan is organized into ten elements: Land Use, Housing, Circulation, Public Facilities and Services, Parks and Recreation, Conservation, Open Space, Hazards, Safety, and Noise. Brief descriptions of these elements are provided below. A discussion of the consistency of the Proposed Project and Alternative 1 with applicable City of Del Rey Oaks general plan goals and policies is provided in Section 4.11.5, Threshold 4.11-3. The City of Del Rey Oaks is a neighboring entity and does not have jurisdiction over airport property.

- Land Use Element: Goals include creating a “village” atmosphere and expanding revenue-generating commercial/retail businesses to the city. Design guidelines are encouraged to protect the beauty, health and safety, and quality of life for the residents. Scenic views along Canyon del Rey Road are to be created and maintained.
- Housing Element: The Housing Element was prepared and adopted by the city in April 1993 and is subject to review and “certification” by the state. It was not updated as part of the 1997 general plan update and is no longer posted on the city’s website.
- Circulation Element: Goals include promoting travel other than single-occupant automobiles and preventing adverse impacts related to through-travel on Highway 218.
- Public Facilities and Services Element: Goals include maintaining or increasing availability of public services and facilities consistent with projected usage levels, as well as encouraging recycling.
- Parks and Recreation Element: Goals include providing a full range of park and recreation facilities.

- Conservation and Open Space Elements: These elements are combined within one chapter of the general plan. Goals include the protection of the city’s natural, cultural, visual, and historical resources, including water quality and open space.
- Hazards and Safety Elements: The city’s Hazards and Safety elements both rely on the Seismic Safety Element of the general plan, which was prepared in 1975 and updated in 1988. It was not updated as part of the 1997 general plan update and is no longer posted on the city’s website. The Seismic Safety Element discusses ways to improve public safety, provide public safety services, and protect people and property from natural and human-made hazards.
- Noise Element: Goals include protecting citizens from exposure to excessive levels of noise, including aircraft and vehicular noise.

City of Monterey

The *City of Monterey General Plan* was adopted in 2005 and last revised in March 2016. It contains the following 12 elements, which are described below: Urban Design; Land Use; Circulation; Housing; Conservation; Open Space; Safety; Noise; Economic; Social; Historic Preservation; and Public Facilities. A discussion of the consistency of the Proposed Project and Alternative 1 with applicable *City of Monterey General Plan* goals and policies is provided in Section 4.11.5, Threshold 4.11-3. The City of Monterey is a neighboring entity and does not have jurisdiction over airport property, with the exception of two parcels along the Airport’s frontage with Highway 68, which were purchased by the Airport after the original airport property was conveyed to the Monterey Peninsula Airport District (MPAD). Proposed land acquisition areas under the Proposed Project and Alternative 1 are also located partially within the City of Monterey.

- Urban Design Element: Goals in this element include protecting the city’s shoreline and bay, wooded skylines, foothills and canyons, lakes and waterways, historic buildings, vistas, and scenic entrances and corridors.
- Land Use Element: The main part of this element is the Land Use Plan Map. The element is a summary of the expected future land use in the city, consistent with the goals, policies, and programs in other elements of the general plan.
- Circulation Element: The vision of this element is to develop a city where “alternative forms of transportation are so attractive that the use of the automobile is a choice, not a necessity. The transportation system will be safe for all users and support the local economy while maintaining the historic character of the city.”
- Housing Element: This element contains goals, policies, and programs for new housing development, particularly in mixed-use neighborhoods in the Downtown, Lighthouse/Foam, and North Fremont areas. The city is generally built out and new housing is mostly higher density on previously developed sites.

- Conservation Element: Subjects covered in this element include water supply, water quality, air quality, flora, fauna and marine resources, and energy conservation. The element provides direction regarding the conservation, development, and utilization of natural resources.
- Open Space Element: This element guides the preservation and conservation of open space land. According to the element, the city's most important open space resources are the Monterey Bay and the surrounding wooded hillsides. The city is also pursuing the restoration of natural dune habitat along areas of the beach. This element also contains policies to protect the city's lakes and greenbelts.
- Safety Element: The purposes of this element are: 1) to identify and describe the nature of potential hazards within the planning area; and 2) streamline the environmental impact reporting process by using the element as a guide. The areas covered by the element are seismic, geologic, flood, fire, aircraft, criminal, and emergency preparedness.
- Noise Element: The goals of this element are to: provide sufficient information so that noise may be effectively considered in the land use planning process; develop strategies for abating excessive noise exposure; protect existing areas; and protect the quality of life in neighborhoods by limiting intrusive noise.
- Economic Element: Goals of this element are to maintain fiscal responsibility, build on the existing economic base, maintain the city as the business center of the Peninsula, improve the jobs and housing mix, and maintain public safety.
- Social Element: This element is an optional element that the city has included in its general plan since 1983. Its goals and policies cover the following: families, seniors, special needs groups, health and mental health, education, public safety, library services, cultural arts, recreation and community services, public participation in government, and information and coordination.
- Historic Preservation Element: This element is implemented through a Historic Master Plan and Historic Preservation Ordinance. Its goals include protection of historic and cultural resources and the coordination of historic activities.
- Public Facilities Element: The purpose of this element is to describe the general location, levels of service, and adequacy of existing and proposed public facilities. Goals and policies concern growth management, fire and police protection services, schools, the military, cultural facilities, health care, parks and recreation, sewer, storm drains, and water supply, and public resources, such as the civic center, the Monterey Harbor, and cemeteries. Reduction and the recycling of waste products are also addressed.

In addition to the *City of Monterey General Plan*, the city has several adopted neighborhood plans. The *Casanova-Oak Knoll Neighborhood Plan* (CONA Neighborhood Plan) was last amended on August 6, 1985 and is also an element of the *City of Monterey General Plan*. It contains goals, policies and programs designed to guide development of the neighborhood and was intended to be reviewed annually and

updated on an as-needed basis. Although not within either the City of Monterey’s jurisdiction or the Casanova Oak Knoll Association (CONA) neighborhood, the described neighborhood planning area covers the northwestern part of the Airport and the entire United States (U.S.) Navy golf course since “some of the surrounding land uses impacts (*sic*) this residential area” (City of Monterey 1985).

4.11.2 Methodology

This section describes the methods used for assessing potential land use impacts and consistency with applicable planning policies. The CEQA Guidelines Appendix G Checklist (2017) provides the thresholds that have been used in this section of the EIR. Pursuant to Section 15125(a) of the CEQA Guidelines, the existing conditions of the Airport for purposes of the CEQA analysis is when the Notice of Preparation (NOP) was published in 2015.

This land use and planning section provides a discussion of the land use issues related to the Proposed Project and Alternative 1. The methodology includes a review of existing conditions based on available literature and a summary of federal, state, and local policies and regulations related to land use. Analyses of the land use and planning ramifications of the Proposed Project and Alternative 1 are discussed, and, where feasible, mitigation measures are recommended to minimize or avoid potentially significant impacts.

It is important to note that the ALUC has no jurisdiction over the operation of airports or over existing land uses, regardless of whether or not such uses are incompatible with airport activities. However, the county CLUP/ALUCP is the fundamental tool used to promote land use compatibility in the vicinity of the Airport. A discussion of hazards in terms of the 2011 Handbook’s safety zones (Exhibit 4.9A) is provided in Section 4.9 and is not repeated in this section. Similarly, discussion of consistency with the CLUP’s Land Use Compatibility Chart for Aircraft Noise (Table 4.12B) is provided in Section 4.12.1.

As part of the land use analysis, the CEQA Guidelines require an Environmental Impact Report (EIR) to evaluate potential “conflicts with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect.” Since MPAD is a special airport district and not under the planning authority of local jurisdictions, the plans and policies of the Airport have been used as the basis for a determination of a significant impact for onsite potential land use impacts. In addition, applicable noise regulations related to acceptable noise levels are further discussed in Section 4.12.1.

In addition, the policy analysis also focuses on potential environmental impacts that could occur off the airport property within the adjacent localities or on the components of the Proposed Project or Alternative 1 that would need approvals from another jurisdiction. Further, for informational purposes, information from other jurisdictions adjacent to the Airport have been included in the analysis.

4.11.3 Existing Conditions

4.11.3.1 Existing Land Use

Onsite Land Uses

The Airport itself is developed primarily with airside and landside aeronautical facilities. Existing facilities within the airport property include the runway and taxiway airfield systems, navigational aids and lighting, aircraft parking apron and tie-downs, general and commercial aviation facilities, such as passenger terminals and other support facilities, airport vehicular access, and auto parking facilities. The Airport's fixed base operators (FBOs) provide fuel services, pilot services, aircraft storage, transient aircraft parking, and minor maintenance. These existing onsite aeronautical land uses are conceptually depicted on Exhibit 1C of this EIR and described in Section 1.5.

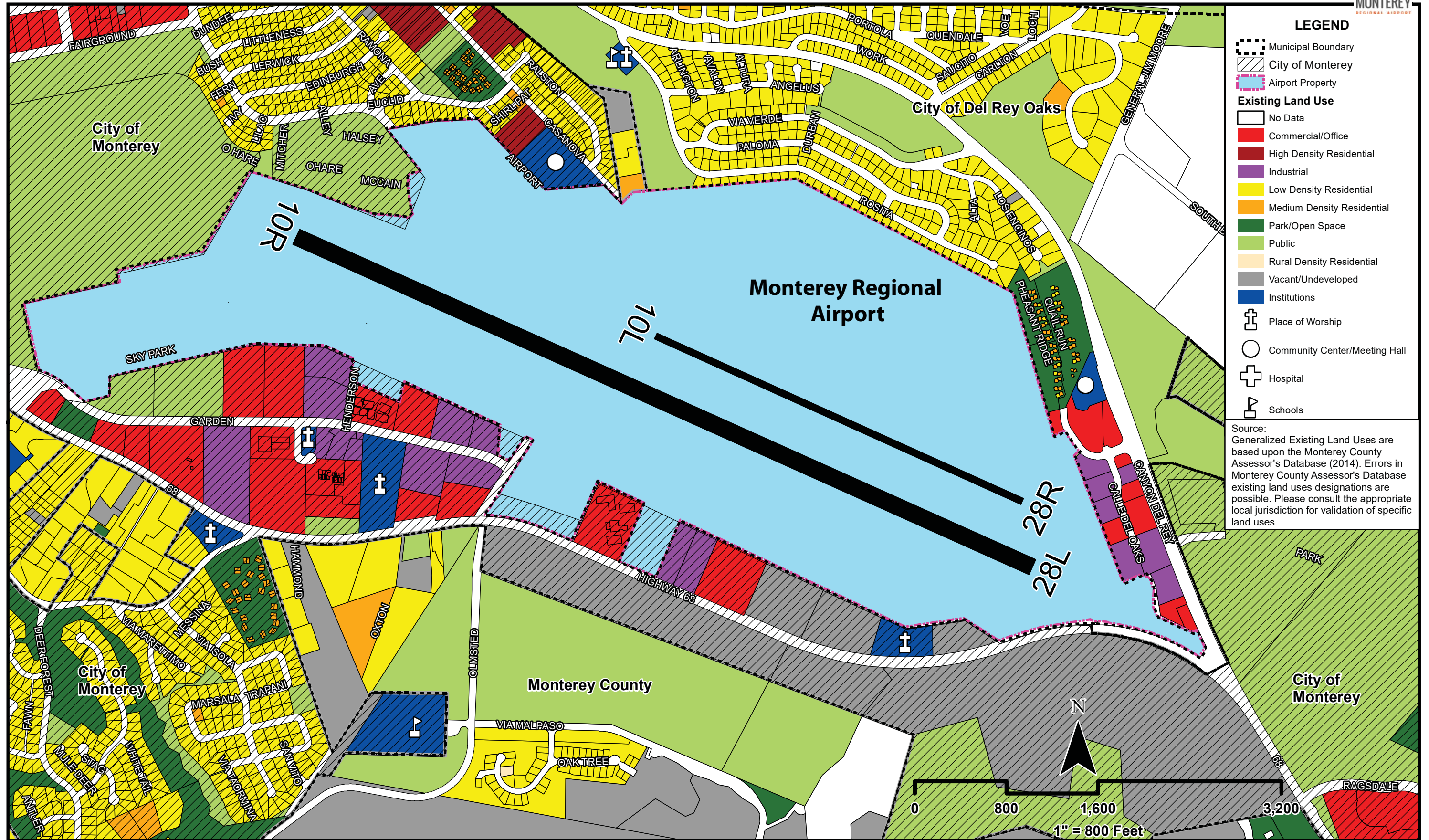
In addition, non-aeronautical land uses have been developed along the southern airport boundary and in the northwest corner of the airport property. Also, some of the area on the north side of the Airport contains revenue-support leaseholds, such as a recreational vehicle (RV) storage lot. A three-acre solar farm is also located on the north side. The Airport includes approximately 90 acres of undeveloped land on the north side of the airfield, as well as an approximate 5.5-acre parcel of land south of the airfield along the north side of Highway 68.

Surrounding Offsite Land Uses

A majority of the area surrounding the Airport is within the cities of Del Rey Oaks and Monterey. However, the U.S. Government is also an adjacent land owner. The Monterey Pines Golf Course, which is owned and operated by the U.S. Navy, is located adjacent to the Airport on the west. Also adjacent to the west is the U.S. Navy's Fleet Numerical Meteorology and Oceanography Center (FNMOC), the Naval Research Laboratory, and the National Weather Service.

The Airport is in an urbanized area; therefore, most land surrounding the airport property is developed, generally in accordance with the adopted land use plans and policies of the relevant local jurisdictions. As indicated on **Exhibit 4.11B**, land uses surrounding the Airport include a mix of residential, commercial, and industrial properties. Directly north of the Airport is residential development located within the City of Del Rey Oaks. This area consists primarily of single-family residential dwellings and a multi-unit dwelling complex on the northeast side of the Airport. Work Memorial Park is also located north of the Airport, as is the Church of the Oaks and Del Rey Oaks Christian Preschool. There are also industrial and commercial developments located within the City of Del Rey Oaks east of the Airport along Canyon Del Rey Boulevard.

On the northwest side of the Airport is the City of Monterey's CONA neighborhood, which includes single-family and multi-family residential properties. Community facilities in this area include the Casanova Oak Knoll Center and Park, the Festo do Divino Espírito Santo (F.D.E.S.) Portuguese Hall of Monterey, and the Monterey County Fairgrounds complex. The fairgrounds complex includes facilities built to host the County Fair and includes an arena, camping areas, and other buildings.



LEGEND

- Municipal Boundary
- City of Monterey
- Airport Property

Existing Land Use

- No Data
- Commercial/Office
- High Density Residential
- Industrial
- Low Density Residential
- Medium Density Residential
- Park/Open Space
- Public
- Rural Density Residential
- Vacant/Undeveloped
- Institutions

- Place of Worship
- Community Center/Meeting Hall
- Hospital
- Schools

Source:
Generalized Existing Land Uses are based upon the Monterey County Assessor's Database (2014). Errors in Monterey County Assessor's Database existing land uses designations are possible. Please consult the appropriate local jurisdiction for validation of specific land uses.

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Immediately to the south of the Airport along Garden Road are industrial and commercial buildings that include offices and warehouses, as well as several churches and government offices. Highway 68, a state- and county-designated scenic highway, is adjacent to the Airport along portions of its southern boundary as well. Other land uses along the north side of Highway 68 include commercial, office, and light industrial development. South of Highway 68 are single-family residences and open space. The highway is one of the major thoroughfares between Salinas and Monterey and is also known as the Monterey Salinas Highway or the Old Salinas Highway.

Farther east of the Airport along Highway 68 is the Ryan Ranch development, which consists of industrial and commercial land uses as well as a preschool. Farther south is county land with large-lot residences or open space.

Sensitive Land Uses

Sensitive land uses include schools, hospitals, places of worship and residential areas. Tables 4.12D and 4.12E of Section 4.12 identify the number of surrounding schools, hospitals, places of worship and dwellings within the contour bands between 60 and 65 CNEL, 65 and 70 CNEL and greater than 70 CNEL. There are three residences and no other types of noise-sensitive land uses within the existing (2015) 65-70 CNEL.

4.11.3.2 General Plan Designations and Zoning

As previously discussed in Section 4.11.3.1, the City of Del Rey Oaks is located east and north of the Airport. Land east off the runway end is planned to remain in industrial/commercial land uses. Land north of the Airport is planned to remain residential. The Del Rey Oaks general plan land uses are depicted on **Exhibit 4.11C**.

The area directly south of the Airport is planned for industrial development and planned unit development on the City of Monterey's Land Use Map (**Exhibit 4.11C**). Planned unit development can include a variety of land uses and is subject to approval by the planning commission and governing body. West of the Airport in the CONA neighborhood, land is planned as public/semi-public, open space, or low or medium density residential. The CONA neighborhood is completely built out and land uses on the city's Land Use Map reflect the existing land uses.

The general plan map for Monterey County identifies mostly undeveloped areas within the county south of the Airport to be developed as rural-density residential or reserved as park or open space. These areas are also identified on **Exhibit 4.11C**.

The cities of Monterey and Del Rey Oaks, as well as Monterey County, have adopted zoning ordinances which establish a variety of zones to control land uses within their respective jurisdictions. Each jurisdiction has a range of residential zoning districts that allows for the construction of many different housing styles, including rural character settings with low-density housing and urban settings with high-density development. The zoning designations around the Airport are illustrated on **Exhibit 4.11D**. For

the purposes of this EIR, the zoning districts have been generalized to provide a uniform display for the areas within the vicinity of the Airport.

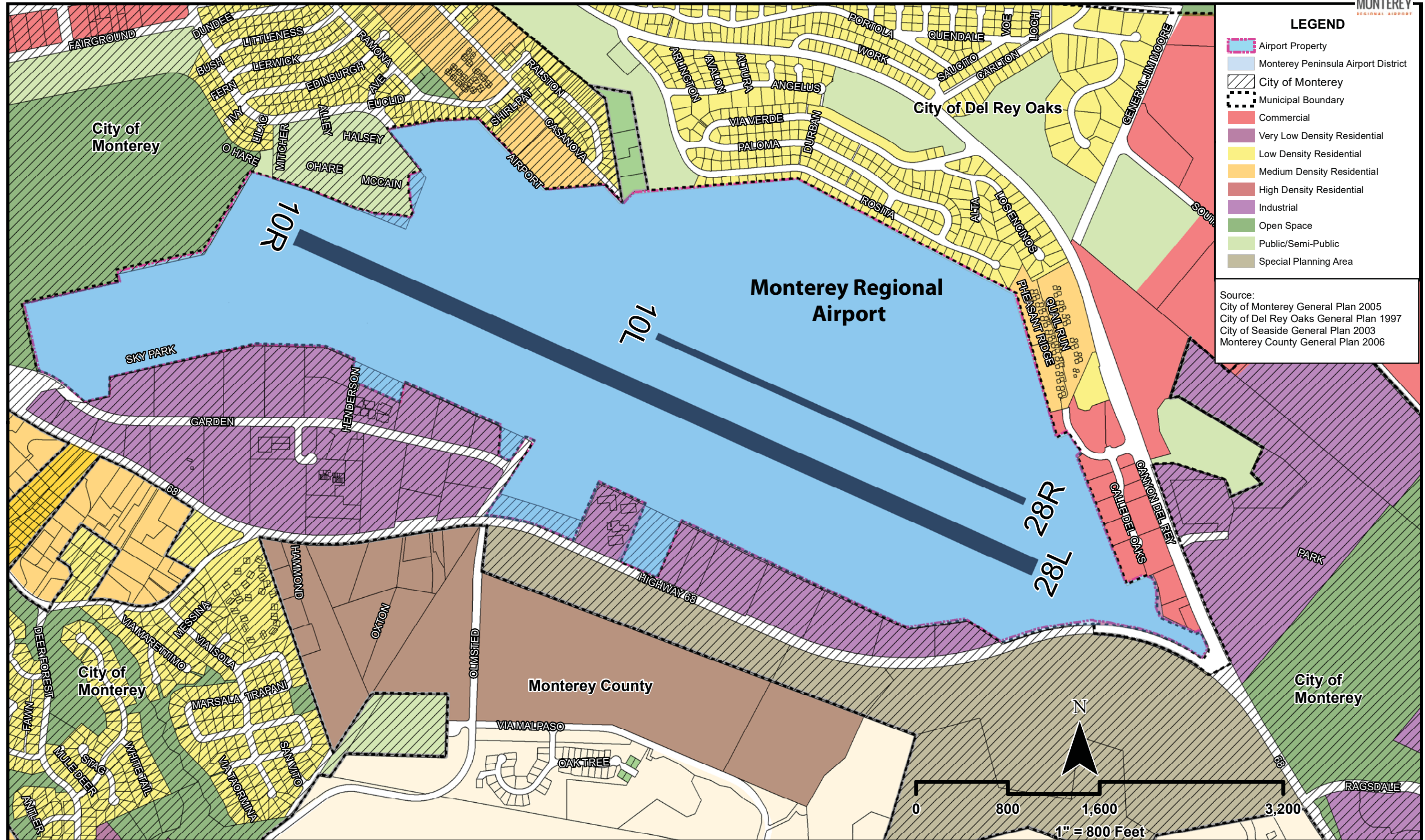
Since the Airport is located within a special airport district, there are no general plan designations or local zoning ordinances over most of the Airport's property. However, as previously discussed, airport property along the north side of Highway 68 was purchased by MPAD after the California legislature established the airport boundaries. These areas remain under the land use control of the City of Monterey (**Exhibit 4.11E**). A 5.5-acre parcel of private property along Highway 68 that is under consideration for acquisition by the Airport is similarly under the land use control of the city. These project areas are designated as Industrial on the city's Land Use Map (City of Monterey 2015) and zoned I-R-130-D2 (Industrial, Administration, Research District – 130,000 sf minimum – Development Control Overlay District) (City of Monterey 2017).

Areas proposed for RPZ acquisition are located within the cities of Del Rey Oaks and Monterey east of the Airport. As previously discussed in Section 4.11.1 under *Federal Regulations*, FAA recommends that airports control its RPZ areas and, if possible, maintain them clear of incompatibilities, such as roads, structures, and places of gathering. There are three primary options available to airports with regard to RPZ lands: 1) The first and preferred option is for the airport to purchase the approach areas in fee because it provides maximum control for the airport; 2) The second option is to purchase an easement (or a combination of easement and zoning); and 3) The third option is to rely upon adequate zoning, which should be enacted even if fee or easement ownership is in place. The Del Rey Oaks areas are already developed with existing commercial and light industrial land uses consistent with the underlying zoning and general plan land use designations. The Monterey areas are primarily undeveloped with zoning of Planned Community (City of Monterey 2018).

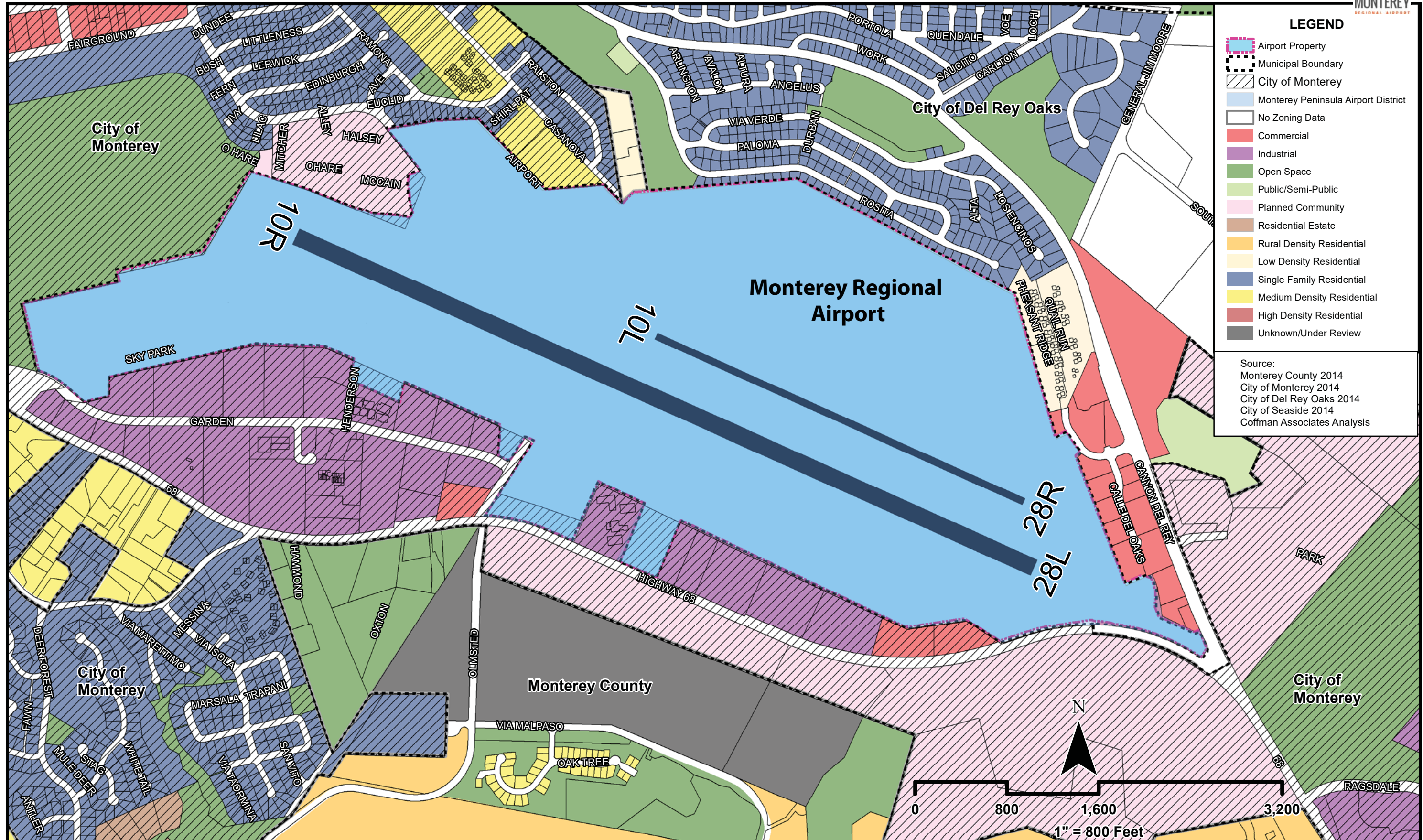
4.11.4 Thresholds of Significance

In accordance with the CEQA Guidelines (2017), applicable federal and state regulations, and local plans and policies, the Proposed Project or Alternative 1 would result in a significant impact if it would:

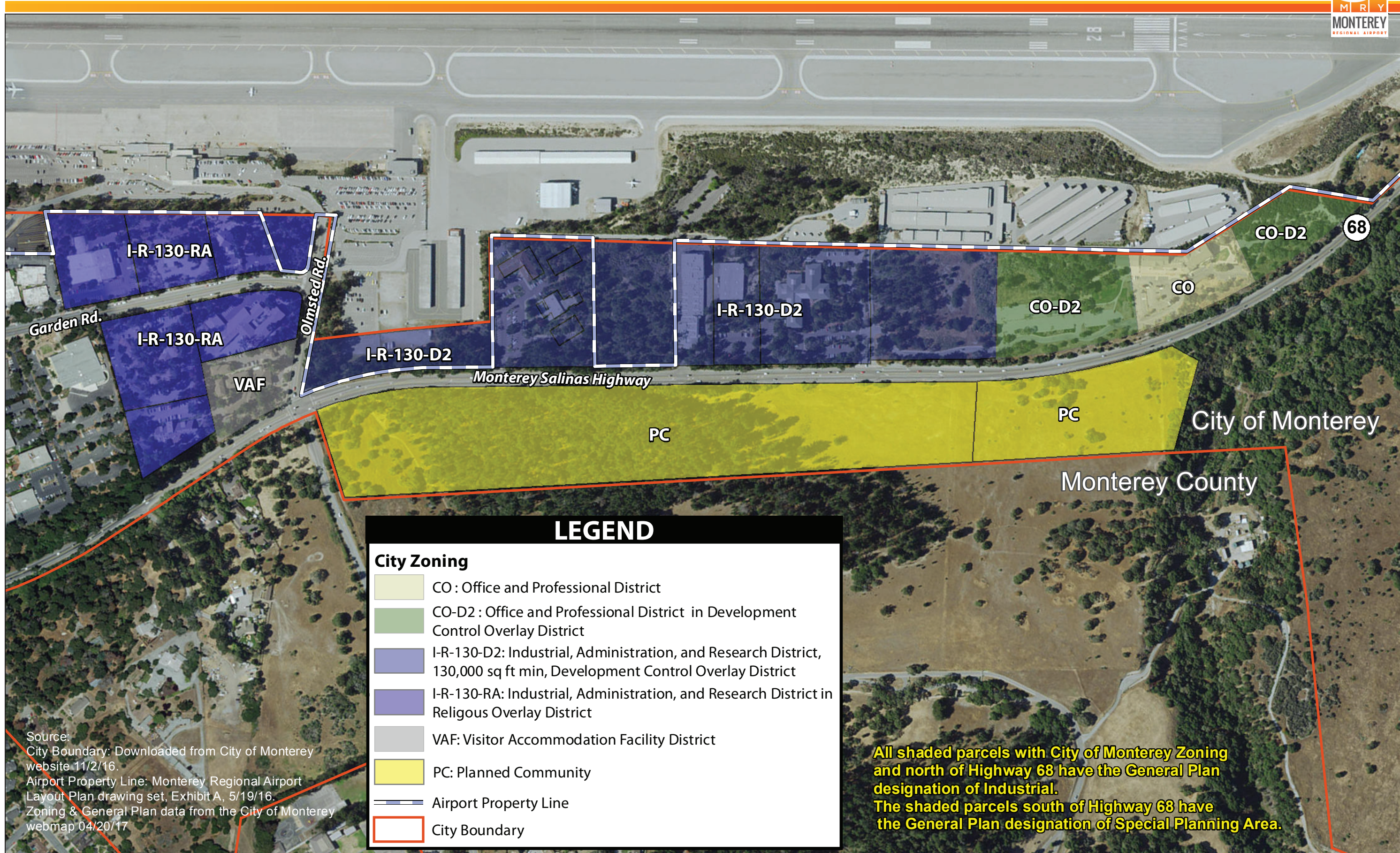
- Threshold 4.11-1: Create adverse impacts to existing land uses on the Airport;
- Threshold 4.11-2: Introduce new land uses that could be incompatible with the surrounding land uses (existing or planned) off the Airport;
- Threshold 4.11-3: Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for avoiding or mitigating an environmental effect.



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Source:
 City Boundary: Downloaded from City of Monterey website 11/2/16.
 Airport Property Line: Monterey Regional Airport Layout Plan drawing set, Exhibit A, 5/19/16.
 Zoning & General Plan data from the City of Monterey webmap 04/20/17

LEGEND

City Zoning

- CO : Office and Professional District
- CO-D2 : Office and Professional District in Development Control Overlay District
- I-R-130-D2: Industrial, Administration, and Research District, 130,000 sq ft min, Development Control Overlay District
- I-R-130-RA: Industrial, Administration, and Research District in Religious Overlay District
- VAF: Visitor Accommodation Facility District
- PC: Planned Community
- Airport Property Line
- City Boundary

All shaded parcels with City of Monterey Zoning and north of Highway 68 have the General Plan designation of Industrial.
The shaded parcels south of Highway 68 have the General Plan designation of Special Planning Area.

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4.11.5 Impact Analysis

4.11.5.1 Threshold 4.11-1 - Create adverse impacts to existing land uses on the Airport

Proposed Project and Alternative 1

On-airport Land Use Compatibility

The Proposed Project and Alternative 1 would construct additional hangars on the north side of the Airport, as well as redevelop the south side of the Airport with a replacement commercial terminal complex. They would also introduce non-aeronautical land uses on both the south and north sides of the Airport. The non-aeronautical land uses would be separated from the secure Air Operations Area (AOA) by the Airport's security system of gates and fences. The general layout of the land use components of Proposed Project is shown on the ALP, which has been conditionally approved by FAA subject to compliance with the *National Environmental Policy Act* (NEPA). All proposed land uses for both the Proposed Project and Alternative 1 are located consistent with FAA-established safety zones per the ALP, and land use incompatibilities with the airfield in terms of FAA safety zones would be avoided.

As specific buildings are proposed under either the Proposed Project or Alternative 1, FAA would review any such buildings (aeronautical or non-aeronautical) on a case-by-case basis through its OE/AAA program review (LU/rr-1, Section 4.11.6). If approved, the buildings would receive "Form 7460" clearances. Specific buildings located in proximity to the Part 77 transitional surface associated with the Runway 10R-28L centerline (for example, the proposed relocated commercial terminal would be located approximately 500 feet from the Runway 10R-28L centerline) and, thus, would be subject to FAA approval through its OE/AAA program.

The Proposed Project and Alternative 1 also propose to gain control of the Airport's RPZs through fee simple land acquisition or an avigation easement over those areas where the RPZs go off airport property.⁴ This would ensure that future land uses within the cities of Monterey and Del Rey Oaks would be consistent with FAA guidance regarding RPZ land use compatibilities.

At the state level, land use compatibility is regulated through the airport land use compatibility planning process. Consistency with the Airport's existing CLUP, which provides the currently adopted land use safety zones, is discussed below under Threshold 4.11-3.

Displacement of Existing On-airport Land Use

Tenants and users of the existing southeast GA ramp area would be displaced in Phase 2 of the short-term development under either the Proposed Project or Alternative 1. A proposed area for the 44 hangars to be removed from the southeast GA ramp would be provided north of the airfield with direct access to the smaller "GA" runway (Runway 10L-28R). Fuel service would also be provided. The expanded north side GA area would have vehicular access to and from the Airport via Airport Road in the short term, and via the proposed "north side" road in the long term under the Proposed Project and

⁴ The Airport currently has numerous easements related to not only a previous Residential Sound Insulation Program, but avigation hazards, ingress and egress, and utilities.

vehicular access via the proposed “north side” road in both the short and long terms under Alternative 1.

Both the northeast and southeast GA ramps are primarily used for local aircraft needs (i.e., those aircraft with their flights generally based in and out from the Airport). The existing southeast GA ramp is approximately 15,000 square yards (sy) in size and accommodates 32 aircraft tie-downs. The ramp and tie-downs would not be replaced on the north side. The existing northeast GA ramp is approximately 7,400 sy with 31 aircraft tie-down positions. The amount of GA apron for parking aircraft at the northeast GA ramp would be reduced by approximately 1,000 sy and three tie-down positions would be eliminated where existing apron pavement is converted to a taxilane. Thus, the Proposed Project and Alternative 1 would result in a decrease of approximately 16,000 sy of GA ramp and 35 tie-down positions used primarily by local aircraft.

Based on the facility requirements analysis contained in Chapter Four of the Proposed AMP, the trend in general aviation, whether single or multi-aircraft, is toward more sophisticated and expensive aircraft, and many aircraft owners prefer enclosed hangar space to outside tie-downs. This is especially true in the Monterey region due to the corrosive nature of the frequent marine layers. Outside aircraft tie-down storage is typically temporary. For planning purposes, the Proposed AMP assumes that 95 percent of the Airport’s based aircraft are permanently housed in an enclosed hangar (Coffman Associates 2015:4-20/21).

Table 4.11A shows the Airport’s existing and projected hangar storage, as well as apron positions (tie-downs) and apron area needs for the local aircraft. As can be seen, while the loss of local apron area would cause a short fall in the calculated apron needs for local aircraft, the Airport has an excess of local apron tie-down positions. In addition, the Proposed Project and Alternative 1 are providing additional hangar storage space (seven hangars in the short term and 113 hangars by the long term), as well as replacing the 44 hangars displaced from the southeast ramp. Thus, although the Proposed AMP shows a shortfall in local apron needs using a planning formula, in actuality, the northeast and southeast GA ramps are under-utilized. The northeast ramp has three tie-down tenants (out of 31 marked tie-down spaces available); the southeast ramp has nine tie-down tenants (out of 32 marked tie-downs available). This, in conjunction with the additional hangars and taxilanes proposed for the north side of the Airport, indicates that the loss of approximately 16,000 sy of ramp and 35 tie-down positions for local aircraft at the Airport is Less than Significant.

	Currently Available ¹	Proposed Project/ Alternative 1	FORECAST		
			Short Term	Intermediate Term	Long Term
Hangar Storage Area (sf)	414,800	484,800	315,000	330,000	364,000
Local Aircraft Apron Positions (i.e., tie downs)	63	28	18	19	20
Local Aircraft Apron Area (sy)	22,400	6,400	23,400	24,400	26,000

Source: Coffman Associates 2015:Table 4G
sf = square foot; sy = square yard
¹ Based on analysis completed in 2014 as part of the Proposed AMP. Airport management has confirmed that this need is representative of the baseline conditions for this EIR as the amount of available hangar space and apron has not changed since 2014.

Construction Impacts on Existing On-airport Land Uses

Construction impacts would have short-term effects on several existing uses at the Airport as a result of Proposed Project and Alternative 1 project components involving extensive construction on both sides of the airfield. Affected land uses would include the Navy Flying Club, which would be relocated adjacent to proposed hangar and taxiway construction on the north side, and land uses on the south side of the airfield that use Fred Kane Drive for access (such as the existing commercial terminal building, which would remain operational until the proposed relocated commercial terminal complex is completed). In most other cases, the construction areas would be located farther from other existing airport land uses, which would reduce the adverse effects. Temporary construction impacts would include dust, construction noise, and congestion for several years as the construction for the Proposed Project or Alternative 1 moves through its various phases. Best management practices (BMPs) are required by FAA, the California Air Resources Board (CARB), and the Monterey Bay Air Resources District (MBARD) (AQ/rr-1 and AQ/rr-2, Section 4.3.6).

Airports are industrial/transportation land uses and are often subject to these types of land use ramifications. Thus, construction impacts of the Proposed Project or Alternative 1 on existing on-airport land uses are considered Less than Significant.

Less than Significant Impacts: The Proposed Project or Alternative 1's on-airport land use plan would not result in significant land use compatibility impacts for the Airport. Thus, impacts are Less than Significant for this aspect of Threshold 4.11-1.

The loss of GA ramp and tie-downs for based GA aircraft associated with the removal of the southeast GA ramp would not create a shortage of small aircraft tie-downs and GA ramp space through the planning horizon of the Proposed Project or Alternative 1. Thus, impacts are Less than Significant for this aspect of Threshold 4.11-1.

Construction under the Proposed Project or Alternative 1 would create temporary dust, noise, and congestion. However, airports are industrial/transportation land uses, and construction impacts are Less than Significant for this aspect of Threshold 4.11-1.

4.11.5.2 Threshold 4.11-2 - Introduce new land uses that could be incompatible with the surrounding land uses (existing or planned) off the Airport

Proposed Project and Alternative 1

Construction and Short-Term and Long-Term (Programmatic) Project Impacts

The Proposed Project and Alternative 1 would not introduce new land use into an area that would be incompatible with the surrounding existing or planned land uses. The Airport is an existing land use and

would continue to operate as such. All proposed project components would be within the existing airport boundaries with the following exceptions: 1) acquisition of a 5.5-acre parcel along Highway 68; 2) acquisition of RPZ land or aviation easements on the east end of the airport property; and 3) street improvements within the cities of Monterey and Del Rey Oaks for proposed connections with Olmsted Road, Garden Road, and Del Rey Gardens Drive. These specific proposed project components are addressed in subsequent paragraphs.

Proposed on-airport project components on the north side of the Airport, which is bordered by residential land uses (i.e., single family houses along Rosita Road and The Oaks condominiums), would be buffered from these off-airport land uses as part of either the Proposed Project or Alternative 1. The Proposed Project and Alternative 1 include conservation areas for biological mitigation along the Airport's property line on the north side (Section 4.4.6.1). In addition, the existing berm along the northern property line is planned to be raised approximately six feet and widened to approximately 30 feet. The conservation and berm areas would be revegetated with native trees and plants and would provide a minimum of a 100-foot buffer between the closest residences and potential future development. See Section 4.1 for a discussion of potential visual character or lighting effects on neighboring residents.

On the south side of the Airport, the closest off-airport land uses are commercial, office, and light industrial types of development along Garden Road. These off-airport land uses are compatible with the Airport and have been co-located with the Airport for many years. The proposed relocated commercial terminal complex and proposed long-term non-aeronautical projects along Highway 68 would not result in land use incompatibilities with these existing land uses. In addition, a 100-foot landscaped setback would be provided between all future buildings and Highway 68 as required by the City of Monterey's land use policies. This setback provides protection from land use incompatibilities with Highway 68, a designated scenic highway, as discussed in Section 4.1.5.

The proposed 5.5-acre property acquisition is surrounded by airport property on three sides and by Highway 68 on the fourth. It is currently developed with two office buildings and is zoned for I-R-130-D2: Industrial, Administration, and Research District, 130,000 sf minimum, Development Control Overlay District by the City of Monterey. Adjacent airport parcels are proposed to be developed according to the same zoning district. No changes to the existing buildings are proposed as part of the Proposed Project or Alternative 1. However, existing trees may be trimmed to prevent Part 77 obstructions to the Runway 10R-28L transitional surface. In addition, the proposed Highway 68 frontage loop road (Proposed Project) or frontage cul-de-sac (Alternative 1) would cross the parcel within its existing parking lot and across its driveway access with Highway 68. The existing Highway 68 access would be closed as a result of the proposed Highway 68 frontage road and access to the parcel would occur via the frontage road to Olmsted Road. These minor changes to parking areas and driveway access would not have adverse impacts on this existing land use, whose tenants would become tenants of the Airport.

As previously discussed under Threshold 4.11-1, the Proposed Project and Alternative 1 propose the acquisition of aviation easements for RPZ protection (14 acres) over existing light industrial and commercial development within the City of Del Rey Oaks along the west side of Highway 218. An aviation easement is a property right acquired from a landowner which protects the use of airspace above a specified height and can impose limitations on use of the land subject to the easement; for

example, uses that attract birds or interfere with pilot visibility and instrumentation could be prohibited. In this case, the primary purpose of the avigation easement would be to control the airspace within the RPZs; land use changes are not being proposed as the area is already developed. Limiting the intrusion of buildings or structures into the airspace above this industrial/commercial development is not considered a significant land use compatibility impact.

The Proposed Project and Alternative 1 plan for eventual property acquisition for RPZ protection (20 acres) over undeveloped areas of the City of Monterey south of Highway 68 and northeast of Highway 218. FAA standards require that RPZs remain clear of development and, thus, no physical intrusion into the surrounding areas would occur. The area would remain as undeveloped open space, which would not be considered a significant land use compatibility impact.

The Proposed Project and Alternative 1 include a connection to Del Rey Gardens Drive for the proposed “north side” road (City of Del Rey Oaks) and a connection to Olmsted Road for the proposed Highway 68 frontage road (City of Monterey). In addition, the intersection of Garden Street and Olmsted Road would be changed to a roundabout (City of Monterey). The proposed street improvements would be subject to design and/or other approvals from the controlling local jurisdiction.

Less than Significant: *Neither proposed land acquisition, the acquisition of RPZ property rights nor avigation easements, nor any other proposed on-airport development would result in proposed land uses that would be incompatible with the surrounding existing or planned land uses for proposed short- and long-term projects under either the Proposed Project or Alternative 1. Impacts related to Threshold 4.11-2 are Less than Significant.*

4.11.5.3 Threshold 4.11-3 - Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for avoiding or mitigating an environmental effect

Proposed Project and Alternative 1

Construction and Short-Term and Long-Term (Programmatic) Project Impacts

Although the Airport is located within a special airport district and is not generally subject to the policies and land use plans of the surrounding or adjacent local jurisdictions, the Airport is surrounded by the cities of Del Rey Oaks and Monterey and located in proximity to the County of Monterey. Because of the proximity of these cities and county, evaluation of the Proposed Project and Alternative 1’s consistency with applicable goals and policies of each respective general plan is provided below.⁵

⁵ To the extent that local policies provide appropriate thresholds or mitigation for environmental impacts or land use conflicts with adjacent jurisdictions, the various impact sections of this EIR have also addressed consistency with these policies. For example, the traffic impact analysis uses city and/or county level of service thresholds for local roadways within the project study area.

City of Del Rey Oaks General Plan Goals and Policies. Consistency with applicable City of Del Rey Oaks goals and policies is provided in **Table 4.11B**. Applicable land use goals and policies are primarily related to protecting existing city neighborhoods and future development from adverse impacts related to the Airport (see also the city's noise goals and policies). The Proposed Project and Alternative 1 would not expand the existing capacity of the airfield or the commercial terminal's aircraft loading gates and the provision of additional hangars is consistent with GA trends towards more sophisticated (and quieter) aircraft. To minimize land use compatibility impacts of proposed long-term non-aeronautical projects on the Airport's north side, the Proposed Project and Alternative 1 incorporate vegetated open space buffers between proposed long-term development and adjacent city residents. Thus, the Proposed Project and Alternative 1 would be consistent with the City of Del Rey Oaks' land use goals and policies and impacts to the city's land use goals and policies are Less than Significant.

The city has circulation policies which state that city intersection levels of service (LOS) shall remain at LOS C or above (or at LOS levels from 1995 when the policies were adopted, if lower) (Policy C-3) and that development should contribute to the costs for bicycle routes (Policy C-13). Mitigation identified for intersections on Highway 218 (at Del Monte Boulevard and Fremont Boulevard) would meet the city's LOS "C" standard with mitigation (refer to Table 4.16E and TR/mm-1 and TR/mm-2). If appropriate, the Airport will participate in its fair share of mitigation for impacted intersection improvements or bicycle route improvements (TR/mm-10), to the extent possible and consistent with FAA regulations and requirements relating to the use of airport revenue. However, since proposed traffic mitigation measures may not be feasible, the Proposed Project and Alternative 1 may be inconsistent with Policy C-3 and C-13. This is a Potentially Significant impact.

In addition, the Proposed Project and Alternative 1 recommend a proposed "north side" road that would require a connection to Del Rey Gardens Drive. The city's current general plan (Policy C-17) states, "The City will not support the potential north side access from Highway 218 and Del Rey Gardens Drive or any airport access through the City of Del Rey Oaks." Therefore, the Proposed Project and Alternative 1 will require a general plan amendment. The Airport has had initial discussions and continues to coordinate with the City of Del Rey Oaks regarding a possible general plan amendment process that would be required in order to provide a connection to Del Rey Gardens Drive in the event that the MPAD Board approves this component of the Proposed Project or Alternative 1. CEQA compliance will be required for the general plan amendment to consider the reasonably foreseeable anticipated impacts relating to the proposed "north side" road. Until such time as the proposed general plan amendment has been approved by the city, the Proposed Project and Alternative 1 would be inconsistent with Policy C-17. This is a Potentially Significant impact.

Finally, the city has adopted open space/conservation and noise policies. The Airport will comply with these policies as outlined in **Table 4.11B**. In addition, the Airport will be required to meet Caltrans and Central Coast RWQCB standards for pre- and post-construction runoff quantities. BMPs to reduce water pollutants below acceptable levels will also be required (see Section 4.10.6). Further, a vehicular noise study was completed as part of this EIR to analyze potential noise impacts related to the proposed "north side" road. As discussed in Section 4.12.2.5, significant vehicular noise impacts would not occur due to the distance, intervening topography, and vegetation between the proposed "north side" road and the

nearest residences. Impacts to the city’s open space/conservation and noise policies are considered Less than Significant.

Table 4.11B summarizes this preliminary consistency analysis with the city’s general plan policies as it relates to the proposed “north side” road and other project components; a final consistency analysis will be made by the city if they consider a general plan amendment for the proposed “north side” road. In addition, because there is no specific plan for the proposed long-term north side development at the Airport, further environmental analysis may be required when more specific long-term projects are proposed.

TABLE 4.11B City of Del Rey Oaks General Plan Goals and Policies Consistency Analysis Proposed Project and Alternative 1		
	Proposed Project	Alternative 1
Land Use Element Goals and Policies		
Goal 10. Participate with the Airport District to minimize impacts of airport development and its effect on the City of Del Rey Oaks.	Consistent. The City of Del Rey Oaks was invited to participate in the AMP process. The Airport has had ongoing communication with the City of Del Rey Oaks and has been coordinating with the city throughout this EIR process.	Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.
Goal 12. Conserve and improve the living environment of existing Del Rey Oaks neighborhoods.	Consistent. The Proposed Project incorporates vegetated open space buffers between proposed airport development and adjacent Del Rey Oaks residents. In addition, NOI/mm-1 includes mitigation to minimize construction noise impacts related to the Proposed Project.	Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.
Policy L-4. The City shall work with the Airport District to ensure that the Airport District will not compete with the City’s market for future development of light industry, research, and visitor serving and office uses.	Consistent. The City of Del Rey Oaks was an active participant on the Planning Advisory Committee during the AMP process. A Liaison Committee between City of Del Rey Oaks Council members and Airport Board members meet regularly regarding communication, safety, and security as it relates to the adjoining properties.	Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.
Policy L-5. The Airport shall not expand its present aviation operation. If expansion is necessary to accommodate projected passenger demand, it should be moved away from populated areas prior to further improvement and capital investments.	Consistent. The Proposed Project would not expand the existing capacity of the airfield or commercial terminal aircraft loading gates. No expansion is necessary to accommodate projected passenger demand.	Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.

TABLE 4.11B (Continued)		
	Proposed Project	Alternative 1
Circulation Goals and Policies		
Policy C-3. Proposed new land uses shall require mitigation measures to assure that the LOS will not degrade below LOS "C" or the current (1995) LOS – whichever is lower for all other intersections within the City.	Inconsistent. Mitigation identified for intersections on Highway 218 (at Del Monte Boulevard and Fremont Boulevard) would meet the city's LOS "C" standard (refer to Table 4.16E and TR/mm-1 and TR/mm-2). The Airport will participate in its fair share of mitigation for impacted intersection or bicycle route improvements to the extent possible and consistent with FAA regulations and requirements relating to the use of airport revenue. However, since proposed traffic mitigation measures may not be feasible, this policy consistency determination remains Inconsistent.	Inconsistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1. (Refer to Table 4.16L and TR/mm-7 and TR/mm-8.
Policy C-13. New non-residential land uses which generate significant adverse traffic impacts shall dedicate an easement or make a monetary contribution, if appropriate, toward the completion of adopted Bicycle Routes.	Inconsistent. If appropriate, the Airport will participate in its fair share of mitigation for adopted bicycle routes to the extent possible (TR/mm-10) and consistent with FAA regulations and requirements relating to the use of airport revenue. However, since proposed traffic mitigation measures may not be feasible, this policy consistency determination remains Inconsistent.	Inconsistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.
Policy C-17. The City will not support the potential north side access from Highway 218 and Del Rey Gardens Drive or any airport access road through the City of Del Rey Oaks.	Inconsistent. Implementation of the Proposed Project would require that a general plan amendment occur to remove this policy from the <i>General Plan Update for the City of Del Rey Oaks</i> .	Inconsistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.
Open Space/Conservation Goals and Policies		
Goal 2. Preserve and protect the water quality, runoff, flow, and other resources of the Canyon Del Rey Drainageway.	Consistent. The Proposed Project would be required to meet Caltrans and Central Coast RWQCB standards for pre- and post-construction runoff quantities. Best management practices to reduce water pollutants below acceptable levels would be required. See GEO/mm-1.	Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.

TABLE 4.11B (Continued)		
	Proposed Project	Alternative 1
<p>Policy C/OS-1. The City will encourage protection of scenic resources by:</p> <ul style="list-style-type: none"> a. Locate structures away from ridgelines, steep slopes, or in other highly visible locations unless site review and design makes it desirable; b. Utilize natural landforms and vegetation for screening structures, access roads, building foundations, and cut and fill slopes; 	<p>Consistent. The visibility of the proposed “north side” road from within the City of Del Rey Oaks would be limited to a small portion of Del Rey Gardens Drive. The proposed road design includes features that would allow it to use the natural landforms to the greatest extent feasible. As discussed in Section 4.1.5, trees and topography located along the north airport property line prevent views past the southern edge of an existing berm located from 55 to 160 feet from the northern property line.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>
<p>Policy C/OS-5b. The City shall use open space as a buffer between various types of land use.</p>	<p>Consistent. The Proposed Project incorporates vegetated open space buffers between proposed airport development and adjacent Del Rey Oaks residents.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>
<p>Noise Goals and Policies</p>		
<p>Goal 1. Protect citizens from exposure to excessive levels of noise.</p>	<p>Consistent. Although the city does not have its own noise standards, the Proposed Project would be consistent with county noise standards (see Tables 4.12B and 4.12E). In addition, NOI/mm-2 provides mitigation that would be incorporated for any construction occurring during the nighttime hours.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>
<p>Goal 2. Encourage a reduction in aircraft noise impact on the City of Del Rey Oaks to levels specified by State noise standards (65 dB) and require adequate soundproofing in new constructions.</p>	<p>Consistent. The Proposed Project would not expand the existing capacity of the airfield or commercial terminal aircraft loading gates and the provision of additional hangars is in keeping with GA trends towards more sophisticated (and quieter) aircraft. The Airport’s existing and future 65 CNEL noise contours do not impact additional noise-sensitive areas within the City of Del Rey Oaks (see Exhibits 4.12A - 4.12C).</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>
<p>Goal 3. Minimize the impact of street, road, and highway generated noise upon land uses in the City of Del Rey Oaks.</p>	<p>Consistent. Based on the noise analysis (Threshold 4.12.2-3), the addition of the “north side” road and project-related traffic would not produce significant noise impacts on the Del Rey Oaks land uses in the vicinity.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>

TABLE 4.11B (Continued)		
	Proposed Project	Alternative 1
Policy N-6. The City will work with the Monterey Peninsula Airport District to minimize the noise impacts of the proposed increase in airport operations and changes in different types of aircraft will not be supported by the City.	Consistent. The Airport’s existing and future 65 CNEL noise contours and the existing capacity of the airfield or commercial terminal aircraft loading gates would not change due to the Proposed Project. However, per Grant Assurance No. 22, Economic Nondiscrimination, the Airport must “make the airport available for public use on reasonable terms and without unjust discrimination to all types, kinds and classes of aeronautical activities...” (FAA 2014).	Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.
Source: City of Del Rey Oaks 1997		

City of Monterey General Plan Goals and Policies. Consistency with applicable City of Monterey goals and policies is provided in **Table 4.11C**. The city’s general plan contains numerous goals, policies, and programs related to the preservation of its scenic qualities, particularly along Highway 68. The Proposed Project and Alternative 1 include construction of a Highway 68 frontage road with a connection to Olmsted Road in lieu of additional Highway 68 access points. They also include the closure of one existing access to Highway 68. Future development along Highway 68, including the proposed frontage road, is within the city’s D2 Development Control overlay district, and would require city Architectural Review Committee approval of all proposed construction. The Proposed Project and Alternative 1 incorporate a 100-foot setback from the highway for all buildings and include mitigation measures for detailed landscaping plans along Highway 68 consistent with city policies (see Section 4.1.6).

The CONA neighborhood located west of the Airport is also protected by city goals and policies, and programs. The only existing public access to the Airport’s north side occurs through the CONA neighborhood. The Proposed Project and Alternative 1 include a proposed “north side” road and the closure of the existing Airport Road at Airport Gate V22 to the east to prevent traffic from future aviation and non-aviation uses east of the gate from going through the CONA neighborhood. Under the Proposed Project, existing aviation, non-aviation, and emergency fire service uses would continue to use Airport Road until the proposed road is constructed in the long term. Construction truck traffic may use Airport Road but would be minimized by using on-airport vehicle service roads when possible (see Sections 4.12.2 and 4.16 for further discussion). Under Alternative 1, the proposed road would be constructed in the first phase of short-term projects.

The city also has numerous goals, policies, and programs related to the transportation system’s ability overall to safely move people and goods, including aircraft safety, promoting tourism, and enhancing the city’s shuttle and transit services. The Proposed Project and Alternative 1 include a proposed relocated commercial terminal complex that would improve the functional commercial terminal area, as well as additional hangar storage, for a better air transportation experience. The proposed relocated commercial terminal complex would include designated shuttle, public transit, taxi, and transportation network company (TNC) areas. In addition, the Proposed Project and Alternative 1 include several

airside and landside improvements to enhance the safety of the Airport (see Section 2.5.1), while the provision of additional hangars is in keeping with GA trends towards more sophisticated (and quieter) aircraft.

This EIR includes a traffic analysis of the Proposed Project and Alternative 1's traffic impacts on city intersections within the traffic study area based on City of Monterey input and LOS standards. All impacted study intersections are actually within the jurisdiction of Caltrans. The Airport will provide its fair share of regional traffic improvements to the extent possible and consistent with FAA regulations and requirements relating to the use of airport revenue to increase the transportation system's ability to safely and effectively move people and goods. See TR/mm-1, TR/mm-3, and TR/mm-7, Section 4.16.6. However, since proposed traffic mitigation measures may not be feasible, this policy consistency determination remains Inconsistent.

The city's Conservation Element includes goals, policies, and programs related to protection of the city's open space, biological resources, and watersheds. Please see Sections 4.1, 4.4, and 4.10 for in-depth analysis of these issues, as well as the summary contained in **Table 4.11C**. Proposed development located within the city could have impacts to: Monterey spineflower, a federal endangered plant; Yadon's piperia, a federal endangered plant and CNPS-ranked 1B.1 rare plant; Seaside bird's beak, a state endangered and CNPS-ranked 1B.1 rare plant; Eastwood's goldenbush, a CNPS-ranked 1B.1 rare plant; sandmat manzanita, a CNPS-ranked 1B.2 rare plant; and native trees, including coast live oak and Monterey pine. However, this EIR contains extensive project-specific and programmatic mitigation, including those for future development projects within the city's jurisdiction (see Section 4.4.6.6, BIO/mm-1 through BIO/mm-47) and the Proposed Project and Alternative 1 are consistent with city policies to protect, conserve, and manage sensitive biological resources and species diversity.

The city also includes goals, policies, and programs related to managing use of its public services, such as water, sewer (wastewater), and streets. The Airport has its own allocation of water credits. However, it discharges its wastewater into the city's off-airport infrastructure. See Sections 4.18.1 and 4.18.2 for a discussion of potential water and/or wastewater impacts. This EIR also includes a traffic analysis of the Proposed Project and Alternative 1's traffic impacts on city streets within the traffic study area. See Sections 4.16 and 5.5.16 for the project-specific and cumulative traffic analyses and mitigation programs. The Airport will work with the city as future buildout occurs to ensure that impacts to city services will not be adversely impacted.

Both the *City of Monterey General Plan* Noise Element and the CONA Neighborhood Plan, (see discussion below) contain policies to "limit" or "maintain" a certain level of usage of the Airport for noise purposes (Noise Element Policy b.4 and CONA Neighborhood Plan, Goal 5 and Airport Noise Policy 25). The Proposed Project and Alternative 1 do not increase runway capacity or terminal gates beyond what currently occur at the Airport. Thus, the intent of the noise policy has been met and this inconsistency is Less than Significant.

As shown in **Table 4.11C**, the Proposed Project and Alternative 1 have numerous mitigation measures or project features that provide consistency with City of Monterey general plan policies. However, the following inconsistencies are identified and would be Potentially Significant impacts:

- Policy b.4 of the city’s Noise Element states, “Support limiting the number of fixed-base general aviation aircraft at the airport to the existing number.” This policy is not consistent with the federal grant assurances under which the Airport must operate. Grant Assurance No. 22, Economic Nondiscrimination, states in part that the Airport must “make the airport available for public use on reasonable terms and without unjust discrimination to all types, kinds and classes of aeronautical activities...” (FAA 2014).
- Goal j, Policy j.2, and Programs j.1.1 and j.2.3 of the city’s Circulation Element, which establish LOS D as an acceptable automobile LOS standard for roadway segments that are not within a multi-modal corridor and require a traffic analysis to determine appropriate mitigation and the funding of a pro-rata share toward improvements.

	Proposed Project	Alternative 1
Urban Design Element Goals and Policies		
Goal c. Respect and retain the wooded canyons as distinctive features, as the natural separation of neighborhoods, as locations for scenic roadways, and as recreational opportunities. – Policy c.1. Maintain the canyons and their native vegetation through their lengths.	Consistent. The Proposed Project includes mitigation requiring detailed landscaping plans incorporating native vegetation to the extent feasible for all future development within or adjacent to the 100-foot setback from Highway 68 within the City of Monterey zoned areas. The landscaping plans shall include native species, protecting existing cypress, Monterey pine and coast live oak trees to the extent possible, and using trees to screen parking, where appropriate. See AES/mm-1 and 2 and BIO/mm-36 through 44.	Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.
Goal g. Landscape elements should be consistent and compatible within each area. – Policy g.2. Favor native species. – Policy g.5. Protect existing cypress, Monterey pine, and coast live oak trees in urban and historic contexts, replant when removal is necessary, and retain the health of the stands. – Policy g.7. Use trees to screen parking where appropriate. – Policy g.8. Encourage planting of trees on public and private land throughout the City of Monterey.	Consistent. The Proposed Project includes mitigation requiring detailed landscaping plans incorporating native vegetation to the extent feasible for all future development within or adjacent to the 100-foot setback from Highway 68 within the City of Monterey zoned areas. The landscaping plans shall include native species, protecting existing cypress, Monterey pine and coast live oak trees to the extent possible, and using trees to screen parking, where appropriate. See AES/mm-1 and 2 and BIO/mm-36 through 44.	Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.
Goal h. Protect and enhance scenic entrances shown on Figure 2, which follow a parkway concept. – Policy h.4. Roadway lighting and signing should be minimized, of low-profile design, and designed to enhance the scenic character of the corridor.	Consistent. The proposed Highway 68 frontage road and future associated buildout is within the city’s D2 Development Control overlay district, which requires Architectural Review Committee approval of all proposed construction, as well as lighting and signage. This review process includes requirements relating to compliance with the city policies.	Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.

TABLE 4.11C (Continued)		
	Proposed Project	Alternative 1
<p>– Policy h.6. Where feasible, direct driveway access to scenic entrances should not be permitted from individual properties. Most of the scenic corridors run through wooded canyons and create a rural feeling. This effect will be destroyed if residences are permitted to line the roadway in a manner similar to Josselyn Canyon Road.</p>	<p>Consistent. The Proposed Project includes the construction of a Highway 68 frontage road with a connection to Olmsted Road in lieu of additional Highway 68 access points. It also includes the closure of one existing access to Highway 68. Therefore, the Proposed Project limits direct access from the Airport to Highway 68.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>
<p>– Policy h.7. Frontage roads should not parallel scenic freeway lanes unless screened by terrain or vegetation. Frontage roads detract from the scenic qualities of an area and should be located within an adjacent development or screened by natural features where possible.</p>	<p>Consistent. The Proposed Project includes mitigation requiring detailed landscaping plans incorporating native vegetation to the extent feasible for all future development within or adjacent to the 100-foot setback from Highway 68 within the City of Monterey zoned areas. The landscaping plans shall include native species, protecting existing cypress, Monterey pine and coast live oak trees to the extent possible, and using trees to screen parking, where appropriate. See AES/mm-1 and 2 and BIO/mm-36 through 44.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>
<p>– Policy h.8. Landscaped greenbelt areas should be established along the borders of scenic entrances.</p>	<p>Consistent. The Proposed Project includes mitigation requiring detailed landscaping plans incorporating native vegetation to the extent feasible for all future development within or adjacent to the 100-foot setback from Highway 68 within the City of Monterey zoned areas. The landscaping plans shall include native species, protecting existing cypress, Monterey pine and coast live oak trees to the extent possible, and using trees to screen parking, where appropriate. See AES/mm-1 and 2 and BIO/mm-36 through 44.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>
<p>– Policy h.9. Landscape buffers should be provided at least 100 feet in width from the ultimate planned right-of-way of State-designated scenic highways.</p>	<p>Consistent. The Proposed Project includes mitigation requiring detailed landscaping plans incorporating native vegetation to the extent feasible for all future development within or adjacent to the 100-foot setback from Highway 68 within the City of Monterey zoned areas. The landscaping plans shall include native species, protecting existing cypress, Monterey pine and coast live oak trees to the extent possible, and using trees to screen parking, where appropriate. See AES/mm-1 and 2 and BIO/mm-36 through 44.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>

TABLE 4.11C (Continued)		
	Proposed Project	Alternative 1
<p>Monterey-Salinas Highway</p> <ul style="list-style-type: none"> – Policy h.19. Reverse the visual degradation of scenic forests. – Policy h.20. Avoid further illumination along Ryan Ranch and Garden Road Business Park areas. – Policy h.21. Screen buildings close to the Highway with native vegetation, such as Coast Live Oak. – Policy h.22. Maintain the scenic corridor. 	<p>Consistent. The Proposed Project includes mitigation requiring detailed landscaping plans incorporating native vegetation to the extent feasible for all future development within or adjacent to the 100-foot setback from Highway 68 within the City of Monterey zoned areas. The landscaping plans shall include native species, protecting existing cypress, Monterey pine and coast live oak trees to the extent possible, and using trees to screen parking, where appropriate. See AES/mm-1 and 2 and BIO/mm-36 through 44.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>
Circulation Element Goals and Policies		
<p>Policy b-5. Do not support non-aviation uses within the Monterey Peninsula Airport District that create unnecessary traffic impacts in adjacent residential neighborhoods.</p>	<p>Consistent. The Proposed Project includes a proposed “north side” road and the closure of the existing Airport Road at Airport Gate V22 to prevent traffic from future aviation and non-aviation uses east of the gate from going through residential neighborhoods to avoid unnecessary traffic impacts in adjacent residential neighborhoods.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>
<p>Program c.5.5. Establish landscaped greenbelt areas along the borders of scenic highways.</p>	<p>Consistent. The Proposed Project includes mitigation requiring detailed landscaping plans incorporating native vegetation to the extent feasible for all future development within or adjacent to the 100-foot setback from Highway 68 within the City of Monterey zoned areas. The landscaping plans shall include native species, protecting existing cypress, Monterey pine and coast live oak trees to the extent possible, and using trees to screen parking, where appropriate. See AES/mm-1 and 2 and BIO/mm-36 through 44.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>
<p>Program c.6.1 Limit direct access from private property to State highways.</p>	<p>Consistent. The Proposed Project includes the construction of a Highway 68 frontage road with a connection to Olmsted Road in lieu of additional Highway 68 access points. It also includes the closure of one existing access to Highway 68. Therefore, the Proposed Project limits direct access from the Airport to Highway 68.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>
<p>Policy c.8. Minimize truck traffic in residential neighborhoods by routing truck and through traffic onto highways and arterial streets, even where such routing is not the shortest distance between two points.</p>	<p>Consistent. The Proposed Project includes a proposed “north side” road and the closure of the existing Airport Road at Airport Gate V22 to prevent traffic from future aviation and non-aviation uses east of the gate from going through residential neighborhoods. Until the proposed road is constructed, construction truck traffic may use Airport Road, but will be minimized by using on-airport vehicle service roads when possible.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>

TABLE 4.11C (Continued)		
	Proposed Project	Alternative 1
Goal h. Make public transportation in the City of Monterey an attractive alternative for tourists.	Consistent. The Proposed Project includes a proposed commercial terminal complex that will improve the functional areas of the existing terminal, as well as additional hangar storage, for a better air transportation experience. The Airport is a public use airport that is heavily used to support tourism throughout the Monterey Peninsula region. Increasing its amenities to the public, including tourism, is consistent with this policy.	Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.
Goal i. Support the movement of people, goods, and services by other transportation facilities, such as air, rail, and water.	Consistent. The Proposed Project includes a proposed relocated commercial terminal complex that will improve the functional areas of the existing terminal, as well as additional hangar storage, for a better air transportation experience.	Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.
Policy i.1. Work with the Airport District and the hospitality industry to provide a direct and affordable transit service between the Monterey Peninsula Airport and the local shuttle service area to reduce congestion.	Consistent. The Proposed Project includes a proposed relocated commercial terminal complex that includes designated shuttle, public transit, taxi, and transportation network company pick-up and drop-off locations. The Airport is a member of the Monterey County Regional Taxi Authority.	Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.
Policy i.6 Balance the community’s need for air transportation service with community safety and environmental needs.	Consistent. The analysis in this EIR has evaluated the safety and environmental consequences of the Proposed Project and provides mitigation measures to mitigate impacts, where feasible.	Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.
Policy i.7. Direct vehicular traffic generated by airport land uses to arterial streets and highways and away from residential neighborhoods. – Program i.7.1. Work with the Airport District to implement alternatives to the use of Airport Road as an access road for non-aviation uses on the Airport grounds.	Consistent. The Proposed Project includes a proposed “north side” road and the closure of the existing Airport Road at Airport Gate V22 to prevent traffic from future aviation and non-aviation uses east of the gate from going through residential neighborhoods.	Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.
Policy i.8. Provide affordable shuttle service to the Monterey Peninsula Airport.	Consistent. The Proposed Project includes a proposed relocated commercial terminal complex that includes designated shuttle areas, which will facilitate the provision of affordable shuttle service.	Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.
Policy i.10. Support improvements and operational changes at the airport that promote safety and noise reduction.	Consistent. The Proposed Project includes several airside and landside improvements, such as providing additional taxiway to runway separation, consolidating smaller GA operations along the smaller GA runway, and protecting the RPZs, to enhance the safety of the Airport. The provision of additional hangars is in keeping with GA trends towards more sophisticated (and quieter) aircraft. See Sections 2.5.1 and 4.12.1. See also NOI/mm-2 regarding construction noise mitigation measures.	Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.

TABLE 4.11C (Continued)		
	Proposed Project	Alternative 1
<p>Goal j. Measure the effectiveness of the transportation system and its ability to safely and effectively move people and goods, not simply vehicles.</p> <ul style="list-style-type: none"> – Program j.1.1. Establish LOS D as an acceptable automobile LOS standard for roadway segments that are not within a multi-modal corridor. – Policy j.2. Require an analysis of the effects on the transportation network for projects that may cause significant traffic impacts, as defined by the established multi-modal LOS and automobile LOS and identify appropriate mitigation measures. 	<p>Inconsistent. This EIR includes a traffic analysis of the Proposed Project’s traffic impacts on city intersections within the traffic study area based on City of Monterey input and LOS standards. All impacted study intersections in the city limits are within the jurisdiction of Caltrans. The Airport will provide its fair share of regional traffic improvements to the extent possible and consistent with FAA regulations and requirements relating to the use of airport revenue to increase the transportation system’s ability to safely and effectively move people and goods. See TR/mm-1 and TR/mm-3. However, since proposed traffic mitigation measures may not be feasible, this policy consistency determination remains Inconsistent.</p>	<p>Inconsistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1. See TR/mm-7.</p>
<ul style="list-style-type: none"> – Program j.2.1. Define the traffic impact study area to be analyzed as all roadway segments where project traffic is expected to increase the existing traffic by two percent (2%) or more. 	<p>Consistent. This EIR’s traffic study area was partly based on, and is consistent with, this city program.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>
<ul style="list-style-type: none"> – Program j.2.2. Define a project’s traffic impact as significant if the project is expected to reduce a roadway segment to an unacceptable level or further degrade an already unacceptable LOS under cumulative traffic conditions during typical (non-summer) weekday traffic conditions. 	<p>Consistent. This EIR’s traffic study area was partly based on, and is consistent with, these city programs. See Sections 4.16 and 5.5.16 for the project-specific and cumulative traffic analyses and mitigation programs.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>
<ul style="list-style-type: none"> – Program j.2.3. Require projects to build or fund a pro-rata share toward improvements necessary to mitigate significant traffic impacts, as defined by the MMMP or the General Plan EIR. 	<p>Inconsistent. The Airport will provide its fair share of regional traffic improvements to the extent possible and consistent with FAA regulations and requirements relating to the use of airport revenue to increase the city transportation system’s ability to safely and effectively move people and goods. See TR/mm-1 and TR/mm-3. However, since proposed traffic mitigation measures may not be feasible, this policy consistency determination remains Inconsistent.</p>	<p>Inconsistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1. See TR/mm-7.</p>
<p>Conservation Element Goals and Policies</p>		
<p>Goal b.1. Protect creeks, lakes, wetlands, beaches, and Monterey Bay from pollutants discharged to the storm drain system.</p> <ul style="list-style-type: none"> – Policy b.2. Minimize particulate matter pollution with erosion and sediment control in waterways and on construction sites and with regular street sweeping on City streets. 	<p>Consistent. The Proposed Project would be required to meet Caltrans and Central Coast RWQCB standards for pre- and post-construction runoff quantities. Best management practices to reduce water pollutants below acceptable levels would be required. See GEO/mm-1.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>

TABLE 4.11C (Continued)	Proposed Project	Alternative 1
<p>Goal d. Protect the character and composition of existing native vegetative communities. Conserve, manage, and restore habitats for endangered species, and protect biological diversity represented by special-status plant and wildlife species.</p>	<p>Consistent. The Proposed Project incorporates numerous mitigation to protect biological resources. See BIO/mm-1 through BIO/mm-47.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>
<p>– Policy d.1. Protect existing native plants and promote the use of locally occurring, native vegetation for public and private landscaping and revegetation efforts.</p>	<p>Consistent. The Proposed Project includes mitigation requiring detailed landscaping plans incorporating native vegetation to the extent feasible for all future development within or adjacent to the 100-foot setback from Highway 68 within the City of Monterey zoned areas. The landscaping plans shall include native species, protecting existing cypress, Monterey pine and coast live oak trees to the extent possible, and using trees to screen parking, where appropriate. See AES/mm-1 and 2 and BIO/mm-36 through 44.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>
<p>– Policy d.2. Discourage the use of plant species on the California Exotic Pest Plant Council lists.</p>	<p>Consistent. The Proposed Project includes mitigation prohibiting the use of plant species listed on the California Exotic Pest Plant Council lists. See BIO/mm-38, BIO/mm-41, and BIO/mm-43.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>
<p>– Policy d.3. Protect existing sensitive habitats by careful planning to avoid and/or mitigate significant impacts to habitat areas identified as having high and moderate biological values.</p> <p>– Policy d.4. Protect and manage habitats that support special-status species, are of high biological diversity, or are unusual or regionally restricted. Prepare biotic reports or habitat management plans as needed to ensure protection of habitat values.</p> <p>– Policy d.5. Reduce biotic impacts to a less-than-significant level on project sites by ensuring that mitigation measures identified in biotic reports are incorporated as conditions of approval for development projects. Compliance with the City Tree Ordinance is the mechanism that will be used to address impacts of tree removals. As mitigation for significant impacts, avoidance, replacement, restoration of habitats on- or off-site or other measures may be required.</p> <p>– Policy d.6. Within identified habitat areas with high biological value, the City will provide for a focused evaluation of areas identified as appropriate habitat for special-status species during the project review and approval process.</p>	<p>Consistent. The Proposed Project incorporates numerous mitigation to protect biological resources. See BIO/mm-1 through BIO/mm-47.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>

TABLE 4.11C (Continued)		
	Proposed Project	Alternative 1
Open Space Element Goals and Policies		
<p>Goal c. Preserve greenbelts to ensure an overall visual impression of open space on the hillsides above Monterey, between neighborhoods and along major transportation corridors.</p> <ul style="list-style-type: none"> – Policy c.3. Work with the County and others to preserve Monterey Pines where possible. 	<p>Consistent. The Proposed Project includes mitigation requiring detailed landscaping plans incorporating native vegetation to the extent feasible for all future development within or adjacent to the 100-foot setback from Highway 68 within the City of Monterey zoned areas. The landscaping plans shall include native species, protecting existing cypress, Monterey pine and coast live oak trees to the extent possible, and using trees to screen parking, where appropriate. See AES/mm-1 and 2 and BIO/mm-36 through 44.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>
Safety Element Goals and Policies		
<p>Goal a. Evaluate seismic safety when reviewing development applications and land uses.</p> <ul style="list-style-type: none"> – Policy a2. Engineering and geologic investigations should be undertaken for proposed projects within high and moderate seismic hazard zones before approval is given by the City. The entire City is currently within seismic hazard zone IV and these studies are required for almost all new construction except for very minor additions. 	<p>Consistent. The Proposed Project includes mitigation measures for site/project-specific geotechnical investigations consistent with city policies. See GEO/ mm-2 through GEO/mm-4.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>
<ul style="list-style-type: none"> – Policy c.4. Design projects to: (1) maximize the amount of natural drainage that can be percolated into the soil, and (2) minimize direct overland runoff onto adjoining properties, water courses, and streets. This approach to handling stormwater reduces the need for costly storm drainage improvements, which are often miles downstream. Building coverage and paved surfaces must be minimized and incorporated within a system of porous pavements, ponding areas, and siltation basins. 	<p>Consistent. The Proposed Project includes stormwater detention basins along its frontage with Highway 68 to reduce post-construction runoff to pre-construction rates to meet Caltrans and Central Coast RWQCB standards for pre- and post-construction runoff quantities. Best management practices to reduce water pollutants below acceptable levels would be required.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>
<p>Goal e. Maximize aviation safety on and adjacent to the Monterey Airport.</p> <ul style="list-style-type: none"> – Policy e.1. Support safety improvements to the Monterey Peninsula Airport and adjacent areas. – Program e.1.1. Review proposed buildings to ensure compliance with Federal Aviation Regulations, Part 77, Objects Affecting Navigable Airspace. – Policy e.2. Continue to work with the airport district through a fire mutual aid agreement. 	<p>Consistent. The Proposed Project includes several airside and landside improvements to enhance the safety of the Airport. The Airport will continue to communicate with the city, as appropriate, to help ensure that future land uses are compatible with airport safety concerns. Proposed buildings will be in compliance with Part 77 requirements (see LU/rr-1). The Airport will continue the fire mutual aid agreement. In addition, the City of Monterey provides contracted fire services for the Airport at the on-airport Safety building.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>

TABLE 4.11C (Continued)		
	Proposed Project	Alternative 1
Noise Element Goals and Policies		
<p>Goal a. Minimize traffic noise in predominantly residential areas and ensure noise in commercial areas is an acceptable level.</p> <ul style="list-style-type: none"> – Policy a.1 Limit truck traffic to local delivery.... – Policy a.2. Route trucks and through traffic onto truck routes, even where such routing is not the shortest distance between points. 	<p>Consistent. The Proposed Project includes a proposed “north side” road and the closure of the existing Airport Road at Airport Gate V22 to prevent traffic from future aviation and non-aviation uses east of the gate from going through residential neighborhoods. Until the proposed road is constructed, construction truck traffic may use Airport Road, but will be minimized by using on-airport vehicle service roads when possible.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>
<p>Policy b.1. Support improvements and operational changes at the airport that support safety and noise reduction.</p>	<p>Consistent. The Proposed Project includes several airside and landside improvements to enhance the safety of the Airport, such as providing additional taxiway to runway separation, consolidating smaller GA operations along the smaller GA runway, and protecting the RPZs, to enhance the safety of the Airport. The provision of additional hangars is in keeping with GA trends towards more sophisticated (and quieter) aircraft. See Sections 2.5.1 and 4.12.1. See also NOI/mm-2 regarding construction noise mitigation measures.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>
<p>Policy b.4. Support limiting the number of fixed-base general aviation aircraft at the airport to the existing number.</p>	<p>Inconsistent. This policy is not consistent with the federal grant assurances under which the Airport must operate. Grant Assurance No. 22, Economic Nondiscrimination, states in part that the Airport must “make the airport available for public use on reasonable terms and without unjust discrimination to all types, kinds and classes of aeronautical activities...”</p>	<p>Inconsistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>
Public Facilities Element Goals and Policies		
<p>Program a.3.1. Monitor limited public services (e.g., water, sewer, streets) and develop a system to determine the impacts of proposed developments on these resources.</p>	<p>Consistent. The Airport will work with the city to ensure that impacts to city services will not be adversely impacted. See Sections 4.16 and 4.18.2. See UTIL/mm-1 through UTIL/mm-5.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>
<p>Program m.1.7. Encourage landscaping with drought-resistant native plants in both existing and proposed public and private development projects.</p>	<p>Consistent. The Proposed Project includes mitigation measures for detailed landscaping plans along Highway 68 consistent with city policies. See Section 4.1.6. In addition, the Airport plans to pursue LEED certification, which includes reducing outdoor water use by landscaping (including drought-resistant landscaping, as appropriate) or other methods. See UTIL/mm-1.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>

TABLE 4.11C (Continued)		
	Proposed Project	Alternative 1
Policy n.3. Implement waste and recycling enclosure standards for all new developments and remodels.	Consistent. Future airport development within the city’s jurisdiction is within the city’s D2 Development Control overlay district, which requires Architectural Review Committee approval of all proposed construction. In addition, this is a requirement of LEED certification. Therefore, city oversight will ensure that the development from the Proposed Project is consistent with this policy.	Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1
Source: City of Monterey 2016		

Casanova-Oak Knoll Neighborhood Area Plan

The CONA Neighborhood Plan goals and policies as they relate to the Airport focus primarily on minimizing the perceived impacts of the Airport on the neighborhood (**Table 4.11D**). The CONA Neighborhood Plan also contains policies to provide additional park and recreational opportunities for the neighborhood at the Airport based on its proximity to airport lands. The Proposed Project and Alternative 1 do not contain these recreational opportunities for the neighborhood because of potential land use conflicts with existing and future airport operations. In addition, an airport is not encouraged to use airport lands for public recreational uses as these areas then become protected land uses under the *U.S. Department of Transportation Act* as Section 4(f) resources, which can later encumber their use for aviation purposes. No changes to the baseline condition regarding this policy would occur as a result of the Proposed Project and Alternative 1 (i.e., a park is not currently proposed for airport lands under the existing condition). Further, the Proposed Project and Alternative 1 do not preclude the implementation of this policy in the future. Therefore, the inconsistency of the Proposed Project and Alternative 1 with CONA goals to use airport land for public recreation is Less than Significant.

The Proposed Project is inconsistent with several of the goals and policies listed in **Table 4.11D** related to airport traffic through the CONA neighborhood (Public Works Policies 15 and 16 and Airport Noise Policy 29 and Program 34b) since Airport Road would continue to be used for the proposed short-term projects until the proposed “north side” road is constructed. These inconsistencies would be a Potentially Significant impact. However, the following is important to understand in the context of this inconsistency determination:

- 1) Streets and intersections within the CONA neighborhood currently operate at acceptable levels of service and will experience minimal increased traffic due to the Proposed Project’s short-term development (approximately seven AM peak hour and 14 PM peak hour trips) (see Section 4.16.3.3 and 4.16.5, Threshold 4.16-6);
- 2) The Proposed Project includes a new “north side” road to Highway 218 in the long term; and
- 3) CONA neighborhood roads are public roads and must allow public usage within the established regulations and codes. For example, the CONA neighborhood streets are not designated truck routes and, therefore, weight restrictions can be imposed on users of the streets, but there is no regulation

limiting their use to only emergency vehicles or airport maintenance vehicles (as called for in Policy 29) (refer to **Table 4.11D**, Airport Noise Goals and Policies).

Alternative 1 is consistent with the goals and policies related to restricting the use of Airport Road for additional airport-related uses as it would construct an alternate access to the Airport’s north side (i.e., the proposed “north side” road), as a project in the first phase of the short-term development.

Both the Proposed Project and Alternative 1 are inconsistent with Aircraft Noise Policy 34, which states the neighborhood’s opposition to the use of neighborhood residential streets by automobile and truck traffic going to and from the Airport and businesses on the Airport property since under either the Proposed Project or Alternative 1, Airport Road would remain in use for existing or replacement airport land uses located west of Gate V22.

Based on the Airport’s operational growth forecasts for 2025 and 2035, potential inconsistencies could also occur with Noise Goals 2, 3 and 4. The Airport’s future 65 CNEL noise contours could impact one additional residence by 2025 and four additional residences by 2035 within the CONA neighborhood (see Exhibits 4.12A - 4.12C). This is a Potentially Significant impact of either the Proposed Project or Alternative 1. It would also occur if neither of these project options are implemented as the Airport’s operational growth forecasts are independent of whether the Proposed AMP is approved and implemented.

TABLE 4.11D Casanova Oak Knoll Neighborhood Area Plan Goals and Policies Consistency Analysis Proposed Project and Alternative 1		
	Proposed Project	Alternative 1
Parks and Recreation Goals and Policies		
Policy 4: Explore with the Airport District the feasibility of developing a portion of their property at the end of Casanova Avenue as a park serving the Casanova-Oak Knoll neighborhood.	Inconsistent. The Proposed Project considered the city policy regarding development of a park in this area. However, an airport is not encouraged to use airport lands for public recreational uses as these areas then become protected land uses under the <i>U.S. Department of Transportation Act</i> as Section 4(f) resources, which can later encumber their use for aviation purposes. Therefore, the Proposed Project does not include developing a portion of airport property for a park.	Inconsistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.
Policy 10. Explore with the Airport District and City of Del Rey Oaks the joint development of trails and passive uses of the greenbelt that runs from the Airport District property adjacent to the easterly end of Casanova Avenue, westerly through the City of Del Rey Oaks to Monte Mart.	Consistent. The Proposed Project does not preclude the development of a greenbelt in this area.	Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.

TABLE 4.11D (Continued)		
	Proposed Project	Alternative 1
Public Works Goals and Policies		
Policy 15: Oppose the use of Casanova Avenue and Airport Road for any additional airport-related traffic.	<p>Inconsistent (Short-term Projects). The Proposed Project would add traffic through the CONA neighborhood in the short term, primarily on Airport Road.</p> <p>Consistent (Long-term Projects). In the long term, a proposed “north side” road to Highway 218 would be provided and would decrease traffic through the CONA neighborhood.</p>	Consistent. The proposed construction of a proposed “north side” road to Highway 218 in the short term would decrease traffic through the CONA neighborhood. Therefore, Alternative 1 is consistent with this policy.
Policy 16: Improve traffic flow and safety along Airport Road.	<p>Inconsistent (Short-term Projects). The Proposed Project would add traffic on Airport Road in the short term.</p> <p>Consistent (Long-term Projects). In the long term, a proposed “north side” road to Highway 218 would be provided and would decrease traffic through the CONA neighborhood.</p>	Consistent. Due to the proposed construction of a proposed “north side” road to Highway 218 in the short term, Alternative 1 would decrease traffic on Airport Road.
Policy 21: Determine the adequacy of drainage facilities and the impacts of proposed development.	Consistent. Proposed redevelopment of the Old North Side Industrial Area, which drains into the existing storm drain system within CONA, is not expected to change drainage patterns as land use intensities would remain the same and the area is already covered in impervious surfaces. Other Proposed Project drainage on the northwest side of the Airport would be directed to existing point of confluence (i.e., existing detention pond). This pond is designed to accommodate future development of the north side of the Airport, including the proposed development, and improvements to the pond are not necessary.	Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.
Airport Noise Goals and Policies		
Goal 1. To make the Monterey Peninsula Airport and its affected neighborhoods and communities mutually compatible.	Consistent. Due to the construction of a proposed “north side” road to Highway 218 in the long term, the Proposed Project would ultimately reduce traffic through the CONA neighborhood, thus, increasing the Airport’s compatibility with the neighborhood.	Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.

TABLE 4.11D (Continued)		
	Proposed Project	Alternative 1
<p>Goal 2. To reduce total aircraft noise exposure levels in the Monterey Peninsula Airport environs to a maximum acceptable level.</p> <p>Goal 3. To reduce single-event noise intrusions in residential neighborhoods.</p> <p>Goal 4. To reduce the community’s exposure to nighttime and early morning aircraft noise.</p>	<p>Inconsistent. Although the Proposed Project would not expand the existing capacity of the airfield or commercial terminal aircraft loading gates and the provision of additional hangars is in keeping with GA trends towards more sophisticated (and quieter) aircraft, the Airport’s future 65 CNEL noise contours could impact one additional residence by 2025 and four additional residences by 2035 within the CONA neighborhood (see Exhibits 4.12A - 4.12C).</p>	<p>Inconsistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>
<p>Goal 5. To work together to design, achieve, and maintain a level of local air service that will be compatible with community social and economic needs as well as environmental consideration.</p>	<p>Consistent. This EIR contains numerous mitigation measures to allow the Airport to balance local air service with community and environmental needs.</p>	<p>Consistent. The consistency analysis for the Proposed Project is also applicable to Alternative 1.</p>
<p>The CONA Neighborhood Plan also incorporated city general plan Policies 23 - 35, many of which are no longer included in the current general plan. However, Policies 25 and 27 are encompassed by city general plan Policies b1 and b4 of its Noise Element (see Table 4.11C). Other policies applicable to the Proposed Project or Alternative 1, although no longer included in the city general plan, remain a part of the CONA Neighborhood Plan, as discussed below:</p>		
<p>Policy 29. Airport Road should not be used as an access road for further development of the area at the north side of the Airport. It should be used by the Airport only as an emergency or service road.</p>	<p>Inconsistent (Short-term Projects). The Proposed Project could add traffic through the CONA neighborhood in the short term.</p> <p>Consistent (Long-term Projects). Airport Road would remain in use only for existing or replacement airport land uses located west of Gate V22.</p>	<p>Consistent. Airport Road would remain in use only for existing or replacement airport land uses located west of Gate V22.</p>
<p>Policy 32. Reduce Airport related environmental hazards.</p> <ul style="list-style-type: none"> – Program 32b: Oppose the storage of aviation fuel and other hazardous material on the north side of the Airport within 500 feet of the neighborhood and within drainage courses that could drain into the neighborhood. 	<p>Consistent. The Proposed Project includes the storage of aviation fuel on the north side GA area, but this storage would not be within 500 feet of a neighborhood or within a drainage course.</p>	<p>Consistent. The consistency analysis presented for the Proposed Project would be applicable to Alternative 1.</p>
<ul style="list-style-type: none"> – Program 32c: Work with the Airport Board to eliminate odor pollution (diesel, etc.) coming from the Airport. 	<p>Consistent. The Proposed Project would not produce odor pollution from the Airport in noticeable quantities to off-airport areas. In addition, neither the Airport nor the Monterey Bay Air Resources District have received odor complaints directed towards the Airport within the last three years.</p>	<p>Consistent. The consistency analysis presented for the Proposed Project would be applicable to Alternative 1.</p>

TABLE 4.11D (Continued)		
	Proposed Project	Alternative 1
<p>Policy 34: Oppose the use of neighborhood residential streets by automobile and truck traffic going to and from the Airport and businesses on the Airport property.</p>	<p>Inconsistent. Airport Road would remain in use for existing or replacement airport land uses located west of Gate V22.</p>	<p>Inconsistent. The consistency analysis presented for the Proposed Project would be applicable to Alternative 1.</p>
<p>– Program 34b: Complete the new roadway proposed on the Airport Master Plan from the north side of the Airport to Highway 68 and/or 218 prior to the construction of any additional development on the north side.</p>	<p>Inconsistent (Short-term Projects). The Proposed Project would add north side traffic through the CONA neighborhood in the short term (i.e., the first approximately ten years of project implementation).</p> <p>Consistent (Long-term Projects). The Proposed Project includes the construction of a proposed “north side” road to Highway 218 in the long term.</p>	<p>Consistent. Alternative 1 includes construction of a proposed “north side” road towards Highway 218 in the short term.</p>
<p>– Program 34c: Oppose the use of Airport Road and Casanova Avenue by construction traffic during development of the north side of the Airport and by business traffic after development is completed.</p>	<p>Consistent. No north side construction traffic (other than occasional daytime deliveries of equipment or materials) is planned to go through CONA and the Proposed Project includes the construction of a proposed “north side” road to Highway 218. Existing Airport Road would be closed just east of Gate V22.</p>	<p>Consistent. The consistency analysis presented for the Proposed Project would be applicable to Alternative 1.</p>
<p>Source: City of Monterey 1985</p>		

City of Monterey Zoning

For the portions of the airport property that are proposed for non-aeronautical development within the City of Monterey’s jurisdiction, future development would be constructed in accordance with city zoning regulations and applicable policies. For example, as described in Section 4.1, future development along Highway 68 would incorporate a 100-foot setback as required by City of Monterey Policy h.9 and would be subject to city development approval and permitting processes. Thus, the Proposed Project and Alternative 1 would be consistent with the city’s zoning requirements and impacts to zoning regulations applicable to the Proposed Project and Alternative 1 are Less than Significant.

County of Monterey General Plan Policies

Consistency with applicable County of Monterey goals and policies is provided in **Table 4.11E**. Although most county policies are not directly applicable to the Airport, the county’s goals for Highway 68, as a scenic-designated highway, are addressed. The Proposed Project and Alternative 1 are consistent with the county’s scenic highway goals since they include mitigation measures for detailed landscaping plans along Highway 68 and incorporate a 100-foot setback from the highway right-of-way for all buildings (see Section 4.1.6).

TABLE 4.11E
County of Monterey General Plan Goals and Policies Consistency Analysis
Proposed Project and Alternative 1

	Proposed Project	Alternative 1
Land Use Element Goals and Policies		
There are no goals or policies within this element that are applicable to the Airport.		
Circulation Element Goals and Policies		
Goal C-5: Maintain and enhance a system of scenic roads and highway through areas of scenic beauty without imposing undue restrictions on private property or constricting the normal flow of traffic.	Consistent. The Proposed Project includes mitigation measures for detailed landscaping plans along Highway 68 and incorporates a 100-foot setback from the highway right-of-way for all buildings. See Section 4.1.6.	Consistent. The consistency analysis presented for the Proposed Project would be applicable to Alternative 1.
Conservation and Open Space Element Goals and Policies		
There are no goals or policies within this element that are applicable to the Airport.		
Source: County of Monterey 2010		

Regional Transportation Plan Policies

The TAMC 2018 RTP contains broad policy statements with specific transportation-related metrics that are focused on vehicular traffic, GHGs, and transportation demand management (TDM). Section 4.16.5 contains a discussion of Proposed Project consistency with the RTP. The Proposed Project and Alternative 1 would not conflict with transit, bicycle, or pedestrian facilities within the county and the Proposed AMP’s sustainable action plan includes a set of TDM measures. As previously stated in Section 4.11.1, TAMC’s 2018 RTP has been incorporated into the region’s currently proposed MTP/SCS and was adopted on June 27, 2018.

Roundabouts are also discussed as an important strategy for achieving the 2018 RTP goals, as they allow for free movement of vehicles at intersections, which reduces vehicle emissions, and have been proved safer than signalized intersections (TAMC 2018:38). The proposed roundabout at Olmsted and Garden roads is consistent with this RTP goal. The Proposed Project and Alternative 1 would not interfere with the goals, policy objectives, or performance measures contained in the 2018 RTP or the regional MTP/SCS.

Airport Land Use Compatibility Planning

The existing baseline conditions at the Airport are not compatible with the current 1987 CLUP as this planning document is outdated and does not accurately represent the Airport’s current runway configuration (the crosswind runway has been closed) or recent RSA Improvements Project (RSA Project). Similarly, the Proposed Project and Alternative 1 are not consistent with the current CLUP; therefore, impacts related to consistency with the CLUP are Potentially Significant.

Less than Significant Impacts: *The Proposed Project and Alternative 1 do not include recreational opportunities per Policy 4 of the CONA Neighborhood Plan. However, an airport is not encouraged to use airport lands for public recreational uses as these areas then become protected land uses*

under the U.S. Department of Transportation Act as Section 4(f) resources, which can later encumber their use for aviation purposes. Further, no changes to the baseline condition regarding this policy would occur as a result of the Proposed Project (i.e., a park is not currently proposed for airport lands under the existing condition) and the Proposed Project and Alternative 1 do not preclude implementation of the policy in the future. Impacts as they relate to this aspect of Threshold 4.11-3 are Less than Significant.

The Proposed Project would not have inconsistencies with applicable City of Monterey zoning. For the portions of the airport property that are proposed for non-aeronautical projects within the City of Monterey’s jurisdiction, future development would be constructed in accordance with city zoning regulations.

The Proposed Project would not have inconsistencies with the County of Monterey general plan. The Proposed Project is consistent with the county’s scenic highway goals since it includes mitigation measures for detailed landscaping plans along Highway 68 and incorporates a 100-foot setback from the highway right-of-way for all buildings.

The Proposed Project would not interfere with the goals, policy objectives, or performance measures contained in the 2018 RTP or the regional MTP/SCS. The Proposed AMP’s sustainable action plan includes a set of TDM measures.

Significant Impact LU-1:

The Proposed Project and Alternative 1 are inconsistent with City of Del Rey Oaks Policy C-3 and Policy C-13 of its general plan related to traffic impacts of the Proposed Project and Alternative 1. The Airport will participate in its fair share of mitigation for impacted intersection of bicycle route improvements, to the extent possible and consistent with FAA regulations and requirements relating to the use of airport revenue. However, since proposed traffic mitigation measures may not be feasible, these policy inconsistencies are considered Potentially Significant per Threshold 4.11.5.3.

Significant Impact LU-2:

The Proposed Project and Alternative 1 are inconsistent with City of Del Rey Oaks Policy C-17 of its general plan related to the proposed “north side” road. Until such time that a general plan amendment is approved, this policy inconsistency is considered Potentially Significant per Threshold 4.11.5.3.



Significant Impact LU-3:

The Proposed Project and Alternative 1 are inconsistent with City of Monterey Policy b.4 of its Noise Element, which states, “Support limiting the number of fixed-base general aviation aircraft at the airport to the existing number.” Although the potential consistency exists due to federal preemption of the use of airports, this impact is considered Potentially Significant per Threshold 4.11-3.

Significant Impact LU-4

The Proposed Project and Alternative 1 are inconsistent with City of Monterey Goal j, Policy j.2, and Programs j.1.1 and j.2.3 of its Circulation Element, which establish LOS D as an acceptable automobile LOS standard for roadway segments that are not within a multi-modal corridor and require a traffic analysis to determine appropriate mitigation and the funding of a pro-rata share toward improvements.

Significant Impact LU-5:

The Proposed Project (short-term projects) is inconsistent with the CONA Neighborhood Plan goals and policies related to restricting the use of Airport Road for airport-related uses (Public Works Policies 15 and 16 and Airport Noise Policy 29 and Program 34b). These inconsistencies are considered Potentially Significant per Threshold 4.11-3. However, the following is important to understand in the context of this inconsistency determination: 1) streets and intersections within the CONA neighborhood currently operate at acceptable levels of service and will experience minimal increased traffic due to the Proposed Project’s short-term development; 2) the Proposed Project includes a proposed “north side” road to Highway 218 in the long term; and 3) CONA neighborhood roads are public roads and must allow public usage within the established regulations and codes.

Significant Impact LU-6:

Both the Proposed Project and Alternative 1 are inconsistent with CONA Neighborhood Plan Airport Noise Policy 34, which states that the neighborhood is opposed to the use of neighborhood residential streets by automobile and truck traffic going to and from the Airport and businesses on the Airport property as Airport Road would remain in use for existing or replacement airport land uses located west of Gate V22. This inconsistency is considered Potentially Significant per Threshold 4.11-3. However, it is important to understand in the context of this inconsistency determination that CONA neighborhood roads are public roads and must allow public usage within the established regulations and codes.

Significant Impact LU-7: *Based on the Airport’s operational growth forecasts for 2025 and 2035, inconsistencies would occur with CONA Neighborhood Plan Noise Goals 2, 3 and 4 per Threshold 4.11-3. The Airport’s future 65 CNEL noise contours could impact the exterior noise levels of one additional residence by 2025 and four additional residences by 2035 within the CONA neighborhood (see Exhibits 4.12A - 4.12C). (These units have already been sound insulated to provide acceptable interior noise levels.) This is a Potentially Significant impact of either the Proposed Project or Alternative 1.*

Significant Impact LU-8: *Similar to the existing condition, the Proposed Project and Alternative 1 are not consistent with the current CLUP. Therefore, impacts related to consistency with the CLUP are Potentially Significant per Threshold 4.11-3.*

4.11.6 Mitigation Program

No mitigation program would be required for the Less than Significant impacts identified In Section 4.11.5.

Potentially Significant impacts have been identified under Threshold 4.11-3. The following mitigation measures would apply if the Proposed Project or Alternative 1 is approved. In addition, regulatory requirements will be enforced as described below. However, no mitigation is available for several of the policy inconsistencies as identified in Impacts LU-2, LU-3, and LU-4. In addition, since LU/mm-1 and LU/mm-2 below are not within the ability of MPAD to implement and are the responsibility and within the regulatory authority of other public agencies, these mitigation are considered infeasible for purposes of CEQA (see Section 4.1.7).

Proposed Project and Alternative 1

LU/mm-1: The Airport shall work with the City of Del Rey Oaks to implement a general plan amendment to the *General Plan Update for the City of Del Rey Oaks* to remove Policy C-17 to allow the construction of the proposed “north side” road.

LU/mm-2: Per state law (PUC, Section 21676[c]), the MPAD shall refer the Proposed AMP to the county ALUC. The ALUC is required to modify the CLUP to maintain consistency with the Proposed AMP.

Regulatory Requirements - see also AQ/rr-1 and AQ/rr-2 (Section 4.3.6)

LU/rr-1: Buildings proposed under either the Proposed Project or Alternative 1 that are in proximity to the Part 77 transitional surface associated with the Runway 10R-28L centerline shall be reviewed by FAA through its OE/AAA program review. If approved, the buildings would receive “Form 7460” clearances.

4.11.7 Level of Significance After Mitigation

All of the Potentially Significant impacts identified under Threshold 4.11-3 (LU-1 through LU-7) are considered Significant and Unavoidable. No mitigation is available for several of the policy inconsistencies as identified in Impacts LU-1, LU-3 through LU-6. In addition, since LU/mm-1 and LU/mm-2 below are not within the ability of MPAD to implement, these mitigation measures are considered infeasible for purposes of CEQA. **Table 4.11F** summarizes the impacts and mitigation related to Land Use and Planning.

Proposed Project	Mitigation Program	Alternative 1	Mitigation Program	Level of Significance after Mitigation
Threshold 4.11-3 - Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for avoiding or mitigating an environmental effect				
Impact LU-1: The Proposed Project and Alternative 1 are inconsistent with the City of Del Rey Oaks Policies C-3 and 13 of its general plan related to the anticipated traffic impacts.	None available	Same as Proposed Project	None available	Potentially Significant and Unavoidable
Impact LU-2: The Proposed Project and Alternative 1 are inconsistent with the City of Del Rey Oaks Policy C-17 of its general plan related to the proposed “north side” road.	LU/mm-1	Same as Proposed Project	LU/mm-1	Potentially Significant and Unavoidable
Impact LU-3: The Proposed Project and Alternative 1 are inconsistent with City of Monterey Policy b.4 of its Noise Element, which states, “Support limiting the number of fixed-base general aviation aircraft at the airport to the existing number.”	None available	Same as Proposed Project	None available	Significant and Unavoidable
Impact LU-4: The Proposed Project and Alternative 1 are inconsistent with City of Monterey Goal j, Policy j.2, and Programs j.1.1 and j.2.3 of its Circulation Element, which establish LOS D as an acceptable automobile LOS standard for roadway segments that are not within a multi-modal corridor and require a traffic analysis to determine appropriate mitigation and the funding of a pro-rata share toward improvements.	None available	Same as Proposed Project	None available	Potentially Significant and Unavoidable
Impact LU-5: The Proposed Project (short-term projects) is not consistent with the CONA Neighborhood Plan goals and policies (Public Works Policies 15 and 16, and Airport Noise Policies 29, 34, and Program 34b) related to restricting the use of Airport Road for airport-related uses.	None available	No Impact	None necessary	Significant and Unavoidable

TABLE 4.11F (Continued)

Proposed Project	Mitigation Program	Alternative 1	Mitigation Program	Level of Significance after Mitigation
Impact LU-6: Both the Proposed Project and Alternative 1 are inconsistent with CONA Neighborhood Plan Airport Noise Policy 34, which states that the neighborhood is opposed to the use of neighborhood residential streets by automobile and truck traffic going to and from the Airport and businesses on the Airport property as Airport Road would remain in use for existing or replacement airport land uses located west of Gate V22.	None available	Same as Proposed Project	None available	Significant and Unavoidable
Impact LU-7: Based on the Airport’s operational growth forecasts for 2025 and 2035, potential inconsistencies for both the Proposed Project and Alternative 1 could occur with CONA Neighborhood Plan Noise Goals 2, 3 and 4.	None available	Same as Proposed Project	None available	Potentially Significant and Unavoidable
Impact LU-8: The Proposed Project and Alternative 1 are not consistent with the current CLUP.	LU/mm-2	Same as Proposed Project	LU/mm-2	Significant and Unavoidable

Chapter Four

4.12 – NOISE

To determine noise-related impacts that the Proposed Project or Alternative 1 could have on the surrounding environment, the following analysis addresses two different types of noise that could occur: aircraft noise (Section 4.12.1); and land-based noise, such as construction equipment and vehicles, emergency vehicles, and vehicular traffic (Section 4.12.2). Since the *California Environmental Quality Act* (CEQA) Guidelines, Appendix G (2017), include vibration in this resource category, vibrations from construction and land use activities are also addressed in Section 4.12.2. **Appendix K** contains information regarding the aircraft noise modeling, while **Appendix L** contains a technical vehicular noise report.

Based on the analysis completed on the Proposed Project as part of the Initial Study (**Appendix A**), one of the CEQA checklist questions related to noise was found to be No Impact and is not discussed in the following impact analysis: For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? Monterey Regional Airport is a commercial airport and there are no private airstrips within ten nautical miles (AirNav.com 2018). Therefore, further evaluation of this threshold is not necessary.

The following is a discussion of fundamental noise concepts and basic terminology:

Sound, Noise, and Acoustics

Sound propagation is a process that consists of three components: the sound source, the sound path, and the sound receiver. All three components must be present for sound to propagate. Without a source to produce sound, there is no sound. Similarly, without a medium to transmit sound pressure waves, there is no sound transmitted. Finally, sound must reach a receiver; a hearing organ, sensor, or object must be present to perceive, register, or be affected by sound or noise. In most situations, there are many different sound sources, paths, and receptors. Acoustics is the field of science that deals with the production, propagation, reception, effects, and control of sound. Noise is defined as sound that is unpleasant, unexpected, or undesired.

Loudness of sound increases with increasing amplitude. Sound pressure amplitude is measured in units of micro-newton per square meter, also called a micropascal. One micropascal is approximately one-hundred billionth (0.0000000001) of normal atmospheric pressure. The pressure of a very loud sound may be 200 million micropascals, or 10 million times the pressure of the weakest audible sound. Because expressing sound levels in terms of micropascal would be very cumbersome, sound pressure level in logarithmic units is used instead to describe the ratio of actual sound pressure to a reference pressure

squared. These units are called Bels. To provide a finer resolution, a Bel is subdivided into 10 decibels (dB).

A-Weighted Sound Level

Sound pressure level alone is not a reliable indicator of loudness. The frequency, or pitch, of a sound also has a substantial effect on how humans will respond. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness, or human response, is determined by the characteristics of the human ear. Human hearing is limited not only in the range of audible frequencies, but also in the way it perceives the sound in that range. In general, the healthy human ear is most sensitive to sounds between 1,000 and 5,000 hertz, and it perceives a sound within that range as more intense than a sound of higher or lower frequency with the same magnitude. To approximate the frequency response of the human ear, a series of sound level adjustments is usually applied to the sound measured by a sound level meter. The adjustments (referred to as a weighting network) are frequency-dependent.

The A-scale weighting network approximates the frequency response of the average young ear when listening to ordinary sounds. When people make judgments about the relative loudness or annoyance of a sound, their judgments correlate well with the A-scale sound levels of those sounds. Noise levels are typically reported in terms of A-weighted sound levels. All sound levels discussed in this report are A-weighted decibels (dBA), unless otherwise stated.

“It is generally accepted that the average healthy ear ... can barely perceive a noise level change of 3 dB” (Caltrans 2013). A change of five dBA is readily perceptible, and a change of 10 dBA is perceived as twice or half as loud. Since a doubling of sound energy results in a three dBA increase in sound, a doubling of sound energy (e.g., doubling the average daily numbers of traffic on a road) would result in a barely perceptible change in sound level.

Noise Descriptors

Additional units of measure have been developed to evaluate the long-term characteristics of sound. The equivalent sound level (L_{eq}) is also referred to as the time-average sound level. It is the equivalent steady-state sound level that in a stated period of time would contain the same acoustical energy as the time-varying sound level during the same time period. The one-hour A-weighted equivalent sound level, $L_{eq}(h)$, is the energy average of the A-weighted sound levels occurring during a one-hour period.

People are generally more sensitive and annoyed by noise occurring during the evening and nighttime hours. Thus, another noise descriptor used in community noise assessments -- the community noise equivalent level (CNEL) -- was introduced and is the required metric in California for determining aviation noise impacts. The CNEL scale represents a time-weighted, 24-hour average noise level based on the A-weighted sound level. The CNEL accounts for the increased noise sensitivity during the evening hours (7:00 PM to 10:00 PM) and nighttime hours (10:00 PM to 7:00 AM) by adding five dBA and 10 dBA, respectively, to the average sound levels occurring during the evening and nighttime hours.

The day-night average sound Level (DNL or L_{dn}) is the metric preferred by the Federal Aviation Administration (FAA), the United States Environmental Protection Agency (U.S. EPA), and the United States (U.S.) Department of Housing and Urban Development (HUD) as an appropriate measure of cumulative noise exposure and accounts only for the increased sensitivity to noise at night (10:00 PM to 7:00 AM). In the State of California (state), however, these agencies accept the use of CNEL, which, as previously stated, also accounts for increased sensitivities during the evening hours (7:00 PM to 10:00 PM).

Sound Propagation

Sound propagation (i.e., the passage of sound from a noise source to a receiver) is influenced by geometric spreading, ground absorption, atmospheric effects, and shielding by natural and/or built features. Sound levels attenuate (or diminish) at a rate of approximately six dBA per doubling of distance from an outdoor point source due to the geometric spreading of the sound waves. For a line source, such as vehicle traffic along a roadway, sound levels attenuate at a rate of approximately three dBA per doubling of distance. Atmospheric conditions, such as humidity, temperature, and wind gradients, can also temporarily alter sound levels. In general, the greater the distance the receiver is from the source, the greater the potential for variation in sound levels due to atmospheric effects. Additional sound attenuation can result from built features, such as intervening walls and buildings, and by natural features such as hills and dense woods.

Additional definitions of common acoustical terms are provided in **Appendix L**.

4.12.1 Aircraft Noise

4.12.1.1 Regulatory Setting

Federal Regulations

Federal regulations regarding aircraft noise have been put into place primarily by FAA. The following paragraphs summarize these regulations and guidelines.

Aviation Safety and Noise Abatement Act of 1979

This law establishes funding for noise compatibility planning and sets the requirements by which airport operators may apply for funding. This is also the law in which Congress mandated that FAA develop an airport community noise metric that would be used by all federal agencies assessing or regulating airport noise. The result was the DNL (or L_{dn}) metric. As previously mentioned, because California already had a well-established airport community noise metric in CNEL and because calculation processes for CNEL and DNL are similar, FAA expressly allows CNEL to be used in lieu of DNL within California.

Airport Noise and Capacity Act of 1990

The *Airport Noise and Capacity Act of 1990* (ANCA) created a more comprehensive method for regulating aviation noise. In regulations directly affecting the aircraft operators, the single most important provision of ANCA calls for a phase-out of Stage 2 noise certificated aircraft¹ weighing over 75,000 pounds by December 31, 1999. Congress later mandated Stage 2 noise certificated aircraft weighing less than 75,000 pounds to be phased-out of the national fleet by December 31, 2015.

ANCA includes statutory provisions affecting the airport proprietors, known as the "Part 161" regulations (Code of Federal Regulations [CFR], Title 14, Part 161). Now, regardless of the nature of the local aircraft restrictions -- whether involving aircraft flight procedures or ground restrictions -- ANCA requires airports to seek public and FAA comment before instituting any such restrictions. As part of this process, the proprietor must prepare and make available for public comment: an analysis of the anticipated or actual costs and benefits of the restriction; a description of alternative restrictions; and a description of the alternative measures it has considered that do not involve aircraft restrictions, such as land use controls with a comparison of the costs and benefits of the restriction against the alternatives. Once the procedural notice and comment requirements are met, the proposed restrictions are still subject to the traditional legal tests established for airport rules (i.e., the restrictions cannot be discriminatory, unreasonable, nor unduly burdensome to interstate commerce). Under ANCA, FAA approval is *mandatory* for local restrictions for Stage 3 noise certificated aircraft. To date, FAA has not approved a local restriction on Stage 3 noise certificated aircraft operations.

CFR, Title 14, Part 36

The U.S. noise standards are defined in CFR, Title 14, Part 36, Noise Standards: Aircraft Type and Airworthiness Certification. FAA regulates the maximum noise level that an individual civil aircraft can emit through requiring aircraft to meet certain noise certification standards (see also Footnote 2). FAA publishes the certificated noise levels in FAA Advisory Circular (AC) 36-1H, *Noise Levels for U.S. Certificated and Foreign Aircraft* (FAA 2001).

CFR, Title 14, Part 150

As a means of implementing the *Aviation Safety and Noise Abatement Act of 1979*, FAA adopted CFR, Title 14, Part 150 (Part 150), which establishes noise impact assessment recommendations and guidelines. The guidelines recommend a maximum amount of noise exposure that might be considered acceptable or compatible to people living and working in the airport environs. For example, residential land use is deemed acceptable for noise exposure up to 65 DNL. (As previously mentioned, FAA expressly allows CNEL to be used in lieu of DNL within California.) However, the guidelines indicate that ultimately,

¹ Aircraft noise is regulated through international standards, which are applied when an aircraft is acquiring its airworthiness certification. The standard requires that the aircraft meet or fall below designated noise levels. For civil jet aircraft, there are four stages identified with Stage 1 being the loudest and Stage 4 being the quietest. FAA has undertaken a phase-out of older, noisier civil aircraft, resulting in some stages of aircraft no longer being in the fleet. As of December 31, 2015, all civil jet aircraft, regardless of weight, must meet Stage 3 or Stage 4 to fly within the contiguous U.S., although both Stage 1 and Stage 2 helicopters are still allowed to fly (FAA website 2018).

“the responsibility for determining the acceptability and permissible land uses remains with the local authorities.”

These guidelines represent recommendations to local authorities for determining acceptability and permissibility of land uses and recommend a maximum amount of noise exposure in terms of the DNL that might be considered acceptable or compatible to people in living and working areas (**Exhibit 4.12A**). These noise levels are derived from case histories involving aircraft noise problems at civilian and military airports and the resultant community response.
























To promote compatible land uses in the airport environs, the Airport has undertaken three Part 150 noise compatibility studies (1986, 1998, and 2008) to assess aircraft noise. The studies included the preparation of noise exposure contours, which were overlain on existing land use maps to evaluate the effect of airport noise on the surrounding community. As a result of the 1986 Noise Compatibility Program, it was determined that a number of noise-sensitive land uses were located within the 65 CNEL noise contour. To mitigate these impacts, the Airport initiated a Residential Sound Insulation Program (RSIP) for noise-sensitive properties located within the 65 CNEL noise contour. The goal of sound insulation is to reduce the interior noise level to below 45 dBA. To accomplish this, measures, such as the installation of central air-conditioning systems, improved insulation, and/or installation of double-glazed windows, and/or doors were employed.

The sound insulation program at the Airport began in 1989 with a total of 522 parcels, including 925 dwelling units, identified within the treatable area. At the completion of the program in June 2010, sound insulation improvements had been made to 851 dwelling units and one school. Owners of the remaining eligible properties (74 dwelling units) declined participation in the program.

FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instruction for Airport Actions* and Order 1050.1F, *Environmental Impacts: Policies and Procedures*

FAA has developed guidelines (Order 5050.4B) for the environmental analysis of airports. Specific policies and procedures for evaluating environmental impacts are described in Order 1050.1F. Specifically, FAA Order 1050.1F, Appendix B, Section B-1.5, defines a significant noise impact under the *National Environmental Policy Act* (NEPA) for FAA actions as one that would increase noise by 1.5 dB DNL or more for a noise-sensitive² area that is exposed to noise at or above the 65 DNL noise exposure level, or that will be exposed at or above the 65 DNL level due to a 1.5 dB or greater increase, when compared to the No Project Alternative for the same timeframe (FAA 2015).

² Noise-sensitive receptors, as defined by Part 150, may be residences, churches/places of worship, hospitals and health care facilities, and educational facilities. For purposes of Part 150, churches/places of worship are permanently established facilities intended solely for use as places of worship and not meant to be converted to other potential uses. For a hospital/health care facility to be considered a noise-sensitive medical facility under Part 150, it must provide for overnight stays or provide for longer recovery periods, where rest and relaxation are key considerations for use of the facility. Schools are facilities that provide full time use for instruction and training to students. According to Part 150, residential land use and schools are not considered compatible with a 65 DNL contour or higher. Religious facilities, hospitals, or nursing homes located within a 65 DNL contour are generally compatible if an interior noise level reduction of 25 dBA is incorporated into the design and construction of the structure.

LAND USE		Yearly Day-Night Average Sound Level (DNL) in Decibels					
		Below 65	65-70	70-75	75-80	80-85	Over 85
Residential							
	Residential, other than mobile homes and transient lodgings	Y	N ¹	N ¹	N	N	N
	Mobile home parks	Y	N	N	N	N	N
	Transient lodgings	Y	N ¹	N ¹	N ¹	N	N
Public Use							
	Schools	Y	N ¹	N ¹	N	N	N
	Hospitals and nursing homes	Y	25	30	N	N	N
	Churches, auditoriums, and concert halls	Y	25	30	N	N	N
	Government services	Y	Y	25	30	N	N
	Transportation	Y	Y	Y ²	Y ³	Y ⁴	Y ⁴
	Parking	Y	Y	Y ²	Y ³	Y ⁴	N
Commercial Use							
	Offices, business and professional	Y	Y	25	30	N	N
	Wholesale and retail-building materials, hardware and farm equipment	Y	Y	Y ²	Y ³	Y ⁴	N
	Retail trade-general	Y	Y	25	30	N	N
	Utilities	Y	Y	Y ²	Y ³	Y ⁴	N
	Communication	Y	Y	25	30	N	N
Manufacturing and Production							
	Manufacturing, general	Y	Y	Y ²	Y ³	Y ⁴	N
	Photographic and optical	Y	Y	25	30	N	N
	Agriculture (except livestock) and forestry	Y	Y ⁶	Y ⁷	Y ⁸	Y ⁸	Y ⁸
	Livestock farming and breeding	Y	Y ⁶	Y ⁷	N	N	N
	Mining and fishing, resource production and extraction	Y	Y	Y	Y	Y	Y
Recreational							
	Outdoor sports arenas and spectator sports	Y	Y ⁵	Y ⁵	N	N	N
	Outdoor music shells, amphitheaters	Y	N	N	N	N	N
	Nature exhibits and zoos	Y	Y	N	N	N	N
	Amusements, parks, resorts, and camps	Y	Y	Y	N	N	N
	Golf courses, riding stables, and water recreation	Y	Y	25	30	N	N

The designations contained in this table do not constitute a federal determination that any use of land covered by the program is acceptable under federal, state, or local law. The responsibility for determining the acceptable and permissible land uses and the relationship between specific properties and specific noise contours rests with the local authorities. FAA determinations under Part 150 are not intended to substitute federally-determined land uses for those determined to be appropriate by local authorities in response to locally-determined needs and values in achieving noise compatible land uses.

See other side for notes and key to table.

KEY

- Y (Yes)** Land Use and related structures compatible without restrictions.
- N (No)** Land Use and related structures are not compatible and should be prohibited.
- NLR** Noise Level Reduction (outdoor-to-indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure.
- 25, 30, 35** Land Use and related structures generally compatible; measures to achieve NLR of 25, 30, or 35 dB must be incorporated into design and construction of structure.

NOTES

1. Where the community determines that residential or school uses must be allowed, measures to achieve outdoor-to-indoor Noise Level Reduction (NLR) of at least 25 dB and 30 dB, respectively, should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide an NLR of 20 dB; thus, the reduction requirements are often stated as 5, 10, or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year round. However, the use of NLR criteria will not eliminate outdoor noise problems.
2. Measures to achieve NLR of 25 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low.
3. Measures to achieve NLR of 30 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low.
4. Measures to achieve NLR of 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low.
5. Land use compatible provided special sound reinforcement systems are installed.
6. Residential buildings require an NLR of 25.
7. Residential buildings require an NLR of 30.
8. Residential buildings not permitted.

Source: **14 CFR Part 150**, Appendix A, Table 1.

Section 14.4c specifies that impacts to receptors with noise exposures between 60 and 65 DNL should be examined in accordance with 1992 Federal Interagency Committee on Noise (FICON) recommendations (see discussion below). Section 14.5e specifies the supplemental analysis that should be performed for projects with study areas that are larger than the immediate vicinity of the airport.

Federal Interagency Committee on Noise (FICON)

FICON has recommendations based on existing ambient sound levels using studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Annoyance is a measure of the general adverse reaction of people to noise that interferes with speech and conversation, sleep, or the desire for a tranquil environment. The rationale for the FICON recommendations is that it is possible to consistently describe the annoyance of people exposed to transportation noise in terms of DNL. The changes in noise exposure relative to existing noise levels are changes that are sufficient to cause annoyance and potentially interfere with normal activities at sensitive land uses.

As shown in **Table 4.12A**, an increase in noise from similar sources of five dB or more would be noticeable where the ambient level is less than 60 DNL. Where the ambient level is between 60 and 65 DNL, an increase in noise of three dB or more would be noticeable, and an increase of 1.5 dB or more would be noticeable where the ambient noise level exceeds 65 DNL.

TABLE 4.12A Significance of Changes in Noise Exposure Federal Interagency Committee on Noise (FICON) Recommendations	
Ambient Noise Level without Project (DNL)	Increase Required for Significant Impact
< 60 dB	+ 5.0 dB or more
60 - 65 dB	+ 3.0 dB or more
> 65 dB	+ 1.5 dB or more

Source: FICON 2000
DNL(L_{dn}) = Day-Night Average Sound Level; dB = decibel

State Regulations

California Airport Noise Regulations (California Code of Regulations [CCR], Title 21, Section 5000 et seq.)

The Aeronautics Division of the California State Department of Transportation (Caltrans) enforces the California Airport Noise Regulations. These regulations establish 65 CNEL as the maximum level of noise acceptable for residential land uses. This criterion level has been chosen for reasonable persons residing in urban residential areas where houses are of typical California construction and may have windows partially open. It has been selected with reference to speech, sleep, and community reaction. Airports are responsible for achieving compliance with these regulations through noise abatement procedures, land acquisition, land use restrictions, acquisition of property, or sound insulation of structures.

California State Aeronautics Act (Public Utility Code [PUC], Section 21670)

This *California State Aeronautics Act* created airport land use commissions (ALUCs) to establish regional levels of land use compatibility between airports and their surrounding environs through preparation of

airport land use compatibility plans (ALUCPs). The primary purpose of an ALUCP is to ensure that new land uses around public use airports do not create excessive noise and safety hazards for the public. Per PUC, Section 21670, an existing comprehensive land use plan (CLUP) functions as an ALUCP.

California Noise Insulation Standards (CCR, Title 24)

CCR, Title 24 – known as the California Building Code – contains standards for allowable interior noise levels associated with exterior noise sources. These regulations include the California Noise Insulation Standards, which apply to all multi-family dwellings built in the state. Single family residences are exempt from these regulations. With respect to community noise sources, the regulations require that all multi-family dwellings with exterior noise exposures greater than 60 CNEL must be sound-insulated such that the interior noise level will not exceed 45 CNEL. These requirements apply to all roadway, rail, and airport noise sources.

General Plan Noise Elements

The State of California requires that all municipal general plans contain a noise element. The requirements for the noise element of the general plan include describing the noise environment quantitatively using cumulative metric, such as CNEL or DNL, establishing noise/land use compatibility criteria, and establishing programs for achieving and/or maintaining compatibility. Noise elements shall address all major noise sources in the community, including mobile and stationary sources.

California Department of Health and Services Guidelines

The State of California Department of Health Services has developed guidelines of community noise acceptability for use by local agencies (California OPR 2003). Selected relevant levels are listed here:

- Below 60 CNEL: normally acceptable for low-density residential use.
- 50 to 70 CNEL: conditionally acceptable for low-density residential use.
- Below 65 CNEL: normally acceptable for high-density residential use.
- 60 to 70 CNEL: conditionally acceptable for high-density residential, transient lodging, churches, educational, and medical facilities.

The acceptable exterior noise levels for residential uses are reduced by a typical residential building envelope to an interior level of not greater than 45 CNEL.

Local Regulations

In Monterey County, development proposals near local airports are referred to the county ALUC by the governing local jurisdictions (county or incorporated city). The county ALUC adopted a *Comprehensive Land Use Plan for Monterey Peninsula Airport*³ for the areas surrounding the Airport on March 23, 1987.

³ In 2011, the Monterey Peninsula Airport District (MPAD) changed the name of the Airport from Monterey Peninsula Airport to Monterey Regional Airport.

The CLUP outlines the area of review, the compatibility review process, and the compatibility criteria applicable to development within the airport environs and addresses airport noise and safety issues in relation to land use planning. The CLUP’s area of review includes those parcels located within areas of high noise exposure, building restriction areas, and the most common flight paths within the Airport Influence Area occurring in 1987.

At this time, development under the Proposed Project or Alternative 1 would be subject to review by the ALUC under the noise criteria presented in **Table 4.12B**. However, the Monterey County ALUC is in the process of completing environmental documentation for an update to the 1987 CLUP. Since the adoption of the 1987 CLUP, Caltrans has updated its guidance regarding airport land use planning as set forth in the 2011 *California Airport Land Use Planning Handbook* (Handbook) (Caltrans 2011). In addition, since the adoption of the 1987 CLUP, there have been a number of operational changes at the Airport including the closure of the Airport’s crosswind runway. In addition, the Airport’s noise exposure contours are significantly smaller than those provided in the outdated CLUP. The new plan will be an ALUCP and will reflect current and projected future development and aviation forecasts at the Airport for a 20-year horizon period (approved by FAA) as well as the guidance contained in the 2011 Handbook.

It is important to note that the ALUC has no jurisdiction over the operation of airports or over existing land uses, regardless of whether or not such uses are incompatible with airport activities. The Monterey CLUP/ALUCP is the fundamental tool used to promote land use compatibility in the vicinity of the Airport.

TABLE 4.12B
Monterey County Comprehensive Land Use Plan
Land Use Compatibility Chart for Aircraft Noise

Generalized Land Use	CNEL Value (decibels)				
	60-65	65-70	70-75	75-80	80-85
Residential – with avigation easement	S	A	A	A	A
Public Facilities (Schools, Libraries, Community Centers)	S	A	A	A	A
Commercial	S	C	C	C/A	A
Industrial	S	S	C	C	A
Open Space/Agriculture	S	S	S	S	S
Livestock	S	S	S	A	A
Recreation	S	S	C	C	A

Sources: Monterey County ALUC 1987; Caltrans 1983
 CNEL = Community Noise Equivalent Level
 S = Satisfactory
 C = Caution – Review noise insulation needs carefully.
 A = Avoid land use unless related to airport service.
 C/A = Commercial land uses can be developed with caution up to 77 CNEL; above this level of noise exposure, commercial development should be avoided.

In addition to the CLUP/ALUCP, both the cities of Del Rey Oaks and Monterey have adopted general plan goals and policies related to aircraft noise. Consistency with these goals and policies are addressed in Section 4.10.5.3 and are listed below.

City of Del Rey Oaks

The City of Del Rey Oak's noise goals and policies of its *General Plan Update for the City of Del Rey Oaks* (1997) related to aircraft noise include the following:

Goal 1. Protect citizens from exposure to excessive levels of noise.

Goal 2. Encourage a reduction in aircraft noise impact on the City of Del Rey Oaks to levels specified by State noise standards (65 dB) and require adequate soundproofing in new constructions.

Policy N-6. The City will work with the Monterey Peninsula Airport District to minimize the noise impacts of the proposed increase in airport operations and changes in different types of aircraft will not be supported by the City.

City of Monterey

The *City of Monterey General Plan Noise Element* includes (City of Monterey 2016):

Policy b.1. Support improvements and operational changes at the airport that support safety and noise reduction.

Policy b.2. Work with the Airport District, Airport Land Use Commission, and surrounding cities in planning for appropriate land uses around the airport and developing solutions to existing noise problems.

Policy b.3. Continue to encourage the airport to limit aircraft noise between the hours of 11 PM and 7 AM.

Policy b.4. Support limiting the number of fixed-base general aviation aircraft at the airport to the existing number.

Policy b.5. Implement the following land use standards for properties that are exposed to noise levels in excess of 60 CNEL (Table 8 in the City's General Plan - see **Table 4.12C**).

The City of Monterey also has an adopted *Casanova-Oak Knoll Neighborhood Plan* (1985). Included in that document are the following Airport Noise goals:

Goal 2. To reduce total aircraft noise exposure levels in the Monterey Peninsula Airport environs to a maximum acceptable level.

Goal 3. To reduce single-event noise intrusions in residential neighborhoods.

Goal 4. To reduce the community's exposure to nighttime and early morning aircraft noise.

Noise Exposure	Land Use Standard
Above 75 CNEL	All land in this category should be under airport ownership and control.
CNEL 65-74	Soundproof (insulate) existing residences, schools, and other noise-sensitive development to achieve interior noise levels of CNEL 45 or below. Require adequate sound insulation for all new residential and other noise-sensitive development in areas exposed to noise levels from CNEL 65-69. Avoid areas exposed to noise levels above CNEL 70 for new residential or noise-sensitive development unless abated.
CNEL 60-64	Require acoustical studies of proposed new residential and other noise-sensitive development. Require sound insulation as necessary to achieve interior noise levels of CNEL 45 or below.

Source: City of Monterey 2016
CNEL = Community Noise Equivalent Level

4.12.1.2 Methodology

The standard methodology for analyzing noise conditions at airports involves the use of a computer simulation model. FAA has approved the Aviation Environmental Design Tool (AEDT) Version 2c for aircraft noise environmental documentation. **Appendix K** contains information regarding use of the model, the modeling inputs, and flight tracks. AEDT may be used to prepare aircraft noise exposure contours in many metrics, including DNL or CNEL. Since the Airport is in California, this EIR uses CNEL. The future land use plan for the Airport under the Proposed Project and Alternative 1 was then compared to these noise contours to determine if proposed land uses would be adversely affected by aircraft noise based on the Monterey County CLUP Land Use Compatibility Chart for Aircraft Noise (**Table 4.12B**). Future land uses proposed on the parts of the Airport within the City of Monterey’s jurisdiction were also compared to the city’s Aircraft Noise Exposure Land Use Standards (**Table 4.12C**).

For purposes of this EIR, the AEDT model has been used to produce a series of average annual daily noise contours for the Airport based on existing conditions (2015), intermediate (2025), and the future long-term (2035) operational forecasts for the Proposed Airport Master Plan (Proposed AMP). The intermediate and future forecasts are based on the FAA-approved operational forecasts for the Proposed AMP (**Appendix B**). The potential noise impacts due to changes in aircraft operations expected by the Proposed Project or Alternative 1 have been evaluated with respect to thresholds of significance characterized by compatible levels of noise to aircraft operations at an airport and changes in the CNEL, as further described below.

The Proposed Project or Alternative 1 project components include proposed airfield safety enhancement, aeronautical support areas redevelopment, off-airport parcels acquisition for runway protection zones (RPZs) and land use compatibility, additional public access roads, and opportunities for future non-aeronautical and aeronautical development. Neither the Proposed Project nor Alternative 1 would alter the flight patterns, runway lengths, or runway pavement strengths associated with the Airport. No change in the airport forecasts will result from the Proposed Project or Alternative 1, and no change in the Airport Reference Code for design standards at the Airport is proposed (i.e., the Airport would remain at D-III). (See Chapter Two, Section 2.5.1 for a discussion of the Airport’s critical aircraft and associated airport design standards.)

Both the Proposed Project and Alternative 1 include project components to relocate the commercial terminal and airport rescue and firefighting (ARFF) buildings with additional space to improve their functional areas, as well as additional hangar storage for a better air transportation experience. However, neither the Proposed Project nor Alternative 1 would expand the existing capacity of the airfield or the commercial terminal's aircraft loading gates. The provision of additional general aviation hangars is consistent with nationwide general aviation (GA) trends towards more sophisticated (and quieter) aircraft. Owners and operators of more expensive aircraft often request hangars in which to keep their aircraft rather than leaving them exposed to the elements by using an apron tie-down. The Airport's current GA tie-downs, particularly on the southeast and northeast ramps, are underutilized. Currently, the southeast ramp has only nine tie-down tenants (out of 32 tie-down spaces), while the northeast ramp has only three tie-down tenants (out of 31 tie-down spaces).

Since the Proposed Project and Alternative 1 do not propose airside or landside changes that would increase operation levels at the Airport, no changes to the aircraft noise associated with the Airport would occur as a result of either the Proposed Project or Alternative 1. Thus, if future airport operations increases do occur, as anticipated in the FAA-approved forecasts (**Appendix B**), these increases (and any associated aircraft noise) would be the result of increased demand at the Airport independent from the Proposed Project or Alternative 1 (as reflected in the approved aviation forecasts), local, regional, and national aviation trends as well as local, regional and national market factors, independent of whether the Proposed Project or Alternative 1 is implemented.

As discussed in more detail below, CEQA requires an existing conditions (2015) plus Proposed Project analysis. Therefore, in order to provide a conservative aircraft noise analysis, and based on the aviation forecasts that were approved in the context of the Proposed AMP, the aircraft noise analysis provides a comparison of noise at the end of implementation of the proposed short-term projects (2025) and the long-term projects (2035) to existing conditions (2015) in order to make significance determinations. The Proposed Project and Alternative 1 is also compared to "no project" in 2025 and 2035 in order to analyze and discuss the potential difference between the aircraft noise impacts of the Proposed Project and Alternative 1 as compared to a No Project alternative. (See Section 4.12.2.2 for the methodology used to evaluate vehicular noise).

4.12.1.3 Existing Conditions

The "existing" or baseline (2015) aircraft noise conditions at the Airport is provided in **Exhibit 4.12B**. These 60-75 CNEL noise contours were prepared based on aircraft operational levels at the Airport from calendar year 2015. As depicted on **Exhibit 4.12B**, under existing conditions, portions of the 60, 65, and 70 CNEL contours extend off airport property. There are 72 single family dwelling units (**Table 4.12D**) and two noise-sensitive land uses (one place of worship and one community center) (**Table 4.12E**) located within the 60 CNEL noise exposure contour. Three single family dwelling units (and no other noise-sensitive land uses) are located within the 65 CNEL noise contour, as well as part of the adjacent United States (U.S.) Navy golf course. The dwellings within the 65 CNEL noise contours were sound-insulated as part of the RSIP resulting from a previous FAA Part 150 study and are, therefore, considered compatible land uses. The 65 CNEL also extends off the Airport to the east where several light industrial or

commercial businesses are located along Calle Del Oaks. The 65 CNEL also crosses Highway 68 just southeast of the Airport, as well as undeveloped open space located south of the highway. A very small portion of the 70 CNEL also extends off airport property along the highway.

TABLE 4.12D
Dwelling Units and Acreage within the Existing (2015) Noise Exposure Contours
Monterey Regional Airport

Dwelling Units				Acreage off Airport Property ¹			
60-65 CNEL	65-70 CNEL ¹	+70 CNEL	Total	60-65 CNEL	65-70 CNEL	+70 CNEL	Total
72	3	0	75	155.5	21.5	0.8	177.8

CNEL = Community Noise Equivalent Level
¹Dwelling units within the 65 CNEL noise exposure contours have been sound insulated.
 Source: Coffman Associates, Inc. analysis based on noise modeling per AEDT, Version 2c (**Appendix K**)

TABLE 4.12E
Noise-Sensitive Uses (Other than Residential) within the Existing (2015) Noise Exposure Contours
Monterey Regional Airport

Noise-Sensitive Use	60-65 CNEL	65-70 CNEL	70+ CNEL
Place of Worship	1	0	0
School	0	0	0
Library	0	0	0
Hospital	0	0	0
Community Center/Meeting Hall	1	0	0
Historic	0	0	0

CNEL = Community Noise Equivalent Level
 Source: Coffman Associates, Inc. analysis based on noise modeling per AEDT, Version 2c (**Appendix K**)

4.12.1.4 Thresholds of Significance

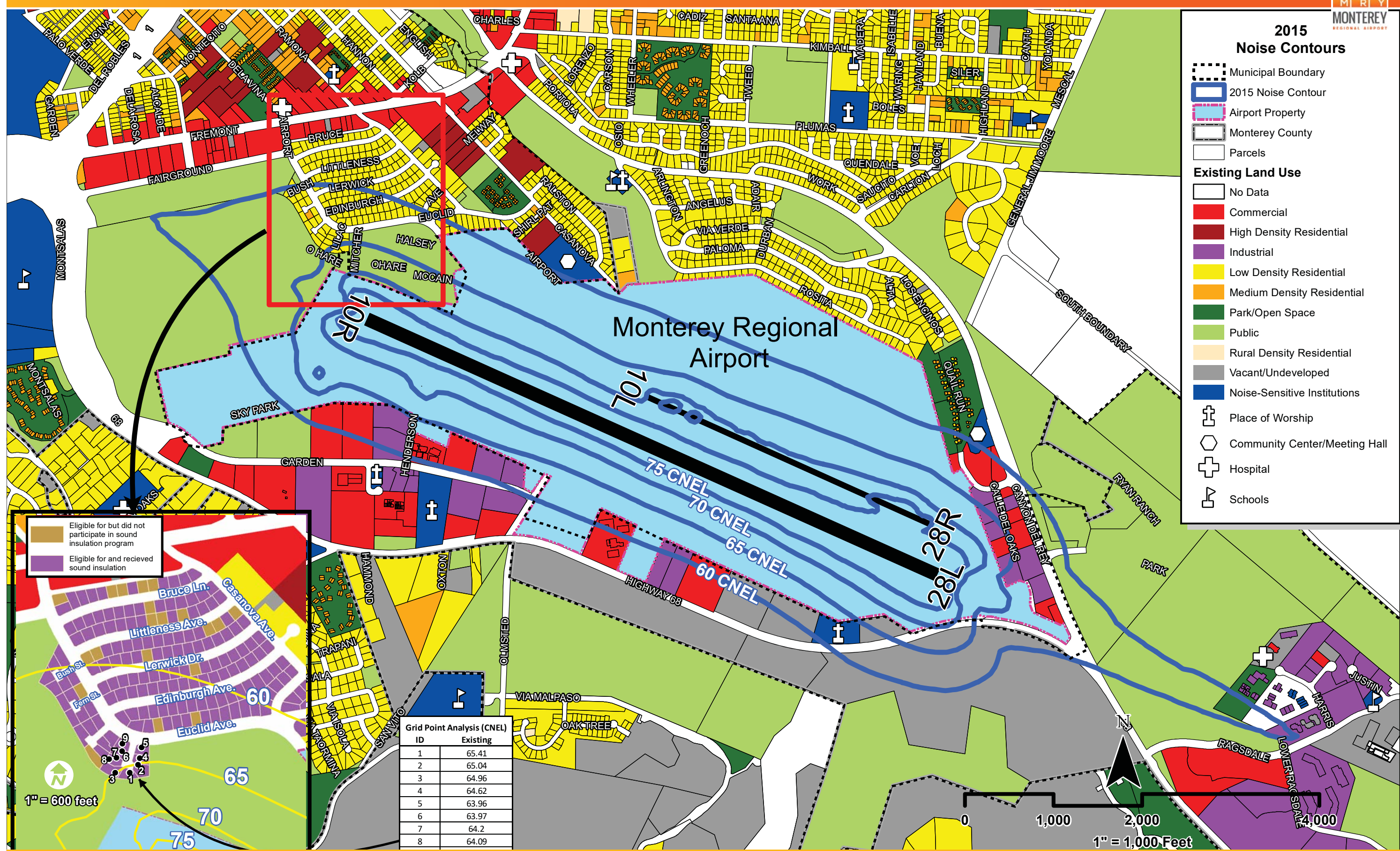
The Proposed Project and Alternative 1 would result in significant impacts related to aircraft noise if they would:

- Impact 4.12.1-1 - Generate aircraft noise that would increase noise levels at exterior use areas of residences, schools, places of worship, or community centers to noise levels of 65 CNEL or above as compared to the existing (2015) baseline condition;
- Impact 4.12.1-2 - Cause a 1.5 dB or more increase resulting in noise-sensitive areas being exposed to 65 CNEL or greater, as compared to the existing (2015) baseline condition; or
- Impact 4.12.1-3 - Cause a 3.0 dB or more increase resulting in noise-sensitive areas being exposed to 60 CNEL to less than 65 CNEL, as compared to the existing (2015) baseline condition.

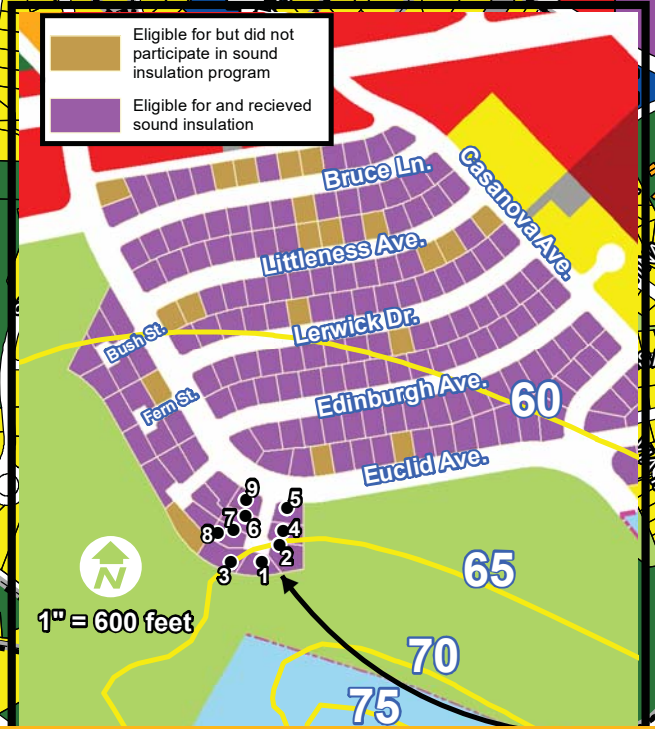
The above impact criteria used to evaluate the aircraft noise impacts of the Proposed Project and Alternative 1 are derived from the following Appendix G of the CEQA guidelines - Would the Proposed Project or Alternative 1 result in:

2015 Noise Contours

- Municipal Boundary
 - 2015 Noise Contour
 - Airport Property
 - Monterey County
 - Parcels
- Existing Land Use**
- No Data
 - Commercial
 - High Density Residential
 - Industrial
 - Low Density Residential
 - Medium Density Residential
 - Park/Open Space
 - Public
 - Rural Density Residential
 - Vacant/Undeveloped
 - Noise-Sensitive Institutions
- Place of Worship
 - Community Center/Meeting Hall
 - Hospital
 - Schools



Eligible for but did not participate in sound insulation program
 Eligible for and received sound insulation



Grid Point Analysis (CNEL)	
ID	Existing
1	65.41
2	65.04
3	64.96
4	64.62
5	63.96
6	63.97
7	64.2
8	64.09

Source: Monterey County Assessor's Office 2014

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- Threshold 4.12.1-1 - Exposure of persons to or generation of noise levels (in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies). (This threshold is addressed in the evaluation of Impact 4.12.1-1.);
- Threshold 4.12.1-2 - Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels. (This Threshold relates to land-based noise issues, such as exposure of persons to or generation of excessive ground-borne vibration or temporary construction noise, which are addressed in Section 4.12.2, Land-Based Noise of this EIR.);
- Threshold 4.12.1-3 - A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. (This threshold is addressed in the evaluation of Impact 4.12.1-2 and Impact 4.12.1-3.);
- Threshold 4.12.1-4 - A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. (This Threshold relates to land-based noise issues, such as generation of temporary construction noise, which is addressed in Section 4.12.2, Land-Based Noise of this EIR.); or
- Threshold 4.12.1-5 - 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, exposure of people residing or working in the project area to excessive noise levels. (This threshold is addressed in the evaluation of all three of the impact statements above.)

4.12.1.5 Impact Analysis

The sections below describe the estimated changes in aircraft noise exposure levels associated with airport operations in 2025, which is the anticipated completion year of the proposed short-term projects (and incorporates the intermediate-term operational forecasts for the Proposed AMP), and in 2035, which is the estimated completion year of the proposed long-term projects (and incorporates the long-term operational forecasts for the Proposed AMP). The operational forecasts would be the same even if the Proposed Project or one of its alternatives is neither approved nor implemented; the operational forecasts have been analyzed relative to the baseline (2015) conditions. In other words, and as discussed further below, the aircraft noise exposure levels associated with airport operations in 2025 and 2035 would be the same for the Proposed Project, Alternative 1, and the No Project alternative (Alternative 3) described in Chapter 3.5.3.

Impact 4.12.1-1 - Generate aircraft noise that would increase noise levels at exterior use areas of residences, schools, places of worship, or community centers to noise levels of 65 CNEL or above as compared to the existing (2015) baseline condition? (Thresholds 4.12.1-1 and 4.12.5-5)

Proposed Project and Alternative 1

The analysis of the Proposed Project and Alternative 1 compared to the baseline (2015) condition took the baseline noise contours and applied the Proposed Project and Alternative 1 2025 and 2035 forecast

aviation fleet mix and operations. The specific CNEL values for the baseline (2015) and the baseline (2015) plus Proposed Project and plus Alternative 1 are provided in **Table 4.12F**. The CNEL values for the No Project alternative are also provided. This provides an assessment of the change in noise values compared to baseline conditions that would be attributable to the Proposed Project and Alternative 1. To facilitate comparison, the CNEL values for the baseline plus No Project is also provided in **Table 4.12F**.

Table 4.12F provides the number of housing units and acreage within the various CNEL ranges that would be affected in each of the future years analyzed and provides a comparison of each future horizon year to baseline (2015) conditions. It should be noted that the increased number of housing units indicated for the future year is attributable to increased aircraft noise levels and does not account for future regional growth in housing. Also provided in **Table 4.12F**, for informational purposes, is a comparison of the Proposed Project, Alternative 1, and No Project for future years 2025 and 2035.

TABLE 4.12F
Comparison of Dwelling Units and Acreage within the Existing (2015) and Future (2025 and 2035) Noise Exposure Contours
Proposed Project and Alternative 1

Scenario	Dwelling Units				Acreage off Airport Property			
	60-65 CNEL	65-70 ¹ CNEL	+70 CNEL	Total	60-65 CNEL	65-70 CNEL	+70 CNEL	Total
Existing (2015) Baseline	72	3	0	75	155.45	21.45	0.80	177.70
2025 Conditions								
2025 Proposed Project	85	4	0	89	177.09	25.85	1.32	204.23
<i>Difference from Existing (2015) Baseline</i>	13	1	0	14	21.64	4.40	0.52	26.56
2025 Alternative 1	85	4	0	89	177.09	25.85	1.32	204.23
<i>Difference from Existing (2015) Baseline</i>	13	1	0	14	21.64	4.40	0.52	26.56
2025 No Project	85	4	0	89	177.09	25.85	1.32	204.23
<i>Difference from Existing (2015) Baseline</i>	13	1	0	14	21.64	4.40	0.52	26.56
2035 Conditions								
2035 Proposed Project	87	7	0	94	224.80	34.26	2.35	267.41
<i>Difference from Existing (2015) Baseline</i>	15	4	0	19	69.35	12.81	1.55	83.71
2035 Alternative 1	87	7	0	94	224.80	34.26	2.35	267.41
<i>Difference from Existing (2015) Baseline</i>	15	4	0	19	69.35	12.81	1.55	83.71
2035 No Project	87	7	0	94	224.80	34.26	2.35	267.41
<i>Difference from Existing (2015) Baseline</i>	15	4	0	19	69.35	12.81	1.55	83.71

CNEL = Community Noise Equivalent Level
¹ Dwelling units within the 65 CNEL Noise Exposure Contours have been sound insulated.
 Source: Coffman Associates, Inc. analysis based on noise modeling per AEDT, Version 2c (**Appendix K**)

Table 4.12G provides information relative to other noise-sensitive uses, including churches (places of worship), schools, libraries, hospitals, community centers, and historic uses, with comparisons between

future years and baseline (2015) conditions, and for Proposed Project, Alternative 1, and No Project alternative in each future year. Exhibits 4.12C and 4.12D present the aircraft noise contours projected for 2025 and 2035.

TABLE 4.12G
Comparison of Noise-Sensitive Uses within the Existing (2015) and Future (2025 and 2035) Noise Exposure Contours
Proposed Project and Alternative 1

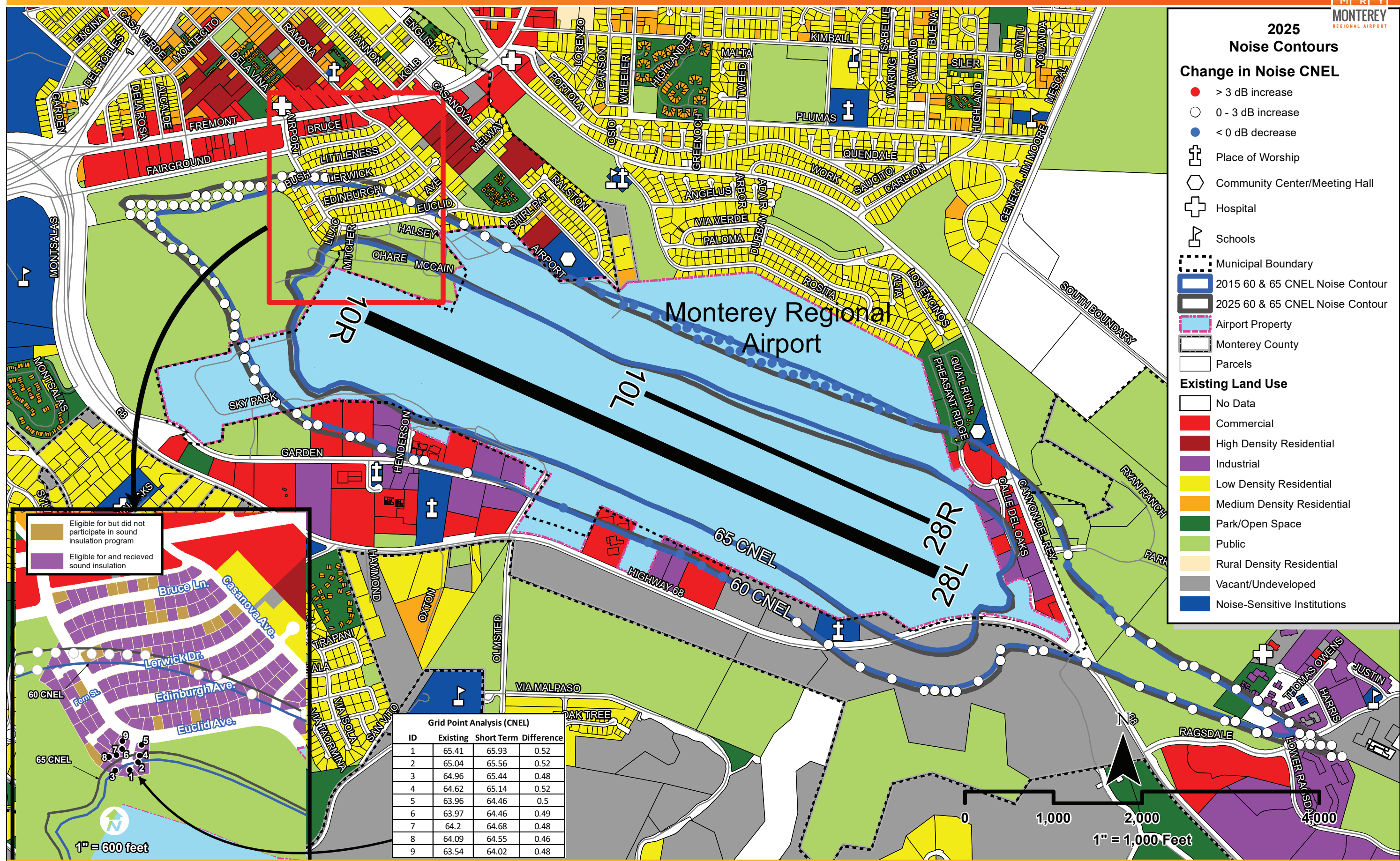
Scenario	Dwelling Units			
	60-65 CNEL	65-70 CNEL ¹	+70 CNEL	Total
Existing (2015) Baseline Noise-Sensitive Uses				
Place of Worship	1	0	0	1
School	0	0	0	0
Library	0	0	0	0
Hospital	0	0	0	0
Community Center/Meeting Hall	1	0	0	1
Historic	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	2	0	0	2
2025 Condition Noise-Sensitive Uses				
2025 Proposed Project Noise-Sensitive Uses				
Place of Worship	1	0	0	1
School	0	0	0	0
Library	0	0	0	0
Hospital	0	0	0	0
Community Center/Meeting Hall	1	0	0	1
Historic	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	2	0	0	2
<i>Difference from Existing (2015) Baseline</i>	0	0	0	0
2025 Alternative 1 Noise-Sensitive Uses				
Place of Worship	1	0	0	1
School	0	0	0	0
Library	0	0	0	0
Hospital	0	0	0	0
Community Center/Meeting Hall	1	0	0	1
Historic	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	2	0	0	2
<i>Difference from Existing (2015) Baseline</i>	0	0	0	0
2025 No Project Noise-Sensitive Uses				
Place of Worship	1	0	0	1
School	0	0	0	0
Library	0	0	0	0
Hospital	0	0	0	0
Community Center/Meeting Hall	1	0	0	1
Historic	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	2	0	0	2
<i>Difference from Existing (2015) Baseline</i>	0	0	0	0

TABLE 4.12G (Continued)				
Scenario	Dwelling Units			
	60-65 CNEL	65-70 CNEL ¹	+70 CNEL	Total
2035 Condition Noise-Sensitive Uses				
2035 Proposed Project Noise-Sensitive Uses				
Place of Worship	1	0	0	1
School	0	0	0	0
Library	0	0	0	0
Hospital	0	0	0	0
Community Center/Meeting Hall	1	0	0	1
Historic	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	2	0	0	2
<i>Difference from Existing (2015) Baseline</i>				
	0	0	0	0
2035 Alternative 1 Noise-Sensitive Uses				
Place of Worship	1	0	0	1
School	0	0	0	0
Library	0	0	0	0
Hospital	0	0	0	0
Community Center/Meeting Hall	1	0	0	1
Historic	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	2	0	0	2
<i>Difference from Existing (2015) Baseline</i>				
	0	0	0	0
2035 No Project Noise-Sensitive Uses				
Place of Worship	1	0	0	1
School	0	0	0	0
Library	0	0	0	0
Hospital	0	0	0	0
Community Center/Meeting Hall	1	0	0	1
Historic	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	2	0	0	2
<i>Difference from Existing (2015) Baseline</i>				
	0	0	0	0
CNEL = Community Noise Equivalent Level				
¹ Dwelling units within the 65 CNEL Noise Exposure Contours have been sound insulated.				
Source: Coffman Associates, Inc. analysis based on noise modeling per AEDT, Version 2c (Appendix K)				

Short-Term Project Impacts

Off-Airport Noise-Sensitive Land Uses. **Exhibit 4.12C** provides a comparison of the existing conditions 65 CNEL contour with 2025 65 CNEL contour, which is projected to extend beyond the 65 CNEL contour for existing (2015 baseline) conditions, at the end of the contours (i.e., very little, if any, change would occur along the sides of the contours).

As indicated in **Table 4.12F**, there would be an increase of one dwelling units within the 65-70 CNEL noise contour when comparing the Proposed Project and Alternative 1 in 2025 to existing conditions. As indicated in **Table 4.12G**, there would be no increase in noise-sensitive institutions within the 65-70 CNEL contour for the Proposed Project or Alternative 1 when comparing existing conditions to 2025 conditions.



2025 Noise Contours

Change in Noise CNEL

- > 3 dB increase
- 0 - 3 dB increase
- < 0 dB decrease

- Place of Worship
- Community Center/Meeting Hall
- Hospital
- Schools
- Municipal Boundary
- 2015 60 & 65 CNEL Noise Contour
- 2025 60 & 65 CNEL Noise Contour
- Airport Property
- Monterey County
- Parcels

Existing Land Use

- No Data
- Commercial
- High Density Residential
- Industrial
- Low Density Residential
- Medium Density Residential
- Park/Open Space
- Public
- Rural Density Residential
- Vacant/Undeveloped
- Noise-Sensitive Institutions

Eligible for but did not participate in sound insulation program

Eligible for and received sound insulation

Grid Point Analysis (CNEL)			
ID	Existing	Short Term	Difference
1	65.41	65.93	0.52
2	65.04	65.56	0.52
3	64.96	65.44	0.48
4	64.62	65.14	0.52
5	63.96	64.46	0.5
6	63.97	64.46	0.49
7	64.2	64.68	0.48
8	64.09	64.55	0.46
9	63.54	64.02	0.48

Source: Monterey County Assessor's Office 2014

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The additional one dwelling unit that would be located within the 65-70 CNEL contour in 2025 has already been sound attenuated to an interior noise level of 45 dB as part of a previously completed aircraft sound insulation program. During this previous study (completed under the FAA's Part 150 program), the 65 CNEL contours were larger than either the existing (2015) or projected future (2025) noise contours due to the amount of noise produced by aircraft in earlier fleets and in the type of noise modeling performed. (Refer to Footnote 1 - FAA has undertaken a phase-out of older, noisier civil aircraft, resulting in some stages of aircraft no longer being in the fleet.) Therefore, impacts to the interior noise level of the one additional home would not occur; however, based on the impact criteria, exterior noise impacts to this home would be Potentially Significant even though prior to this EIR's baseline year of 2015, it was previously within a 65-70 CNEL. Again, it is important to note that these increases in noise-sensitive land uses exposed to 65 CNEL or greater in 2025 would occur even if the Proposed Project or Alternative 1 is not implemented, as indicated in **Tables 4.12F** and **4.12G** when comparing the conditions in 2025 with the Proposed Project and Alternative 1 to the conditions in 2025 with No Project alternative.

On-Airport Noise-Sensitive Land Uses. None of the proposed short-term projects would be considered noise-sensitive land uses. The Proposed Project and Alternative 1 propose to relocate aeronautical uses such as the existing commercial terminal and ARFF building to other areas within or outside of the 65 CNEL. These buildings would be required to meet the interior noise criteria of 45 dB. Proposed hangars are considered industrial land uses and are not required to meet an interior noise criteria of 45 dB.

Long-Term Project Impacts (Programmatic)

Off-Airport Sensitive Land Uses. As shown in **Exhibit 4.12D**, the 65 CNEL contours are projected to extend beyond the 65 CNEL contour for existing (2015 baseline) conditions, at the end of the contours (i.e., very little, if any, change would occur along the sides of the contours).

As indicated in **Table 4.12F**, the increase in dwelling units within the 65-70 CNEL noise contours from existing conditions to 2035 conditions, when comparing the Proposed Project and Alternative 1 in 2035 to existing conditions, would be four. As indicated in **Table 4.12G**, there would be no increase in noise-sensitive institutions within the 65-70 CNEL noise contours for the Proposed Project or Alternative 1 from existing conditions to 2035 conditions.

The four dwelling units projected to be located within the 65-70 CNEL contour in 2035 have already been sound attenuated to an interior noise level of 45 dB as part of a previously completed aircraft sound insulation program. As discussed above under Short-Term Project Impacts, a previous Part 150 study identified 65 CNEL contours that were larger than either the existing (2015) or projected future (2035) noise contours. Therefore, impacts to the interior noise level of the four additional previously sound attenuated homes would not occur under either the Proposed Project or Alternative 1; however, based on the impact criteria, exterior noise impacts to these homes would be Potentially Significant even though prior to this EIR's baseline year of 2015, they were previously within a 65-70 CNEL. Again, it is important to again note that these increases in noise-sensitive land uses exposed to 65 CNEL or greater in 2035 would occur even if the Proposed Project or Alternative 1 is not implemented, as indicated in **Tables 4.12F** and **4.12G** when comparing the conditions in 2035 with the Proposed Project and Alternative 1 to the conditions in 2035 with No Project alternative.

On-Airport Noise-Sensitive Land Uses. Proposed long-term projects on the Airport under either the Proposed Project or Alternative 1 would be aeronautical (hangar), light industrial, or commercial, (north side) or commercial, office or other land uses allowed by existing City of Monterey zoning (south side along Highway 68 frontage). **Exhibits 4.12C** and **4.12D** show the existing (2015) and anticipated future noise contours (2025 and 2035) based on the FAA-approved airport operation forecasts overlain on the planned on-airport land uses. Planned non-aeronautical land uses for the south side of the Airport are expected to be commercial or office based on City of Monterey zoning and would be located outside the 65 and higher CNEL. All proposed project components within the city’s jurisdiction would also be required to meet the city’s land use standards (NOI/rr-1, Section 4.12.1.6). Therefore, future land uses planned for the south side of the Airport would not expose people working at the Airport to excessive noise levels under the City of Monterey aircraft noise standards.

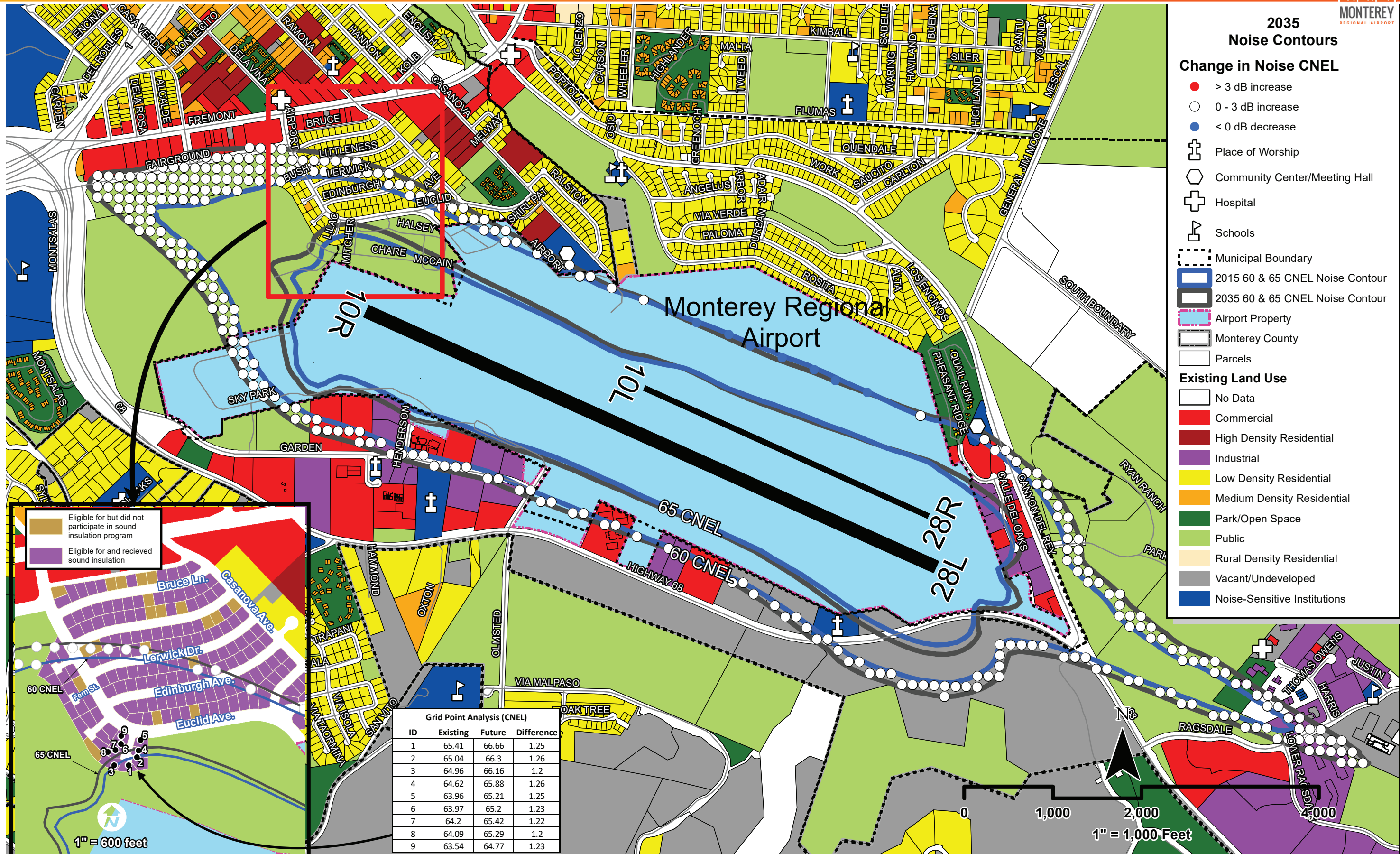
According to the county’s CLUP noise compatibility criteria in **Table 4.12B**, proposed commercial (including office) uses are compatible with the 60-65 CNEL, but should be carefully reviewed for interior noise levels if located in the 65-75 CNEL; light industrial land uses are considered compatible with the 60-70 CNEL, but should be carefully reviewed for interior noise levels if located in the 70-75 CNEL. There are no noise compatibility criteria for aeronautical uses, such as hangars.

On the north side of the Airport, proposed long-term projects could include both aeronautical development (hangars), light industrial, and/or office uses. In both the existing and the future (2025 and 2035), the 65 CNEL noise contour is located approximately 300 to 350 feet north of the edge of Taxiway “C” pavement within the area secured by the Airport’s security fence (**Exhibits 4.12C** and **4.12D**). Commercial office land uses are not likely to occur within this area due to the need for a secured area. However, if any future office uses were to occur within the 65 CNEL, people working in this area could be exposed to excessive noise levels under the CLUP aircraft noise standards. As shown in **Table 4.12B**, commercial land uses are listed as “C = Caution – Review noise insulation needs carefully.” This is a Potentially Significant impact that requires mitigation (see Section 4.12.1.6).

Less than Significant Impact: *The Proposed Project and Alternative 1 would not result in impacts to future workers of proposed long-term projects on the south side of the Airport due to aircraft noise based on City of Monterey or CLUP guidelines per Threshold 4.12.1-1 and 4.12.1-5.*

Significant Impact NOI-1: ***Future 2025 noise contours based on operational forecasts prepared for the Proposed AMP identify one additional residence within the 65-70 CNEL noise contour from existing (2015) conditions to 2025 conditions. This residence has been sound attenuated but the exterior noise impacts would be Potentially Significant per Thresholds 4.12.1-1 and 4.12.1-5.***

Significant Impact NOI-2: ***Future 2035 noise contours based on operational forecasts prepared for the Proposed AMP identify four additional residences within the 65-70 CNEL noise contour from existing (2015) condi-***



2035 Noise Contours

Change in Noise CNEL

- > 3 dB increase
- 0 - 3 dB increase
- < 0 dB decrease

- Place of Worship
- Community Center/Meeting Hall
- Hospital
- Schools

- Municipal Boundary
- 2015 60 & 65 CNEL Noise Contour
- 2035 60 & 65 CNEL Noise Contour
- Airport Property
- Monterey County
- Parcels

Existing Land Use

- No Data
- Commercial
- High Density Residential
- Industrial
- Low Density Residential
- Medium Density Residential
- Park/Open Space
- Public
- Rural Density Residential
- Vacant/Undeveloped
- Noise-Sensitive Institutions

Eligible for but did not participate in sound insulation program

Eligible for and received sound insulation

1" = 600 feet

Grid Point Analysis (CNEL)			
ID	Existing	Future	Difference
1	65.41	66.66	1.25
2	65.04	66.3	1.26
3	64.96	66.16	1.2
4	64.62	65.88	1.26
5	63.96	65.21	1.25
6	63.97	65.2	1.23
7	64.2	65.42	1.22
8	64.09	65.29	1.2
9	63.54	64.77	1.23

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tions to 2035 conditions. These residences have been sound attenuated but the exterior noise impacts would be Potentially Significant per Thresholds 4.12.1-1 and 4.12.1-5.

Significant Impact NOI-3:

Proposed long-term projects on the north side of the Airport under the Proposed Project and Alternative 1 could expose people working at the Airport to excessive noise levels if commercial offices are located within the existing or future 65 CNEL and adequate interior noise insulation is not incorporated into building design. Potential noise impacts would be Potentially Significant per Thresholds 4.12.1-1 and 4.12.1-5.

Impact 4.12.1-2 - Cause a 1.5 dB or more increase resulting in noise-sensitive areas being exposed to 65 CNEL or greater, as compared to the existing (2015) baseline condition

Short-Term Project Impacts

Exhibit 4.12C presents a grid point analysis for the noise-sensitive land uses located within the 65 CNEL contour projected to occur in 2025 as compared to existing conditions (2015). As seen on the grid point summary table located on the exhibit, the noise increase is expected to range from 0.46 to 0.52 CNEL. Based upon this analysis, airport operations under the Proposed Project, Alternative 1, and No Project in 2025 would not cause a 1.5 dB or more increase resulting in noise-sensitive areas being exposed to 65 CNEL or greater as compared to the existing (2015 baseline) conditions. Therefore, there would be a Less than Significant impact.

Long-Term Project Impacts (Programmatic)

Exhibit 4.12D presents a grid point analysis for the noise-sensitive land uses located within the 65 CNEL contour projected to occur in 2035 as compared to existing conditions (2015). As seen on the grid point summary table located on the exhibit, the noise increase is expected to range from 1.20 to 1.26 CNEL. Based upon this analysis, airport operations under the Proposed Project, Alternative 1, and No Project in 2035 would not cause a 1.5 dB or more increase resulting in noise-sensitive areas being exposed to 65 CNEL or greater as compared to the existing (2015 baseline) conditions. Therefore, there would be a Less than Significant impact.

Less than Significant Impact:

Airport operations under the Proposed Project and Alternative 1 in 2025 or 2035 would not cause a 1.5 dB or more increase resulting in noise-sensitive areas being exposed to 65 CNEL or greater as compared to the existing (2015 baseline) conditions. Impacts related to Threshold 4.12.1-1, 4.12.1-3, and 4.12.1-5 would be Less than Significant.

Impact 4.12.1-3 - Cause a 3.0 dB or more increase resulting in noise-sensitive areas being exposed to 60 CNEL to less than 65 CNEL as compared to the existing (2015) baseline condition

Short-Term Project Impacts

Exhibit 4.12C presents a summary depiction of whether, and where, there would be a 3.0 dB or more increase resulting in noise-sensitive areas being exposed to 60 CNEL to less than 65 CNEL with the Proposed Project or Alternative 1 in 2025 compared to existing (2015) conditions. The No Project alternative is also shown in **Exhibit 4.12C** for comparison purposes. A white dot indicates an area where there would be either no change in noise level or less than a 3.0 dB change to the noise level in noise-sensitive areas exposed to between 60 CNEL and 65 CNEL. A red dot indicates an area where there would be a 3.0 dB or greater change in the subject noise setting. As shown, there are no red dots, which indicates that there would not be a 3.0 dB or more increase resulting in noise-sensitive areas being exposed to 60 CNEL to less than 65 CNEL with the Proposed Project, Alternative 1, or No Project in 2025 compared to the existing (2015) condition.

Based on the above, operations for the Proposed Project, Alternative 1, or No Project alternative in 2025 would not cause a 3.0 dB or more increase resulting in noise-sensitive areas being exposed to 60 CNEL to less than 65 CNEL, as compared to the existing (2015 baseline) condition. Therefore, there would be a Less than Significant impact.

Long-Term Project Impacts (Programmatic)

Exhibit 4.12D presents a summary depiction of whether, and where, there would be a 3.0 dB or more increase resulting in noise-sensitive areas being exposed to 60 CNEL to less than 65 CNEL with the Proposed Project, Alternative 1, or No Project alternative in 2035 compared to existing (2015) conditions. A white dot indicates an area where there would be either no change in noise level or less than a 3.0 dB change to the noise level in noise-sensitive areas exposed to between 60 CNEL and 65 CNEL. A red dot indicates an area where there would be a 3.0 dB or greater change in the subject noise setting. As shown, there are no red dots, which indicates that there would not be a 3.0 dB or more increase resulting in noise-sensitive areas being exposed to 60 CNEL to less than 65 CNEL with the Proposed Project, Alternative 1, or No Project in 2035 compared to the existing (2015) condition.

Based on the above, operations for the Proposed Project, Alternative 1, or No Project alternative in 2035 would not cause a 3.0 dB or more increase resulting in noise-sensitive areas being exposed to 60 CNEL to less than 65 CNEL, as compared to the existing (2015 baseline) condition. Therefore, there would be a Less than Significant impact.

Less than Significant Impact:

Airport operations under the Proposed Project and Alternative 1 in 2025 or 2035 would not cause a 3.0 dB or more increase resulting in noise-sensitive areas being exposed to 60 CNEL to less than 65 CNEL as compared to the existing (2015 baseline) conditions. Impacts related to Threshold 4.12.1-1, 4.12.1-3, and 4.12.1-5 would be Less than Significant.

4.12.1.6 Mitigation Program

Significant impact NOI-3 under Thresholds 4.12.1-1 and 4.12.1-5 could occur under either the Proposed Project or Alternative 1. The following mitigation measure would reduce potential impacts to future workers at the Airport to Less than Significant.

Proposed Project and Alternative 1

NOI/mm-1: An interior acoustical noise study shall be required for any future commercial offices located within the existing or future 65 CNEL and recommended measures incorporated to ensure that the interior building noise levels remain 45 dB or less. This mitigation is consistent with the conditions provided for in the CLUP.

Regulatory Requirements

NOI/rr-1: Per Policy b.5. of the *City of Monterey General Plan*, proposed project components with the city's jurisdiction will implement the city's land use standards for properties that are exposed to noise levels in excess of 60 CNEL (Table 8 in the city's general plan - see Table 4.12C in this EIR).

4.12.1.7 Level of Significance After Mitigation

The Proposed Project and Alternative 1 would result in Significant Impacts NOI-1 and NOI-2. NOI-1 identifies one additional residence within the 65-70 CNEL noise contour from existing (2015) conditions to 2025 conditions; NOI-2 identifies four additional residences within the 65-70 CNEL noise contour from existing (2015) conditions to 2035 conditions. Although these residences have been sound attenuated to a level of 45 dB interior noise level, the outdoor noise exposure would remain significant and unmitigable for these residences. It is important to recognize, however, that these significant noise impacts would occur regardless of whether or not the Proposed Project or Alternative 1 are implemented as the operational forecasts for the Airport are based on regional and national forecasts of aviation growth and the regional and local economy. As such, Significant Impacts NOI-1 and NOI-2 are beyond the ability of the Airport to mitigate and are considered Significant and Unavoidable. As discussed previously, the aircraft noise exposure levels associated with airport operations in 2025 and 2035 would be the same for the Proposed Project, Alternative 1, and the No Project alternative (Alternative 3) described in Chapter 3.5.3.

Table 4.12H summarizes the above impacts as well as a potentially significant impact related to future exposure of people working at the Airport to excessive noise levels under the CLUP (Impact NOI-3). Upon implementation of NOI/mm-1, Impact NOI-3 would be Less than Significant for either the Proposed Project or Alternative 1.

TABLE 4.12H Summary of Potentially Significant Impacts and Mitigation – Aircraft Noise Proposed Monterey Regional Airport Master Plan				
Proposed Project	Mitigation Program	Alternative 1	Mitigation Program	Level of Significance after Mitigation
Impact Criteria 4.10-1: Increase noise levels at noise-sensitive land uses to 65 CNEL or above as compared to the existing condition? (Thresholds 4.12.1-1 and 4.12.5-5)				
Impact NOI-1: Future 2025 noise contours based on operational forecasts prepared for the Proposed AMP identify one additional residence within the 65-70 CNEL noise contour from existing conditions to 2025 conditions. This residence has been sound attenuated, but exterior noise impacts would be Potentially Significant.	None available	Same as Proposed Project	None available	Significant and Unavoidable
Impact NOI-2: Future 2035 noise contours based on operational forecasts prepared for the Proposed AMP identify four additional residences within the 65-70 CNEL noise contour from existing conditions to 2035 conditions. These residences have been sound attenuated, but exterior noise impacts would be Potentially Significant.	None available	Same as Proposed Project	None available	Significant and Unavoidable
Impact NOI-3: Proposed long-term projects on the north side of the Airport could expose people working at the Airport to excessive noise levels.	NOI/mm-1	Same as Proposed Project	NOI/mm-1	Less than Significant

4.12.2 Land-Based Noise

4.12.2.1 Regulatory Setting

The following regulations relate directly to the land-based noise discussion of this section. However, state and local regulations discussed in Section 4.12.1.1 may also be relevant and are only summarized or listed here to avoid redundancy.

Federal Regulations

The U.S. EPA has set forth guidelines regarding noise levels identified as a requisite to protect public health and welfare in its document entitled “Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety.” This document provides 24-hour exposure limits to protect against hearing loss as 70 dBA L_{eq} (24), and also specifies that indoor residential activity not be exposed to greater than 45 DNL (U.S. EPA 1974).

As previously discussed under Section 4.12.1, Aircraft Noise, FICON has recommendations based on existing ambient sound levels using studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Although the FICON recommendations were developed to address aircraft

noise impacts, they are also used for traffic noise analyses. As shown in **Table 4.12A**, an increase in noise from similar sources of five dB or more would be noticeable where the ambient level is less than 60 DNL. Where the ambient level is between 60 and 65 DNL, an increase in noise of three dB or more would be noticeable, and an increase of 1.5 dB or more would be noticeable where the ambient noise level exceeds 65 DNL.

Guidance regarding the determination of a substantial permanent increase in ambient noise levels in the project vicinity above existing levels is also provided by the Federal Highway Administration (FHWA). In CFR, Title 23, Part 772, a substantial noise increase for federally funded transportation projects is defined as a range (to be determined by each state's transportation department) between five and 15 dBA above existing ambient levels (FHWA 2010).

Vibration Regulations

The Federal Transit Administration (FTA) has standards related to project-generated vibration. Although FTA standards are intended for federally funded mass transit projects, the impact assessment procedures and criteria included in FTA's *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety* (FTA 2006) are routinely used for projects evaluated by local jurisdictions. The FTA includes construction vibration damage criterion for conventional structures.

State Regulations

Applicable state regulations include the following guidelines discussed previously in Section 4.12.1.1:

- California Noise Insulation Standards (known as the California Building Code)
- General Plan Noise Elements
- California Department of Health and Services Guidelines

California Department of Transportation Guidelines

As mentioned above under *Federal Regulations*, a substantial noise increase for federally funded transportation projects is defined as a range (to be determined by each state's transportation department) between five and 15 dBA above existing ambient levels (FHWA 2010). In the State of California, Caltrans defines a substantial noise increase as 12 dBA or more (Caltrans 2011). For temporary noise from construction, the Caltrans Standard Specification Section 14-8.02 (Noise Control) requires that construction activity not exceed 86 dBA L_{max} at 50 feet from job site activities from 9:00 PM to 6:00 AM and that internal combustion engines be equipped with manufacturer-recommended mufflers (Caltrans 2011).

In addition to the state guidelines above, Caltrans has also developed a Traffic Noise Analysis Protocol, which is required by federal regulations in CFR, Title 23, Part 772. Additional noise guidelines are contained in its *Technical Noise Supplement to the Traffic Noise Analysis Protocol* (2013). This manual contains Caltrans noise analysis procedures, practices, and other useful technical background

information related to the analysis and reporting of highway and construction noise impacts and abatement. However, it is not official policy, standards, or regulations, but rather it is for informational purposes. These guidelines indicate that “It is generally accepted that the average healthy ear ... can barely perceive a noise level change of 3 dBA” (Caltrans 2013:2-44). A doubling of sound energy results in a three dBA increase in sound, which means that a doubling of sound energy (e.g., doubling the average daily numbers of traffic on a road) would result in a barely perceptible change in sound level.

Local Regulations

Local noise regulations (Monterey County and the cities of Del Rey Oaks and Monterey) applicable to land-based noise are presented below. Traffic noise level increases resulting from the Proposed Project or Alternative 1 were assessed using the regulations from the jurisdiction in which each road segment is located.

County of Monterey

Monterey County’s exterior noise exposure standards are based on parameters established by the California Department of Health, Office of Noise Control and are presented in **Table 4.12I** (Table S-2 in the *2010 Monterey County General Plan Safety Element*). Based on these standards, noise levels of 60 DNL or less are considered “normally acceptable.” Generally, noise levels of 60 to 70 DNL are considered “conditionally acceptable” (County of Monterey 2010). Potentially relevant policies from the county’s Safety Element (County of Monterey 2010) are listed below:

Policy S-7.4. New noise generators may be allowed in areas where projected noise levels are “conditionally acceptable” only after a detailed analysis of the noise reduction requirements is made and needed noise mitigation features are included in project design.

Policy S-7.5. New noise generators should generally be discouraged in areas identified as “normally unacceptable.” Where such new noise generators are permitted, mitigation to reduce both the indoor and outdoor noise levels will be required.

Since none of the project development areas are within the county’s jurisdiction, the Monterey County Noise Control Ordinance and other construction-related general plan policies are not applicable. In addition, there are no county roadways that would be affected by project-related traffic either during construction or during the short- or long-term operation of the project. However, land under the jurisdiction of the county is located along Highway 68, which could be affected by project-related construction or other vehicular traffic.

TABLE 4.12I
Monterey County Community Noise Exposure L_{dn} or CNEL Standards

Community Noise Exposure
L_{dn} or CNEL, dB

Land Use Category	55	60	65	70	75	80
Residential – Low Density Single Family, Duplex, Mobile Homes	Light Gray	Light Gray	Light Gray	Light Gray	Light Gray	Light Gray
Residential – Multi-Family	Light Gray	Light Gray	Light Gray	Light Gray	Light Gray	Light Gray
Transient Lodging – Motels, Hotels	Light Gray	Light Gray	Light Gray	Light Gray	Light Gray	Light Gray
Schools, Libraries, Churches, Hospitals, Nursing Homes	Light Gray	Light Gray	Light Gray	Light Gray	Light Gray	Light Gray
Auditoriums, Concert Halls, Amphitheaters	Light Gray	Light Gray	Light Gray	Light Gray	Light Gray	Light Gray
Sports Arena, Outdoor Spectator Sports	Light Gray	Light Gray	Light Gray	Light Gray	Light Gray	Light Gray
Playgrounds, Neighborhood Parks	Light Gray	Light Gray	Light Gray	Light Gray	Light Gray	Light Gray
Golf Courses, Riding Stables, Water Recreation, Cemeteries	Light Gray	Light Gray	Light Gray	Light Gray	Light Gray	Light Gray
Office Buildings, Business Commercial and Professional	Light Gray	Light Gray	Light Gray	Light Gray	Light Gray	Light Gray
Industrial, Manufacturing, Utilities, Agriculture	Light Gray	Light Gray	Light Gray	Light Gray	Light Gray	Light Gray

INTERPRETATION:

Normally Acceptable
 Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable
 New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply or air conditioning will

Normally Unacceptable
 New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable
 New construction or development should generally not be undertaken.

Source: OPR General Plan Guidelines

City of Del Rey Oaks

The City of Del Rey Oak’s noise goals and policies of its *General Plan Update for the City of Del Rey Oaks* related to land-based noise impacts include the following (City of Del Rey Oaks 1997):

Goal 1. Protect citizens from exposure to excessive levels of noise.

Goal 3. Minimize the impact of street, road, and highway generated noise upon land uses in the City of Del Rey Oaks.

In addition, the City of Del Rey Oaks Municipal Code includes 8.20 Noise Control (City of Del Rey Oaks 1995). Potentially relevant excerpts are reproduced below:

3. Excessive, unnecessary or unusually loud operation or use of hammers, hand powered saws, or similar implements; impact wrenches or similar equipment powered by compressed air, tools or pieces of equipment powered by an internal combustion engine, such as but not limited to, chain saws, blowers, lawn mowers, electrically powered tools or equipment, such as but not limited to, saws, drills, latches or routers before 7:00 AM or after 7:00 PM daily.

C. Exemptions: Excessive, unnecessary or unusually loud noise as used in this chapter does not include noise or sound generated by the following:

1. Cries for emergency assistance and warning calls;
2. Radio, sirens, horns, and bells on police, fire and other emergency response vehicles;
3. Special events for which a permit has been obtained from the city are exempted; provided, there is compliance with all conditions which have been noted in writing on the permit. Excessive, unnecessary or unusually loud noise produced as a result of noncompliance with any condition specified on the permit is not exempt from requirements of this chapter;
4. Activities on or in publicly owned property and facilities, or by public employees or their franchisees, while in the authorities discharge of their responsibilities, are exempt provided that such activities have been authorized by the owner of such property or facilities or its agent or by the employing authority.

City of Monterey

The *City of Monterey General Plan Noise Element* identifies the following goals related to land-based noise (City of Monterey 2016):

Goal a. Minimize traffic noise in predominantly residential areas and ensure noise in commercial areas is at an acceptable level.

Policy a.1. Limit truck traffic to local delivery...

Policy a.2. Route trucks and through traffic onto truck routes, even where such routing is not the shortest distance between points.

- Program a.2.1. Implement traffic calming measures in neighborhoods.

Policy a.5. Protect areas adjacent to roadways and freeways with landscaped noise buffers or other means; sound walls should not be allowed.

Goal d. Allow new construction only where existing or projected noise levels are acceptable or can be mitigated.

Policy d.1. The City can require noise mitigations to reduce interior noise levels to an acceptable level. Table 9 in the City's General Plan (**Table 4.12J**) establishes the land use compatibility standards for new development.

The City of Monterey also has an adopted *Casanova-Oak Knoll Neighborhood Plan* (1985). Included in that document are the following airport noise goals and policies that could also relate to land-based noise:

Policy 29. Airport Road should not be used as an access road for further development of the area at the northside of the Airport. It should be used by the Airport only as an emergency or service road.

Policy 34. Oppose the use of neighborhood residential street by automobile and truck traffic going to and from the Airport and businesses on the Airport property.

- Program 34b: Complete the new roadway proposed on the Airport Master Plan from the northside of the Airport to Highway 68 and/or 218 prior to the construction of any additional development on the northside.

The City of Monterey Municipal Code Section 38-111(A) identifies performance standards to be applied to all use classification in all zoning districts (City of Monterey 2017). Decibel levels are required to be compatible with neighboring uses, and no use shall create ambient noise levels which exceed the standards identified in **Table 4.12K**. It should be noted that the City of Monterey's Community Development Director may require an acoustic study for any proposed project that could have, or create, a noise exposure greater than that identified in the table.

TABLE 4.12J
City of Monterey Land Use and Noise Compatibility Standards

LAND USE CATEGORY	COMMUNITY NOISE EXPOSURE Ldn or CNEL, dB					
	55	60	65	70	75	80
Residential - Low Density Single Family, Duplex, Mobile Homes						
Residential - Multi Family						
Transient Lodging - Motels, Hotels						
Schools, Libraries Churches, Hospitals, Nursing Homes						
Auditoriums, Concert Halls, Amphitheatres						
Sports Arena, Outdoor Spectator Sports						
Playgrounds, Neighborhood Parks						
Golf Courses, Riding Stables, Water Recreation, Cemeteries						
Office Buildings, Business Commercial and Professional						
Industrial, Manufacturing Utilities, Agriculture						

- NORMALLY ACCEPTABLE**
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
- CONDITIONALLY ACCEPTABLE**
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
- NORMALLY UNACCEPTABLE**
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise reduction features included in the design.
- CLEARLY UNACCEPTABLE**
New construction or development should generally not be undertaken.

Source: City of Monterey 2016

Zone of Property Receiving Noise	Maximum Noise Level (dBA)
OS - Open Space District	60
R - Residential Districts	60
PS - Public and Semi-Public District	60
C - Commercial District	65
I - Industrial District	70
PD - Planned District	Study Required

Source: City of Monterey 2017
 dBA = A-scale weighted decibels
 NOTE: These noise standards shall be modified as follows to account for the effects of time and duration on the impact of noise levels: In R districts, the noise standard shall be five dB lower between 10:00 PM and 7:00 AM; noise that is produced for no more than a cumulative period of five minutes in any hour may exceed the standards above by five dB; and noise that is produced for no more than a cumulative period of one minute in any hour may exceed the standards above by 10 dB.

Section 38-112.2 of the City of Monterey’s Municipal Code (2017) limits the hours of construction for activities authorized by a building permit to the following: Monday through Friday between the hours of 7:00 AM and 7:00 PM, on Saturday between 8:00 AM and 6:00 PM, and on Sunday between 10:00 AM and 5:00 PM. A permit may be issued by the Zoning Administrator for requests to conduct construction activity outside listed hours for unique circumstances. These zoning regulations are applicable only to those proposed project components within the City of Monterey’s jurisdiction. The City of Monterey is a neighboring entity and does not have jurisdiction over airport property, with the exception of two parcels along the Airport’s frontage with Highway 68, which were purchased by the Airport after the original airport property was conveyed to the MPAD.

Vibration Standards

The County of Monterey requires a pre-construction vibration study in Policy S-7.8 of the Safety Element of its *2010 Monterey County General Plan*.

- S-7.8. All discretionary projects that propose to use heavy construction equipment that has the potential to create vibrations that could cause structural damage to adjacent structures within 100 feet shall be required to submit a pre-construction vibration study prior to the approval of a building permit. Projects shall be required to incorporate specified measures and monitoring identified to reduce impacts. Pile-driving or blasting are illustrative of the type of equipment that could be subject to this policy.

In addition to this local county policy, Caltrans has adopted vibration standards to evaluate potential impacts related to its construction activities. Information from Caltrans indicates that continuous vibrations with a peak particle velocity (PPV) of approximately 0.1 inches per second begin to cause annoyance.

To date, the cities of Del Rey Oaks and Monterey have not adopted policies for ground-borne vibration impacts.

4.12.2.2 Methodology

Construction Noise Impact Methodology

The Federal Highway Administration (FHWA) has developed the 2006 Roadway Construction Noise Model (RCNM) software, which can be used to evaluate construction noise from any major construction proposal. RCNM contains a large database of construction equipment, including noise generation level and load factor (percentage of time each piece of equipment is active on a typical construction site). This RCNM software was used to assess construction noise impacts of the Proposed Project and Alternative 1. Specified and measured noise level ranges for various pieces of construction equipment at a distance of 50 feet are presented in **Table 4.12L**. The noise values presented are used as reference noise data for respective equipment in RCNM.

Equipment Description	Acoustical Use Factor (%)	Measured L _{max} @50ft (dBA, slow)
All Other Equipment >5 HP (spec)	50	85
Auger Drill Rig	20	84
Backhoe	40	78
Compactor (ground)	20	83
Compressor (air)	40	78
Concrete Saw	20	90
Crane	16	81
Dozer	40	82
Dump Truck	40	76
Excavator	40	81
Flat Bed Truck	40	74
Front End Loader	40	79
Generator	50	81
Generator (<25KVA)	50	73
Gradall	40	83
Grader *(spec)	40	85
Man Lift	20	75
Paver	50	77
Pickup Truck	40	75
Pneumatic Tools	50	85
Pumps	50	81
Roller	20	80
Scraper	40	84
Tractor *(spec)	40	84
Warning Horn	5	83
Welder / Torch	40	74

Source: U.S. DOT 2006
 * (spec) indicates that the L_{max} is based on common specifications for this equipment, not on measured data
 L_{max} = The highest value measured by the sound level meter over a given period of time
 dBA - A-scale weighted decibel
 HP = horsepower
 KVA = kilovolt-ampere

Ground-Borne Vibration Impact Methodology

The Caltrans threshold of 0.1 inches per second PPV was used to evaluate the vibrational construction-related and operational impacts of the Proposed Project or Alternative 1. For engineered concrete and masonry buildings, 0.3 inches per second PPV is a limit where building damage is possible. For non-engineered timber and masonry building, the building damage vibration limit is 0.2 inches per second PPV (Caltrans 2004). Hence, the use of the 0.1 inches per second PPV vibration annoyance threshold is a conservative threshold that would also avoid damage to existing structures near the Airport.

Vehicular Traffic Noise Impact Methodology

Based on Caltrans' *Technical Noise Supplement to the Traffic Noise Analysis Protocol* (2013), which indicates that "It is generally accepted that the average healthy ear ... can barely perceive a noise level change of 3 dBA" (Caltrans 2013:2-44), this EIR assumes a significant noise impact would occur if Proposed Project or Alternative 1 trip additions to the area roadway network were to cause a three dBA CNEL or greater increase over existing ambient traffic noise levels. This is a more conservative approach than the 12 dBA that Caltrans defines as a substantial noise increase and is more in line with the FICON study regarding noise annoyance levels (refer to **Table 4.12A**).

The ambient noise in the project vicinity is dominated by road traffic and airport operations. To evaluate future vehicular noise impacts related to the Proposed Project or Alternative 1, ambient short- and long-term noise measurements were conducted to quantify the existing daytime noise environment. The short-term measurements were used to calibrate the traffic noise model. The long-term measurements were used to calculate existing CNEL in the project vicinity. General ambient and traffic noise measurements were conducted using a Rion NL-62 sound level meter. This sound level meter meets the current American National Standards Institute (ANSI) standard for a Type 1 Precision sound level meter. The sound level meter was positioned on a tripod at a height of approximately five feet above the ground and fitted with a windscreen during measurements. The instrument was calibrated prior to measurements.

The short-term noise measurements were conducted on March 6 and 7, 2018. All traffic noise measurements were 15 minutes long. The measured average noise levels and the concurrent traffic volumes are presented in **Table 4.12M**. Despite focusing on traffic noise, the measurements also included aircraft flyovers and other common noise sources. The measured sound levels were as high as 70.8 dBA L_{eq} at ST4. The lowest short-term sound level measured was 56.8 dBA L_{eq} at ST1. See **Exhibit 4.12E** for noise measurement locations.

Long-term noise measurements were completed using four SoftDB Model Piccolo sound level meters, which were field-calibrated prior to each measurement. The Piccolo sound level meters meet the ANSI standard for a Type 2 general purpose sound level meter. The meters collected hourly measurements across a 24-hour period on Wednesday, March 7, 2018, and Thursday, March 8, 2018.

The noise levels associated with roadway traffic were determined based on average daily traffic (ADT) volumes obtained from the project traffic impact study (Mott MacDonald 2018). DataKustic's CadnaA

sound modeling software was then used to model the traffic noise that would result from the roadway traffic volumes. CadnaA software includes traffic noise modeling algorithms based on the FHWA Traffic Noise Model (TNM), Version 2.5 (FHWA 2004) software. Field noise measurements and corresponding manual traffic counts were used to calibrate the model to ensure model assumptions and inputs accurately reflected existing conditions, and that the model would reliably calculate traffic noise levels from predicted future traffic volumes for both short- and long-term project phases.

TABLE 4.12M
Measured Noise Levels and Traffic Volumes
Monterey Regional Airport

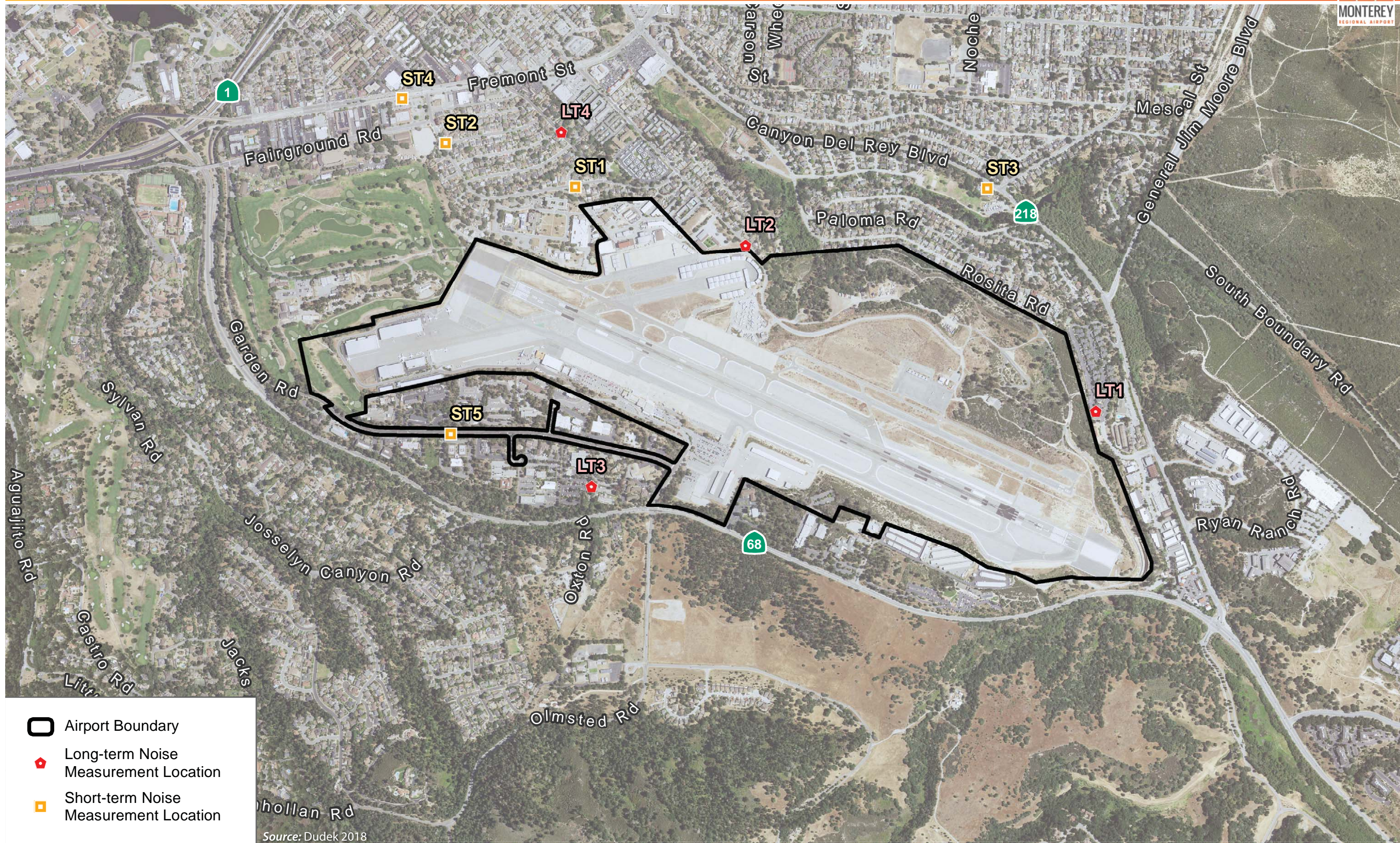
Monitor Site ¹	Location: Noise Sources Observed	Date/ Start Time	L _{eq} (dBA)	# of Cars	# of MT	# of HT	# of B/M
ST1	Euclid Avenue (3 feet from edge of pavement): traffic, birds, distant kids playing, distant traffic	3/6/2018 15:29	56.8	30	2	0	0
ST2	Airport Road/Euclid Avenue (3 feet from edge of pavement): traffic, birds, distant industrial, rustling leaves	3/6/2018 15:54	61.5	60	10	0	1
ST3	Canyon Del Rey Boulevard (15 feet from edge of pavement ²): traffic, birds, distant aircraft	3/6/2018 16:22	69.7	249	11	0	2
ST4	N. Fremont Street (3 feet from edge of pavement): traffic	3/6/2018 15:45	70.8	386	13	0	4/2
ST5	Garden Road (10 feet from edge of pavement ²): traffic, distant aircraft	3/6/2018 16:20	66.5	91	11	2	0

Source: Dudek 2018 (**Appendix L**, Table 8)
 L_{eq} = Equivalent Continuous Sound Level (Time-Average Sound Level)
 dBA = A-scale weighted decibels
 MT = medium trucks
 HT = heavy trucks
 B/M = buses or motorcycles depending on location
¹ Noise measurement locations are shown on **Exhibit 4.12E**.
² The sound meter was placed at the distance that represented the closest building façade in that area.

The road alignments, the number and types of vehicles on the roadway, vehicle speeds, receiver locations, and other data were input into the noise model. Based on sound level measurement results and traffic counts, the traffic noise model was calibrated to within approximately three dB of the measured results. Traffic speeds were the primary parameter altered during the calibration process. A CadnaA default local road vehicle mix (i.e., percentage of cars, trucks, and motorcycles) was used for local roads.

4.12.2.3 Existing Conditions

Short-term and long-term noise measurements of existing conditions near the Airport are provided in **Tables 4.12M** and **4.12N**.



- Airport Boundary
- ◆ Long-term Noise Measurement Location
- Short-term Noise Measurement Location

Source: Dudek 2018

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TABLE 4.12N

**Long-Term Measured Noise Levels
Monterey Regional Airport**

Monitor Location ¹	Daytime (dBA)	Nighttime (dBA)	L _{dn} (dBA) ²	CNEL (dBA) ²
LT1	51	45	53	53
LT2	48	43	51	52
LT3	51	45	53	53
LT4	57	48	58	58

Source: Dudek 2018 (**Appendix L**, Table 9)

dBA = A-scale weighted decibels

L_{dn} = Day-Night Average Sound Level

CNEL = Community Noise Equivalent Level

¹ Noise measurement locations are shown on **Exhibit 4.12E**.

² L_{dn} and CNEL were calculated from measured hourly average noise levels, which ranged from 51 to 58 dBA.

NOTE: Appendix L includes an Hourly Leq Time History Plot. All monitoring locations showed hourly Leq levels below 45 dBA between the late night/early morning hours of midnight to about 5:00 AM. LT4 located along Ramona Avenue generally had the highest measured hourly Leq.

The existing CNEL along major roadways was modeled in CadnaA for existing roadway traffic volumes based on ADT and are, therefore, different than the dBA Leq values measured for each roadway in the field (and presented in **Table 4.12M**). The measured Leq values reflect actual traffic occurring during the short-term measurement, which is used to calibrate the model; the 24-hour noise level (CNEL) associated with existing traffic on a daily basis is then calculated using the calibrated model. The modeled receiver locations (indicated by M#) (**Exhibit 4.12F**) were set at certain distances from the road to match the distance from the road to the closest residential building façade. Based upon the calculated/modeled CNEL values (**Table 4.12O**), only one existing residential lot (M6) has existing calculated traffic noise exposure greater than the normally acceptable range (60 dBA CNEL).

TABLE 4.12O

**Calculated Existing CNEL Associated with Local Roadways
Monterey Regional Airport**

Exhibit Number ¹	Noise Modeling Location	Calculated CNEL (dBA)
Within County of Monterey:		
M1	Hammond Road residence	53
M2	Oak Crest Circle residence	59
M3	Vista Monterra	42
M4	Blue Larkspur Lane	57
M5	Boots Road	59
M6	Capote Drive	62
M7	Espada Drive	53
M8	Corral De Tierra residence	47
M17	Oak Tree Lane	48
Within City of Monterey:		
M9	Airport Road residence	57
M10	Airport Road curve	53
M11	Lerwick Drive	50
M12	Airport Road near Euclid Avenue	49
M16	Ramona Avenue	49
Within City of Del Rey Oaks:		
M13	Quail Run Court	54
M14	Los Encinos Drive	57
M15	Angelus Way	59
M18	Pheasant Ridge Road	47
M19	Rosita Road	42

Source: Dudek 2018 (**Appendix L**, Table 10)

CNEL = Community Noise Equivalent Level

dBA = A-scale weighted decibels

¹ Refer to **Exhibit 4.12F** for noise modeling locations.

4.12.2.4 Thresholds of Significance

Based on the criteria identified in Appendix G of the CEQA Guidelines (2017), the Proposed Project or Alternative 1 would have a significant impact due to land-based noise sources if they would result in:

- Threshold 4.12.1-1 - Exposure of persons to or generation of noise levels (in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies);
- Threshold 4.12.1-2 - Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels;
- Threshold 4.12.1-3 - Cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project (in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies);
- Threshold 4.12.1-4 - Cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies); or
- Threshold 4.12.1-5 - 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, exposure of people residing or working in the project area to excessive noise levels. (This Threshold relates to aircraft noise issues, which are addressed in Section 4.12.1, Aircraft Noise of this EIR.)

4.12.2.5 Impact Analysis

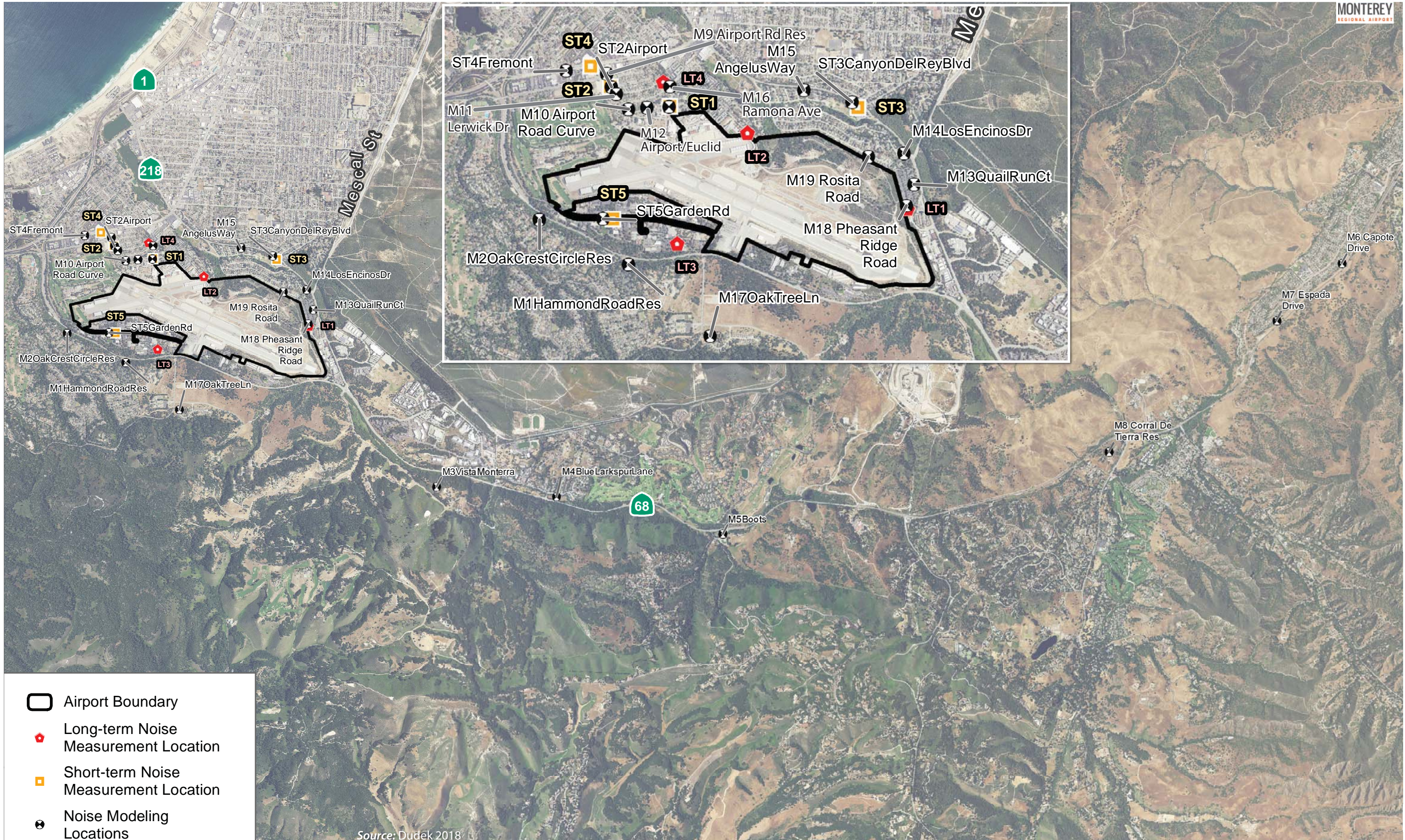
Threshold 4.12.2-2 - Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels (in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies)

Proposed Project and Alternative 1

Construction Impacts

Under Threshold 4.12.2-2, since there are no local criteria against which to evaluate vibration impacts, a significant impact would occur if the Proposed Project or Alternative 1 generates construction-related vibration that exceeds 0.1 inches per second PPV at existing residences in the Proposed Project vicinity based on state thresholds (i.e., Caltrans).

The heavier pieces of construction equipment used for the Proposed Project or Alternative 1 proposed projects would include dozers, graders, and pavers. Ground-borne vibration information related to construction activities has been collected by Caltrans (2004). Based on published vibration data, the anticipated construction equipment would generate a PPV of approximately 0.09 inch per second or less at a distance of 25 feet (FTA 2006).



- Airport Boundary
- Long-term Noise Measurement Location
- Short-term Noise Measurement Location
- Noise Modeling Locations

Source: Dudek 2018

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Information from Caltrans indicates that continuous vibrations with a PPV of approximately 0.1 inch per second begin to annoy people. Ground-borne vibration is typically attenuated over short distances. The closest existing residences are located over 200 feet from the areas of short-term major construction, at least 100 feet from future areas of long-term construction, and over 1,000 feet from the center of the Proposed Project or Alternative 1. At these distances, the PPV from construction would be below 0.1 inch per second and would also be below the threshold of perceptibility. Therefore, impacts related to vibration from short- and long-term construction activities would be Less than Significant.

Short-Term and Long-Term Project (Programmatic) Impacts

There are no project impacts related to vibration or ground-borne noise because no large impact or rotating equipment is planned for the site.

Less than Significant Impact: *The peak particle velocity (vibration) from short- or long-term construction for either the Proposed Project or Alternative 1 would be less than 0.1 inch per second, which would be below the threshold of perceptibility. Impacts would be Less than Significant per Threshold 4.12.2-2.*

Threshold 4.12.2-3 - Cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project (in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies)

Proposed Project and Alternative 1

Construction Impacts

Temporary construction impacts are not addressed under this threshold as it discusses permanent increases to ambient noise levels.

Short-Term Project Impacts

Proposed short-term landside projects under the Proposed Project or Alternative 1 would generate vehicular traffic associated with the proposed relocated hangars (and ARFF under Alternative 1) and the construction of up to seven additional hangars on the north side. Threshold 4.12.2-3 addresses potential operational building and vehicular noise impacts of the Proposed Project or Alternative 1. Under Threshold 4.12.2-3, a significant noise impact would occur if Proposed Project or Alternative 1 would cause a three dBA CNEL or greater increase over existing ambient noise levels.

The Proposed Project and Alternative 1 proposed short-term projects would result in new buildings in the interior of the Airport. Operational building noises, such as heating, ventilation, and air conditioning (HVAC) units, would not increase the ambient noise levels beyond what normally occurs in the area. The Airport is in an urbanized area with ambient noise sources that include aircraft and vehicular traffic.

The Proposed Project and Alternative 1 would generate additional traffic trips due to proposed short-term projects, resulting in potential increases in traffic noise along vicinity roadways. Traffic data was taken from research conducted for the *Monterey Regional Airport Environmental Impact Report Traffic Impact Analysis* (TIA) (Mott MacDonald 2018) regarding ADT volumes existing on the vicinity roadway network, as well as for traffic forecasts addressing a number of future roadway traffic scenarios.

ADT volumes for segments not directly analyzed in the TIA were derived from intersection volumes immediately adjacent to analyzed segments. Specifically, ADT was derived utilizing an assumption that ADT corresponds to 10 percent of traffic that occurs during the PM peak hour period and adjusted to create a 24-hour segment count. Proposed Project traffic was included based on the specified project trip generation and trip distribution specified within the TIA.

Table 4.12P shows the ADT numbers for the analyzed traffic scenarios in the traffic impact analysis. As can be seen, the Proposed Project and Alternative 1 would contribute vehicle trips due to proposed short-term projects onto the regional roadway network, particularly onto the major roadways in proximity to the Airport (see Section 4.16.5 for more information). The ADT values illustrated in the table were used with the calibrated CadnaA traffic noise model to calculate existing and future noise levels along the identified roadway segments without and with the Proposed Project or Alternative 1.

TABLE 4.12P Existing Plus Project Average Daily Traffic Scenarios - (Short-Term Projects) Proposed Project and Alternative 1			
Traffic Study Roadway Segment	Existing Conditions	Existing Plus Proposed Project	Existing Plus Alternative 1
Highway (Hwy) 68 segments (south and east of Airport)			
Hwy 68 (Hwy 1 to begin/end freeway)	79,000	79,066	79,066
Hwy 68 (begin/end freeway to Josselyn Canyon Road)	18,800	18,776	18,790
Hwy 68 (Josselyn Canyon Road to Olmsted Road)	19,600	19,576	19,590
Hwy 68 (Olmsted Road to Hwy 218)	22,100	22,062	22,086
Hwy 68 (Hwy 218 to Ragsdale Drive)	26,400	26,406	26,394
Hwy 68 (Ragsdale Drive to York Road)	19,000	19,006	18,994
Hwy 68 (York Road to Boots Road/Pasadera Drive)	21,800	21,806	21,794
Hwy 68 (Boots Road/Pasadera Drive to Laureles Grade)	19,500	19,506	19,494
Hwy 68 (Laureles Grade to Corral De Tierra Road)	21,000	21,006	20,994
Hwy 68 (Corral De Tierra Road to San Benancio Road)	22,800	22,806	22,794
Hwy 68 (San Benancio Road to Torero Drive)	24,000	24,006	23,994
Hwy 68 (Torero Drive to begin/end freeway)	23,600	23,606	23,594
Airport Road/CONA neighborhood (northwest of Airport)			
Airport Road (north of Fairground Road)	4,200	4,272	4,190
Airport Road (south of Fairground Road)	4,200	4,272	4,190
Airport Road (west of Mitcher Street)	2,400	2,472	2,390
Airport Road (west of Euclid Avenue)	2,400	2,472	2,390
Ramona Avenue (south of Littleness Avenue)	1,000	1,009	985
City of Del Rey Oaks (east of Airport)			
Del Rey Gardens Drive (west of Hwy 218)	1,000	1,000	1,102
New "North Side" Road (west of Del Rey Gardens Drive)	0	0	102
City of Monterey (south of Airport)			
Olmsted Road (south of Garden Road)	2,000	1,942	1,924
Source: Dudek 2018 (Appendix L , Table 11)			
CONA = Casanova-Oak Knoll neighborhood			

To evaluate the change in noise level on area roadways from Proposed Project or Alternative 1 trip contributions, traffic noise modeling was performed. Modeling of traffic noise focused on existing residential locations along vicinity roads, using the following methodology. First, the distances from the roadway to the closest existing residences located along each roadway segment of concern were determined from aerial photographs. Some existing residential areas include existing landscaping or small fences along the roadway. Next, current traffic volume data (on an ADT basis) for each segment was entered into the model. The same evaluation was then performed using the “existing plus project” traffic volumes. **Tables 4.12Q** and **4.12R** show the results for proposed short-term project traffic for the Proposed Project and Alternative 1, respectively.

TABLE 4.12Q				
Contribution to Off-Airport Traffic Noise (Short-Term Projects)				
Proposed Project				
Exhibit Number¹	Noise Modeling Location	Existing CNEL (dBA)	Existing + Project CNEL (dBA)	dBA Change
Within County of Monterey:				
M1	Hammond Road residence	53	53	0
M2	Oak Crest Circle residence	59	59	0
M3	Vista Monterra	42	42	0
M4	Blue Larkspur Lane	57	57	0
M5	Boots Road	59	59	0
M6	Capote Drive	62	62	0
M7	Espada Drive	53	53	0
M8	Corral De Tierra residence	47	47	0
M17	Oak Tree Lane	48	48	0.3
Within City of Monterey:				
M9	Airport Road residence	57	57	0.1
M10	Airport Road curve	53	53	0.3
M11	Lerwick Drive	50	50	0.1
M12	Airport Road near Euclid Avenue	49	50	0.9
M16	Ramona Avenue	49	49	0
Within City of Del Rey Oaks:				
M13	Quail Run Court	54	54	0
M14	Los Encinos Drive	57	57	0.1
M15	Angelus Way	59	59	0
M18	Pheasant Ridge Road	47	47	0.7
M19	Rosita Road	42	42	0
Source: Dudek 2018 (Appendix L , Table 12)				
¹ Refer to Exhibit 4.12E for monitoring locations.				

Based upon existing roadway traffic volumes compared to “existing plus project” roadway traffic volumes, the addition of Proposed Project or Alternative 1 proposed short-term project traffic to the roadway network would result in an increase of less than one dBA CNEL at existing residences along the examined roadway segments. This is below the discernible level of change for the average human ear. None of the modeled off-airport receptors would experience noise traffic levels that increase from below 65 dBA CNEL to greater than 65 dBA CNEL, when comparing the “existing” to the “existing plus project” traffic scenarios.

TABLE 4.12R
Contribution to Off-Airport Traffic Noise (Short-Term Projects)
Alternative 1

Exhibit Number ¹	Noise Modeling Location	Existing CNEL (dBA)	Existing + Project CNEL (dBA)	dBA Change
Within County of Monterey:				
M1	Hammond Road residence	53	53	0
M2	Oak Crest Circle residence	59	59	0
M3	Vista Monterra	42	42	0
M4	Blue Larkspur Lane	57	57	0
M5	Boots Road	59	59	0
M6	Capote Drive	62	62	0
M7	Espada Drive	53	53	0
M8	Corral De Tierra residence	47	47	0
M17	Oak Tree Lane	48	48	0.4
Within City of Monterey:				
M9	Airport Road residence	57	57	0
M10	Airport Road curve	53	53	0.2
M11	Lerwick Drive	50	50	0.1
M12	Airport Road near Euclid Avenue	49	50	0.8
M16	Ramona Avenue	49	49	0
Within City of Del Rey Oaks:				
M13	Quail Run Court	54	54	0
M14	Los Encinos Drive	57	57	0.1
M15	Angelus Way	59	59	0
M18	Pheasant Ridge Road	47	47	0.7
M19	Rosita Road	42	42	0

Source: Dudek 2018 (**Appendix L**, Table 20)

¹ Refer to **Exhibit 4.12E** for monitoring locations.

The most-restrictive limit of acceptable exterior noise exposure for residences in the vicinity of either the Proposed Project or Alternative 1 is 65 dBA CNEL (applicable in Del Rey Oaks). M18 and M19 represent residential locations where the predicted exterior noise exposure level from the new “north side” road would be the greatest. The noise level increases due to project-related traffic at these locations would be less than one dBA. Thus, a Less than Significant impact is expected for project-related off-airport traffic noise increases affecting existing residences due to the short-term projects under either the Proposed Project or Alternative 1 and project-related traffic noise increases would not cause traffic noise exposure at existing residences to exceed an established standard.

Noise analyses for the proposed “north side” road have been specifically included in the traffic noise model to determine if significant noise impacts would occur from its use. As previously shown, the addition of the “north side” road is not expected to produce a significant operational noise impact on the residential land uses in the vicinity. Use of the “north side” road would also include emergency vehicles. While emergency vehicle noise from sirens may cause temporary annoyance, the use of emergency sirens would be limited to emergency situations. Local City of Del Rey Oaks noise regulations include exemptions for emergencies (see Section 4.12.2.1). Traffic noise from a new “north side” road, including emergency vehicle use, would be Less than Significant.

Long-Term Project Impacts (Programmatic)

The Proposed Project and Alternative 1 proposed long-term projects would result in new buildings on the north side of the Airport in proximity to Del Rey Oaks as well as along Highway 68 within the City of Monterey. Neither the City of Del Rey Oaks nor the County of Monterey have noise policies addressing operational building noise. However, the City of Monterey Municipal Code Section 38-111 (A) identifies performance standards to be applied to all use classifications in all zoning districts (City of Monterey 2017) (refer to **Table 4.12K**). The City of Monterey’s Community Development Director may require an acoustic study for any proposed project that could have, or create, a noise exposure greater than that identified in the table. Since an acoustic study for future land uses within the City of Monterey’s jurisdiction would be required if deemed necessary, and the city’s performance standards enforced through the development permitting process, operational building noise impacts would be Less than Significant.

Off-airport vehicular noise due to proposed long-term projects would be the same for both the Proposed Project or Alternative 1 (based on the traffic volumes shown in Table 4.16F) and would contribute to cumulative vehicular noise impacts in conjunction with other future projects and regional traffic patterns. These impacts are discussed in Section 5.12 as part of the cumulative impact analysis. Based on the cumulative analysis, the change from “existing” noise levels to “cumulative plus project” would be less than a three dBA CNEL change on the surrounding roadway network. Since the long-term project-related traffic in conjunction with other cumulative traffic would not result in a significant noise impact, the long-term project-related traffic without other cumulative traffic would also be Less than Significant.

Less than Significant Impacts: *A Less than Significant impact is expected for Proposed Project or Alternative 1 off-airport traffic noise increases affecting existing residences due to proposed short- and long-term projects, even for those near the proposed new “north side” road per Threshold 4.12.2-3.*

Operational building noise resulting from the Proposed Project or Alternative 1 would be Less than Significant per Threshold 4.12.2-3.

Threshold 4.12.2-4 - Cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies)

Proposed Project

Construction Impacts

Construction activities would result in a temporary increase in ambient noise. Construction for the Proposed Project is expected to include demolition, site preparation, grading, paving, building construction, and architectural coating. Construction equipment with substantially higher noise-generation characteristics (such as pile drivers, rock drills, blasting equipment) would not be necessary.

Construction noise levels would vary from hour-to-hour and day-to-day, depending on the equipment in use, the operations being performed, and the distance between the source and receptor. It should also be noted that while the City of Del Rey Oaks limits construction noise to 7:00 AM through 7:00 PM daily and the City of Monterey limits construction noise to 7:00 AM through 7:00 PM during the weekday, 8:00 AM through 6:00 PM on Saturday, and 10:00 AM through 5:00 PM on Sunday, the Airport itself allows nighttime construction on areas within the runway and taxiway system and their associated safety zones to avoid the need to close the runway.

The Proposed Project’s construction vehicle assemblage would include standard equipment, such as dozers, tractors, loaders, backhoes, excavators, graders, scrapers, trenchers, lifts, paving equipment, rollers, compressors, and miscellaneous trucks. Construction noise is difficult to quantify because of the many variables involved, including the specific equipment types, size of equipment used, percentage of time in use, condition of each piece of equipment, and number of pieces of equipment that would actually operate onsite. The construction equipment is expected to be spread out, with some equipment occasionally operating along the perimeter of the site. However, most of the time the equipment is expected to be operating near the major improvement areas. As was shown in **Table 4.12L**, most typical construction equipment (with the exception of a concrete saw) would meet the Caltrans guidelines of not producing noise levels exceeding 86 dBA L_{max} at 50 feet from job site activities from 9:00 PM to 6:00 AM.

Table 4.12S shows the proposed short-term project construction activities with phase years and location (north side or south side of the Airport). Phase 1 of the construction is expected to commence in 2019 and continue over a three-year period with expected completion in 2021. This work is specific to the north side of the Airport. Phase 1 includes preparing and installing GA hangars. Phase 1 would also include the construction of a temporary ARFF building. The closest construction to noise-sensitive land uses would occur approximately 650 feet from the residential area along Rosita Road north of the Airport. However, typical construction distances for most sensitive receptors would be at least 1,000 feet during most construction activities.

TABLE 4.12S Construction Activities (Short-Term Projects) Proposed Project			
Construction Phase (Years)	Construction Location	Years per Phase	Description of Construction Activity
Phase 1 (2019-2021)	North	3	Prep for hangar relocation; install hangars/temporary ARFF building
Phase 2 (2022-2026)	South	5	Demolish southeast hangars/ARFF; grade and construct terminal apron, roads, rental car lot; construct terminal parking garage; repair haul road.
Phase 3 (2027)	South	1	Demolish old terminal; construct new ARFF
Phase 4 (2028)	South	1	Restripe Taxiway “A”/move hold lines; construct surface lot/garage along Fred Kane Drive
Phase 5 (2029)	North/South	1	Construct “north side” road; construct Highway 68 frontage loop road
Total		11	

ARFF = aircraft rescue and firefighting

There would be a period of approximately seven years where Phases 2, 3, and 4 would occur on the south side of the Airport (2022 to 2028). On the south side of the airport, two churches, a hotel, and some lower density residential buildings exist. The Shoreline Community Church and Believers Church International are located on Garden Road. The churches would be located about 1,000 feet west of the Phase 2 construction areas and 750 feet from Phases 3 and 4 construction areas. The hotel would be about 250 feet from the frontage road construction and over 300 feet from other construction activities. The closest residence (south of SR 68 and west of Olmsted Road) would be about 650 feet from the frontage road construction and about 1,000 feet from the main areas of construction. Other residences exist in this area but are located further from the proposed construction areas.

Phase 2 would also include earth movement from the south side of the Airport to on-airport disposal areas on the north side. Vehicles would use the east vehicle service road during the day but may travel directly across the runway during late night construction. The closest soil deposition area (the north side berm) would be approximately 200 feet from the residents along Rosita Road.

In 2029, Phase 5 would occur on both the north and south sides of the Airport. During this phase, the proposed “north side” and Highway 68 frontage roads would be constructed. The proposed “north side” road ranges from approximately 200 feet to 1,000 feet from the nearest noise-sensitive receptors (residential). The south side Highway 68 frontage road construction efforts would be located about 1,000 feet from the churches on Garden Road. **Table 4.12T** shows the expected equipment use by phase for the short-term construction phases of the Proposed Project.

The magnitude of the construction noise impact would depend on the type of construction activity, equipment, duration of the construction phase, distance between the noise source and receiver, and any intervening structures. The typical operating cycles for construction equipment involve one or two minutes of full power operation followed by three or four minutes at lower power settings. Noise from construction equipment generally exhibits point source acoustical characteristics. A point source sound is attenuated (i.e., reduced) at a rate of six decibels per doubling of distance from the source for “hard site” conditions and at 7.5 decibels per doubling of distance for “soft site” conditions. A hard site is characterized by ground surface covered by pavement, or hard compacted soils; a soft site is characterized by ground covered with vegetation, or loose soil with a rough surface (such as tilled land). These rules apply to the propagation of sound waves with no obstacles between source and receivers, such as topography (ridges or berms) or structures (FTA 2006).

Table 4.12U shows the RCNM-calculated noise levels at nearby noise-sensitive receptors during construction for the Proposed Project. The RCNM software includes default sound level data and percentage use information for each piece of equipment. The noise levels shown in **Table 4.12U** account for operation of multiple pieces of construction equipment simultaneously for the L_{eq} results. These noise levels are based on surveys conducted by the U.S. EPA in 1971. In the time since 1971, regulations have been enforced to improve noise generated by certain types of construction equipment to meet worker noise exposure standards. Also because of stringent air quality emissions standards, newer, cleaner, and quieter heavy equipment is used on most construction projects in California. Thus, construction phase noise levels indicated in **Table 4.12U** represent worst-case conditions. More details from the RCNM analysis can be found in **Appendix L**.

TABLE 4.12T
Typical Construction Equipment (Short-Term Projects)
Proposed Project

Construction Phase	Equipment	Acoustical Usage Factor (%)	Measured LMax @ 50 feet (dBA, slow)
Phase 1 (north side): Building Construction	Cranes	16	81
	Forklifts	20	75
	Generator Sets	50	81
	Tractors/Loaders/Backhoes	40/40/40	84/79/78
	Trenchers		
	Welders	40	74
Phase 1 (north side): Architectural Coating (hangars)	Air Compressors	40	78
Phase 2 (north side): Transporting Earth to North Side for Disposal	Dump Truck	40	76
Phase 2 (south side): Demolition, Grading, and Construction	Grader	40	85
	Dozer	40	82
	Scraper	40	84
	Front End Loader	40	79
	Generator Sets	50	81
	Tractors/Backhoes	40/40	84/78
Phase 3 (south side): Demolition and Construction	Grader	40	85
	Dozer	40	82
	Scraper	40	84
	Backhoes	40	78
	Forklifts	20	75
	Generator Sets	50	81
Phase 4 (south side): Construction of Parking Lot/Garage	Pavers	50	77
	Paving Equipment	50	77
	Rollers	20	80
Phase 5 (south side): Highway 68 Frontage Road	Excavator	40	81
	Grader	40	85
	Dozer	40	82
	Scraper	40	84
	Backhoes	40	78
Phase 5 (north side): Grading ("North side" Road)	Excavator	40	81
	Grader	40	85
	Dozer	40	82
	Scraper	40	84
	Backhoes	40	78
Phase 5 (north side): Paving ("North side" Road)	Pavers	50	77
	Paving Equipment	50	77
	Rollers	20	80

Source: Dudek 2018 (**Appendix L**, Table 17); EIR Table 4.12L (Source: U.S. DOT 2006)
 L_{max} = The highest value measured by the sound level meter over a given period of time

TABLE 4.12U
RCNM Results Summary
Proposed Project

Description of Activity	Noise-Sensitive Receptor Levels			
	L _{max} (dBA)		L _{eq} (dBA)	
Phase 1: Hangar building construction on north side of Airport (650 feet – residents to north of construction area)	58		61	
Phase 1: Hangar architectural coating on north side of Airport (650 feet – residents to north of construction area)	55		51	
Phase 2: Earth movement on north side of Airport (200 feet – residents to north of construction area)	64		71	
Phase 2: Demolition, grading, and construction on south side of Airport (300 feet - hotel to south of construction area)	69		74	
Phase 2: Demolition, grading, and construction on south side of Airport (1,000 feet - church to west of construction area)	59		64	
Phase 3: Demolition and construction on south side of Airport (300 feet - hotel to south of construction area)	69		73	
Phase 3: Demolition and construction on south side of Airport (750 feet - church to west of construction area)	62		65	
Phase 4: Construction of surface lot/garage on south side of Airport (300 feet - hotel to south of construction area)	74		72	
Phase 4: Construction of surface lot/garage on south side of Airport (750 feet - church to south of construction area)	66		64	
Phase 5: Highway 68 frontage road on south side of Airport (250 feet- hotel to west of construction area)	71		73	
Phase 5: Highway 68 frontage road on south side of Airport (1,000 feet- church to west of construction area)	59		61	
Description of Activity	Multifamily Residences Along Del Rey Gardens Drive			
	Typical Distance from Residents (1,000 feet)		Worst Case Distance from Residents (200 feet)	
	L _{max} (dBA)	L _{eq} (dBA)	L _{max} (dBA)	L _{eq} (dBA)
Phase 5: “North side” Road Grading	59	61	73	74
Phase 5: “North side” Road Paving	59	60	73	74

Source: Dudek 2018 (**Appendix L**, Table 18)

RCNM = Roadway Construction Noise Model (FHWA 2006)

L_{max} = The highest value measured by the sound level meter over a given period of time

L_{eq} = Equivalent Continuous Sound Level (Time-Average Sound Level)

dBA = A-scale weighted decibels

NOTE: L_{max} levels are focused on the single piece of equipment with the highest L_{max}. Since the L_{eq} is the equivalent steady-state sound level that would contain the same acoustical energy as the time-varying sound level during the same time period, the calculated L_{eq} levels can be higher than L_{max} if construction phases include multiple pieces of equipment operating simultaneously.

As **Table 4.12U** shows, the highest noise levels for residential receptors on the north side of the Airport are expected to occur during the “north side” road construction efforts when they are closest to the multifamily residential area near Del Rey Gardens Drive. Construction-related noise levels could reach up to 74 dBA L_{eq} at these multifamily residential areas. While the expected construction L_{eq} would increase the ambient noise levels in the vicinity, the noise levels expected at these residences are not greater than a diesel truck driving at 50 miles per hour about 50 feet away (Caltrans 2013).

On the south side of the Airport during Phases 2, 3, 4, and 5, the closest noise-sensitive receptors include a hotel, churches, and residences. Construction noise levels at the closest noise-sensitive receptor, the hotel, are expected to be up to 74 dBA L_{eq} . Calculated construction noise levels at the churches on Garden Road would be up to 65 dBA L_{eq} , which is less than a lawn mower at 100 feet (Caltrans 2013). Noise levels at the nearest residence would be similar to the churches on Garden Road.

These levels of construction noise are allowed during the daytime hours by both the City of Del Rey Oaks and the City of Monterey. However, during Phase 2, some on-airport construction activities are expected to occur during nighttime hours due to a potential need to close the runway during construction. With at least some of the expected construction activity occurring during nighttime hours, construction operations are considered a Potentially Significant temporary noise impact in the short term. See Section 4.12.2.6 for mitigation.

Exhibit 4.12G shows proposed construction vehicle haul routes. Construction vehicles are proposed to travel along Airport Road through the Casanova Oak Knoll (CONA) neighborhood to reach N. Fremont Street. However, as shown in **Table 4.12V**, no construction traffic would use Airport Road or N. Fremont Street during the proposed nighttime construction. During Phases 2 through 4, all construction trips occurring at night would access the south side of the Airport through Olmsted Road via Highway 68. Earth moved from south to the north side of the Airport during Phase 2 would use on-airport haul routes.

TABLE 4.12V
Construction Trips as a Percentage of Existing ADT (Short-Term Projects)
Proposed Project

Construction Phase	Total Daily Construction Trips ¹ (PCE)	Construction Area of Airport	Proposed Project Haul Routes ²	Existing ADT	Construction Trips – Percentage of ADT ³
1	26	North side	Airport Road	2,400	1.1 %
1	26	North side	N. Fremont Street	19,000	0.1 %
2	40	South side	Olmsted Road	5,800	0.7 %
2	40	South side	Highway 68	18,800	0.2 %
3	12	South side	Olmsted Road	5,800	0.2 %
3	12	South side	Highway 68	18,800	0.1 %
4	74	South side	Olmsted Road	5,800	1.3 %
4	74	South side	Highway 68	18,800	0.4 %
5	34	North side	Airport Road	2,400	1.4 %
5	34	North side	N. Fremont Street	19,000	0.2 %
5	24	South side	Olmsted Road	5,800	0.4 %
5	24	South side	Highway 68	18,800	0.1 %

Source: Dudek 2018 (**Appendix L**, Table 16)

ADT = average daily traffic/trips

PCE = passenger car equivalent

¹ Total daily construction trips include truck trips converted to PCE.

² Haul routes include roads closest to the project areas that would be most affected by construction vehicle trips.

Construction vehicle trips would disperse onto other roads as they move farther from the project site, reducing the potential for construction traffic trips.

³ Haul routes and construction phases where construction-related trips would represent more than one percent of existing daily traffic are bolded.



Map data ©2018 Google

Source: Mott MacDonald 2018

Construction traffic is expected to increase the existing ADT by less than two percent in all short-term construction phases. With less than a two percent increase in ADT due to construction traffic, the traffic noise increase due to the proposed short-term project construction traffic is expected to be less than three dBA.

Proposed long-term non-aeronautical projects could occur on the north and south sides of the Airport. These areas would be outside the runway system and would not need to be constructed at night. No long-term site-specific development plans, land uses, densities, or intensities have been proposed for the long-term project component phase, and site-specific development information for the long-term project components is infeasible and speculative. Further environmental review and analysis would be performed, as appropriate under CEQA, when more definitive long-term development plans are proposed.

However, as part of BIO/mm-26 and shown on Exhibit 4.4D, the Proposed Project includes a conservation area for biological mitigation along the Airport's property line on the north side. In addition, the existing berm along the northern property line is planned to be raised approximately six feet and widened to approximately 30 feet. The conservation and berm areas would be revegetated with additional native trees and plants and would provide a minimum of a 100-foot buffer between the closest residences and potential future development. The additional physical and vegetative buffer would serve to reduce construction noise associated with long-term construction projects.

As long as the north side daytime construction activity coincides with the City of Del Rey Oaks' noise ordinance of 7:00 AM to 7:00 PM (NOI/mm-3, Section 4.12.2.6), short- and long-term daytime construction noise impacts would be Less than Significant. Proposed project components on the south side along Highway 68 within the City of Monterey jurisdiction would be required to comply with the City of Monterey policies and ordinances regarding construction noise (NOI/rr-2, Section 4.12.2.6). This compliance would reduce construction noise impacts to a Less than Significant Level.

In terms of construction vehicular noise, as no long-term site-specific development plans, land uses, densities, or intensities have been proposed for the long-term project components, site-specific development information for the proposed long-term project components is infeasible and speculative. However, to increase traffic noise levels by three dBA, a doubling of existing ADT would be required. The long-term construction traffic noise increase is therefore expected to be below the discernible level of change for the average human ear.

Alternative 1

Construction Impacts

Table 4.12W shows the proposed short-term project construction activities with phase years and location (north side or south side of the Airport) for Alternative 1. Phase 1 of construction is expected to commence in 2019 and then continue over a three-year period, with expected completion in 2021. This work is specific to the north side of the Airport. Phase 1 includes preparing and installing general aviation hangers. Phase 1 would also include the construction of a permanent ARFF building and the new "north

side” road. Some hangar construction will occur approximately 650 feet from the residential area along Rosita Road. However, typical construction distances for these sensitive receptors would be at least 1,000 feet during most construction activities. Under Alternative 1, Phase 1 construction would also include the proposed “north side” road. Residences along Del Rey Gardens Drive would experience construction as close as 200 feet for this part of the project. Other phases of Alternative 1 on the south side of the Airport (short-term projects) and either side for the long-term projects would be similar to the Proposed Project (see Less than Significant impacts above).

TABLE 4.12W
Construction Activities (Short-Term Projects)
Alternative 1

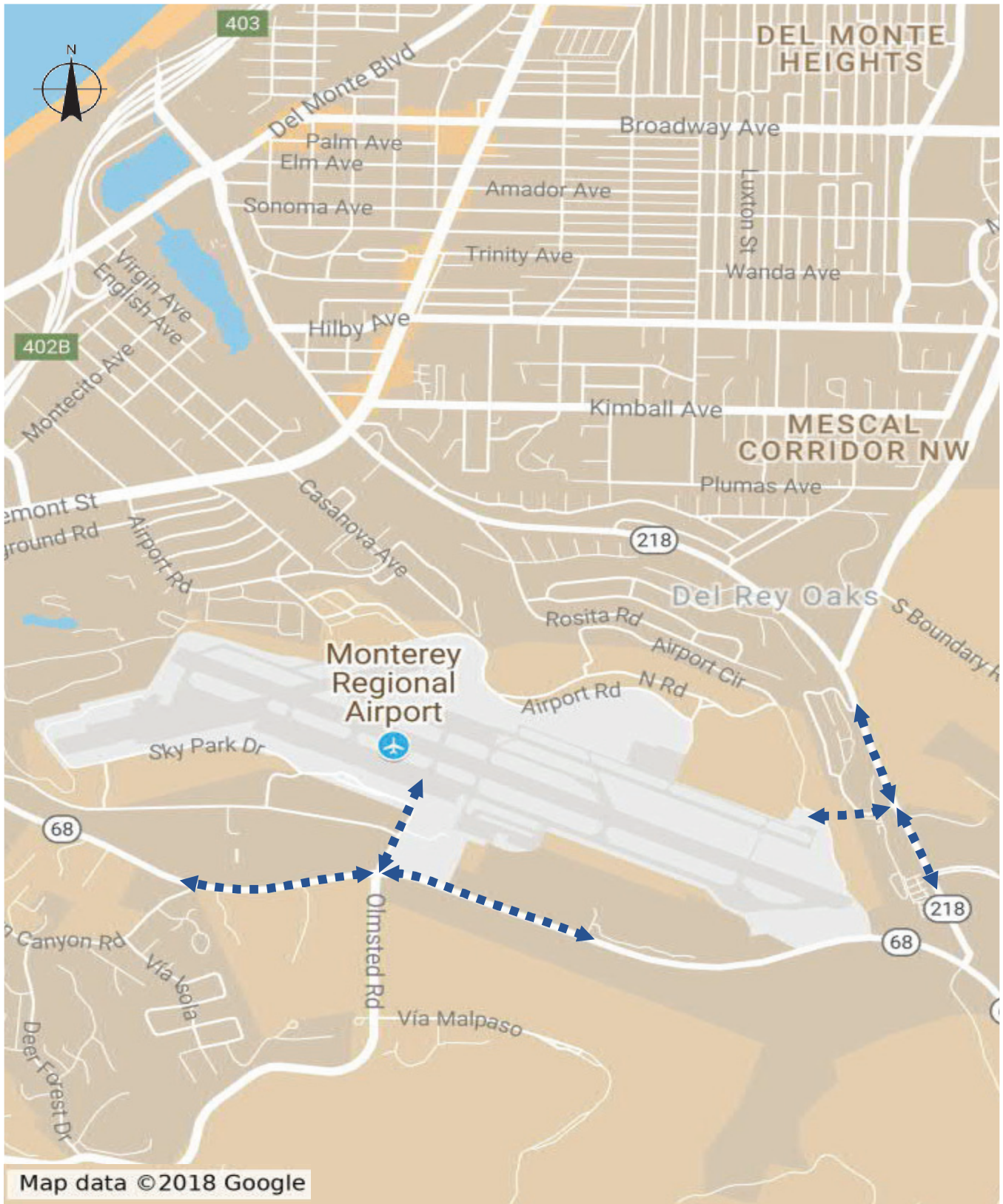
Construction Phase (Years)	Construction Location	Years per Phase	Description of Construction Activity
Phase 1 (2019-2021)	North	3	General aviation hangar preparation; install hangars/permanent ARFF building; construct new “north side” road
Phase 2 (2022-2025)	South	4	Demolish southeast hangars/ARFF; grade and construct terminal apron, roads, rental car lot; construct terminal parking garage; repair haul road
Phase 3 (2026)	South	1	Restripe Taxiway “A”/move hold lines; demolish old terminal
Phase 4 (2027)	South	1	Construct replacement surface parking along Fred Kane Drive
Phase 5 (2028)	South	1	Construct Highway 68 frontage cul-de-sac
Total		10	

ARFF = aircraft rescue and firefighting

The main results from the project construction analysis under the Proposed Project apply to Alternative 1. For Alternative 1, the proposed “north side” road would be included in Phase 1 (not Phase 5). The noise impacts for residences along Del Rey Gardens Drive would remain the same but would occur during a different phase of construction. All other construction noise impacts would generally be the same for Alternative 1 as the Proposed Project. With at least some of the expected construction activity occurring during nighttime hours, construction operations are considered a Potentially Significant temporary noise impact. See Section 4.12.2.6 for mitigation.

Exhibit 4.12H shows proposed construction vehicle haul routes for Alternative 1. Construction vehicles are proposed to travel along Del Rey Gardens Drive instead of Airport Road. As shown in **Table 4.12X**, construction traffic is expected to increase the ADT by less than four percent in all proposed short-term project construction phases. With less than a four percent increase in ADT due to construction traffic, the traffic noise increase due to the proposed short-term project construction traffic is expected to be less than three dB.

Proposed non-aeronautical long-term projects under Alternative 1 would be the same as the Proposed Project. These areas would be outside the runway system and would not need to be constructed at night. In addition, as part of BIO/mm-26 and shown on Exhibit 4.4D, the Proposed Project includes a conservation area for biological mitigation along the Airport’s property line on the north side. As long as the north side daytime construction activity coincides with the City of Del Rey Oaks’ noise ordinance of 7:00 AM to 7:00 PM (NOI/mm-3, Section 4.12.2.6), short- and long-term daytime construction noise impacts would be Less than Significant. Proposed projects on the south side along Highway 68 within



Map data ©2018 Google

Source: Mott MacDonald 2018

the City of Monterey jurisdiction would be required to comply with the City of Monterey policies and ordinances regarding construction noise (NOI/rr-2, Section 4.12.2.6). This compliance would reduce construction noise impacts to a Less than Significant Level.

TABLE 4.12X
Construction Trips as a Percentage of Existing ADT (Short-Term Projects)
Alternative 1

Construction Phase	Total Daily Construction Trips ¹ (PCE)	Construction Area of Airport	Alternative 1 Haul Routes ²	Existing ADT	Construction Trips - Percentage of ADT ³
1	38	North side	Del Rey Gardens Drive	1,000	3.8%
1	38	North side	Highway 68	13,200	0.3 %
2	50	South side	Olmsted Road	5,800	0.9 %
2	50	South side	Highway 68	18,800	0.3 %
3	10	South side	Olmsted Road	5,800	0.2 %
3	10	South side	Highway 68	18,800	0.1 %
4	58	South side	Olmsted Road	5,800	1.0 %
4	58	South side	Highway 68	18,800	0.3 %
5	10	South side	Olmsted Road	5,800	0.2 %
5	10	South side	Highway 68	18,800	0.1 %

Source: Dudek 2018 (Appendix L, Table 16)

ADT = average daily traffic/trips

PCE = passenger car equivalent

¹ Total daily construction trips include truck trips converted to PCE.

² Haul routes include roads closest to the project areas that would be most affected by construction vehicle trips. Construction vehicle trips would disperse onto other roads as they move farther from the project site, reducing the potential for construction traffic trips.

³ Haul routes and construction phases where construction-related trips would represent more than one percent of existing daily traffic are bolded.

In terms of construction vehicular noise, no long-term site-specific development plans, land uses, densities, or intensities have been proposed for the long-term project phase, and site-specific development information for the proposed long-term projects under Alternative 1 is infeasible and speculative. Further environmental review and analysis would be performed, as appropriate under CEQA, when more definitive long-term development plans are proposed. However, to increase traffic noise levels by three dB, a doubling of existing ADT would be required. The expected short- and long-term project construction traffic noise increase is therefore below the discernible level of change for the average human ear. Thus, a Less than Significant impact is expected for Alternative 1 construction traffic noise increases affecting existing residences in the vicinity.

Less than Significant Impacts:

All future construction activity occurring within the daylight hours of 7:00 AM to 7:00 PM (or per City of Monterey noise ordinance stipulations if located within the City of Monterey jurisdiction) would result in Less than Significant impacts to adjacent noise-sensitive land uses under either the Proposed Project or Alternative 1 per Threshold 4.12.2-1.

Long-term construction on the north side would occur during the daylight hours only, would not occur within a minimum of 100 feet from neighboring residents, and would be buffered by a vegetated berm and/or biological conservation area under either the Proposed Project or Alternative 1 (BIO/mm-26). This would result in Less than Significant impacts to adjacent noise-sensitive land uses per Threshold 4.12.2-1.

The expected short- and long-term project construction traffic noise increase would be below the discernible level of change for the average human ear. Thus, a Less than Significant impact is expected for either Proposed Project or Alternative 1 construction traffic noise increases per Threshold 4.12.2-1.

Significant Impact NOI-4:

Some construction activities (Phase 2 of proposed short-term projects) under either the Proposed Project or Alternative 1 are expected to occur during nighttime hours when nearby residents would be more sensitive to noise. With at least some of the expected construction activity occurring during nighttime hours, construction operations are considered a Potentially Significant temporary noise impact.

4.12.2.6 Mitigation Program

Significant impact NOI-4 under Threshold 4.12.2-4 would occur under either the Proposed Project or Alternative 1. The following mitigation measures would reduce potential construction noise impacts to Less than Significant. (See Section 4.12.1.6 under Aircraft Noise for NOI/mm-1 and NO/rr-1).

Proposed Project and Alternative 1

NOI/mm-2: To address potential impacts of nighttime noise-generating construction activities, the following mitigation measures shall be incorporated into the short-term projects:

1. Construction truck hauling operations may proceed through the CONA neighborhood only in the time period from 7:00 AM to 7:00 PM. Outside these hours, construction hauling activity shall use a route that does not proceed through the CONA neighborhood. (Proposed Project only)
2. For construction activity occurring within approximately 500 feet of residences, portable noise barriers shall be installed near nighttime construction areas. The locations of the barriers should break the line-of-sight from the construction area(s) to any residential locations visible from the construction area. This may include erection of temporary plywood

barriers to create a break in the line-of-sight, or erection of a tent employing sound blanket walls around the stationary noise source(s).

3. Construction vehicles shall minimize idling time either by shutting equipment off when not in use or reducing the time of idling to no more than 3 minutes (5-minute limit is required by the state airborne toxics control measure (CCR, Title 13, Sections 2449(d)(3) and 2485);
4. Adjacent property owners shall be notified of the construction schedule.
5. All noise-producing project equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specification. Mobile or fixed “package” equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment.
6. The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.

NOI/mm-3: Proposed north side project component daytime construction activity shall comply with the City of Del Rey Oaks’ noise ordinance of 7:00 AM to 7:00 PM.

Regulatory Requirements

NOI/rr-2: Proposed projects on the south side along Highway 68 within the City of Monterey jurisdiction would be required to comply with the City of Monterey policies and ordinances regarding construction noise.

4.12.2.7 Level of Significance After Mitigation

Table 4.12Y summarizes the potentially significant impacts related to construction noise for the Proposed Project and Alternative 1 (Impact NOI-2). Upon implementation of NOI/mm-2 and NOI/mm-3, potentially significant impacts related to construction noise would be Less than Significant.



TABLE 4.12Y
Summary of Potentially Significant Impacts and Mitigation – Land-Based Noise
Proposed Monterey Regional Airport Master Plan

Proposed Project	Mitigation Program	Alternative 1	Mitigation Program	Level of Significance after Mitigation
Threshold 4.12.1-4 - Cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies)				
Impact NOI-4: Some construction activities are expected to occur during nighttime hours when residents are especially sensitive to noise.	NOI/mm-2 and NOI/mm-3	Same as Proposed Project	NOI/mm-2 and NOI/mm-3	Less than Significant

Chapter Four

4.13 – POPULATION AND HOUSING

4.13.1 Regulatory Setting

The Association of Monterey Bay Area Governments (AMBAG) is a Joint Powers Authority (JPA) comprised of elected officials from each city and county within the region (defined by AMBAG as the counties of Monterey, San Benito, and Santa Cruz), and is both a federally designated metropolitan planning organization (MPO) and council of governments (COG). As such, AMBAG conducts regional growth forecasts (*2018 Regional Growth Forecast* and *2014 Regional Growth Forecast*), prepares regional housing plans (*Regional Housing Needs Allocation Plan: 2014-2023*), and performs metropolitan-level transportation planning (*2040 Metropolitan Transportation Plan/Sustainable Communities Strategy* and *2035 Metropolitan Transportation Plan/Sustainable Communities Strategy*). Its 2018 regional growth forecast figures for population, jobs, and housing were accepted by the AMBAG Board in October 2016, and officially adopted June 13, 2018 (AMBAG 2018).

In addition to AMBAG and county-level demographic and economic data, two private industry sources provide nationwide commercial sector data. The Building Owners and Management Association (BOMA) International monitors income and expenses (including employment) in the commercial real estate industry. With information from more than 5,200 buildings in 272 distinct markets across the United States (U.S.) and Canada, this private organization maintains more office sector data than any other comparable industry source (Facility Executive.com 2018).

Employment data can also be obtained from the United States Green Building Council (USGBC), which is a private, non-profit organization that maintains a database for approximately 100,000 commercial projects that are participating in the Leadership in Energy and Environmental Design (LEED) green building certification program. The *2015 Green Building Economic Impact Study* found that LEED will contribute 386,000 jobs to the U.S. economy by 2018 (USGBC website 2018a).

4.13.2 Methodology

Direct population growth related to a project is determined by whether the project would construct or displace housing units and, thus, affect population in the region. Neither the Proposed Project nor Alternative 1 would construct or displace housing units; therefore, there would be no direct impacts; therefore, the analysis provided in this EIR focuses on indirect impacts to population and housing.

For indirect impacts to population or housing, this EIR looks at the employment potential of the Proposed Project or Alternative 1 as a reasonable method for evaluating potential indirect population growth that could result from project implementation. Both the 2014 and the 2018 AMBAG regional growth forecasts employ a methodology that emphasizes employment growth as the primary driver of long-term population change at the regional scale. This approach was tested against the results of a cohort-component forecast (i.e., tracking births, deaths, and migration), as well as against a growth trend forecast and the most recent forecast published by the California Department of Finance. All four models resulted in similar population growth trends (AMBAG 2018:5).

To the extent that employment opportunities created at the Airport are: 1) beyond what was anticipated by the AMBAG growth forecast for the county; 2) are in areas of the county not in proximity to suitable housing; and 3) require persons with skills not readily available in the area, additional demand for housing and associated population growth could result. However, vacancy rates also influence housing growth, as well as the median household income when compared to the median housing prices. The following analysis provides a qualitative evaluation of the likelihood for employment opportunities under the Proposed Project or Alternative 1 to have a substantial effect on growth patterns predicted for the county. Employment rates for the office and industrial sectors have been taken from research completed on the private sector by BOMA as reported in its 2016 Office Experience Exchange Report (Office EER) and 2016 Industrial Experience Exchange Report (Industrial EER), as well as from the USGBC (Facility Executive.com 2018; USGBC website 2018b).

4.13.3 Existing Conditions

Table 4.13A provides existing conditions (2015) and AMBAG’s projected growth for Monterey County through the 20-year planning period of the Proposed Airport Master Plan (Proposed AMP) (2035) (Proposed Project) in terms of population, housing, and employment. The most recent available growth forecasts for the region are in AMBAG’s 2018 forecast, which was adopted on June 13, 2018. This forecast projects slightly slower growth than in previous forecasts, following the slowing growth rates seen at both the state and federal levels, and uses the most current population estimates for the region. The adjustments made by AMBAG to the forecasts reflect a fall in fertility rates, international migration trends that occurred during the most recent recession years (2008-2009), and an older age distribution with a larger proportion of the population age 65 and older (AMBAG 2018:8).

	2015	2020	2025	2030	2035	Change 2015-2035	
						Numeric	Percent
Employment	203,550	211,799	218,203	224,207	230,212	26,662	13%
Population	432,637	448,211	462,678	476,588	489,451	56,814	13%
Housing	138,177	144,491	149,032	153,708	158,151	19,974	14%
Jobs to Housing Ratio	1.47	1.47	1.46	1.46	1.46	0.01	0.01%

Source: AMBAG 2018, *2018 Regional Growth Forecast*, Technical Documentation.

Over the next 20 years, AMBAG anticipates that Monterey County will add approximately 26,660 new jobs, 56,810 more people, and 20,000 additional housing units (including group quarters, such as university housing). According to AMBAG, approximately 56 to 57 percent of the region’s growth in all three growth indicators (employment, population, and housing) will occur in Monterey County. AMBAG residents have a higher population-to-jobs ratio than either the state or the nation because some AMBAG residents commute to jobs outside the region, principally to jobs in Santa Clara County (AMBAG 2018:21).

Unemployment and vacancy rates in the communities in proximity to the Airport are shown in **Table 4.13B**. Unemployment rates in 2015 and 2016 were approximately one percent higher in Monterey County than in the Seaside-Monterey Census County Division (CCD). Homeowner vacancy rates in both the county and the Seaside-Monterey CCD were less than 2.0 percent, while rental vacancy rates were 4.2 percent in the county and 1.2 percent or lower in the Seaside-Monterey CCD (U.S. Census, American Community Survey).

As shown in **Table 4.13B**, median household income in Monterey County was \$58,783 in 2015 and \$60,889 in 2016. Median household income in the Seaside-Monterey CCD was \$62,896 in 2015 and \$65,405 in 2016. The median monthly mortgage cost in Monterey County was \$2,097 in 2015 and \$2,081 in 2016. In the Seaside-Monterey CCD, the median monthly mortgage cost was \$2,329 in 2015 and \$2,340 in 2016. Median rental costs per unit in Monterey County were \$490 in 2015 and \$505 in 2016. In the Seaside-Monterey CCD, the median rental costs per unit were \$502 in 2015 and \$522 in 2016 (U.S. Census, American Community Survey).

	Monterey County		Seaside-Monterey CCD	
	2015	2016	2015	2016
Unemployment Rate (Civilian)	8.4 %	6.9%	7.3%	5.9%
Median Household Income	\$58,783	\$60,889	\$62,896	\$65,405
Homeowner Vacancy Rate	1.9%	1.7%	1.0%	0.8%
Rental Vacancy Rate	4.2%	4.2%	1.2 %	1.0%
Percent of Housing Units Occupied by Renters	50.8%	50.3%	58.2%	58.1%
Median Monthly Mortgage	\$2,097	\$2,081	\$2,329	\$2,340
Median Cost of Rental Housing Units	\$490	\$504	\$502	\$522

Source: U.S. Census Bureau, American FactFinder, DP03, Selected Economic Characteristics, and DP04, Selected Housing Characteristics, 2015-2016 American Community Survey 5-Year Estimates.
CCD = Census County Division

AMBAG also provides information on employment by major industry sector. The region is expected to have moderate growth between 2015 and 2035. The following is a summary of the industry-level trends in the region (AMBAG 2018):

- Agricultural job growth has been strong for the past ten years, and while the rate of growth is expected to slow, the region’s agricultural industry will still grow faster than state or national

projections. (Note: these projections may change due to the legalization of recreational cannabis per Proposition 64.)

- Construction job losses were steep during the recession. The sector began to recover between 2010 and 2015. Future growth is expected to be slow.
- The region lost manufacturing jobs during the recession, but recent years have seen a turnaround. Growth is expected to be steady in future years.
- The wholesale and retail sectors both lost jobs in recession years, and both saw modest growth between 2010 and 2015. Growth is expected to remain modest through the forecast.
- Transportation, warehousing, and utilities jobs were stable during the recession and have grown rapidly since then. The sector is expected to continue growing.
- Financial services suffered substantial job losses during the recession, and the sector is recovering slowly.
- Professional and business services suffered some losses during the recession, but growth has been robust since 2010.
- Education and health services has seen steady growth, even in recession years. This is expected to continue as the population ages and demand for health services increases.
- The leisure and hospitality services sector lost jobs in the region during the recession, but growth rebounded between 2010 and 2015.
- Other services remained stable during the recession, and the sector is expected to continue growing.
- The government sector, locally, lost jobs between 2008 and 2013 as a result of the recession. Those losses began to reverse in 2014, and the sector is expected to see modest growth in the future.
- Self-employment tends to be counter-cyclical as people who lose their wage-and-salary job during a recession may turn to self-employment. Growth forecasts are based primarily on population growth.

Exhibit 4.13A provides AMBAG employment forecasts up to 2040¹ by industry for Monterey County and the coastal areas. Within the coastal areas, by 2035 the industrial sector is projected to increase from 2,040 jobs to 2,319; the retail sector is projected to increase from 8,403 jobs to 9,053; and the service sector is projected to increase from 22,417 to 26,081. Overall, a total of an additional 279 industrial jobs, 650 retail jobs, and 3,664 service sector jobs are anticipated in the coastal areas of the county from 2015 to 2035 (AMBAG 2018).

¹ Although the AMBAG study forecasts growth through 2040, this EIR reports growth through 2035, which is the planning horizon of the Proposed AMP.

Monterey County - Costal	2015	2020	2025	2030	2035	2040
Regional Total	337,600	351,800	363,300	374,100	384,800	395,000
Monterey County Total	203,550	211,799	218,203	224,207	230,212	235,822
Carmel-By-The-Sea						
Agricultural	16	17	17	17	17	17
Construction	46	46	47	48	49	49
Industrial	106	111	115	117	120	122
Retail	450	458	467	476	483	492
Service	1,907	1,956	2,022	2,091	2,157	2,215
Public	223	219	233	245	257	269
Self-Employed	187	190	195	201	207	213
TOTAL	2,935	2,998	3,096	3,195	3,289	3,378
Del Rey Oaks						
Agricultural	0	0	0	0	0	0
Construction	17	17	17	18	18	18
Industrial	5	5	6	6	6	6
Retail	118	120	123	125	127	129
Service	151	157	165	173	180	188
Public	24	24	25	26	27	29
Self-Employed	44	47	51	56	60	63
TOTAL	359	371	387	404	418	432
Marina						
Agricultural	13	14	14	14	14	15
Construction	385	389	393	400	408	416
Industrial	210	222	229	235	240	245
Retail	1,359	1,386	1,413	1,450	1,481	1,528
Service	2,168	2,267	2,384	2,503	2,618	2,731
Public	1,571	1,708	1,751	1,795	1,840	1,888
Self-Employed	634	664	702	742	771	798
TOTAL	6,340	6,649	6,886	7,140	7,373	7,620
Monterey						
Agricultural	988	1,031	1,036	1,039	1,045	1,046
Construction	906	916	925	944	962	981
Industrial	1,367	1,417	1,467	1,509	1,542	1,575
Retail	3,355	3,419	3,485	3,551	3,603	3,668
Service	13,431	13,831	14,432	15,049	15,615	16,144
Public	12,090	11,896	12,605	13,241	13,896	14,558
Self-Employed	1,894	1,923	2,020	2,073	2,152	2,200
TOTAL	34,030	34,434	35,970	37,405	38,814	40,173
Pacific Grove						
Agricultural	0	0	0	0	0	0
Construction	190	192	194	198	201	205
Industrial	92	98	101	105	107	110
Retail	753	768	783	797	809	824
Service	1,977	2,021	2,093	2,182	2,251	2,317
Public	1,508	1,533	1,606	1,674	1,744	1,815
Self-Employed	481	483	495	510	525	538
TOTAL	5,000	5,093	5,272	5,466	5,637	5,808
Sand City						
Agricultural	0	0	0	0	0	0
Construction	117	118	120	122	124	127
Industrial	110	117	121	125	128	131
Retail	691	711	725	739	749	763
Service	468	488	526	566	602	628
Public	63	62	64	66	68	70
Self-Employed	68	72	76	80	85	90
TOTAL	1,517	1,569	1,633	1,698	1,758	1,810
Seaside						
Agricultural	0	0	0	0	0	0
Construction	316	319	323	329	335	342
Industrial	150	160	167	172	176	195
Retail	1,677	1,710	1,743	1,776	1,801	1,834
Service	2,315	2,392	2,480	2,572	2,658	2,740
Public	4,193	4,565	4,678	4,795	4,913	5,039
Self-Employed	999	1,016	1,065	1,082	1,136	1,149
TOTAL	9,650	10,161	10,455	10,726	11,020	11,299

The Airport itself currently has approximately 64 employees based at the existing commercial terminal and parking areas. These include administration and maintenance personnel, parking attendants, and staff for terminal amenities, such as car rentals, a restaurant, and a gift shop. As of April 2018, the U.S. Transportation Security Administration (TSA) employed 56 persons, while the airlines had 72 employees, all of whom are also based at the existing commercial terminal.

The Monterey Regional Airport Police Department is staffed with one Police Chief, one Supervisor, four full-time Officers, and six part-time Officers, who are also based out of the Airport's Administrative Offices in the existing commercial terminal. The aircraft rescue and firefighting (ARFF) building is staffed with firefighters, who are City of Monterey employees, 24 hours per day. At least four firefighters are on duty for any given shift.

Private tenants, such as the fixed base operators (FBOs) or other lessees, and Federal Aviation Administration employees at the air traffic control tower (ATCT) are not included in these employment totals.

4.13.4 Thresholds of Significance

The following thresholds of significance for population and housing have been taken from the *California Environmental Quality Act* (CEQA) Guidelines, Appendix G (2017). Significant population and housing impacts would occur if the Proposed Project or Alternative 1 would:

- Threshold 4.13-1: Induce substantial population growth in an area, either directly or indirectly; or
- Threshold 4.13-2: Displace substantial numbers of existing housing or numbers of people, necessitating the construction of replacement housing elsewhere.

4.13.5 Impact Analysis

4.13.5.1 Threshold 4.13-1 - Induce substantial population growth in an area, either directly or indirectly

Proposed Project and Alternative 1

Since no housing would be created or displaced by the Proposed Project or Alternative 1, no direct population or housing impacts due to construction or operation of the proposed short- and long-term projects would occur.

Indirect population impacts are related to employment opportunities. The Proposed Project and Alternative 1 include proposed short- and long-term projects that could result in a potential increase in the Airport's revenue-support opportunities (i.e., non-aeronautical land uses), which could, in turn, provide new jobs. However, no actual development plans have been prepared at this time and the timing of future buildout is unknown. This type of non-aeronautical development would be subject to

market factors that may or may not be favorable to the Airport and are speculative at this time. In addition, some new jobs could be created by the proposed relocated commercial terminal complex as discussed below. For example, additional areas for rental car counters or other passenger amenities within the relocated commercial terminal could slightly increase employment opportunities.

This analysis provides a conservative generalized estimate of the amount of employment that could occur based on future buildout of the Airport and uses the buildout scenarios contained in the traffic report. Representative land uses were assumed, which include general light industrial and office park on the north side of the Airport, and high-turnover restaurant, medical-dental office, and general office on the south side of the Airport. These non-aviation land uses were chosen for evaluation to represent a conservative assessment of possible future development upon airport buildout. Based on these assumptions, approximately 94,000 sf of general office, 45,000 sf of medical-dental office, and 10,000 sf of retail could occur on non-aviation parcels along Highway 68 based on allowable land uses per City of Monterey zoning. On the north side of the Airport, up to 400,000 sf of light industrial and 325,000 sf of office space was assumed.

Using average rates provided by research by BOMA and the USGBC, the proposed employment opportunities at the Airport could include approximately 1,575 office jobs. This is based on a rate of 310 sf per office worker for private-sector office jobs ($419,000 \text{ sf} \div 310 \text{ sf/worker} = 1,352$ general office jobs) and 225 medical-dental office jobs ($45,000 \text{ sf} \div 200 \text{ sf/worker} = 225$ medical-dental office jobs). Another 100 restaurant jobs could occur ($10,000 \text{ sf} \div 100 \text{ sf/worker} = 100$ restaurant jobs). Based on a rate of 525 sf per industrial worker for private-sector industrial jobs, the proposed employment opportunities at the Airport could also include approximately 760 light industrial jobs ($400,000 \text{ sf} \div 525 \text{ sf/worker} = 762$ jobs) (FacilityExecutive.com 2018; USGBC website 2018b).

Most existing jobs associated with the existing commercial terminal and ARFF building are expected to remain the same as a result of the Proposed Project or Alternative 1. However, airport management estimates that the proposed relocated commercial terminal could provide employment opportunities for an additional 14 jobs related to concessions (i.e., restaurants, gift shops, and vending machines) or other passenger amenities as the new building could provide more space for these types of functional areas.

Including future employment opportunities with the proposed relocated commercial terminal, total employment opportunities based on proposed short- and long-term projects could be as many as 2,500 jobs. According to the 2040 AMBAG regional growth forecasts, employment in Monterey County from 2015 to 2035 is expected to grow by 26,662 jobs (**Table 4.13A**). Thus, the employment opportunities at the Airport due to proposed short- and long-term projects could represent approximately 9.4 percent of these countywide jobs.

The wholesale and retail sectors, the transportation sector, and the professional and business sectors are anticipated by AMBAG to experience moderate to robust growth over the next 20 years. In general, the types of jobs created by the Proposed Project or Alternative 1 are anticipated in the most current county and regional growth forecasts. However, the AMBAG growth forecast contains very moderate employment growth in the Monterey County coastal areas. To the extent that the Airport experiences

the type of buildout included in the conservative assumptions analyzed in this EIR, the job opportunities created would outpace these localized employment forecasts for the coastal areas. Thus, future employees may also live in other areas of the county and commute to the Airport.

Since the Airport is centrally located within the Seaside-Monterey CCD, the new employment opportunities would be considered “infill,” rather than the creation of a new employment center located away from available housing. In addition, the jobs created would not require a specialized set of skills that is not available within the county employment pool. In both the county overall and in the Seaside-Monterey CCD, over half of the occupied housing units are rentals. The addition of jobs at the Airport is not expected to change this general housing characteristic.

AMBAG’s most recent population forecasts for the county match the anticipated growth in employment and housing, and the jobs-to-housing ratio for Monterey County is expected to change less than 0.01 percent over the next 20 years (**Table 4.13-1**). This indicates that additional jobs are not likely to generate substantial population or housing growth. Since the jobs that could be created by the Proposed Project or Alternative 1 are anticipated in the most current countywide and regional growth forecasts and would not require special skills that are not available within the county employment pool overall, indirect impacts to population and housing are Less than Significant.

Less than Significant Impact: Substantial new housing and related population growth, either directly or indirectly, would not be induced by the Proposed Project or Alternative 1 and direct or indirect population or housing impacts related to Threshold 4.13-1 would be Less than Significant.

4.13.5.2 Threshold 4.13-2 - Displace substantial numbers of existing housing or numbers of people, necessitating the construction of replacement housing elsewhere

Proposed Project and Alternative 1

The Proposed Project and Alternative 1 would not displace existing housing or people. The Airport does not contain housing on its property and the parcels recommended for proposed acquisition are either vacant or currently developed with office buildings.

Less than Significant Impact: The Proposed Project and Alternative 1 would not displace existing housing or people. Thus, no impacts related to Threshold 4.13-2 would occur.

4.13.6 Mitigation Program

No mitigation is necessary as impacts are Less than Significant.

Chapter Four

4.14 – PUBLIC SERVICES (Fire Protection, Emergency Services, and Police Protection)

This Environmental Impact Report (EIR) section addresses several related types of public services: fire protection, emergency services, and police protection. Based on the Initial Study completed on the Proposed Project (**Appendix A**), there is no potential for impacts to schools, parks, or other public facilities as a result of the project since it would not construct any housing or generate additional residents or students. Even indirectly, the Proposed Project and Alternative 1 would not generate substantial new population, housing, or recreational demand (Section 4.13 and Section 4.15). Therefore, impacts to schools, parks, or other public facilities are not discussed further in this section.

4.14.1 Regulatory Setting

Many federal and state emergency services are focused on high profile or catastrophic events, such as acts of terrorism and widespread emergency actions like earthquake or wildfire response. For a discussion of the Airport's emergency evacuation procedures, see Section 4.9.1. Federal laws and regulations applicable to fire protection, emergency services, and/or law enforcement at the Airport include the National Fire Protection Association (NFPA) Code, which provides the basis for fire protection and emergency services, and the *Aviation and Transportation Security Act*. Federal agencies that have law enforcement, fire protection, and/or emergency services jurisdiction over activities at the Airport also have their own applicable regulations. These agencies include the Federal Aviation Administration (FAA) and the Transportation Security Administration (TSA). The following paragraphs focus on a discussion of regulations that are directly related to the airport setting.

Federal Regulations

Federal Fire Prevention and Control Act of 1974/Federal Fire Safety Act of 1992

The *Federal Fire Prevention and Control Act of 1974* was created to provide federal assistance to states and communities for research and development, education, and training on fire problems, setting priorities, and identifying possible solutions to problems. The 1974 Act was amended in 1992 by the *Federal Fire Safety Act of 1992* to require, among other things, automatic sprinkler systems or an equivalent level of safety on buildings having more than 25 employees that have been purchased, constructed, or renovated with federal funds.

Aviation and Transportation Security Act

On November 19, 2001, the *Aviation and Transportation Security Act* (ATSA) was enacted. ATSA created TSA and transferred authority for enforcement of civil aviation security requirements (Code of Federal Regulations [CFR], Title 49, Part 1542, Airport Security) from the FAA to TSA. TSA has operated its civil enforcement program utilizing many of the FAA procedures and policies already in place. TSA's stated mission is to "protect the nation's transportation systems to ensure freedom of movement for people and commerce." (TSA website 2018). The TSA's Office of Security Operations provides "risk-based, adaptive security" that includes airport checkpoint and baggage screening operations, regulatory compliance, cargo inspections, and other specialized programs designed to secure transportation.

Code of Federal Regulations, Title 14, Part 139, Airport Certification

The Airport is a federally regulated facility under CFR, Title 14, Part 139 (Part 139). As previously discussed in Section 1.6, Regulatory Setting, the Airport is required to have an Airport Operating Certificate (AOC) per Part 139, in addition to meeting numerous federal regulations. These regulations include standards for aircraft rescue and firefighting (ARFF) equipment and services, including response times and personnel training; the handling and storing of hazardous materials; and safety inspection and reporting procedures.

The Airport must maintain its ARFF equipment and personnel based on its established ARFF index, Index B. (ARFF indexes are on a scale from A to E, with A applicable to the smallest aircraft based on wing span and E applicable to the largest aircraft.) Index B includes aircraft at least 90 feet but less than 126 feet in length. Index B requirements for equipment include either of the following (Part 139.317[b]):

- 1) One vehicle carrying at least 500 pounds of sodium-based dry chemical, halon 1221, or clean agent¹ and 1,500 gallons of water and the commensurate quantity of aqueous film forming foam (AFFF) agent for foam production; or
- 2) Two vehicles -
 - i. One vehicle carrying the extinguishing agents specified in paragraphs (a)(1) or (a)(2) of Part 139.317 (i.e, 500 pounds of sodium-based dry chemical, halon 1211, or clean agent or 450 pounds of potassium-based dry chemical and water with a commensurate quantity of AFFF to total 100 gallons for simultaneous dry chemical and AFFF application); and
 - ii. One vehicle carrying an amount of water and the commensurate quantity of AFFF so the total quantity of water for foam production carried by both vehicles is at least 1,500 gallons.

¹ Clean agent means an electrically nonconducting volatile or gaseous fire extinguishing agent that does not leave a residue upon evaporation and has been shown to provide extinguishing action equivalent to halon 1211 under test protocols of FAA Technical Report DOT/FAA/AR-95/87 (see Part 139.5).

Response requirements under Part 139.319(h) state that each AOC holder must respond to each emergency during periods of air carrier operations. This response must achieve the following criteria (Part 139.319[h][2]):

- i. Within three minutes from the time of the alarm, at least one required ARFF vehicle must reach the midpoint of the farthest runway serving air carrier aircraft from its assigned post or reach any other specified point of comparable distance on the movement area that is available to air carriers and begin application of an extinguishing agent.
- ii. Within four minutes from the time of the alarm, all other required vehicles must reach the point specified in paragraph (h)(2)(i) of Section 319 from their assigned posts and begin application of an extinguishing agent.

All ARFF personnel must be equipped with protective clothing and equipment needed to perform their duties and be trained prior to initial performance of ARFF duties. Recurrent instruction must occur every 12 consecutive calendar months.

Each AOC holder must also ensure that roads designated for use as emergency access roads for ARFF vehicles are maintained in a condition that will support those vehicles during all-weather conditions.

FAA Advisory Circulars

FAA advisory circulars (ACs) include specific guidance on a number of topics related to airport design, operation, and maintenance. The use of FAA advisory circulars is mandatory for those airport construction projects receiving funds under the Airport Improvements Program (AIP) (see FAA Grant Assurance No. 34, Policies, Standards, and Specifications).

The following ACs are pertinent to fire/emergency services:

- FAA AC 150/5210-15A, Aircraft Rescue and Firefighting Station Building Design (FAA 2008). Provides additional guidance on the design of the ARFF building.
- FAA AC 150/5370-2G, Operational Safety on Airports During Construction (FAA 2017). Sets forth guidelines for operational safety on airports during construction.

National Fire Protection Association Codes and Standards

The National Fire Protection Association (NFPA) is a membership organization that develops and monitors the use of over 300 fire codes and standards that have been widely incorporated into state and local fire codes. There are no legislative enforcement mechanisms in place. By working through numerous technical committees, the NFPA uses a consensus approach to solve many safety-related issues. According to the NFPA website, the standards are updated every three to five years (NFPA website 2018).

State Regulations

State of California Uniform Fire Code

In conjunction with the California Building Code, the Uniform California Fire Code (UFC) (California Code of Regulations [CCR], Title 24, Part 9) sets forth the framework for fire protection and safety within the State of California. The UFC contains several sections that provide authority and standards that pertain to operations at airport facilities as described below.

Fire Fighting Authority. Article 2 of the UFC provides standards for the organization, authority, duties and procedures for firefighting including for the exercise of police powers by fire fighters and fire inspection.

Fire Access. Article 10 of the UFC specifies access roadway requirements for fire apparatus and provides standards for stair, ramp, and escalator enclosures.

Air Service Operations. Article 24 of the UFC provides standards for airports, heliports, and helistops and aircraft service and repair standards. Provisions for safety standards of fuel system maintenance and use is also provided.

Materials Handling. Article 80 of the UFC provides for the identification and handling of hazardous materials sent as air cargo.

The 2016 California Fire Code, including appendix chapters, has been adopted by the Monterey Peninsula Airport District (MPAD) as the Fire Code of the Airport (MPAD Ordinance No. 921). MPAD Ordinance No. 921 also adopts by reference the 2016 California Building Standards Code, among others.

California Unified Program Administration (CUPA)

California Unified Program Administration's (CUPA) purpose is to consolidate efforts across multiple environmental and emergency response programs to streamline the administrative requirements, permits, inspections, and enforcement activities. These programs include:

- California Uniform Fire Code: hazardous material management plans and hazardous material inventory statements
- Hazardous materials release response plans and inventories
- California Accidental Release Prevention (CalARP) program
- Underground storage tank program
- *Aboveground Petroleum Storage Act* program
- Hazardous waste generator and onsite hazardous waste treatment programs

Local Regulations

In Monterey County, the county and local governmental agencies have jurisdiction over most fire and police protection services. The Monterey County Office of Emergency Services is responsible for ensuring that all phases of emergency management are addressed in strategic planning efforts and that emergency planning follows state and federal guidance. The agency serves as the emergency management point of contact for government officials, public safety organizations, nonprofit and community-based organizations, local cities, the county, and private industry partners and stakeholders (Monterey County Office of Emergency Services website 2018).

The *Monterey County Multi-Jurisdictional Hazard Mitigation Plan* (2015) covers all incorporated and unincorporated areas of Monterey County and was adopted in compliance with Section 322, Mitigation Planning, of the *Robert T. Stafford Disaster Relief and Emergency Assistance Act*, as enacted by Section 104 of the *Disaster Mitigation Act of 2000* (Public Law 106-390) and by the Federal Emergency Management Agency's Interim Final Rule published in the *Federal Register* on February 26, 2002 (CFR, Title 44, Part 201). It must also be adopted by all participating jurisdictions in accordance with the authority and police powers granted to local governments under Article 11 of the California Constitution. Although MPAD is a quasi-public agency (i.e., special district) and is not required to officially adopt the plan, the Monterey Airport Fire District participated as a stakeholder committee member (Monterey County Hazard Mitigation Planning Team 2015:Table 2-5).

Goal S-5 of the *2010 Monterey County General Plan*, Safety Element also addresses countywide emergency preparedness in the following manner, "Assure the County is prepared to anticipate, respond and recover from emergencies." Policies that support this goal include the continued improvement of emergency services for all areas of the county.

Local jurisdictions adjacent to the Airport (i.e., the cities of Del Rey Oaks and Monterey) also have Public Service, Public Facilities, and/or Safety Elements of their general plans. The following City of Monterey policy specifically addresses coordination with the Monterey Airport Fire Department, which is currently staffed by the city (City of Monterey 2016):

City of Monterey Safety Element, Policy e.2. Continue to work with the airport district through a fire mutual aid agreement.

4.14.2 Methodology

Demand for fire protection/emergency services and police protection is normally based on population metrics, as well as amounts of commercial, industrial, and other non-residential development. Since no population growth would be generated by the Proposed Project or Alternative 1 (Section 4.13), this EIR section looks at the amount of additional commercial and industrial development proposed for proposed long-term projects, as well as the proposed changes to the Airport's fire and police protection services, to evaluate additional fire protection/emergency services and police protection demand (and potential related staffing or facility increases) that could result from project implementation.

Section 4.9.5, Threshold 4.9-5 also addresses the Proposed Project and Alternative 1’s potential impacts to emergency response times. The proposed ARFF relocations under either the Proposed Project or Alternative 1 would meet all FAA required on-airport response times. The Airport’s existing mutual aid agreements have also been examined to determine if changes would occur or be necessary to meet the Airport’s existing mutual aid agreements.

4.14.3 Existing Conditions

This section describes existing public services and facilities, including fire protection, emergency services, law enforcement/police protection, and emergency response.

Fire Protection and Emergency Services

The Airport has its own ARFF building per Part 139 that handles fire protection/emergency services on the Airport, as well as provides structural response units for off-airport emergencies to the east of the Airport. This is the fire protection serving the airfield (i.e, runways, taxiways, and apron). The ARFF is staffed with firefighters, who are City of Monterey employees, 24 hours per day (Monterey Fire Station #16). At least four firefighters are on duty for any given shift. The fire station has five bays and three fire engines - two aircraft firefighting vehicles and one rescue vehicle. All vehicles are equipped with radio communications, which allows communication with both the Monterey County Emergency Communication Center and the air traffic control tower.

As discussed under *Federal Regulations*, the ARFF index of the Airport is "B." This is based upon the length of the air carrier aircraft expressed in groups and the average daily departures of air carrier aircraft that now serve, or are expected to serve, the Airport. The aircraft that are expected to serve the Airport were evaluated in the Forecast Chapter of the Proposed AMP and the forecasts have been approved by the FAA (**Appendix B**).

In the event of an off-airport or other emergency response with one of the Airport Fire Department vehicles, index requirements are maintained by:

1. Responding to off-airport emergencies with Engine 16. The ARFF vehicle will remain on airport premises to provide Index “B” requirements.
2. Contacting off-duty fire personnel, through Monterey County Communications Center (FIRECOM), to immediately report to the Monterey Fire Station #16 and provide minimum coverage with the backup ARFF vehicle located at the Airport.

The ARFF will respond, during periods of air carrier operations, to each emergency for which procedures have been established in the Airport’s emergency plan or when requested by the FAA to demonstrate compliance with response requirements as follows:

1. Within three minutes from the time of an alarm, at least one ARFF vehicle shall reach the midpoint of the farthest runway serving air carriers from its assigned post or reach any other specified point

of comparable distance on the movement area, which is available to air carriers, and begin application of foam or dry chemical.

2. Within four minutes from the time of alarm, all other required vehicles, if available, shall reach the same point from their assigned post and begin application of foam or dry chemical.

The Airport's mutual aid agreement with the City of Monterey provides for off-airport emergency support, primarily to areas within the city located east of the Airport (i.e., Ryan Ranch area) and a residential area within the city immediately southwest of the Airport (Fisherman Flats). The city has five other fire stations. The next closest station to the Airport is Monterey Fire Station #3, located at 401 Dela Vina Avenue. This station has the largest response area in the city and is approximately 0.5 mile from the Airport's Old North Side Industrial Area.

The closest hospital with an emergency room to the Airport is the Community Hospital of the Monterey Peninsula (CHOMP), located at 23625 Holman Highway, approximately 4.4 miles to the southwest. The CHOMP Emergency Department includes 20 treatment rooms and three Express Care rooms that provide treatment for less critical patients.

Police Protection

Primary police protection is provided by the Airport and is the first responder to incidents within the airport boundaries. The Airport Police Department is staffed with one Police Chief, one Supervisor, four full-time Officers, and six part-time Officers, who are based out of the Airport's Administrative Offices. The Airport is staffed with Officers on property 24 hours a day, seven days a week.

Airport Police Officers patrol around the airport property providing aviation security, public safety, and crime prevention. The Airport Police make daily security patrols along the entire perimeter of the airport property in compliance with TSA Security Requirements (TSR) in TSR, Section 1542 and CFR, Title 14 Section 139.335. Authorized persons are issued a personalized identification badge with access privileges programmed to designated areas. Access through the perimeter gates is controlled by the Airport's computer-based access control and alarm monitoring system. The entire perimeter of the Airport is fenced with six-foot, six-gauge chain-link fencing that meets TSA Security Requirements.

Other duties associated with the Airport Police Department include traffic flow and enforcement, as well as the investigation of crimes and vehicle accidents. All officers are sworn police officers and are governed under California Penal Code, Section 830.33(d) and United States Code (USC), Title 18, Section 926B, which gives them statutory powers of arrest. All officers participate in mandated training topics under the California Peace Officers Standards and Training [POST], and Aviation Security Course mandated under California Penal Code, Section 832.1.

The Airport Police Department also works closely with Homeland Security by assisting TSA daily, which consists of enforcing local and federal laws in the passenger screening areas. Police provide high visibility and access to the public while at the TSA security points located inside the terminal. Airport Police also assists other local Police Departments in Monterey County through a memorandum of understanding

(MOU) for mutual aid requests. The same services regarding the MOU are available when there is a need for additional law enforcement assistance at the Airport.

Police and other operational staff of the Airport are certified by Federal Emergency Management Agency (FEMA) in National Incident Management System (NIMS) and Incident Command System preparedness.

Emergency Response

As previously discussed in Section 4.9.1, the Airport has an emergency response/contingency plan (per CFR, Title 14, Section 139.325) that addresses emergency procedures for all parts of the facility, including who to contact depending on the type and nature of the emergency. This plan calls for the evacuation of facilities when certain alarm signals sound, including bells, horns/sirens, verbal (i.e., shouting), and other public-address systems.

The emergency response/contingency plan provides phone numbers for emergency contacts, post-incident contacts, emergency resources, and the nearest hospital. It describes evacuation procedures in the event the Airport needs to clear all employees, contractors, and other personnel to a safe location in an orderly manner. The evacuation map is prominently displayed throughout the Airport.

4.14.4 Thresholds of Significance

The following threshold of significance for fire protection and police protection impacts has been taken from the *California Environmental Quality Act (CEQA) Guidelines, Appendix G (2017)*. This threshold has also been applied to other emergency service impacts. Significant impacts would occur if the Proposed Project or Alternative 1 would:

- Threshold 4.14-1: Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, 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: fire protection; police protection.

The above significance threshold criteria for public services impacts that are identified in Appendix G of the CEQA Guidelines also included “schools,” “parks,” and “other public facilities.” The Proposed Project and Alternative 1 are located at an existing airport and would not affect the region’s population through displacement or construction of housing or, as discussed in Section 4.13, have other growth inducing impacts that could affect service ratios, response times, or other performance objectives for schools and other public services such as libraries or hospitals.

4.14.5 Impact Analysis

Section 4.14.5.1 Threshold 4.14-1 - Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, 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: fire protection and police protection

Proposed Project

Construction Impacts

Fire Protection. During construction under either the Proposed Project or Alternative 1, the Airport is required to maintain acceptable levels of service from its ARFF building per its AOC. As part of the Proposed Project, a temporary ARFF facility is proposed on the north side of the Airport until the proposed relocated permanent ARFF facility is constructed after the existing terminal is demolished. An approximate 12-foot wide, 630-foot long ARFF service road would be constructed from the edge of the north general aviation (GA) apron to the primary runway to provide acceptable response times from the building to the midpoint of Runway 10R-28L. Analysis of the north side location for the temporary ARFF facility has shown that the ARFF three-minute response time required under Part 139 regulations can be met. In fact, the estimated response time is less than one minute. Thus, during construction of the Proposed Project, there would be no disruption to on-airport ARFF response times and impacts to on-airport fire protection services would be Less than Significant.

Since the off-airport structure response for Station #16 is primarily for the Ryan Ranch area east of Highway 218 and north of Highway 68 and a residential area within the City of Monterey immediately southwest of the Airport (Fisherman Flats), the temporary ARFF location would require the short-term use (approximately five to seven years) of an emergency route through the Casanova Oak Knoll Association (CONA) neighborhood. Prior to the construction of a proposed “north side” road, if the ARFF facility needed to respond to an emergency on the east side of the Airport, the responding vehicle would have to travel west on Airport Road to Fremont Street, ultimately reaching Highways 68 or 218 to drive back east or southwest. The resulting response times to the farthest areas for off-airport emergencies would be longer (more than 10 minutes to Ryan Ranch and more than 12 minutes to Fisherman Flats) than the response time from the existing ARFF building. Based on communication with the Station #16 Assistant Fire Chief, while there is no “mandated” response time, the suggested response time is five minutes or less for 90 percent of the calls (Courtney, J., City of Monterey Fire Department, Assistant Fire Chief 2018). Thus, the longer response times during construction would be a Significant and Unavoidable impact of the Proposed Project.

Emergency Services. FAA requires a construction safety and phasing plan (CSPP) that outlines the procedures that will be implemented to ensure that compliance is managed and maintained per FAA AC 150/5370-2G (PS/rr-1, Section 4.14.6). All proposed construction activities resulting in temporary access restrictions to areas under construction would be kept clear and unobstructed at all times in accordance with applicable FAA, State Fire Marshal, and Fire Code regulations (PS/rr-2, Section 4.14.6). In addition, Airport Road, Olmsted Road, and Fred Kane Drive are proposed to remain open during construction. Public access to the airport terminal and public parking outside of the construction activities areas are proposed to be maintained during the construction period to ensure that adequate access for emergency vehicles would be available. Impacts to the provision of emergency services from the ARFF facility, the

hospital, and emergency medical transport services would be Less than Significant as a result of the proposed construction activities.

Police Protection. The airport police staff are currently located in the existing terminal building. Under the Proposed Project, the police staff would remain in the existing facility until the proposed relocated terminal is constructed, at which time they are proposed to relocate to the new terminal facility. Since the police staff responses are approximately 95 percent on airport property, and the proposed relocated terminal building is located only 1,500 feet east of the existing terminal building, the response time under the Proposed Project would be nearly identical to the current situation. There would be no reduction in services or response times. The construction activities under the Proposed Project would have little or no effect on the police response time on- or off-airport property, and construction impacts would be Less than Significant.

Short-Term and Long-Term (Programmatic) Project Impacts

Fire Protection. As discussed above under Construction Impacts, a temporary ARFF building is proposed to be installed on the Navy Flying Club apron. This building would take access from Airport Road west to Fremont Street until a new “north side” road is constructed or until a new permanent ARFF building is constructed on the south side of the Airport in the location of the existing terminal building. The temporary relocation of the ARFF building would not interfere with on-airport response times. Once the proposed permanent ARFF facility is constructed, analysis has shown that the three-minute ARFF response time requirement would also be met. In fact, the proposed permanent ARFF facility would be located only 1,250 feet west of the existing ARFF facility and would result in nearly an identical response time to the existing ARFF facility. No changes to off-airport response times would occur since the new ARFF would still have south side access from Olmsted Road via Fred Kane Drive (Section 4.9.5.5). Thus, Proposed Project impacts to fire protection as a result of proposed short- and long-term projects is Less than Significant.

Emergency Services. Development of the short- and long-term projects under the Proposed Project would change the existing emergency procedures and routes within the Airport. In the short term, emergency access to the Airport is proposed to remain the same; in the long term, an additional emergency access route via the “north side” road is proposed. Proposed Project impacts to emergency services as a result of proposed short- and long-term projects is Less than Significant.

Police Protection. As discussed under Construction Impacts, the airport police staff are currently located in the existing terminal building. Under the Proposed Project, the police staff would remain in the existing facility until the proposed relocated terminal is constructed, at which time they would relocate to the new terminal facility. Since the police staff responses are approximately 95 percent on airport property, and the new terminal building is located only 1,500 feet east of the existing terminal building, the response time under the Proposed Project would be nearly identical to the current situation. There would be no reduction in services or response times for proposed short- and long-term projects. Proposed Project impacts to police protection as a result of proposed short-term projects is Less than Significant.

In the long term, the Proposed Project could include approximately 150,000 sf of commercial or office building space on the south side of the Airport and up to 750,000 sf of office or light industrial building space on the north side of the Airport, all of which would create additional demand for police protection services. This demand would be met by the on-airport staff and facilities. The Airport’s operating budget is funded primarily by revenue generated by airport-related fees and services. As new revenue-generating opportunities are constructed at the Airport, a portion of these revenues would be used to meet increased police protection needs (Monterey Regional Airport management 2018). In addition, the proposed relocated airport buildings planned as part of the Proposed Project in the short-term, for example, the commercial terminal and relocated ARFF buildings, would be utilized to provide any additional administrative and functional spaces needed to staff for the additional demand. Proposed Project impacts to police protection as a result of proposed long-term projects is Less than Significant.

Less than Significant Impacts: Impacts to the provision of fire protection and emergency services from the on-airport ARFF to areas on the Airport as a result of proposed construction activities and short- and long-term projects under the Proposed Project would be Less than Significant per Threshold 4.14-1.

Impacts to the provision of emergency services from hospitals, and emergency medical transport services to areas on the Airport as a result of proposed construction activities and short- and long-term projects under the Proposed Project would be Less than Significant per Threshold 4.14-1.

Impacts to the provision of police protection services to areas on the Airport as a result of proposed construction activities and short- and long-term projects under the Proposed Project would be Less than Significant per Threshold 4.14-1.

Significant Impact PS-1: *Under the Proposed Project, ARFF response times to areas off-airport would be reduced below the recommended five-minute response time until the ARFF facility is permanently relocated on the south side or until the proposed “north side” road is constructed. Thus, the impacts would be considered Unavoidable and Significant for construction impacts per Threshold 4.14-1.*

Alternative 1

Construction Impacts

Fire Protection. As part of Alternative 1, a permanent ARFF facility is proposed to be constructed on the north side of the Airport during the initial phase of the proposed short-term projects. As opposed to the construction of a temporary ARFF building prior to the construction of a permanent ARFF building as suggested by the Proposed Project, Alternative 1 would permanently relocate the existing ARFF building

to the north side GA area. Operationally, moving the ARFF to the north side would remove its emergency activity away from the commercial terminal and fixed base operator (FBO) areas, which would reduce the amount of congestion on the south side of the airfield. The permanent ARFF location on the north side under Alternative 1 meets FAA standards for response times on a Part 139-certificated airport. Analysis of the north side location for the ARFF facility has shown that the ARFF three-minute response time required under Part 139 regulations can be met. In fact, the estimated response time is less than one minute.

Alternative 1 also proposes to construct a “north side” road in the initial phase of the short-term projects, rather than as a separate project as under the Proposed Project, to remove the need for additional traffic to use Airport Road, even in the short term. One of the reasons to prioritize this “north side” road would be to accommodate the relocation of the ARFF building on the north side of the Airport. If a north side ARFF facility was to respond to a call east of the Airport (Ryan Ranch) via the proposed “north side” road, response times to the farthest areas are estimated to be approximately four minutes, while response times to the farthest areas of Fisherman Flats southwest of the Airport would be approximately six minutes. As previously mentioned, while there is no “mandated” response time, the suggested response time is five minutes or less for 90 percent of the calls. Most of the off-airport service areas would be within this response time and impacts to fire protection as a result of proposed construction under Alternative 1 would be Less than Significant.

Emergency Services. Construction impacts to emergency services under Alternative 1 would be the same as under the Proposed Project. FAA requires a CSPP that outlines the procedures that will be implemented to ensure that compliance is managed and maintained per FAA AC 150/5370-2G (PS/rr-1, Section 4.14.6). All proposed construction activities resulting in temporary access restrictions to areas under construction would be kept clear and unobstructed at all times in accordance with applicable FAA, State Fire Marshal, and Fire Code regulations (PS/rr-2, Section 4.14.6). In addition to the proposed “north side” road, Olmsted Road, and Fred Kane Drive are proposed to remain open during construction. Public access to the airport terminal and public parking outside of the construction activities are proposed to be maintained during the construction period to ensure that adequate access for emergency vehicles would be available. Impacts to the provision of emergency services from the ARFF facility, the hospital, and emergency medical transport services would be Less than Significant as a result of Alternative 1’s proposed construction activities.

Police Protection. Construction impacts to police protection under Alternative 1 would be the same as under the Proposed Project. Under Alternative 1, the police staff would remain in the existing terminal facility until the proposed relocated terminal is constructed, at which time they are proposed to relocate to the new terminal facility. There would be no reduction in services or response times. The construction activities under Alternative 1 would have little or no effect on the police response time on- or off- airport property, since access to the existing terminal and airfield would not be restricted; construction impacts on police protection under Alternative 1 would be Less than Significant.

Short-Term and Long-Term (Programmatic) Project Impacts

Fire Protection. As opposed to the construction of a temporary ARFF building prior to the construction of a permanent ARFF building as suggested by the Proposed Project, Alternative 1 proposes to permanently relocate the existing ARFF building to the north side GA area. Operationally, moving the ARFF to the north side would remove its emergency activity away from the commercial terminal and FBO areas, which would reduce the amount of congestion on the south side of the airfield. The permanent ARFF location on the north side under Alternative 1 meets FAA standards for response times on a Part 139-certificated airport and impacts related to on-airport fire protection would be Less than Significant.

Alternative 1 would also construct a “north side” road in the first phase of the safety enhancement component of the proposed short-term projects, rather than as planned in the Proposed Project, to remove the need for additional traffic to use Airport Road, even in the short term. One of the reasons to prioritize this “north side” road would be to accommodate the relocation of the ARFF building on the north side of the Airport. As described in the Proposed Project, for off-airport emergency response, if a north side ARFF facility was to respond to a call east of the Airport without a new “north side” road, the responding vehicle would have to first travel west on Airport Road to Fremont Street to ultimately reach regional highways such as Highways 68 or 218 to get back east. The proposed construction of a “north side” road during the first phase of the safety enhancement components of the proposed short-term projects would therefore increase the safety and efficiency of the Airport in the event of an off-airport emergency.

In the long term, Alternative 1 could include approximately 150,000 sf of commercial or office building space on the south side of the Airport and up to 750,000 sf of office or light industrial building space on the north side of the Airport, all of which would create additional demand for fire protection services. This demand would be met by the on-airport staff and facilities and impacts would be Less than Significant.

Emergency Services/Police Protection. Impacts from Alternative 1 due to proposed short- and long-term projects would be the same as the Proposed Project and would be Less than Significant.

Less than Significant Impacts: *Impacts to the provision of fire protection and emergency services from the on-airport ARFF to areas on and off the Airport as a result of proposed construction activities and short- and long-term projects under Alternative 1 would be Less than Significant per Threshold 4.14-1.*

Impacts to the provision of emergency services from the ARFF, the hospital, and emergency medical transport services to areas on the Airport as a result of proposed construction activities and short- and long-term projects under Alternative 1 would be Less than Significant per Threshold 4.14-1.

Impacts to the provision of police protection services to areas on the Airport as a result of proposed construction activities and short- and long-term projects under Alternative 1 would be Less than Significant per Threshold 4.14-1.

Proposed Project and Alternative 1

Conclusion

Although temporary impacts to off-airport ARFF response times would occur until the proposed “north side” road is constructed as discussed previously, overall, the Proposed Project and Alternative 1 involve several airfield safety project components that would enhance the safety of the Airport and enable the Airport to accommodate future growth that is anticipated to occur at the Airport. Included are proposals for relocating the existing commercial terminal and ARFF buildings outside the airfield safety zones and bringing the buildings up to modern efficiency and operational standards. These aspects of the Proposed Project and Alternative 1 would increase the efficiency of the existing fire protection and emergency procedures at the Airport. The proposed construction of an additional access point to the north side of the Airport would also improve the accessibility of the north side to off-airport areas. This would increase the efficiency of the existing fire protection and emergency procedures and ensure that response capabilities in and around the Airport are maintained.

The construction of new or replacement structures would conform to all applicable building and fire codes per MPAD Ordinance No. 921, which adopted by reference the 2016 California Building Standards Code and the 2016 California Fire Code, among others (PS/rr-3, Section 4.14.6). All new structures and development areas would include adequate fire hydrants, fire suppression flow rates, fire prevention and warning systems, and fire equipment access. Also, implementation of the Proposed Project and Alternative 1 would not affect the distance to, and access route for, emergency response vehicles at the ARFF to reach the midpoint of the runway.

Since the Airport is capable of providing for its own fire protection and police protection facilities, no impacts to the county or local jurisdictions would occur to maintain acceptable service ratios, response times, or other performance objectives, and new or altered government public service facilities would not be required. Further, the Airport would continue to conduct ongoing reviews of staffing and equipment levels to ensure that adequate fire and police protection is provided at the Airport per its Airport Certification Manual.

Less than Significant Impact:

Neither the Proposed Project nor Alternative 1 would require new or physically altered government facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times, or other performance objectives for fire protection, emergency services, or police protection.

4.14.6 Mitigation Program

No mitigation is necessary for Less than Significant Public Service impacts per Threshold 4.14-1. One impact of the Proposed Project (Impact PS-1), however, is Significant and Unavoidable for construction impacts (**Table 4.14A**). There is no mitigation available for this impact.

Proposed Project and Alternative 1

Regulatory Requirements

- PS/rr-1: A FAA-required CSPP shall be implemented for all Proposed Project and Alternative 1 construction activities. The CSPP would be developed in the following manner:
- Identify the geographic areas on the Airport that would be affected by each construction project;
 - Identify the normal airport operations in each affected area for each phase of the project;
 - In consultation with airport users, ARFF personnel, and FAA Air Traffic Organization personnel, identify and prioritize the Airport’s most important operations and plan construction to accommodate these operations;
 - Determine the measures required to safely conduct the planned operations during construction; and
 - Prepare a safety risk assessment if deemed necessary by FAA.
- PS/rr-2: All temporary access routes shall comply with applicable federal and state fire codes and emergency access regulations. All proposed construction activities resulting in temporary access restrictions to areas under construction shall be kept clear and unobstructed at all times in accordance with applicable FAA, State Fire Marshal, and fire code regulations.
- PS/rr-3: The construction of new or replacement structures shall conform to all applicable building and fire codes per MPAD Ordinance No. 921, which adopted by reference the 2016 California Building Standards Code and the 2016 California Fire Code, among others. All new structures and development areas shall include adequate fire hydrants, fire suppression flow rates, fire prevention and warning systems, and fire equipment access.
- PS/rr-4: The Airport’s emergency response/contingency plan shall be updated to ensure that the new routes available for emergency response, as well as the new airfield



and landside development, are accurately reflected in the Airport’s emergency response procedures.

TABLE 4.14A Summary of Potentially Significant Impacts and Mitigation – Public Services Proposed Monterey Regional Airport Master Plan				
Proposed Project	Mitigation Program	Alternative 1	Mitigation Program	Level of Significance after Mitigation
Threshold 4.14-1 - Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, 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: fire protection and police protection				
Impact PS-1: Under the Proposed Project, ARFF response times to areas off-airport would be reduced below the recommended five-minute response time until the ARFF facility is permanently located on the south side or until the proposed “north side” road is constructed.	None available	No Impact	None necessary	Proposed Project Only - Significant and Unavoidable (during construction)

Chapter Four

4.15 – RECREATION

4.15.1 Regulatory Setting

Demand for recreational facilities is generally based on population metrics, and in some cases, tourism metrics. Local, regional, state, and federal parks and recreation departments are charged with protecting and providing adequate recreational facilities within their specific jurisdictions. In Monterey County, the following governmental agencies have jurisdiction over recreational facilities.

Federal Regulations

Section 4(f) of the federal *Department of Transportation Act of 1966* (United States Code [USC], Title 49, Section 303) protects against the physical or constructive use of publicly owned parks and recreation areas, publicly owned wildlife and waterfowl refuges, and significant historic sites as a result of federally funded transportation projects. “Constructive use” is typically based on a determination that the project would substantially impair the Section 4(f) resources. Substantial impairment occurs when the activities, features, or attributes of the resource that contributes to its significance or enjoyment are substantially diminished.

Federally owned recreational lands are primarily managed by the National Parks Service (NPS), which is a branch of the United States (U.S.) Department of the Interior. Formed in 1916, its mission is to preserve the natural and cultural resources and values of the National Park System for the “enjoyment, education, and inspiration of this and future generations” (U.S. Department of Interior, NPS website 2018). NPS receives its authority from both general legislation as well as legislation specific to the numerous national parks and monuments within its purview.

State Regulations

The California Department of Parks and Recreation manages over 280 state park units, over 340 miles of coastline, 970 miles of lake and river frontage, thousands of camp sites, and miles of trails (California Department of Parks and Recreation website 2018). It includes the State Office of Historic Preservation (SHPO).

The California Coastal Commission works with local jurisdictions to protect coastal resources through the local coastal planning (LCP) process. The *California Coastal Act of 1976* (Public Resources Code [PRC],

Division 20, Section 30000 et al.) includes Article 3, which provides policies to protect “water-oriented recreation activities that cannot readily be provided at inland water areas.”

Regional Regulations

The Monterey County Resource Management Agency (RMA) brings together a range of land use functions, including building services, environmental services, planning, public works, and parks. The county’s Parks Department, as a part of the RMA, manages the county’s public recreational facilities. According to the county’s *2010 Monterey County General Plan Public Services (PS) Element*, almost 14 percent of the county’s total land area is devoted to various parks and recreational facilities, with the county’s park system making up approximately 10 percent of the total park acreage. The remainder of the park and recreational land is operated by other jurisdictions, such as State Parks, National Parks, National Forests, Federal Bureau of Land Management, and local park agencies/districts (County of Monterey 2010).

In the county’s *2010 Monterey County General Plan*, the Public Services Element includes the following goal:

Goal PS-11, “Maintain and enhance the County’s parks and trail system in order to provide recreational opportunities, preserve natural scenic resources and significant wildlife habitats, and provide good stewardship of open space resources.”

Related policies include Policies PS 11.1 through PS 11.11, which outline the county’s priorities in park acquisition, development, and management.

Local Regulations

The Airport does not control any recreational facilities as no facilities are located on its property. In the immediate vicinity of the Airport, the U.S. Navy owns and operates the Monterey Pines Golf Course, the City of Monterey owns the Casanova Oak Knolls Park, and the City of Del Rey Oaks owns the Works Memorial Park. Other parks and recreational facilities are in the greater surrounding areas and are owned and managed by the local jurisdictions within which they are located.

4.15.2 Methodology

Direct impacts to recreational facilities due to additional demand are generally related to the population growth created by a project, which is determined by whether the project would construct or displace housing units. However, for indirect impacts to recreational facilities, this EIR looks at the employment potential of the Proposed Project or Alternative 1 as a reasonable method for evaluating indirect population growth that could result from project implementation. A discussion of potential indirect population growth is contained in Section 4.13 of this EIR and has been used to evaluate potential demand on recreational facilities.

A second potential indirect impact could occur from additional tourism associated with future buildout of the Proposed Project or Alternative 1. An economic benefit analysis was completed as part of the Proposed Airport Master Plan (Proposed AMP) planning process that estimates that approximately 52 percent of the Airport’s overall enplanements are visitors to the region (McPheters, L., Arizona State University 2015). Potential cumulative impacts to recreational facilities within the county related to future enplanement levels at the Airport are discussed in Section 5.5.15.

4.15.3 Existing Conditions

The following federally managed recreational facilities are located within Monterey County (county) (County of Monterey website 2018):

- Fort Ord National Monument
- Los Padres National Forest
- Monterey Bay National Marine Sanctuary
- Pinnacles National Park
- Salinas River National Wildlife Refuge

As previously mentioned, the U.S. Navy owns and operates the Monterey Pine Golf Course, a par 69, 18-hole course that is operated as a public/military facility and is directly west of the Airport.

State-managed recreational facilities within the county include (County of Monterey website 2018):

- Elkhorn Slough National Estuarine Research Reserve
- Fremont Peak State Park
- Garrapata State Park
- Julie Pfeiffer Burns State Park
- Monterey State Historic Park
- Moss Landing State Wildlife Area
- Pfeiffer Big Sur State Park
- Point Lobos State Natural Reserve

County-owned parks and recreation areas include (County of Monterey website 2018):

- Frog Pond Wetland Preserve
- Jacks Peak Park
- Laguna Seca Recreation Area
- Lake Nacimiento
- Lake San Antonio
- Manzanita Park
- Royal Oaks Park
- San Lorenzon Park
- Toro Park

Monterey County has over 99 miles of coastline. Beach activities include, but are not limited to, sunbathing, jogging, volleyball, surfing, fishing, swimming, birdwatching, and exploring tide pools. Bonfires are allowed at several Monterey Bay beaches. The California Coastal Zone is located north and west of the Airport (west of the intersection of Fremont Street and Highway 218) (City of Monterey website 2018). Monterey Bay is approximately one mile from the Airport.

Numerous local parks are located within the various local jurisdictions. Hiking, biking, and pedestrian trails are also located throughout the area. The closest recreational facilities to the Airport include Work Memorial Park and Casanova Oak Knolls Park, northwest and west of the Airport, respectively, the Frog

Pond Wetland Preserve east of the Airport, and the Monterey Pines Golf Course. Monterey County is known for its golf courses. The county includes 26 public or private courses with over 450 holes in all (See Monterey website 2018).

4.15.4 Thresholds of Significance

The following threshold of significance for recreational impacts has been taken from the *California Environmental Quality Act* (CEQA) Guidelines, Appendix G (2017). Significant impacts would occur if the Proposed Project or Alternative 1 would:

- Threshold 4.15-1: Increase the use of existing neighborhood and regional parks or other recreational facilities causing a substantial deterioration of the facility or require the construction or expansion of existing recreational facilities causing an adverse effect on the environment.

4.15.5 Impact Analysis

4.15.5.1 **Threshold 4.15-1 - Increase the use of existing neighborhood and regional parks or other recreational facilities causing a substantial deterioration of the facility or require the construction or expansion of existing recreational facilities causing an adverse effect on the environment**

Proposed Project and Alternative 1

Construction and Short-Term and Long-Term (Programmatic) Project Impacts

Since no housing would be created or displaced from the Proposed Project or Alternative 1, no direct population generation would occur from the Proposed Project or Alternative 1 that would cause a deterioration of recreational facilities or a need to construct or expand recreational facilities. In addition, no physical or construction impacts to existing public recreational facilities would occur due to planned airport development projects. No direct impacts to recreational facilities would, therefore, occur.

As discussed in Section 4.13.5, the Proposed Project or Alternative 1 would include future employment opportunities connected with proposed non-aeronautical long-term projects and could be as many as 2,435 jobs over the next 20 years.¹

Most existing jobs associated with the existing commercial terminal and ARFF building are expected to remain the same with implementation of either the Proposed Project or Alternative 1. However, airport management estimates that the proposed relocated commercial terminal could provide employment opportunities for an additional 14 jobs related to concessions (i.e., restaurants, gift shops, and vending machines) or other passenger amenities.

¹ Using average rates provided by research by Building Owners and Management Association (BOMA) International and the United States Green Building Council (USGBC), the proposed employment opportunities at the Airport could include approximately 1,575 office jobs, 100 restaurant jobs, and 760 light industrial jobs.

Since the Airport is centrally located within the Seaside-Monterey census county division (CCD), the new employment opportunities would be considered “infill,” rather than the creation of a new employment center located away from available housing. In addition, the jobs created would not require a specialized set of skills that is not already available within the county employment pool. The region has a high population-to-jobs ratio because some residents commute to jobs outside the region, principally to jobs in Santa Clara County (AMBAG 2018:21). The most recent population forecasts for the county match the anticipated growth in employment and housing and the jobs-to-housing ratio for Monterey County is expected to change less than 0.01 percent over the next 20 years (refer to Table 4.13-1). This indicates that any additional jobs created by the Proposed Project or Alternative 1 are not likely to generate substantial population or housing growth, and thus any indirect impact on recreational demand associated with the Proposed Project or Alternative 1 would not occur.

Less than Significant Impact:

Since substantial new housing and related population growth would not be induced by the Proposed Project or Alternative 1, increased use of existing recreational facilities would not occur and the construction or expansion of recreational facilities would not be required; therefore, the Proposed Project or Alternative 1 would have a Less than Significant impact on recreational resources under Threshold 4.15-1.

4.15.6 Mitigation Program

No mitigation is necessary as impacts are Less than Significant.

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Chapter Four

4.16 – TRANSPORTATION/TRAFFIC

4.16.1 Regulatory Setting

Federal Regulations

Code of Federal Regulations (CFR), Title 23, Part 450.322(f) requires that federally-designated metropolitan planning organizations (MPOs) take the lead on updating regional or metropolitan transportation plans (RTPs or MTPs). MPOs are tasked with using the latest available assumptions for population, land use, travel, employment, congestion, and economic activity (AMBAG 2018b:383). For Monterey, San Benito, and Santa Cruz counties, the Association of Monterey Bay Area Governments (AMBAG) is the applicable MPO. As such, AMBAG is responsible for development and maintenance of the regional travel demand model (RTDM), conducts long-range transportation planning and programming, and acts as a regional forum for dialogue of transportation issues in the region (AMBAG 2018c:5).

Two recent federal acts related to transportation issues (enacted within the last five years) include (AMBAG 2018b:401-402):

- *Moving Ahead for Progress in the 21st Century Act (MAP-21) (United States Code [U.S.C.], Title 23, Section 134(h)(1))*. MAP-21 was enacted in 2012 and requires that the MTP planning process include strategies that will increase the safety and security of the transportation system for motorized and non-motorized users, as well as improve the system for both people and freight. It also emphasizes the preservation of the existing transportation system.
- *Fixing America's Surface Transportation (FAST) Act (Public Law 114-94)*. FAST was signed into law in December 2015 and authorizes \$305 billion through the end of fiscal year 2020 for highways, highway and motor vehicle safety, public transportation, rail and research programs, and technology programs and provides dedicated federal funds for freight programs. It expands the scope of the MPO planning process to include intercity transportation and enhancing travel and tourism. FAST mandates MPO updates every four years for those areas that are nonattainment or maintenance areas for federal air quality standards.

In addition, air travel is heavily regulated by the Federal Aviation Administration (FAA). The *Federal Aviation Act of 1958* established the FAA as the responsible agency for the control and use of navigable airspace within the United States (U.S.). The FAA has established the National Airspace System (NAS) to protect persons and property on the ground and to establish a safe and efficient airspace environment

for civil, commercial, and military aviation. The NAS covers the common network of U.S. airspace, including: air navigation facilities; airports and landing areas; aeronautical charts; associated rules, regulations, and procedures; technical information; and personnel and material. The system also includes components shared jointly with the military.

As a commercial service airport, Monterey Regional Airport must also have an Airport Operating Certificate (AOC) per CFR, Title 14, Part 139 (Part 139). Part 139 (which implemented provisions of the *Airport and Airway Development Act of 1970*, as amended November 27, 1971) set standards for: the marking and lighting of areas used for operations, firefighting and rescue equipment and service, the handling and storing of hazardous materials, the identification of obstructions, and safety inspection and reporting procedures.

State Regulations

The State of California has established regional transportation planning agencies (RTPAs) to provide regional transportation planning per Government Code, Sections 65080 et seq. As a designated RTPA, AMBAG must submit an updated MTP to the California Transportation Commission (CTC) and the California Department of Transportation (Caltrans) every four years. CTC guidelines recommend that the growth projections be based on available data and forecasting methodologies while being consistent with Department of Finance projections. The latest AMBAG regional growth forecasts (2018) are discussed in Section 4.13.

Senate Bill (SB) 375, *Sustainable Communities and Climate Protection Act*. Under SB 375, an MTP or RTP must also contain a “sustainable communities” strategy (SCS). The SCS must describe the land use and transportation measures that will be used to meet the region’s greenhouse gas (GHG) emission reduction targets established by the California Air Resources Board (CARB). These targets include a zero percent per capita change in GHG emissions over 2005 levels by 2020 and a five percent per capita reduction in GHG emissions by 2035 in support of Assembly Bill (AB) 32, the *Global Warming Solutions Act of 2006*.¹ These goals are discussed in more detail in Section 4.8. SB 375 requires that transportation investments be coordinated with land use patterns to provide more direct access while also providing alternative transportation programs.

SB 743, *California Environmental Quality Act (CEQA) Guidelines Update*. In 2013, SB 743 was signed into law and requires new metrics for analyzing transportation impacts under the *California Environmental Quality Act* (CEQA) to provide an alternative to level of service (LOS). Measurements of transportation impacts may include vehicle miles traveled (VMT),² vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated. In most cases, a project’s effect on automobile delay will no longer constitute a significant environmental impact.³ Proposed changes to the CEQA Guidelines, Section 15064.3 were promulgated by the Office of Planning and Research (OPR) in November 2017.

¹ AR 32 and SB 375 are also implemented through the statewide *California Transportation Plan*, which is prepared every five years by the California State Transportation Agency. The most recent *California Transportation Plan* was adopted in 2016.

² VMT refers to the amount and distance of automobile travel attributable to a project.

³ SB 743 also amends congestion management law to allow cities and counties to opt out of LOS standards within certain infill areas. <http://opr.ca.gov/ceqa/updates/sb-743/>, Transportation Impacts (SB 743), (accessed November 1, 2017).

The changes are now under consideration by the California Natural Resources Agency as part of a comprehensive CEQA Guidelines update for proposed rule-making and final administrative approval. Final rules are anticipated in late 2018.

At the time of this writing, evaluation of transportation impacts using the VMT metric is not required by the state or the County of Monterey, City of Monterey, or City of Del Rey Oaks Circulation Element policies, and LOS is the official metric for identifying traffic impacts and mitigation. Even if the draft revisions to the CEQA Guidelines are adopted by the California Natural Resources Agency, the possible new CEQA Guidelines, Section 15064.3 regarding needed VMT analysis for a development project will not require the use of the VMT metric to analyze transportation impacts until January 1, 2020. Nonetheless, project-related VMT is discussed under Threshold 4.16-5.

AB 1358 (Complete Streets Act). The *Complete Streets Act* amended the California Government Code, Section 65302 to require that substantive revisions to any city or county Circulation Element must include provisions for accommodations of all roadway users, including bicyclists and pedestrians.

Regional Regulations

AMBAG has recently prepared its 2040 *Metropolitan Transportation Plan/Sustainable Communities Strategy* (MTP/SCS). The 2040 MTP/SCS was adopted on June 13, 2018 along with certification of an associated EIR (SCH#2015121080) (AMBAG Resolutions No. 2018-04 and 2018-05), and incorporates the three RTPs for Monterey, Santa Cruz, and San Benito counties. The 2040 MTP/SCS considers improvements to the region's multimodal transportation system, including the closure of critical road network gaps that hinder access to jobs and daily needs. ***To the extent that the 2040 MTP/SCS is implemented, it would exceed the GHG emission reduction targets set by CARB by achieving a three percent per capita reduction for 2020 and a six percent per capita reduction for 2040 (AMBAG 2018b:ES-7).***

In Monterey County, AMBAG works through the Transportation Agency for Monterey County (TAMC). The AMBAG region does not require congestion management planning because the AMBAG region does not have a single urbanized area with a population of 200,000 or greater (AMBAG 2018b). However, TAMC prepares and updates its RTP every four years per federal and state law, which incorporates the basic principles of the congestion management process, specifically including a list of projects, goals, and strategies to reduce and manage congestion on transportation facilities within Monterey County (see below).

2018 Monterey County Regional Transportation Plan. TAMC's most recent RTP is the *2018 Monterey County Regional Transportation Plan*, which was adopted on June 27, 2018. It was included in the Final EIR prepared on AMBAG's 2040 MTP/SCS (State Clearinghouse [SCH] #2015121080). The county's RTP is required to be consistent with AMBAG's SCS, including a regional list of transportation investments which achieve the regional GHG emissions targets. **Exhibit 4.16A** lists the 2018 RTP goals, policy objectives, and performance measures for Monterey County. The 2018 RTP recognizes the new funding opportunities presented by the passage of Measure X and SB 1 in 2017⁴ (TAMC 2018b:i).

⁴ Measure X includes a 3/8 percent sales tax dedicated to improving Monterey County's transportation network, while SB 1 will provide additional money for local and regional transportation projects.

GOALS	POLICY OBJECTIVES	PERFORMANCE MEASURES
Access & Mobility		
<p>Improve ability of Monterey County residents to meet most daily needs without having to drive. Improve the convenience and quality of trips, especially for walk, bike, transit, car/vanpool and freight trips.</p>	<ul style="list-style-type: none"> • To improve safe, attractive and affordable access to work, school, goods and other key destinations by walking, bicycling and transit. • Improve travel time and travel time reliability for pedestrian and bicycle trips between key origins and destinations. • Improve travel time reliability and speed consistency for transit, car/vanpool and freight trips between key origins and destinations. • Improve the quality of walk, bicycle, car/vanpool and transit trips. 	<ul style="list-style-type: none"> • Percentage of work trips that are 30 minutes or less by mode. • Average work trip travel time.
Safety & Health		
<p>Design, operate, and manage the transportation system to reduce serious injuries and fatalities, promote active living, and lessen exposure to pollution.</p>	<ul style="list-style-type: none"> • To decrease fatalities and injuries for all travel modes. Pedestrian and bicyclist fatalities and injuries will not be higher than their proportion of total trips. • Improve health by increasing percentage of trips made by healthy transportation options (bicycle, pedestrian and transit trips). • Decrease the quantities of harmful airborne pollutants and congested vehicle miles traveled. 	<ul style="list-style-type: none"> • Number of fatalities and injuries per capita. • Bicycle, pedestrian and transit mode share. • Congested vehicle miles of travel. • Harmful airborne pollutants (tons/day).
Environmental Stewardship		
<p>Protect and enhance the County's built and natural environment. Act to reduce the transportation system's emission of greenhouse gases.</p>	<ul style="list-style-type: none"> • Reduce greenhouse gas emissions consistent with regional targets. • Avoid or minimize impacts to local, state and federally defined sensitive areas. • Conserve farmland resources. 	<ul style="list-style-type: none"> • Projected greenhouse gas emissions in 2020 and 2035. • Impacts to open space (acres). • Impacts to farmland conservation (acres).
Social Equity		
<p>Protect and enhance the County's built and natural environment. Act to reduce the transportation system's emission of greenhouse gases.</p>	<ul style="list-style-type: none"> • Demonstrate that planned investments reduce or eliminate disparities in Access & Mobility, Economic Benefit, and Safety & Health objectives between transportation-disadvantaged and non-transportation disadvantaged populations. • Demonstrate that transportation-disadvantaged communities do not experience disproportionate impacts from transportation construction or operations. 	<ul style="list-style-type: none"> • Distribution of investments. • Equitable transit access: Low income and minority populations within 1/2 mile of a high-quality transit stop.
Economic Benefit		
<p>Invest in transportation improvements – including operational improvements – that re-invest in the Monterey County economy, improve economic access and improve travel time reliability and speed consistency for highvalue trips. Optimize cost-effectiveness of transportation investments.</p>	<ul style="list-style-type: none"> • Improve regional accessibility for freight and reduce truck hours of delay. • Prioritize enhancement and maintenance of the existing transportation system. Maintain streets and roads in a condition rated good or higher according to the Pavement Management Index. 	<ul style="list-style-type: none"> • Jobs near transit (percent). • Truck delay (hours). • Maintain the transportation system (percent of funding). <p style="text-align: right;">Source: TAMC 2018b, Figure 2-1</p>

With respect to airports, since the Airport is considered a commercial service primary airport by the state and has annual enplanements over 10,000, an Airport Ground Access Improvement (AGAI) Program is required (Government Code, Section 65081.1). The AGAI program addresses “the development and extension of mass transit systems, including passenger rail service, major arterial and highway widening and extension projects and any other ground access improvement projects that the planning agency or airport deems appropriate.” (Caltrans 2009). TAMC’s 2018 RTP calls out the following regional projects to be implemented as part of its AGAI Program for the Monterey Regional Airport:

- State Route 68 commuter improvements
- US 101 south county freeway upgrade
- US 101 Harris Road interchange
- Marina-Salinas corridor widening
- Marina-Salinas multimodal corridor

The 2018 RTP uses the same growth forecasts for airports in the county as the previous 2014 RTP, which are based on a *Regional Airport System Plan* prepared by AMBAG in 2006. For Monterey Regional Airport, the *Regional Airport System Plan* projected 172 based aircraft in 2020 and 184 based aircraft in 2025 (TAMC 2018b). Annual aviation operations were projected to be 92,890 in 2020 and 98,850 in 2025. This growth is characterized in the 2018 RTP as “moderate” and recognizes that capital upgrades to the county’s airports could be needed. Minor land acquisition, navigational aids, aircraft hangars, and runway extensions are called out as the types of capital upgrades that could be needed to support increased business travel.

SR 68 Scenic Highway Plan (Draft Final). Recently, TAMC has completed a Draft Final *SR 68 Scenic Highway Plan* (TAMC 2017b). If approved, it will become a controlling document for improvements planned for the Highway 68 corridor. Caltrans recommends that member jurisdictions utilize the Intersection Control Evaluation guidance available through Caltrans, which includes consideration of roundabouts for intersection improvements, whenever considering intersection improvements (TAMC 2018b:39).

The Draft Final *SR 68 Scenic Highway Plan* recommends the “Roundabout Corridor: Concept 1 – Modified” as the Preferred Corridor Concept. Implementation of the Preferred Corridor Concept is expected to occur in the following four phases: Immediate-Term (0-3 years), Short-Term (4-6 years), Mid-Term (7-10 years), and Long-Term (11-20 years). The Immediate-Term phase includes refining the preliminary roundabout layouts, coordinating with Caltrans on a corridor-wide Project Initiation Document, and creating a Highway 68 Improvement Corridor Team with Caltrans, TAMC, Monterey County, Monterey Peninsula Airport District (MPAD), and the cities of Monterey, Del Rey Oaks, and Seaside.

This alternative includes converting the following nine Highway 68 intersections to roundabout control:

- Olmsted Road/Highway 68, Short-Term (4-6 years)
- Josselyn Canyon Road/Highway 68, Mid-Term (7-10 years)
- Highway 218/Highway 68, Short-Term (4-6 years)
- York Road/Highway 68, Mid-Term (7-10 years)
- Pasadera Drive/Highway 68, Mid-Term (7-10 years)

- Laureles Grade Road/Highway 68, Mid-Term (7-10 years)
- Corral De Tierra Road/Highway 68, Short-Term (4-6 years)
- San Benancio Road/Highway 68, Short-Term (4-6 years)
- Torero Drive/Highway 68, Short-Term (4-6 years)

Highway 218 Corridor Study. TAMC is in the beginning stages of a Highway 218 corridor study. The study will engage the community, analyze existing conditions, identify bicycle and pedestrian improvements, and develop multimodal conceptual improvements along the corridor and at major intersections. The study will also analyze the potential of Caltrans relinquishing the corridor to local agencies. The purpose of the study is to improve access to the land uses along the corridor and to create a more “complete” corridor that would serve a broad range of users and modes of transportation.

Bicycle and Pedestrian Master Plan/Active Transportation Plan. TAMC’s *Bicycle and Pedestrian Master Plan* (2011) is in the process of being updated with a new document called the *Active Transportation Plan*, which will focus on identifying high priority bicycle and pedestrian projects for key gaps in the existing and proposed bicycle and pedestrian networks.

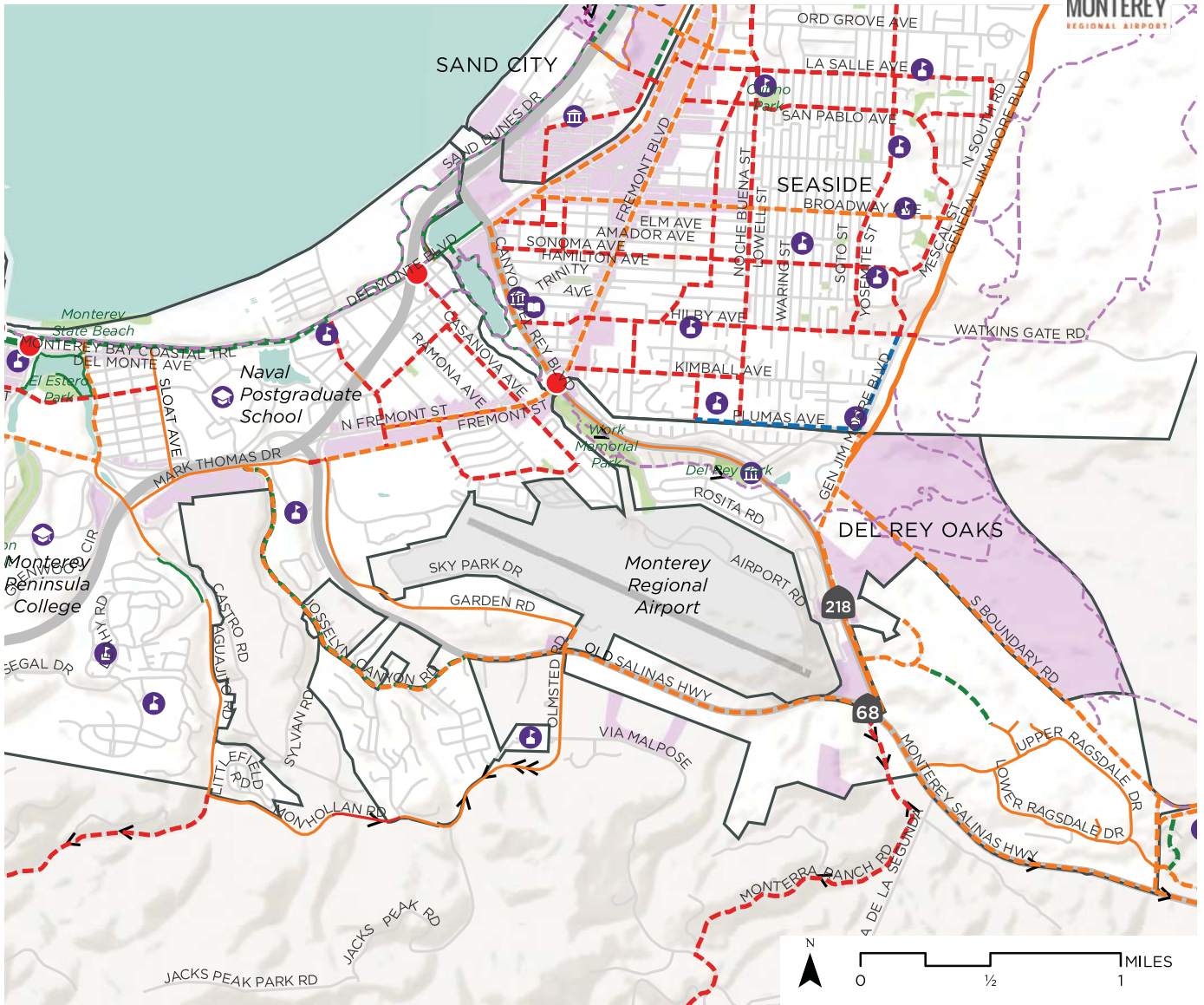
In the *Active Transportation Plan*, Class II bike lanes are proposed on Highway 68 from its intersection with Josselyn Canyon Road east (refer to 4.16.3.4 for a description of bike facility classifications). A Class II bike lane is also proposed on the east side of Canyon Del Rey Boulevard (Highway 218) from its connection to Highway 68 to its intersection with General Jim Moore Boulevard. Within the Casanova Oak Knoll Association (CONA) neighborhood, Class III bike routes are shown from N. Fremont Street along Airport Road to Euclid Avenue to Casanova Avenue and back to N. Fremont Street (**Exhibit 4.16B**).

The top three ranked projects in the City of Del Rey Oaks are near the Airport: 1) Canyon Del Rey Boulevard bike lanes (General Jim Moore Boulevard - Highway 68); 2) South Boundary Road bike lanes (General Jim Moore Boulevard - York Road); and 3) General Jim Moore Boulevard bike lanes (Canyon Del Rey Boulevard to Del Rey Oaks city limits).

Local Regulations

Although the Airport is owned and operated by the MPAD, some of the surrounding local jurisdictions have significance thresholds that have been used, as discussed under Section 4.16.4, Thresholds of Significance, to determine potential levels of impact on the surrounding street network. This network is primarily under the control of Caltrans (Highways 1, 68, and 218), the City of Monterey, and the City of Del Rey Oaks within the traffic study area defined for this EIR. None of these local jurisdictions have adopted VMT metrics for their significance thresholds at this time.

Both the *City of Monterey General Plan* (2016a) and the *General Plan Update for the City of Del Rey Oaks* (1997) have policies that could apply to traffic related to the Airport.



Monterey Monterey County Active Transportation Plan

Existing Bikeways

- Class I Shared Use Path
- Class II Bike Lane
- Class III Bike Route

Proposed Bikeway Improvements

- - - Class I Shared Use Path
- - - Class II Bike Lane
- - - Class III Bike Route
- - - Class IV Cycletrack
- - - Fort Ord Rec Trail and Greenway
- - - Monterey Bay Sanctuary Scenic Trail
- >>> Uphill bikeway (Slope > 4%)

Proposed Pedestrian Improvements

- - - Sidewalk
- Intersection

Land Use

- Park/Open Space
- Commercial Area
- City Boundary

Points of Interest

- Ⓜ K-12 School
- Ⓜ City Hall
- Ⓜ Transit Center
- Ⓜ College/University



Data provided by Monterey County TAMC. Terrain data by ESRI/NOAA.

Map produced October 2017 by Alta Planning + Design.

City of Monterey

Circulation Element Policy b5: Do not support non-aviation uses within the Monterey Peninsula Airport District that create unnecessary traffic impacts in adjacent residential neighborhoods.

Circulation Element Policy c8: Minimize traffic impacts in residential neighborhoods by routing truck and through traffic onto highways and arterial streets, even where such routing is not the shortest distance between two points.

Circulation Element Policy i1: Work with the Airport District and the hospitality industry to provide a direct and affordable transit service between the Monterey Peninsula (sic) Airport and the local shuttle service area to reduce congestion.

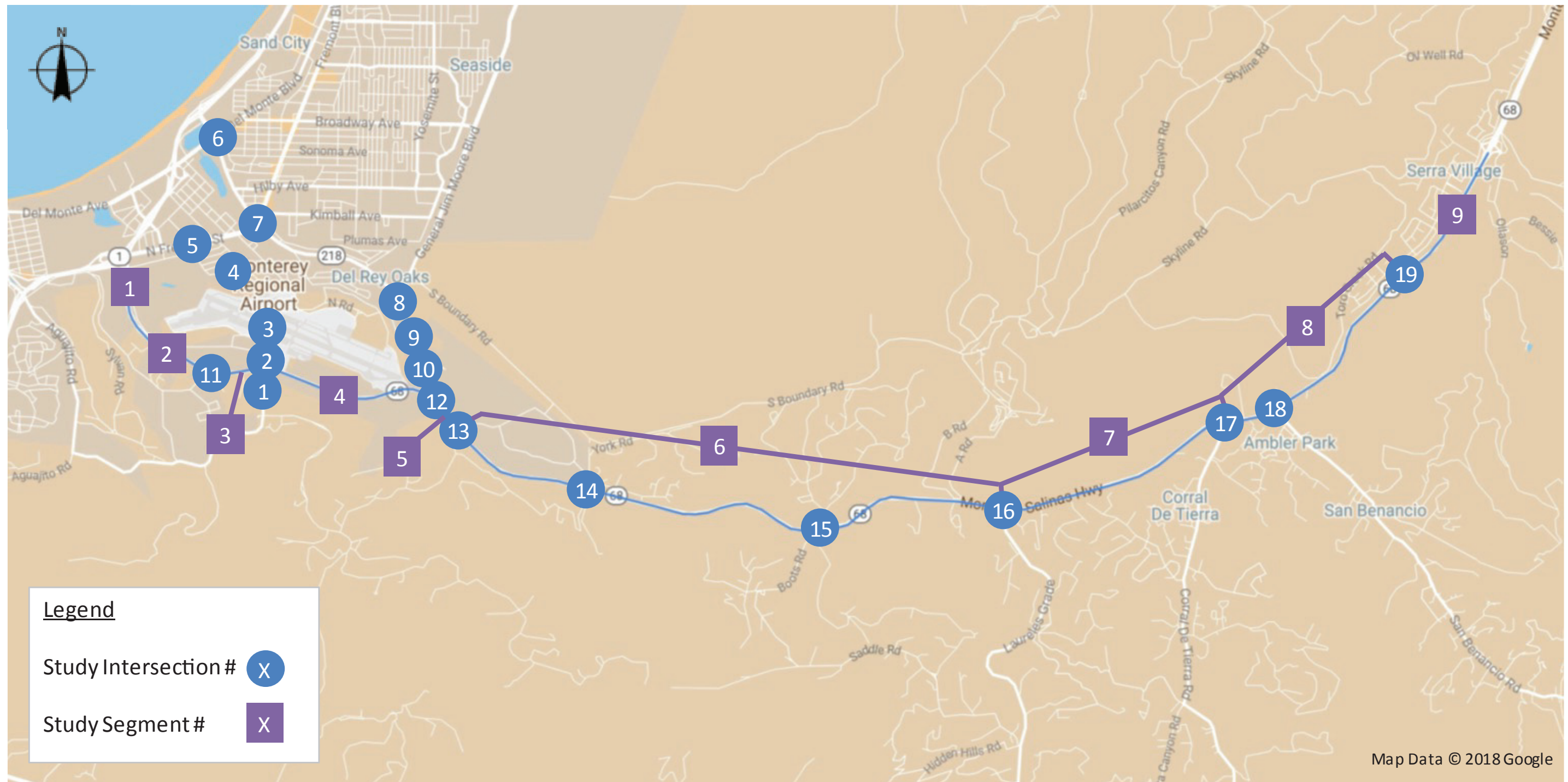
City of Del Rey Oaks - The Airport is seeking a general plan amendment to the *General Plan Update for the City of Del Rey Oaks* to allow a “north side” connection to Del Rey Gardens Drive. Please see Section 4.11.5 (Table 4.11B) within the Land Use and Planning section of this EIR for a consistency analysis with the Del Rey Oaks general plan, including its Circulation Element policies.

4.16.2 Methodology

Because the CEQA Guidelines are in the process of being revised with respect to how transportation/traffic impacts are evaluated, this EIR addresses both existing thresholds of significance and those that are proposed under SB 743 (Section 4.16.4). At the time of this writing, evaluation of transportation impacts using the VMT metric is not required by the state or the County of Monterey, City of Monterey, or City of Del Rey Oaks Circulation Element policies, and LOS is the official metric for identifying traffic impacts and mitigation. Nonetheless, project-related VMT is generally discussed for informational purposes (see Section 4.16.2.3). The following subsections discuss the methodology for various thresholds of significance used in this EIR section.

4.16.2.1 Existing Local Roadway Analysis Methodology

Appendix M contains a Traffic Impact Analysis (TIA) report that addresses potential traffic impacts of the Proposed Project or Alternative 1 on the surrounding roadway network. The study area was selected based on *City of Monterey General Plan's* Circulation Element program j.2.1, which states: “Define the traffic impact study area to be analyzed as all roadway segments where project traffic is expected to increase the existing traffic by two percent (2%) or more.” In addition, in coordination with Caltrans, TAMC, Monterey County and the cities of Monterey, Del Rey Oaks, and Seaside, additional areas were considered where, based on traffic engineer experience, lesser downstream impacts on regional highways could occur (i.e., Highway 68). (**Exhibit 4.16C**). The study includes an operational evaluation of 19 intersections and nine roadway segments along Highway 68 as listed below. Within the study area, other roadway segments not listed contain numerous controlled intersections and a separate segment analysis was not necessary. This includes the segments of Highway 218 (Canyon Del Rey Road/Boulevard) near the Airport.



Source: Mott MacDonald 2018

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Intersections Evaluated:

1. Olmsted Road/Highway 68
2. Olmsted Road/Garden Road
3. Olmsted Road/Fred Kane Drive
4. Airport Road/Euclid Avenue
5. Airport Road/North (N.) Fremont Street
6. Del Monte Boulevard/Highway 218
7. Highway 218/Fremont Boulevard
8. Highway 218/General Jim Moore Boulevard
9. Highway 218/Del Rey Gardens Drive
10. Highway 218/Ryan Ranch Road
11. Josselyn Canyon Road/Highway 68
12. Highway 218/Highway 68
13. Ragsdale Drive/Highway 68
14. York Road/Highway 68
15. Pasadera Drive/Highway 68
16. Laureles Grade Road/Highway 68
17. Corral De Tierra Road/Highway 68
18. San Benancio Road/Highway 68
19. Torero Drive/Highway 68

Roadway Segments Evaluated:

1. Highway 68, from Highway 1 to Begin/End Freeway
2. Highway 68, from Begin/End Freeway to Josselyn Canyon Road
3. Highway 68, from Josselyn Canyon Road to Olmsted Road
4. Highway 68, from Olmsted Road to Highway 218
5. Highway 68, from Highway 218 to Ragsdale Drive
6. Highway 68, from Ragsdale Drive to Laureles Grade
7. Highway 68, from Laureles Grade to Corral De Tierra Road
8. Highway 68, from Corral De Tierra Road to Torero Drive
9. Highway 68, from Torero Drive to Begin/End Freeway

Intersection and road segment traffic operations were evaluated based on LOS using standards adopted by the jurisdiction within which the intersection is located. LOS is a quantitative description of an intersection's operation, ranging from LOS A to LOS F. LOS "A" represents free flow, non-congested traffic conditions. LOS "F" represents highly congested traffic conditions with what is commonly considered unacceptable delay to vehicles at intersections. The intermediate levels of service represent incremental levels of congestion and delay between these two extremes. LOS descriptions for signalized intersections, unsignalized intersections with two-way stop control, unsignalized intersections with all-way stop control, and roundabout-controlled intersections are included in the various appendices within the TIA (**Appendix M**). All study intersections are within either the jurisdiction of Caltrans or the City of Monterey, while all roadway segments studied are within the jurisdiction of Caltrans only. See Section 4.16.5,

Threshold 4.16-1 for the applicable impact criteria used to determine the significance of potential impacts.

Traffic Model Methodology and Assumptions. The following traffic model methodology was vetted by Caltrans, TAMC, Monterey County, and the cities of Monterey, Del Rey Oaks, and Seaside. Intersection traffic operations were evaluated using the Synchro© traffic analysis software (Version 9), which is based on Highway Capacity Manual 2010 (HCM 2010) methodologies. The 2010 HCM was the most current version of the manual available at the start of the traffic impact study. The 2016 HCM (and the related Synchro software Version 11), which were released after this EIR had begun, does not noticeably change the signalized or unsignalized delays when compared to the 2010 HCM, and the 2010 HCM is a more conservative approach (see **Appendix M** for a comparison of the two methodologies).

Intersection operations are based upon the average vehicular delay at the intersection. The average delay is then correlated to a level of service. For one-way and two-way stop-controlled intersections, the vehicle delay for side street traffic was analyzed. LOS for each side street movement is based on the distribution of gaps in the major street traffic stream and driver judgment in selecting gaps. Improvements may be warranted when a side street approach reaches LOS F for one-way and two-way stop-controlled intersections. When using the HCM 2010 methods for the analysis of signalized intersections, the overall intersection delay is used to determine LOS. The 95th percentile vehicle queues at all signalized study intersections were estimated using the Synchro© traffic analysis software (Version 9). The 95th percentile queue lengths (in feet) are queues that have a five-percent probability of being exceeded during the analysis period.

A saturation flow rate of 1,600 vehicles per lane per hour was used for the eastbound and westbound through movements along Highway 68, as requested by Caltrans District 5 staff in an email dated May 17, 2017. Existing condition two-lane highway segment operations were based on percent time spent following (PTSF), per Exhibit 15-3 of the 2010 HCM. Multi-lane highway segment operations were based on density in passenger cars per mile per lane (pc/mi/ln), per Exhibit 14-4 of the 2010 HCM. LOS descriptions for two-lane highway and multi-lane highway road segments are also included in the appendices of **Appendix M**. In addition, although not within the traffic study area, Caltrans asked for an analysis of potential project impacts to the short weaving movements at the N. Fremont Street/Highway 1/Highway 68 merging areas.

All the signalized study intersections allow right turns on red (RTOR), which can influence the intersection LOS calculations. There are several options to model right turns on red with different traffic analysis software packages, but the only method prescribed by the HCM for modeling RTOR is to reduce the input volumes to account for vehicles turning right on red. Where an exclusive right turn lane movement runs concurrent with a protected left turn phase from the cross street, the HCM allows for the right turn volume to be reduced by the number of shadowed left turners. However, the length of the right turn lane affects the number of vehicles that can turn right on red. This is because a short right turn lane can result in right turning vehicles being trapped in the queue with vehicles in the through lane. Due to the already-congested conditions on Highway 68, it was assumed that no vehicles would be able to turn right on red at the study intersections on Highway 68 between Josselyn Canyon Road and San Benancio Road.

Data Collection. Weekday AM and PM peak period turning movement counts were conducted at the study intersections during typical commute periods (i.e., from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM) in January 2015, June 2015, February 2016, and November 2016 to establish background conditions for the TIA study using the 2015 EIR baseline. The 2016 counts provided updated information to validate the 2015 existing conditions prior to the analysis. The counts included cars, trucks, buses, bicyclists, and pedestrians. The turning movement count data is included in an appendix to the TIA study (**Appendix M**).

The February 2016 counts were obtained from TAMC's *SR 68 Scenic Highway Plan* (TAMC 2017b). These counts were conducted at the study intersections along Highway 68 as part of the TAMC study and were provided for use in this EIR. Other studies' counts along Highway 68 in January 2015 and November 2016 were also used to derive the background conditions (Mott MacDonald 2015a; 2015b).

The intersection turning movement counts along Highway 68 for the above studies were compared and, to present a more conservative analysis, the highest count at each intersection was used in the analysis. Traffic volumes in January and February tend to be lower than average. As a result, traffic volumes that were collected in January and February were increased by 4.9 percent to represent average conditions. The 4.9 percent seasonal adjustment factor is consistent with monthly adjustment factors in the project study area, which are included in the *Annual Average Daily Traffic 2016* booklet published by the Monterey County Department of Public Works Traffic Engineering division. Turning movement counts were also conducted at other selected intersections around the Airport to develop traffic reassignments under Proposed Project and Alternative 1 conditions.

The CONA neighborhood is located northwest of the Airport and currently experiences airport traffic on its streets. Twenty-four-hour roadway segment counts were conducted at various times of the year at selected locations around the Airport and within the CONA neighborhood to identify existing traffic circulation patterns and to quantify the relative percentage of traffic on Airport Road that is attributable to the Airport, the naval research and meteorological center, and local neighborhood activities.

Impact Analysis Scenarios. Weekday AM and PM peak hour traffic operations were analyzed for the following conditions. Scenarios 1-3 are discussed in this section of the EIR. Scenarios 4-9 are addressed in Chapter Five under the Cumulative Analysis (Section 5.16).

1. Existing Conditions
2. Existing plus Proposed Project Short-Term Projects
3. Existing plus Alternative 1 Short-Term Projects
4. Background Conditions⁵ (includes projected growth in enplanements)
5. Background plus Proposed Project Short-Term Projects
6. Background plus Alternative 1 Short-Term Projects

⁵ Since project implementation of the proposed short-term projects will take up to ten years, background conditions include those trips generated by approved, but not yet built, projects in the project vicinity. These already approved trips have been combined with existing traffic to obtain background traffic volumes expected at the time of project implementation.

7. Cumulative Conditions⁶ (includes projected growth in enplanements)
8. Cumulative plus Proposed Project Long-Term Projects
9. Cumulative plus Alternative 1 Long-Term Projects

Construction Impact Methodology. Caltrans and the cities of Monterey, Seaside, and Del Rey Oaks do not assign specific thresholds for determining construction impacts to their transportation facilities. Presumably, this is because construction impacts are temporary impacts associated with project construction and are typically less than those caused by the daily operations of the project itself, and those impacts would be mitigated by the implementation of the Proposed Project or Alternative 1 mitigation measures. The number of daily construction vehicle trips generated by the Proposed Project and Alternative 1 were estimated and compared to existing traffic volumes to provide a sense of the magnitude of construction vehicle trips on the study road network in relation to existing traffic volumes.

4.16.2.2 Transit, Bicycle, Pedestrian, Design Features, and Emergency Access

To evaluate the Proposed Project or Alternative 1's potential impacts on transit, bicycle and pedestrian facilities, and safety of the existing roadway network and emergency access, the proposed airport roadway system and access and its interface with existing transportation systems were assessed. A determination was then made regarding any potential impacts to these existing components of the transportation network due to proposed airport development. The most recent *Active Transportation Plan* maps (TAMC 2017a) were also used to assess future countywide plans for bicycle and pedestrian improvements.

4.16.2.3 Consistency with Regional Transportation Plans and VMT Analysis Methodology

The aviation forecasts that serve as the basis for the Proposed Project and Alternative 1 were compared to the aviation forecasts used for the preparation of regional transportation planning efforts. Long-term project components of the Proposed Project and Alternative 1 were also examined (i.e., proposed hangar and non-aviation development) and compared to regional growth patterns within Monterey County as well as AMBAG's tri-county area to evaluate proposed long-term non-aviation development at a programmatic level. To estimate the Proposed Project and Alternative 1's associated VMT, the California Emissions Estimator Model (CalEEMod) was used.

4.16.2.4 Consistency with Local Circulation Policies

Consistency with the City of Monterey and the City of Del Rey Oaks general plan circulation policies are addressed as they relate to specific aspects of the Proposed Project or Alternative 1. This includes potential traffic through the residential CONA neighborhood and proposed road improvements on Olmsted Road and a new Highway 68 frontage road within the City of Monterey. Consistency with the City of Del Rey Oaks general plan policies as they relate to a proposed general plan amendment to allow a "north side" road to Del Rey Gardens Drive are addressed in Section 4.11.

⁶ Cumulative conditions include regional 20-year growth forecasts as well as both approved and proposed projects in the project vicinity.

To address potential traffic impacts to the CONA neighborhood, the City of Monterey has indicated that use of the Traffic Infusion on Residential Environment (TIRE) index could add value to qualitatively assessing potential land use compatibility impacts to the residential neighborhood. The TIRE index is a measure of residents' perceptions of the effect of increased traffic on residential streets. The TIRE index is derived from a theory by D.K. Goodrich based on work by Appleyard of the University of California at Berkeley, and by Buchanan of the Ministry of Transport, England. TIRE is based on the theory that a given increase in traffic volume has a greater impact on the residential environment along a residential street with a low traffic volume than along a street with a high pre-existing volume. TIRE effects are separate from noise and air pollution impacts. TIRE represents the effect of traffic on the safety and comfort of human activities such as walking, cycling, and playing on or near a street and on the freedom to maneuver personal autos in and out of residential driveways.

4.16.2.5 Air Traffic Patterns and Increased Safety Risk

This evaluation analyzes components of the Proposed Project and Alternative 1 with respect to air space and overall use of the Airport.

4.16.3 Existing Conditions

4.16.3.1 Existing Roadway Network

The key roadways in the vicinity of the Airport are described below. Highway 1, Highway 218, and Highway 68 provide regional access. Existing average daily traffic (ADT) as derived from existing available sources as well as the intersection turning movement and roadway segment counts completed as a part of this study are shown in **Exhibit 4.16D**.

Del Monte Avenue/Del Monte Boulevard is a major arterial that runs through the cities of Monterey and Seaside. Del Monte Boulevard is a four-lane divided arterial in the vicinity of the project with a posted speed limit of 35 miles per hour (mph).

N. Fremont Street/Fremont Boulevard is a major arterial that runs through the cities of Monterey and Seaside. North (N.) Fremont Street is a four-lane divided arterial in the vicinity of the project and provides access to the north side of the Airport via CONA. The posted speed limit is 35 mph in the City of Monterey and 30 mph in the City of Seaside.

Highway 68 (State Route [SR] 68)/Monterey Salinas Highway connects Highway 1 in Monterey and US 101 in Salinas. It is a two-lane rural highway from east of Highway 1 to west of Highway 218 (where it provides access to the south side of the Airport, including the commercial terminal, via Olmsted Road), and a four-lane highway from Highway 218 to Ragsdale Drive. Between Ragsdale Drive and the Portola Drive interchange, Highway 68 is a two-lane highway. Highway 68 is a four-lane freeway between the Portola Drive and Spreckels Boulevard interchanges, and a four-lane divided highway from the Spreckels Boulevard interchange to Blanco Road in the City of Salinas. It serves as a commuter route between Salinas and the Monterey Peninsula, and functions as a scenic tourist route to the Monterey Peninsula. The posted speed limit on Highway 68 is 55 mph.

Highway 218 (SR 218)/Canyon Del Rey Road/Canyon Del Rey Boulevard is a two-lane highway that connects Highway 68 and Highway 1. It provides access to Del Rey Oaks, Sand City and Seaside. It is designated as “Canyon Del Rey Road” in Del Rey Oaks and “Canyon Del Rey Boulevard” in Seaside. There is currently no access to the Airport via Highway 218. The posted speed limit on Highway 218 is 45 mph.

Olmsted Road is a two-lane collector running in a north-south direction. It provides access to the Airport north of Highway 68 and residential development south of Highway 68. The speed limit on Olmsted Road is unsigned, except for a 25-mph school zone located about 1,200 feet south of Highway 68.

General Jim Moore Boulevard is a major arterial within the cities of Marina, Seaside, and Del Rey Oaks. In the immediate project vicinity, General Jim Moore Boulevard is a two-lane, undivided roadway in the City of Del Rey Oaks. General Jim Moore Boulevard becomes a four-lane divided arterial in the City of Seaside, approximately 1,500 feet north of Highway 218. The speed limit is 35 mph in Del Rey Oaks and 45 mph in Seaside.

Airport Road is a two-lane collector road that provides access to the Airport, the naval research and meteorological center, aviation and non-aviation light industrial land uses, and the Casanova Oak Knoll neighborhood. North of N. Fremont Street, Airport Road becomes Dela Vina Avenue, a two-lane collector road that provides access to the residential neighborhoods on the north side of N. Fremont Street. The posted speed limit on Airport Road is 25 mph.

Del Rey Gardens Drive is a local access road that serves a small residential area as well as some light industrial land uses. The proposed “north side” road would connect to Highway 218 via Del Rey Gardens Drive.

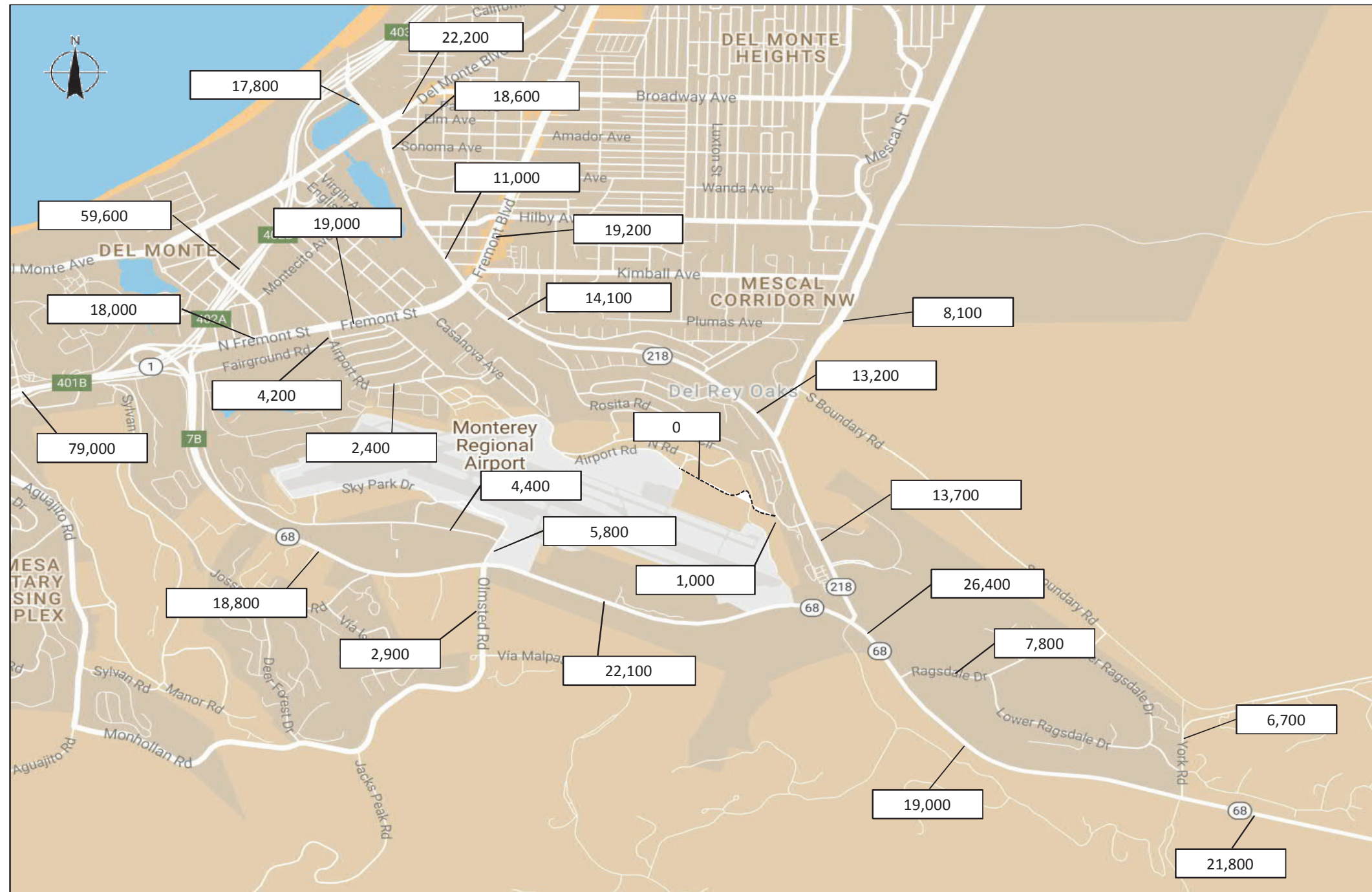
Josselyn Canyon Road is a two-lane road that provides access to low-density residential development as well as a church and a convalescent hospital. The posted speed limit on Josselyn Canyon Road is 25 mph.

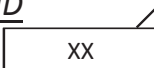
Ragsdale Drive is four lanes in the vicinity of the study area and provides access to the Ryan Ranch Business Park. The posted speed limit on Ragsdale Drive is 35 mph.

York Road provides access to single-unit housing developments as well as the Laguna Seca and Ryan Ranch Business Parks and York School, all located north of Highway 68. The posted speed limit on York Road is 25 mph.

Pasadera Drive is a private road north of Highway 68. It provides access to the Nicklaus Club – Monterey (formerly Pasadera Country Club) and its associated single-unit housing development. The posted speed limit on Pasadera Drive is 25 mph.

Boots Road provides access to a small number of residential developments south of Highway 68. The posted speed limit on Boots Road is 25 mph.



LEGEND
 = Existing Average Daily Traffic Volume

Notes:

1. SR 1 Average Daily Traffic (ADT) volumes obtained from Caltrans 2016 Traffic Volumes, <http://www.dot.ca.gov/trafficops/census/>
2. Airport Road ADTs obtained from daily traffic counts conducted in 2016 and 2017.
3. All other Existing ADTs derived from Existing PM peak hour intersection counts and assume PM peak is 10% of ADT.

Source: Mott MacDonald 2018

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Laureles Grade Road is a two-lane north/south county road that connects Highway 68 with the Carmel Valley and provides access to several residential developments. The posted speed limit on Laureles Grade Road is 45 mph.

Corral de Tierra Road is a two-lane collector road with a speed limit of 35 mph. It provides access to residential developments.

San Benancio Road is a two-lane collector road with a speed limit of 35 mph. It provides access to residential developments.

Torero Drive is a two-lane road that provides access to the Toro Park neighborhood north of Highway 68. The speed limit on Torero Drive is unsigned.

4.16.3.2 Existing Traffic LOS

Existing intersections LOS within the study area are summarized in **Table 4.16A**. All study intersections are located either on state highways or City of Monterey streets. Caltrans considers LOS D as a deficient intersection LOS (Caltrans 2002), while the City of Monterey considers LOS E to be an unacceptable level for roadway segments that are not within a multi-modal corridor (City of Monterey Circulation Element program j.1.1). Although not specifically called out in the city's Circulation Element, this analysis assumes that LOS E is also an unacceptable level for the city's intersections. The following study intersections operate deficiently under existing traffic conditions.

- Intersection #1 – Olmsted Road/Highway 68 (AM and PM peak hour)
- Intersection #6 – Del Monte Boulevard/Highway 218 (PM peak hour only)
- Intersection #7 – Highway 218/Fremont Boulevard (PM peak hour only)
- Intersection #11 – Josselyn Canyon Road/Highway 68 (AM peak hour only)
- Intersection #14 – York Road/Highway 68 (PM peak hour only)
- Intersection #15 – Pasadera Drive/Highway 68 (AM peak hour only)
- Intersection #17 – Corral De Tierra Road/Highway 68 (AM and PM peak hour)
- Intersection #18 – San Benancio Road/Highway 68 (AM peak hour only)
- Intersection #19 – Torero Drive/Highway 68 (AM and PM peak hour)

TABLE 4.16A
Existing Level of Service (LOS) Conditions at Study Intersections
Monterey Regional Airport

Study #	Intersection	Intersection Control	LOS Standard ¹	Peak Hour	Existing Delay ²	LOS
1	Olmsted Road /Highway 68	Signal	C/D	AM PM	51.0 126.0	D F
2	Olmsted Road /Garden Road	One-way Stop	D	AM PM	10.7 10.8	B B
3	Olmsted Road/Fred Kane Drive	All-Way Stop	D	AM PM	7.6 8.2	A A
4	Airport Road/Euclid Avenue	Two-Way Stop	D	AM PM	9.8 10.1	A A
5	Airport Road/N. Fremont Street	Signal	D	AM PM	11.7 14.2	B B
6	Del Monte Boulevard/Highway 218	Signal	C/D	AM PM	34.3 38.9	C D
7	Highway 218/Fremont Boulevard	Signal	C/D	AM PM	31.3 35.6	C D
8	Highway 218/Gen. Jim Moore Blvd.	Signal	C/D	AM PM	17.0 15.2	B B
9	Highway 218/Del Rey Gardens Drive	One-Way Stop	C/D	AM PM	24.1 19.0	C C
10	Highway 218/Ryan Ranch Road	Signal	C/D	AM PM	6.9 16.6	A B
11	Josselyn Canyon Road/Highway 68	Signal	C/D	AM PM	44.5 19.8	D B
12	Highway 218/Highway 68	Signal	C/D	AM PM	24.3 29.7	C C
13	Ragsdale Drive/Highway 68	Signal	C/D	AM PM	12.3 4.2	B A
14	York Road/Highway 68	Signal	C/D	AM PM	25.3 42.8	C D
15	Pasadera Drive/Highway 68	Signal	C/D	AM PM	47.5 14.5	D B
16	Laureles Grade Road/Highway 68	Signal	C/D	AM PM	27.2 31.7	C C
17	Corral de Tierra Road/Highway 68	Signal	C/D	AM PM	35.2 57.8	D E
18	San Benancio Road/Highway 68	Signal	C/D	AM PM	70.3 18.9	E B
19	Torero Drive/Highway 68	One-Way Stop	C/D	AM PM	> 300 111.3	F F

Source: Mott MacDonald 2018 (**Appendix M**, Tables 1 and 2).

¹ Caltrans considers LOS D as a deficient intersection LOS (Caltrans 2002). The City of Monterey considers LOS E to be an unacceptable level for most roadway segments; this analysis assumes that LOS E is also an unacceptable level for the city's intersections.

² Signal, roundabout, and all-way stops are average delay in seconds per vehicle; one- and two-way stops are worst approach delay in seconds per vehicle.

Existing highway segments LOS within the study area are summarized in **Table 4.16B**. Based on Caltrans’ level of service standards, the following study road segments operate deficiently under existing traffic conditions:

- Segment #2 – Highway 68, from Begin/End Freeway to Josselyn Canyon Road
- Segment #3 – Highway 68, from Josselyn Canyon Road to Olmsted Road
- Segment #4 – Highway 68, from Olmsted Road to Highway 218
- Segment #6 – Highway 68, from Ragsdale Drive to Laureles Grade
- Segment #7 – Highway 68, from Laureles Grade to Corral De Tierra Road
- Segment #8 – Highway 68, from Corral De Tierra Road to Torero Drive
- Segment #9 – Highway 68, from Torero Drive to Begin/End Freeway

TABLE 4.16B
Existing Level of Service (LOS) Conditions on Highway 68 Study Road Segments
Monterey Regional Airport

Study #	Highway 68 Roadway Segment (From-To)	Roadway Type	Direction	LOS Standard ¹	AM Peak Hour		PM Peak Hour	
					Density (D) /PTSF ²	LOS	Density (D) /PTSF ²	LOS
1	Highway 1-Begin/End Freeway	4-Lane Freeway	EB WB	C/D	D = 10.5 D = 10.5	A A	D = 7.7 D = 11.8	A B
2	Begin/End Freeway-Josselyn Canyon Road	2-Lane Highway	EB WB	C/D	PTSF = 89.9 PTSF = 90.4	E E	PTSF = 79.8 PTSF = 92.2	D E
3	Josselyn Canyon Road-Olmsted Road	2-Lane Highway	EB WB	C/D	PTSF = 88.8 PTSF = 87.2	E E	PTSF = 80.6 PTSF = 93.7	D E
4	Olmsted Road-Highway 218	2-Lane Highway	EB WB	C/D	PTSF = 87.2 PTSF = 91.1	E E	PTSF = 92.1 PTSF = 90.2	D D
5	Highway 218-Ragsdale Drive	Multi-Lane Highway	EB WB	C/D	D = 13.6 D = 10.0	B A	D = 9.9 D = 16.7	A B
6	Ragsdale Drive-Laureles Grade	2-Lane Highway	EB WB	C/D	PTSF = 87.0 PTSF = 94.1	E E	PTSF = 91.8 PTSF = 89.8	E E
7	Laureles Grade-Corral de Tierra Road	2-Lane Highway	EB WB	C/D	PTSF = 93.7 PTSF = 88.5	E E	PTSF = 91.4 PTSF = 87.4	E E
8	Corral de Tierra Road-Torero Drive	2-Lane Highway	EB WB	C/D	PTSF = 94.2 PTSF = 93.3	E E	PTSF = 92.4 PTSF = 91.5	E E
9	Torero Drive-Begin/End Freeway	2-Lane Highway	EB WB	C/D	PTSF = 94.5 PTSF = 80.5	E D	PTSF = 91.5 PTSF = 91.5	E E

Source: Mott MacDonald 2018 (**Appendix M**, Table 3).
 EB = east bound; WB = west bound; PTSF = percent time spent following
¹ Caltrans perceives an impact when there is any degradation in the performance measure below the transition between LOS C/D (Caltrans 2002).
² Freeway and multi-lane segment LOS is based on density (D) in passenger cars per mile per lane; two-lane highway segment LOS is based on PTSF.

4.16.3.3 Existing CONA Neighborhood Conditions

The CONA neighborhood is located northwest of the Airport and is bounded by N. Fremont Street to the north, Casanova Avenue to the east, and Airport Road-Euclid Avenue to the west and south. Access to

the neighborhood is provided via Fairground Road, Airport Road, Ramona Avenue, and Casanova Avenue. Although the CONA neighborhood is primarily residential, it is adjacent to various non-residential land uses that also generate traffic within the neighborhood. These land uses include the Monterey County fairgrounds, the naval research and meteorological center, and an industrial/commercial area in the northwest corner of the Airport.

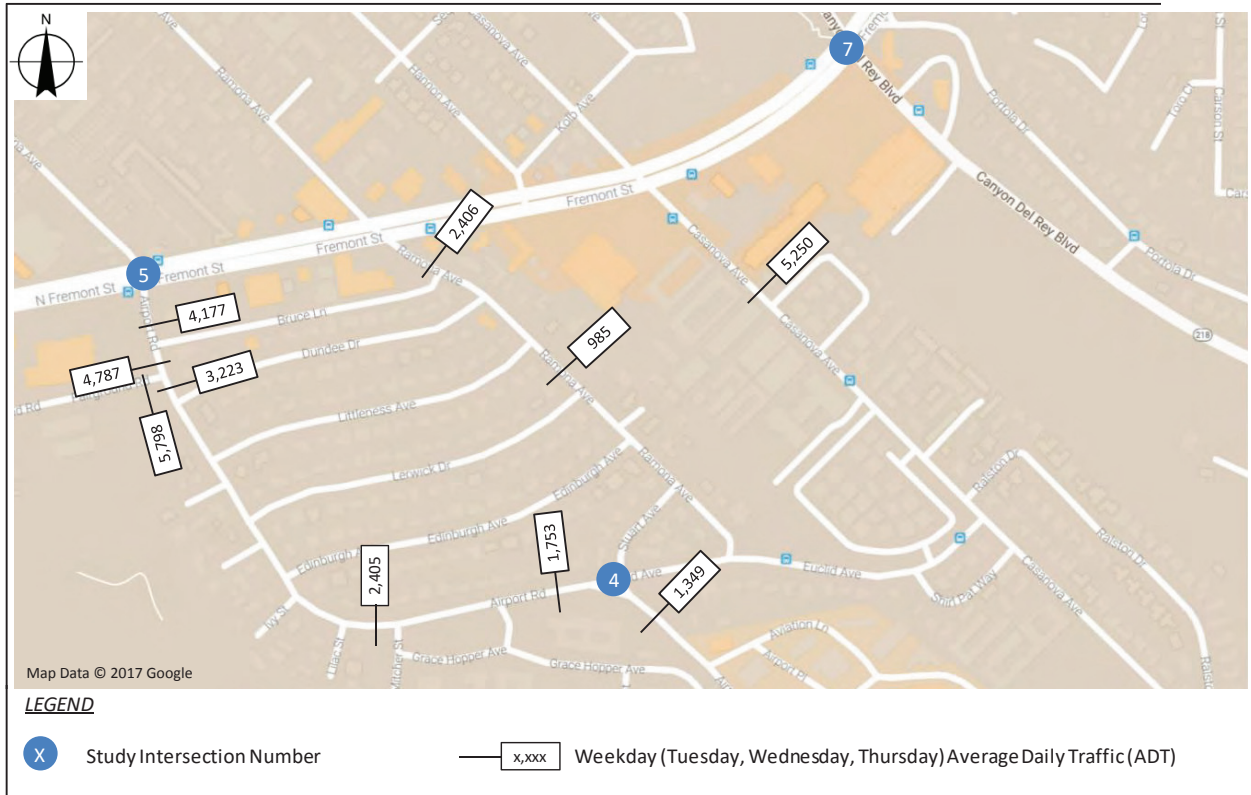
The weekday (Tuesday, Wednesday, and Thursday) ADT volumes in the CONA neighborhood are shown in **Exhibit 4.16E**. The general commute pattern in the CONA neighborhood tends to be heavier westbound in the morning and eastbound in the afternoon/evening. The daily directional split of traffic on Fairground Road and Airport Road (north of Fairground Road) is approximately 60 percent eastbound/northbound and 40 percent westbound/southbound. This is primarily due to higher eastbound/northbound traffic volumes between 12:00 PM and 5:00 PM. The traffic pattern indicates that a considerable number of motorists take Fairground Road to Airport Road to N. Fremont Street in the afternoon/evening but do not use the same route in the morning. This is likely due to motorists using Fairground Road and N. Fremont Street to avoid congestion on northbound Highway 1 in the afternoon/evening.

At the request of the CONA community, the TIA study considered cut-through traffic as part of the analysis. Cut-through traffic is traffic that does not have an origin or destination within the subject area. Residents in the CONA neighborhood have reported the occurrence of cut-through traffic, particularly on Bruce Lane and Dundee Drive, which ostensibly occurs due to drivers attempting to avoid congestion on N. Fremont Street. Based on the ADT counts, it appears that some degree of cut-through traffic occurs in the neighborhood. Although it is difficult to quantify in a precise way, based on the ADTs and the land uses in the area, the amount of cut-through traffic in the neighborhood appears to be approximately 1,000 vehicles per day. It should be noted that the cut-through traffic is not a result of the businesses on the airport property. Traffic going to and from the airport property on Airport Road has its origin and/or destination on the Airport and is, therefore, not cut-through traffic. The volumes of cut-through traffic are included in the existing traffic counts.

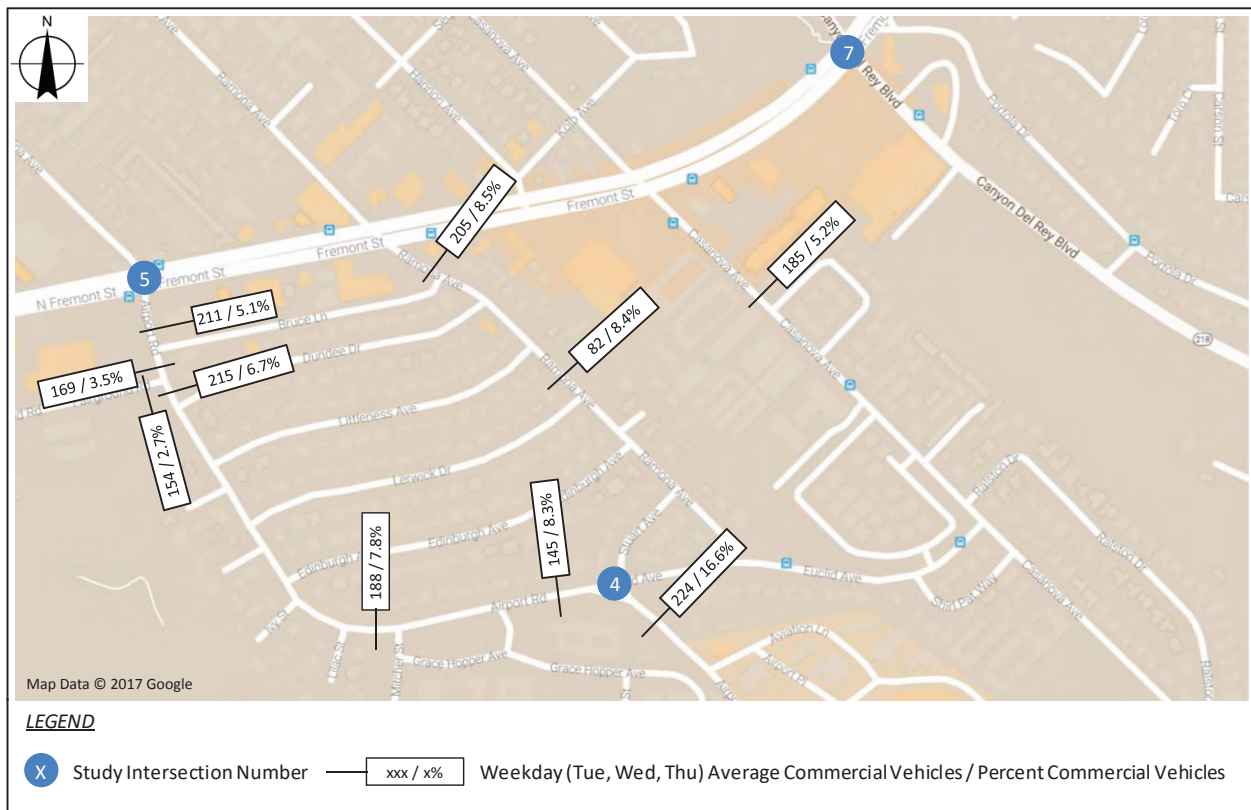
The airport property on Airport Road south of Euclid Avenue is occupied by non-aviation facilities. The businesses in this area include self-storage, U-Haul, and automotive services. The weekday ADT on Airport Road south of Euclid Avenue was 1,349 vehicles per day. The distribution of traffic from the airport property traveling to/from the north, east, and west of the Airport Road/Euclid Avenue intersection was estimated based on the patterns of the peak hour traffic volumes. On average, about 23 percent of the traffic within the CONA neighborhood is attributable to the businesses on the airport property. **Table 4.16C** shows ADT at various locations within the CONA neighborhood and the relative percentage of traffic attributable to the airport property.

The traffic volume data collection also included vehicle classification counts. **Exhibit 4.16E** also depicts the average weekday commercial vehicle ADT volumes in the neighborhood. The term “commercial vehicles” refers to both vehicles with more than three axles (including larger trucks and vehicles pulling trailers) and larger two-axle trucks, such as delivery trucks and box trucks. The number of commercial vehicles on Airport Road south of Euclid Avenue (224) is higher than on Airport Road west of Euclid Avenue (145). This indicates that commercial vehicles entering and exiting the industrial/commercial

CONA NEIGHBORHOOD WEEKDAY AVERAGE DAILY TRAFFIC (ADT) VOLUMES



CONA NEIGHBORHOOD WEEKDAY AVERAGE DAILY COMMERCIAL VEHICLE TRAFFIC



area on Airport Road south of Euclid Avenue are using Ramona Avenue and Casanova Avenue in addition to Airport Road. Based on the number of average daily commercial vehicles on Airport Road south of Euclid Avenue, Airport Road west of Euclid Avenue, Casanova Avenue north of Melway Circle, and Ramona Avenue between Littleness Avenue and Lerwick Drive, approximately half the commercial vehicles in the neighborhood are attributable to the airport property.

TABLE 4.16C
Existing Average Daily Traffic (ADT) Conditions within Casanova Oak Knoll Association (CONA) Neighborhood
Monterey Regional Airport

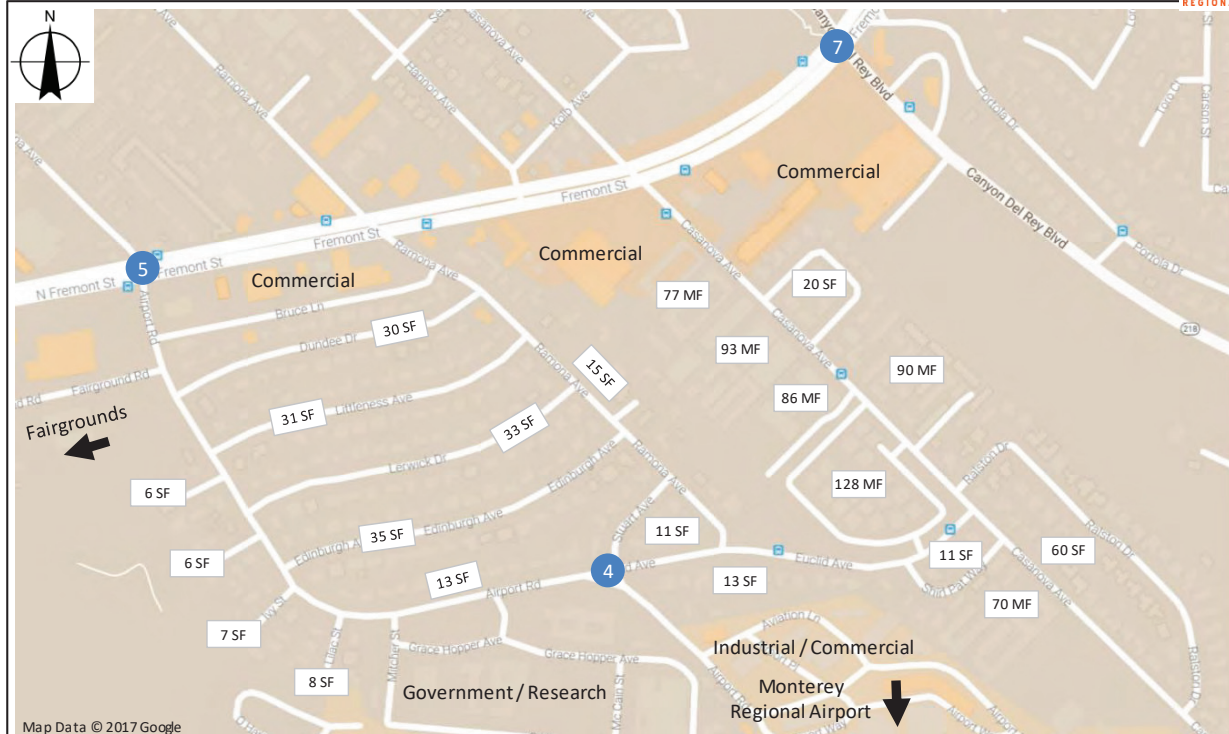
Segment # ¹	Road Segment	Weekday ADT	Airport-Related Weekday ADT	Airport Percent of ADT
1	Airport Road north of Fairground Road	4,787	750	16% ²
2	Airport Road south of Fairground Road	3,223	750	23%
3	Airport Road west of Mitcher Street	2,405	750	31%
4	Airport Road west of Euclid Avenue	1,753	750	43%
6	Ramona Avenue south of Littleness Avenue	985	205	21%
7	Casanova Avenue north of Melway Circle	5,250	394	8%
13	Airport Road north of Bruce Lane	4,177	750	18% ²
Average of All Segments				23%

Source: Mott MacDonald 2018 (**Appendix M**, Table 4)
¹ See **Exhibit 4.16E** for location of segments.
² It should be noted that some traffic from the Airport likely uses Fairground Road and does not reach Segments 1 and 13. Thus, the percentages for Segments 1 and 13 (i.e., 16% and 18%) are considered conservatively high.

In addition to the traffic volume and vehicle classification counts, the traffic study also included a vehicle speed survey. **Exhibit 4.16F** depicts the weekday average 85th percentile speeds (which are typically used to determine speed limits). The current posted speed limit in the neighborhood is 25 miles per hour (mph). On average, the current 85th percentile speeds on Airport Road near Fairground Road and N. Fremont Street are just below the posted speed limit of 25 mph. The 85th percentile speeds on Airport Road west of Euclid Avenue and on Ramona Avenue south of Littleness Avenue are on average about five mph above the posted speed limit of 25 mph. The current 85th percentile speeds were compared to those in the *Casanova Oak Knoll Neighborhood Traffic Calming Plan* (Pat Noyes and Associates 2002). At the two similar study locations, the 85th percentile speeds are on average three mph lower than when studied in 2002. This suggests that the traffic calming improvements have had a small but measurable effect on vehicle travel speeds in the CONA neighborhood. These improvements included partial medians, curb extensions, a partial barrier, and pavement treatments.⁷

⁷ The City of Monterey has its own traffic calming policy, the *City of Monterey Neighborhood Traffic Calming Program*, adopted January 15, 2013, which establishes a consistent process for evaluating the need for traffic calming across the city. All traffic calming plans must be approved and adopted by the City Council prior to implementation. Funding for traffic calming improvements are through the city’s Neighborhood Improvement Program, grants, or other sources. Types of traffic calming allowed in the plan include static signs, speed feedback signs, medians, street narrowing, textured pavement, turn restrictions, roundabouts, and full and partial street closures. Speed humps and stop signs are not allowed as traffic calming measures in the City of Monterey.

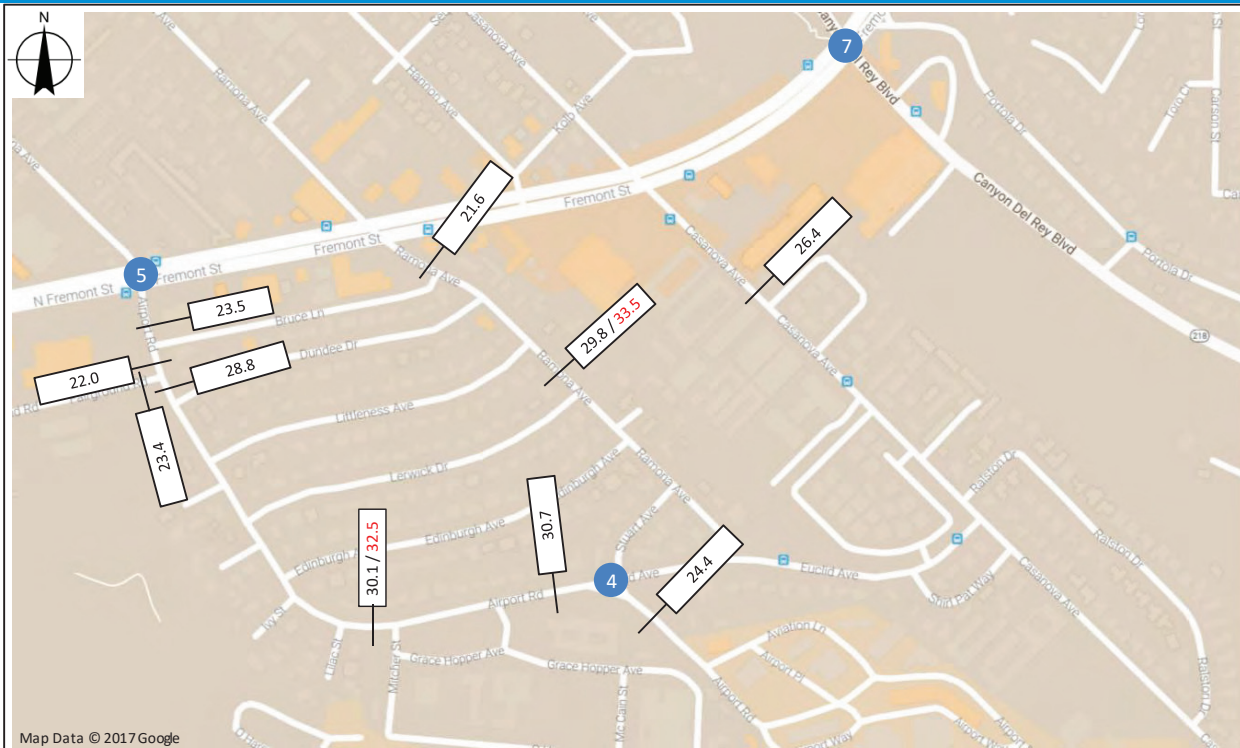
CASANOVA OAK KNOLL NEIGHBORHOOD STREET SYSTEM AND LAND USES



LEGEND

X Study Intersection Number SF = Single-Family Residential Units (299 Total) MF = Multi-Family Residential Units (544 Total)

CONA NEIGHBORHOOD WEEKDAY AVERAGE 85TH PERCENTILE SPEEDS



LEGEND

X Study Intersection Number xxx / xxx 85th Percentile Speeds: After Traffic Calming / Before Traffic Calming

4.16.3.4 Existing Bicycle, Pedestrian, and Transit Facilities

Bicycle Facilities

There are three basic types of bicycle facilities. Each type is described below:

Bike path (Class I) - A separate right-of-way designed for the exclusive use of cyclists and pedestrians, with minimal crossings for motorists.

Bike lane (Class II) - A lane on a regular roadway, separated from the motorized vehicle right-of-way by paint striping, designated for the exclusive or semi exclusive use of bicycles. Bike lanes allow one-way bike travel. Through travel by motor vehicles or pedestrians is prohibited but crossing by pedestrians and motorists is permitted.

Bike route (Class III) - Provides shared use of the roadway, designated by signs or permanent markings, and shared with motorists.

Highway 68 is classified as a Class III bike route in the TAMC's 2011 *Bicycle and Pedestrian Master Plan*. The segment of Highway 68 in the study area currently has paved shoulders of varying widths that accommodate bicycles. Bicycle facilities are provided sporadically on the other study roadways. The only Class II bike lanes are provided on Garden Road (Fairground Road to Olmsted Road) and Canyon Del Rey Boulevard (Highway 218) (east of N. Fremont Street to Highway 68) (TAMC 2011; 2018). Both Highway 68 and Highway 218 are shown on the Monterey County Bike Map as cross-county bike routes (defined as high speed roadways, bikes allowed on highways) (TAMC 2011).

Two bike storage containers are provided for public use at the Airport terminal's east second-level entrance. No other bicycle facilities are present near the Airport.

Pedestrian Facilities

Pedestrian facilities generally include sidewalks, crosswalks, and pedestrian signals. There is not a significant amount of foot-traffic near the Airport and, therefore, sidewalks are not provided along Highway 68. Sidewalks are provided along parts of Olmsted Road near the airport surface parking area, opposite the current terminal building, and on Fred Kane Drive along the frontage of the current terminal building. There are no continuous pedestrian sidewalks/pathways to the airport terminal area from outside the Airport.

Sidewalks are not provided on Canyon Del Rey Boulevard (Highway 218) between N. Fremont Street and Highway 68 or along many of the other intersecting roadways on Highway 68 east of the Airport. Farther away from the Airport, there are sidewalks along parts of Garden Road west of Olmsted Road, on Canyon Del Rey Boulevard (Highway 218) in Seaside, and along N. Fremont Street⁸ and much of Airport Road in

⁸ The City of Monterey's *North Fremont Specific Plan* (2016b) is a guide for future mixed-use development along N. Fremont Street between Highway 1 and Canyon Del Rey Boulevard (Highway 218). In addition to establishing architectural design standards and guidelines, the plan encourages the implementation of bicycle, pedestrian, and transit improvements, which will be implemented as development occurs along the corridor.

Monterey. Crosswalks and pedestrian signal phasing are provided at all the signalized study intersections. The draft *Active Transportation Plan* calls for intersection improvements at the Fremont Street/Fremont Boulevard/Canyon Del Rey Boulevard intersection (TAMC 2018a).

Transit Facilities

Monterey-Salinas Transit (MST) provides fixed-route bus service in Monterey County and Monterey Peninsula cities. Lines 7, 56, and 93 provide service to the airport terminal via Highway 68 and Olmsted Road. Line 7 provides service between Monterey and Del Rey Oaks, Line 56 traverses between Salinas and Monterey, and Line 93 travels between downtown Monterey and the Ryan Ranch Business Park. However, these three lines only operate during limited times of day. Line 7 operates only four times per day on weekends only, Line 56 operates only three times per day on weekdays only, and Line 93 provides hourly and bi-hourly service on weekdays only.

Various transit lines also service the area near Airport Road. Line 94 provides service between Carmel and Sand City via Airport Road and has bus stops in each direction of Euclid Avenue between Airport Road and Casanova Avenue. However, this route only services the area during the late morning and mid-afternoon. Lines 11, 18, and three Jazz express buses (Lines Jazz A, Jazz B, and Jazz C) provide more regular transit service between Sand City/Marina and Monterey. All these lines traverse N. Fremont Street between Airport Road and Casanova Avenue and provide either limited weekday or daily hourly service. Bus stops for these routes are located near the N. Fremont Street intersections with Airport Road and Ramona Avenue.

Alternative Fuel Facilities

To encourage the use of alternative fuel vehicles, the Airport has three Level 2 electric vehicle (EV) charging stations which are in the customer parking lots. One of these charging stations is free of charge.

4.16.3.5 Airspace

The Airport is surrounded by Airspace Class C within a ten-mile radius. Class C is generally airspace from the surface to 4,000 feet above ground level (AGL) surrounding towered airports with service by radar approach control. In order to fly inside Class C airspace, the aircraft must have a two-way radio, an encoding transponder, and have established communication with air traffic control (ATC). The Oakland Air Route Traffic Control Center (ARTCC) controls enroute airspace in the Monterey region. The ARTCC has delegated airspace control to the Monterey ATC tower for approach and departure control during its hours of operation (6:00 AM to 9:00 PM). The Oakland ARTCC provides approach and departure control services when the Monterey approach and departure control is closed.

4.16.4 Thresholds of Significance

The following thresholds of significance have been adapted from the CEQA Guidelines, Appendix G (2017). In addition, proposed CEQA Guidelines thresholds related to SB 743 have been included. Therefore, significant transportation or traffic impacts could occur if the Proposed Project or Alternative 1 would:

- Threshold 4.16-1: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;
- Threshold 4.16-2: Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety facilities;
- Threshold 4.16-3: Substantially increase a hazard related to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) or result in inadequate emergency access;
- Threshold 4.16-4: Conflict with an applicable congestion management plan, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;
- Threshold 4.16-5: Increase VMT when compared to existing conditions within Monterey County due to proposed land use development;
- Threshold 4.16-6: Result in impacts addressed in applicable Circulation Element policies of local jurisdictions; or
- Threshold 4.16-7: Result in a change in air traffic patterns, including an increase in traffic levels or a change in location that results in substantial safety risks.

4.16.5 Impact Analysis

The following impact analysis includes an overall description of the proposed short- and long-term project components that would generate traffic. This general discussion is then followed by an evaluation of project-related impacts, threshold by threshold, for the Proposed Project and Alternative 1. Where appropriate to the threshold (Threshold 4.16-1 and 4.16-6), discussion of construction traffic impacts is also provided.

Proposed Project

Short-Term Project Traffic

In the short term (i.e., the first ten years of project implementation), the Proposed Project would involve the relocation of 44 general aviation (GA) hangars and a fuel tank from the southwest side to the north side of the Airport, and the construction of up to seven new GA hangars on the north side of the Airport. In addition, a temporary aircraft rescue and firefighting (ARFF) building and an on-airport ARFF service road would be located on the north side for a period of approximately six years until a new permanent ARFF building could be constructed in the location of the existing commercial terminal building. Although the temporary ARFF trips are not included in the traffic LOS and VMT analysis, potential emergency access issues are addressed in Section 4.9, as well as Threshold 4.16-4 below, of this EIR.

Current access to the north side of the Airport is via Airport Road through the CONA neighborhood. Thus, in the short term, the relocation of 44 GA hangars would result in a redistribution of traffic, reducing traffic on the south side of the Airport, and increasing traffic on Airport Road. The construction of up to seven new GA hangars would also contribute traffic to Airport Road.

Eventually, the construction of a permanent ARFF building on the south side of the Airport in the location of the current commercial terminal building is proposed and the temporary ARFF on the north side of the Airport would be removed. The trips associated with the permanent ARFF building are expected to be the same as the existing south side ARFF building and no increase in traffic would occur. The Proposed Project would also relocate the existing commercial terminal from its current location to approximately 800 feet to the southeast.

As discussed in detail in Sections 2.5.2 and 2.6.1 of the EIR, the relocated commercial terminal is proposed to contain approximately 100,000 square feet (sf) of building space to address efficiency issues of the existing terminal. Based on preliminary analysis of the proposed commercial terminal's functional spaces, approximately eight percent of the building would be used for administrative functions and 16 percent for building systems and support areas. The remaining 76 percent of the building would be used for arrival and departure functions, the main concourse, and other public spaces. The proposed commercial terminal relocation would contain improvements to several functional areas that are undersized within the existing terminal, including Transportation Security Administration (TSA) security screening areas and baggage claim. In addition, changes in the California Building Code requirements, *American Disability Act* requirements, and the expectations of passengers for additional terminal amenities would also be considered in the new terminal layout.

Additional commercial apron depth would be provided to allow the proper parking of the larger aircraft currently operating at the Airport without penetrations of the airfield's safety areas. The existing commercial apron depth does not meet standards. No increases in the number of aircraft accessing the terminal (i.e., terminal gate positions) or "remain overnight" (RON) parking positions are associated with the increased apron depth. Associated roadway improvements include the construction of a new roundabout at the intersection of Olmsted and Garden roads.

Replacement and additional parking would be provided in new surface parking lots as well as two parking garages. A net increase of 669 vehicular parking spaces for the commercial terminal complex is planned. A proposed two-lane terminal loop road would provide one-way counter-clockwise circulation around one of the proposed parking garages, with dedicated turn pockets into the parking lot. The terminal loop road would also provide a 10-foot wide curbside pick-up/drop-off lane (390 feet), a curbside taxi lane (310 feet), and a bus turnout (65 feet). Pedestrian facilities would be provided adjacent to the curbside bus, taxi, and drop-off/pick-up areas, as well as between the new terminal building and parking areas.

No new vehicular trips are associated with the proposed commercial terminal and commercial terminal apron relocation; the number of aircraft gate positions (five) would remain the same as the existing terminal. (Future enplanement levels at the Airport are related to regional and national markets and overall trends in aviation and are included in the cumulative scenarios of the traffic analysis only [see Chapter 5.16].)

Long-Term Project Traffic

In the long term, the Proposed Project includes construction of a proposed “north side” road and Airport Road would be closed to areas of the Airport east of Gate V22. This would redistribute the traffic associated with six existing Port-a-Port T-hangars, the Monterey Navy Flying Club, the 44 relocated GA hangars, and the construction of up to seven new GA hangars from west via Airport Road and N. Fremont Street to east via the new “north side” road, Del Rey Gardens Drive, and Canyon Del Rey Boulevard.

In addition, the long-term implementation of the Proposed Project could include the ultimate construction of 106 additional GA hangars, 400,000 sf of light Industrial development, and 325,000 sf of office park development on the north side of the Airport. This development would be accessed via the proposed “north side” road and Del Rey Gardens Drive from Canyon Del Rey Boulevard.

Approximately 10,000 sf of high-turnover restaurant, 45,000 sf of medical-dental office, and 94,000 sf of general office development could ultimately occur on the south side of the Airport based on existing City of Monterey zoning. A proposed Highway 68 frontage road is planned to provide access to these new south side land uses from Olmsted Road. An existing access point to Highway 68 from a proposed 5.5-acre property acquisition would be closed.

Other aspects of the Proposed Project, such as proposed taxiway improvements, an upgrade of the Airport’s perimeter fence, redevelopment of the northwest corner of the Airport with new non-aviation land uses, and the aircraft GA hangars at land use intensities similar to what currently exist, and acquisition of existing lands or avigation easements for airport compatibility purposes (for example, runway protection zones [RPZs]) would not generate new traffic.

Alternative 1

Short-Term Project Traffic

The major differences between Alternative 1 and the Proposed Project with respect to traffic are the location of the permanent ARFF building and the timing of the construction of the proposed “north side” road. Under Alternative 1, the existing ARFF building would be permanently relocated to the north GA apron at the same time as 44 southeast GA hangars and a fuel tank are relocated to the north side. The new “north side” road would be constructed, as well as an on-airport ARFF service road, to provide acceptable on- and off-airport emergency response times. Airport Road would be closed to areas of the Airport east of Gate V22. These actions would occur within the first three to five years of project implementation.

In addition, the configuration of the proposed Highway 68 frontage road would be changed. Under the Proposed Project, it is planned as a full loop, while under Alternative 1 it is planned as a cul-de-sac to avoid some of the rare plants located in the area. The proposed acquisition of a 5.5-acre parcel near the proposed commercial terminal complex would occur under either alternative and its existing access point to Highway 68 would be closed.

The proposed relocation of the commercial terminal and apron, associated roadway and pedestrian improvements, proposed taxiway improvements, and all proposed long-term projects would remain the same under either alternative. However, initially, replacement and additional parking for the commercial terminal complex would be provided in three new surface parking lots for a net increase of 321 vehicular parking spaces.

Long-Term Project Traffic

Long-term implementation of Alternative 1 would be the same as the Proposed Project.

4.16.5.1 Threshold 4.16-1: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit

The following criteria for impacts are used by Caltrans to determine the significance of potential impacts to roadway and intersection LOS. Because the City of Monterey does not have impact criteria for intersections, the Monterey County impact criteria has been used for those intersections within the city’s jurisdiction per consultation with the City of Monterey Traffic Engineer (email dated October 28, 2016).

- Caltrans Impact Criteria. Per the *Guide for the Preparation of Traffic Impact Studies* (Caltrans 2002), Caltrans perceives an impact when there is any degradation in the performance measure in an intersection operating at or below LOS D. If a facility is currently operating at or below LOS D, then any trips added represent a potential impact, and the performance measure should be brought back to

predevelopment conditions. While a single trip added to a degraded facility is not usually reflected in the performance measure, Caltrans reserves the ability to consider a single trip as an impact.

- Monterey County Impact Criteria. Per the *Guide for the Preparation of Traffic Impact Studies* (County of Monterey 2014), an impact at a signalized study intersection is defined to occur under the following conditions:
 - A significant impact would occur if an intersection operating at LOS A, B, C or D degrades to E or F. For intersections already operating at unacceptable level E, a significant impact would occur if a project adds 0.01 or more during peak hours to the critical movement's volume-to-capacity ratio. If the intersection is already operating at LOS F, any increase (one vehicle) in the critical movement's volume-to-capacity ratio is considered significant.

An impact at an unsignalized study intersection is defined to occur under the following conditions:

- An impact would occur if an all-way stop-controlled or roundabout-controlled intersection, based on the average delay, operates at LOS F or any traffic signal warrant is met.
- An impact would occur if a two-way stop-controlled intersection, based on the worst approach delay, operates at LOS F or any traffic signal warrant is met.

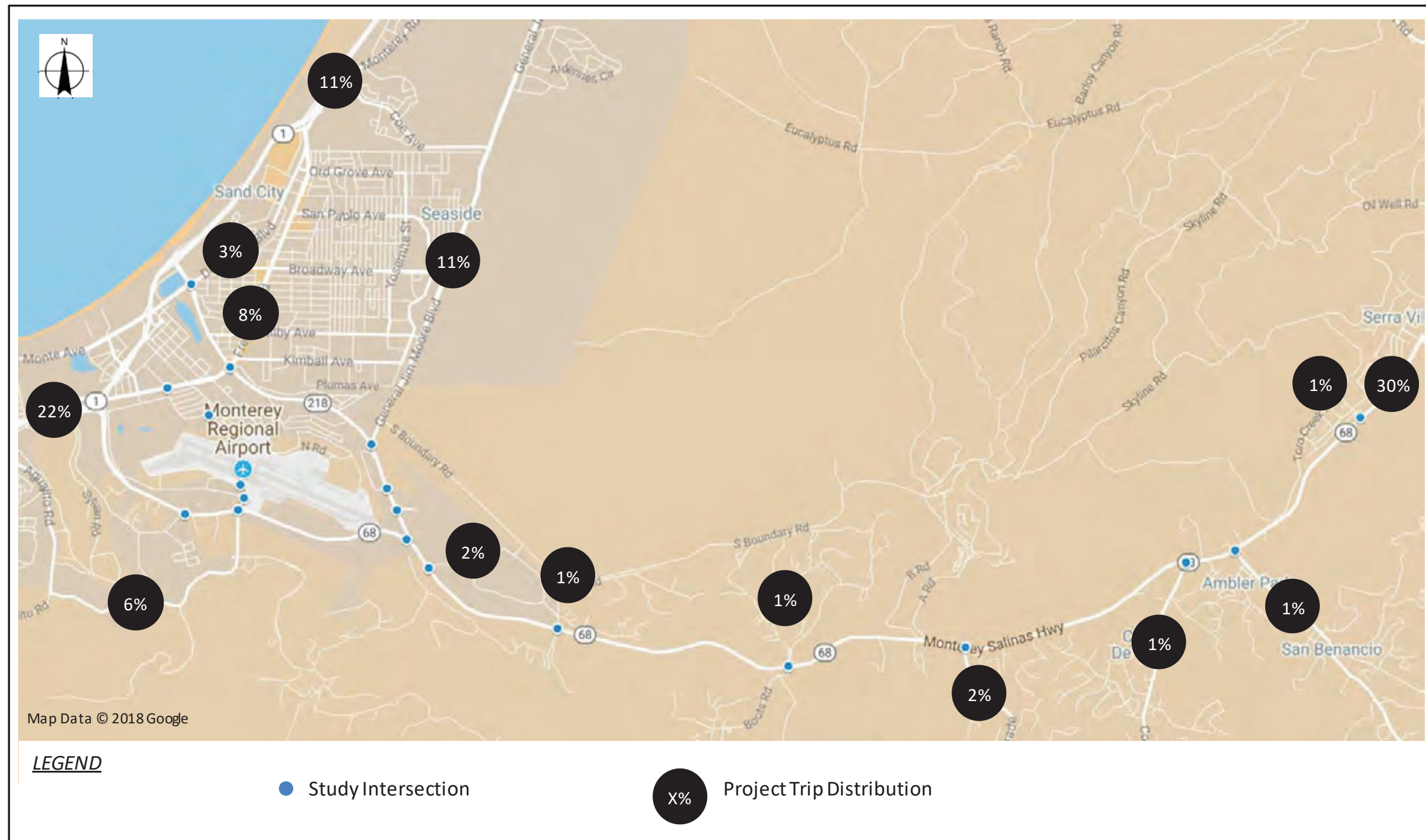
Proposed Project

Short-Term Project Impacts

Trip generation rates for the 44 GA hangars proposed to be relocated to the north side of the Airport are based on actual gate counts at the Airport's existing hangar gates on the southeast ramp. The gate count data was collected between November 1 and December 31, 2016 and represents average airport activity based on input by airport staff. Details of the trip generation and the trip distribution assumed in the traffic impact analysis are shown in **Table 4.16D**. The Proposed Project could generate approximately 10 new daily trips with one occurring during the AM peak hour and two occurring during the PM peak hour. However, approximately 62 daily trips would be redistributed from the south side of the Airport via Olmsted Road, Garden Road, and Highway 68 to the north side of the Airport via Airport Road and other CONA streets to N. Fremont Street.

Once the hangar users have left the airport property, they are assumed to travel on the street network using the following percentages: approximately 39 percent of project trips are expected on streets east of the Airport using Highway 68; 28 percent are expected on streets west or southwest towards Monterey; and 33 percent are expected on streets north towards Seaside, Sand City, or farther north. The project trip distribution was estimated based on existing traffic circulation patterns, proximity to population and employment centers, and engineering judgment. **Exhibit 4.16G** shows this expected trip distribution. Detailed trip assignments through the study intersections are included in the TIA (**Appendix M**, Figures 13 - 15). In the short term, the Proposed Project would reduce trips on Highway 68 due to the relocation of 44 GA hangars from the south side of the Airport to the north side.

PROJECT TRIP DISTRIBUTION



Note: As shown in **Figure 13**, approximately 39% of project trips are expected to travel to areas east of the Airport using Highway 68, 28% are expected to travel west or southwest towards Monterey, and 33% are expected to travel north towards Seaside, Sand City, or further north.

Source: Mott MacDonald 2018

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TABLE 4.16D
Trip Generation (Short-Term Projects)
Proposed Project

Project Component	# of Units	Daily Trip Rate	Weekday AM Peak Hour			Weekday PM Peak Hour		
			Peak Hour Rate	% In	% Out	Peak Hour Rate	% In	% Out
Hangars (per unit)¹		1.41	0.17	83%	17%	0.32	45%	55%
North Side:								
Relocated hangars	44	62	7	6	1	14	6	8
New GA hangars	7	10	1	1	0	2	1	1
Total Trips (North Side)	51	72	8	7	1	16	7	9
South Side:								
Hangar removal	-44	-62	-7	-6	-1	-14	-6	-8
Total Net New Trips		10	1	1	0	2	1	1

Source: Mott MacDonald 2018 (**Appendix M**, Table 5).
 GA = general aviation
¹ All rates based on actual hangar gate counts for the hangars to be relocated.

Table 4.16E shows the project intersection LOS for the study intersections with the Proposed Project short-term trips added. Five intersections that are currently operating deficiently would have at least one additional project-related trip occur in the peak hour where the deficiency is occurring. These intersections are noted in **bold** in the table and include the following:

- #6 Del Monte Boulevard/Highway 218 - PM peak hour
- #7 Highway 218/Fremont Boulevard - PM peak hour
- #14 York Road/Highway 68 - PM peak hour
- #17 Corral de Tierra Road/Highway 68 - PM peak hour
- #19 Torero Drive/Highway 68 - PM peak hour

N. Fremont/Highway 1/Highway 68 Merge Areas. Although outside the study area, the short weaving segments at the interchange of N. Fremont Street/Highway 1/Highway 68 were analyzed as they relate to the increase in trips from the Proposed Project in the short term based on comments received from Caltrans District 5 staff during the EIR scoping. These short weaving segments and their approximate weave lengths are described below and are shown in **Exhibit 4.16H**.

1. Westbound Highway 68 to southbound Highway 1 merge – 1,530 feet
2. Northbound Highway 1 to eastbound N. Fremont Street merge – 1,420 feet
3. Southbound Highway 1 to eastbound Highway 68 – 1,100 feet
4. Westbound Highway 68 to northbound Highway 1 merge – 410 feet

The redistribution of trips generated by the proposed relocated 44 hangars from the southeast GA area to the northern GA area would not significantly change the number of trips on weaving segments #1 and #2. As shown in **Table 4.16D**, in the short term, the Proposed Project is estimated to generate at most two new peak hour trips, one inbound and one outbound. The one inbound and one outbound trip generated by seven new hangars would add, on average, less than one peak hour trip to weaving segments #1 and #2.

TABLE 4.16E
Existing Plus Project Intersection Level of Service (LOS) With and Without Mitigation (Short-Term Projects)
Proposed Project

Study #	Intersection	Intersection Control	LOS Standard	Peak Hour	Existing		Project Trips	Existing Plus Project		With Mitigation	
					Delay	LOS		Delay	LOS	Delay	LOS
1	Olmsted Road/ Highway 68	Signal	C/D	AM PM	51.0 126.0	D F	-7 -13	50.5 123.7	D F	n/a	n/a
2	Olmsted Road/ Garden Road	One-way Stop	D	AM PM	10.7 10.8	B B	-7 -12	20.5 15.7	C C	6.7 6.2	A A
3	Olmsted Road/ Fred Kane Drive	All-Way Stop	D	AM PM	7.6 8.2	A A	0 0	7.4 7.5	A A	n/a	n/a
4 (CONA)	Airport Road/ Euclid Avenue	Two-Way Stop	D	AM PM	9.8 10.1	A B	9 16	9.8 10.2	A B	n/a	n/a
5 (CONA)	Airport Road/N. Fremont Street	Signal	D	AM PM	11.7 14.2	B B	9 15	11.8 14.3	B B	n/a	n/a
6	Del Monte Blvd/ Highway 218	Signal	C/D	AM PM	34.3 38.9	C D	1 2	34.3 38.9	C D	33.0 33.7	C C
7	Highway 218/ Fremont Blvd	Signal	C/D	AM PM	31.3 35.6	C D	5 9	31.5 46.7	C D	26.1 32.6	C C
8	Highway 218/ Gen. Jim Moore Blvd	Signal	C/D	AM PM	17.0 15.2	B B	2 3	17.0 15.3	B B	n/a	n/a
9	Highway 218/Del Rey Gardens Drive	One-Way Stop	C/D	AM PM	24.1 19.0	C C	1 1	24.0 19.0	C C	n/a	n/a
10	Highway 218/ Ryan Ranch Road	Signal	C/D	AM PM	6.9 16.6	A B	1 1	6.9 16.6	A B	n/a	n/a
11	Josselyn Canyon Road/Highway 68	Signal	C/D	AM PM	44.5 19.8	D B	-2 -5	44.2 19.6	D B	11.3 13.8	B B
12	Highway 218/ Highway 68	Signal	C/D	AM PM	24.3 29.7	C C	-2 -3	24.2 29.6	C C	13.3 16.3	C B
13	Ragsdale Drive/ Highway 68	Signal	C/D	AM PM	12.3 4.2	B A	0 1	12.3 4.2	B A	n/a	n/a
14	York Road/ Highway 68	Signal	C/D	AM PM	25.3 42.8	C D	0 1	25.3 42.8	C D	15.8 21.3	C C
15	Pasadera Drive/ Highway 68	Signal	C/D	AM PM	47.5 14.5	D B	0 1	47.5 14.5	D B	11.0 10.6	B B
16	Laureles Grade Road/Highway 68	Signal	C/D	AM PM	27.2 31.7	C C	0 1	27.2 31.8	C C	14.8 11.9	B B
17	Corral de Tierra Road/Highway 68	Signal	C/D	AM PM	35.2 57.8	D E	0 1	35.2 57.9	D E	16.9 14.3	C B
18	San Benancio Road/Highway 68	Signal	C/D	AM PM	70.3 18.9	E B	0 1	70.3 18.9	E B	17.9 13.0	C B
19	Torero Drive/ Highway 68	One-Way Stop	C/D	AM PM	> 300 111.3	F F	0 1	> 300 111.3	F F	16.4 12.4	C B

Source: Mott MacDonald 2018 (Appendix M, Tables 6 and 7).

NOTE: Intersections that are currently operating deficiently and would have at least one additional project-related trip occur in the peak hour where the deficiency is occurring are highlighted in the table.



LEGEND

Weaving Segment



Source: Mott MacDonald 2018

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The redistribution of trips generated by the relocated 44 hangars would reduce the number of trips on weaving segments #3 and #4 as trips to and from the north would no longer use the N. Fremont Street/Highway 1/Highway 68 interchange. Therefore, in the short term, the Proposed Project would have a Less than Significant impact on these weaving segments.

Long-Term Project Impacts (Programmatic)

The Proposed Project's long-term projects propose additional hangar development and a variety of non-aviation land uses. However, no long-term site-specific development plans, land uses, densities, or intensities have been proposed and site-specific development information for the long-term scenario is infeasible and speculative. Further environmental review and analysis would be performed, as appropriate under CEQA, if, and when, more definitive long-term development plans are proposed. For purposes of the programmatic traffic analysis, general light industrial and office park on the north side of the Airport, and high-turnover restaurant, medical-dental office, and general office on the south side of the Airport were chosen to represent a conservative, high-level assessment of the possible road network improvements that may be required to accommodate the intensity of these types of development. **Table 4.16F** identifies the estimated trip generation based on the identified potential land uses.

As shown in the table, Proposed Project long-term projects could result in almost 1,000 peak hour trips in each timeframe (AM and PM) on the north side of the Airport due to the construction of additional hangars, and office and/or light industrial development. These trips would use the proposed "north side" road to access Canyon Del Rey Boulevard via Del Rey Gardens Drive. On the south side of the Airport, almost 1,400 peak hour trips in each timeframe (AM and PM) could occur due to proposed non-aviation land uses along the new Highway 68 frontage road. These trips would occur on Olmsted Road, Garden Road, and Highway 68. Potentially Significant Impacts would result.

The analysis associated with these long-term non-aviation land uses can only be considered at a programmatic level (i.e., based on general land use) due to a lack of project-specific detail and additional site-specific traffic studies may be required before any of these future land uses could be developed. Because the proposed long-term projects would occur at an unspecified time in the future, other additional cumulative projects and regional growth will be part of the background traffic present on the street network. See Section 5.16 for projected cumulative impacts and recommended mitigation.

TABLE 4.16F
Trip Generation (Long-Term Projects)
Proposed Project and Alternative 1

Project Component	ITE Code	Daily Trip Rate ¹	Weekday AM Peak Hour			Weekday PM Peak Hour		
			Peak Hour Rate	% In	% Out	Peak Hour Rate	% In	% Out
Trip Generation Rates								
Hangars (per unit)	n/a	1.41 ²	0.17	83%	17%	0.32	45%	55%
General Light Industrial (per 1,000 sf)	110	7.22	0.96	88%	12%	1.04	12%	88%
Office Park (per 1,000 sf)	750	11.68	1.75	89%	11%	1.51	14%	86%
High-turnover Restaurant (per 1,000 sf)	932	127.15	10.81	55%	45%	9.85	60%	40%
Medical-Dental Office (per 1,000 sf)	720	36.11	2.39	79%	21%	3.16	28%	72%
General Office (per 1,000 sf)	710	13.33	1.94	88%	12%	1.96	17%	83%
Trips Generation by Area	Units	Daily Trips	AM Peak Hour Trips	Trips In	Trips Out	PM Peak Hour Trips	Trips In	Trips Out
North Side via CONA:								
Redistributed existing hangar trips	-7	-10	-1	-1	0	-2	-1	-1
North Side via "north side" road:								
Relocated GA hangars	44	62	7	6	1	14	6	8
New GA hangars	7	10	1	1	0	2	1	1
Redistributed existing hangar trips	7	10	1	1	0	2	1	1
Long-term Hangars	106	149	18	15	3	34	15	19
General Light Industrial (sf)	400,000	2,886	383	337	46	415	50	365
Office Park (sf)	325,000	3,796	570	507	63	492	69	423
Total Trips (North Side)		6,903	979	866	113	957	141	816
South Side via Olmsted Road:								
Hangar removal	-44	-62	-7	-6	-1	-14	-6	-8
High-turnover Restaurant (sf)	10,000	1,272	108	59	49	99	59	40
Medical-Dental Office (sf)	45,000	1,625	108	85	23	142	40	102
General Office (sf)	94,000	1,253	182	160	22	184	31	153
Total Trips (South Side)		4,088	391	298	93	411	124	287
Total Net New Trips		10,991	1,370	1,164	206	1,368	265	1,103

Source: Mott MacDonald 2018 (**Appendix M**, Tables 28 and 30).

n/a = not applicable; sf = square foot; CONA = Casanova Oak Knoll neighborhood

¹ Trip generation rates from Institute of Transportation Engineers (ITE), *Trip Generation*, 9th Edition, 2012.

² Rates based on actual hangar gate counts for the hangars to be relocated.

Construction Impacts

Proposed Project short-term project construction is expected to occur in five phases. A description of the construction activities associated with each phase is included in **Table 4.16G**. **Table 4.16H** provides estimates of the total number of construction-related round trips for each phase of construction based on input from the project civil engineers. The trip estimates include trips by construction workers, the

delivery of materials and equipment, the hauling of surplus earthwork, and the removal of construction debris from the project to an offsite location. The number of daily construction vehicle trips generated by the Proposed Project would vary depending on the phase and the specific construction activities taking place on any given day. The construction-related round trips per phase were converted to ADT and are shown in **Table 4.16I**. The average number of truck trips per hour were also estimated.

TABLE 4.16G
Construction Activities (Short-Term Projects)
Proposed Project

Phase	Area of Airport	Years per Phase	Description of Activity
Phase 1 (2019 - 2021)	North	3	GA preparation/install hangars; temporary ARFF
Phase 2 (2022-2026)	South	5	Demolish south GA/ARFF; grade and construct terminal apron, roads, rental car lot; construct terminal parking garage; repair haul road
Phase 3 (2027)	South	1	Demolish old terminal; construct new ARFF
Phase 4 (2028)	South	1	Construct "north side" road
Phase 5 (2029)	North/South	1	Construct Highway 68 frontage loop road
Total		11	

GA = general aviation; ARFF = aircraft rescue and firefighting building

TABLE 4.16H
Construction Round Trips¹ (Short-Term Projects)
Proposed Project

Phase ²	Area of Airport	Years per Phase	Construction Workers ³	Materials and Equipment Deliveries ⁴	On-Airport Earth Removal ^{4,5,6}	Off-Airport Earth Removal ^{4,5}	Construction Debris Removal ⁴	Total Round Trips ^{1,6}
Phase 1	North	3	2,458	3,278	2,428	0	0	5,736
Phase 2	South	5	10,374	4,812	7,524	1,316	629	17,131
Phase 3	South	1	1,043	87	0	0	120	1,250
Phase 4	South	1	2,165	1,824	0	1,460	0	5,449
Phase 5	North	1	2,601	788	0	0	0	3,389
Phase 5	South	1	792	1,031	0	0	0	1,823
TOTAL		11	19,433	11,820	9,952	2,776	749	34,778

Source: Mott MacDonald 2018 (**Appendix M**, Table 10)

¹ One round trip = two total trips (one inbound, one outbound)

² Phase duration assumed to include 12 calendar months for each year of each phase.

³ Construction workers assumed to arrive/depart site in passenger vehicles (cars & pickup trucks).

⁴ Assumes deliveries of materials and equipment, earth removal, and construction debris removal are all made by trucks.

⁵ Assumes 25 cubic yards (cy) of earth removal per haul trip. Each truckload has a return trip with an empty truck. This equates to a total of 34,700 cy of earth removal: 2,776 earth removal round trips/2 = 1,388 outbound hauls. 1,388 hauls x 25 cy/haul = 34,700 cy.

⁶ On-airport earth removal trips are assumed to have both trip ends onsite and are excluded from construction vehicle trip totals.

TABLE 4.16I
Construction Trips (Short-Term Projects) - Average Trips Per Day/Hour¹
Proposed Project

Phase ²	Area of Airport	Years per Phase	Passenger Vehicle Trips per Day	Truck Trips per Day ²	Total Trips per Day	Total Trips per Day in PCE ³	Truck Trips per Hour	Truck Trips per Hour in PCE
Phase 1	North	3	6	10	16	26	1	2
Phase 2	South	5	16	12	28	40	2	4
Phase 3	South	1	8	2	10	12	1	2
Phase 4	South	1	18	28	46	74	4	8
Phase 5	North	1	22	6	28	34	1	2
Phase 5	South	1	8	8	16	24	1	2

Source: Mott MacDonald 2018 (**Appendix M**, Table 11)

¹ Average trips represent total trips (i.e., inbound and outbound); assumes 240 working days per year (20 working days per month x 12 months per year).

² Truck trips assume a conservative seven-hour workday, outside of peak hours (e.g., 9:00 AM to 4:00 PM)

³ Passenger Car Equivalents (PCE): one truck = two passenger vehicles (per HCM 2010 Exhibit 21-10).

NOTE: The highest number of trips generated by each phase are bolded.

As a conservative estimate, construction trips were assumed to occur only five days a week (i.e., Monday through Friday). If work is also conducted on the weekend, then the average number of construction trips for each day would be reduced. For purposes of this analysis, an average of 240 working days per year was estimated. This assumes 20 working days per month for 12 months of each year.

For the Proposed Project, Phase 4 is expected to generate the highest number of total daily trips (passenger vehicles and trucks) with an average of 46 daily trips. Assuming each truck is the equivalent of two passenger vehicles, construction of the Proposed Project would have the potential traffic impacts of about 74 passenger vehicle trips per day.

Passenger vehicle trips are anticipated for the construction workers. For the Proposed Project, Phase 5 is expected to generate the highest number of daily trips by construction workers with an average of 22 daily trips. This is a conservative estimate; if work is conducted on weekends, the number of daily trips for each day would be reduced.

Truck trips are anticipated for the delivery of materials and equipment, earth removal, and construction debris removal. Truck trips were assumed to occur five days a week between the hours of 9:00 AM and 4:00 PM, for a total of seven hours per day. This is a conservative estimate; if work is also conducted on weekends or during a longer workday, the average number of trips for each day would be reduced. Delivery of materials and equipment is expected to occur during all construction phases. Earth removal is expected to occur in Phases 2 and 4. It is estimated that a total of 34,700 cubic yards (cy) of earth would be hauled offsite during Phases 2 and 4 (16,450 cy during Phase 2 and 18,250 cy during Phase 4), while no offsite earth removal is expected during Phases 1, 3, and 5. Construction debris removal is expected to occur in Phases 2 and 3 only.

Daily truck trips associated with deliveries of materials and equipment, earth removal, and the removal of construction debris were combined and estimated for each construction phase. Phase 4 is expected to generate the highest number of daily truck trips, with an average of 28 daily truck trips. Assuming

each truck is the equivalent of two passenger vehicles, construction of the Proposed Project in the short term would have the potential traffic impacts of about 74 passenger vehicle trips per day.

Truck trips were also combined and estimated on an hourly basis for each construction phase. The highest number of hourly truck trips is estimated to occur during Phase 4, with an average of four truck trips per hour. Assuming each truck is the equivalent of two passenger vehicles, the Proposed Project would have the potential traffic impacts of about eight passenger vehicle trips per hour during the short term.

A comparison of the amount of construction vehicle trips in relation to the existing traffic volumes on the roads near the project site is provided in **Table 4.16J**. The total daily construction vehicle trips, including passenger vehicles and trucks, were converted to passenger car equivalents (PCE) and assigned to the available haul routes. The haul routes and construction phases where construction-related trips would represent the highest percentage of existing daily traffic are shown shaded in **Table 4.16J**.

TABLE 4.16J
Construction Trips as a Percentage of Existing ADT (Short-Term Projects)
Proposed Project

Construction Phase	Total Daily Construction Trips (PCE) ¹	Construction Activity Area	Proposed Haul Routes ²	Existing ADT	Construction Trips Percentage of ADT
1	26	North	Airport Road	2,400	1.1 %
1	26	North	Fremont Street	19,000	0.1 %
2	40	South	Olmsted Road	5,800	0.7 %
2	40	South	Highway 68	18,800	0.2 %
3	12	South	Olmsted Road	5,800	0.2 %
3	12	South	Highway 68	18,800	0.1 %
4	74	South	Olmsted Road	5,800	1.3 %
4	74	South	Highway 68	18,800	0.4 %
5	34	North	Airport Road	2,400	1.4 %
5	34	North	Fremont Street	19,000	0.2 %
5	24	South	Olmsted Road	5,800	0.4 %
5	24	South	Highway 68	18,800	0.1 %

Source: Mott MacDonald 2018 (**Appendix M**, Table 12)
 ADT = average daily traffic volume (i.e., trips); PCE = passenger car equivalent
¹Total Daily Construction Trips includes trips by construction workers and truck trips, with truck trips converted to PCE.
²Haul routes include roads closest to the project site that would be most affected by construction vehicle trips. Construction vehicles would disperse onto other roads as they move farther from the project site, reducing the potential for construction traffic impacts.
 NOTE: The haul routes and construction phases where construction-related trips would represent more than one percent of existing daily traffic are bolded.

A map showing the proposed construction vehicle haul routes is included in **Exhibit 4.12G** (Section 4.12.2, Land-Based Noise). Proposed Project construction haul routes for construction activities on the north side of the Airport include Airport Road and N. Fremont Street. Construction activities for the Proposed Project on the north side of the Airport would represent about 1.4 percent (Phase 5) of the existing traffic on Airport Road and 0.2 percent (Phase 5) of the existing traffic on N. Fremont Street.

Proposed Project haul routes for construction activities on the south side of the Airport include Olmsted Road and Highway 68. Construction activities for the Proposed Project on the south side of the Airport would represent about 1.3 percent (Phase 4) of the existing traffic on Olmsted Road and 0.4 percent (Phase 4) of the existing traffic on Highway 68.

Construction vehicle trips associated with the Proposed Project in the short term would represent a small fraction (1.4 percent or less) of the existing daily volumes on the study road network. However, construction-related trips would be added to intersections and road segments that have been identified as operating deficiently during the peak commute hours under existing conditions. As a result, short-term construction traffic impacts of the Proposed Project would be Potentially Significant, albeit temporary.

As no long-term site-specific development plans, land uses, densities, or intensities have been proposed for the long-term project phase, site-specific development information for the long-term scenario is infeasible and speculative. However, similar to the short-term project analysis provided above, it is anticipated that long-term project construction-related trips would be added to intersections and road segments that are projected to operate deficiently during the peak commute hours under future conditions. Based on the same modeling efforts conducted for air quality and GHGs emissions using worst-case land use assumptions for proposed long-term projects, an estimated 394 construction trips could occur from north side long-term projects and an estimated 127 construction trips could occur from south side long-term projects (see **Appendix E**). The timing of these trips is unknown. As a result, long-term project construction traffic impacts are also likely to be Potentially Significant, albeit temporary. Further environmental review and analysis would be performed, as appropriate under CEQA, when more definitive long-term development plans are proposed.

Less than Significant Impacts:

For four intersections along Highway 68 that are operating at deficient LOS during at least one of the peak hours (#1, 11, 15, and 18), the Proposed Project would have a Less than Significant impact per Threshold 4.16-1. Either the redistribution of traffic that would occur with the relocation of the existing hangars would result in an overall reduction of traffic at the intersection, or the Proposed Project is not expected to add traffic during the peak hour to the intersection that is operating deficiently under existing conditions.

In the short term, the Proposed Project is expected to add zero AM peak hour and one PM peak hour trip to the following four roadway segments. This will not be enough of an increase in traffic to significantly affect traffic operations on the following segments operating deficiently under existing conditions. Impacts would be Less than Significant per Threshold 4.16-1:

- #6: Highway 68, from Ragsdale Drive to Laureles Grade*
- #7: Highway 68, from Laureles Grade to Corral De Tierra Road*
- #8: Highway 68, from Corral De Tierra Road to Torero Drive*
- #9: Highway 68, from Torero Drive to Begin/End Freeway*

The one inbound and one outbound trip generated by seven new hangars would add, on average, less than one peak hour trip to the westbound Highway 68 to southbound Highway 1 merge and the northbound Highway 1 to eastbound N. Fremont Street merge weaving segment. Impacts would be Less than Significant per Threshold 4.16-1.

Significant Impact TR-1:

Based on the Caltrans impact criteria, the addition of a single project trip at an intersection that is operating deficiently can be considered an impact. Thus, the Proposed Project would have a Potentially Significant impact at the following intersections that are operating deficiently under existing conditions in the short term per Threshold 4.16-1:

- ***#6: Del Monte Boulevard/Highway 218 (two PM peak hour trips)***
- ***#7: Highway 218/N. Fremont Boulevard (nine PM peak hour trips)***
- ***#14: York Road/Highway 68 (one PM peak hour trip)***
- ***#17: Corral De Tierra Road/Highway 68 (one PM peak hour trip)***
- ***#19: Torero Drive/Highway 68 (one PM peak hour trip)***

Significant Impact TR-2:

Proposed Project long-term projects would generate additional project-related vehicular trips that would impact existing and future congested intersections and Highway 68 segments within the project study area. Proposed Project long-term traffic impacts are considered Potentially Significant per Threshold 4.16-1.

Significant Impact TR-3:

Project-related short- and long-term construction trips would be added to intersections and road segments that have been identified as operating deficiently during the peak commute hours under existing conditions or are anticipated to operate deficiently under future conditions. As a result, Proposed Project construction traffic impacts would be Potentially Significant, albeit temporary, per Threshold 4.16-1.

Alternative 1

Short-Term Project Impacts

Alternative 1 could generate approximately 10 new daily trips with one occurring during the AM peak hour and two occurring during the PM peak hour. However, approximately 82 daily trips would be redistributed from the south side of the Airport via Olmsted Road, Garden Road, and Highway 68 to the

north side of the Airport. In addition to the southeast GA hangar traffic under the Proposed Project, trips associated with the existing ARFF building would be redistributed from the south side of the Airport to the north side. In addition, because the proposed “north side” road would be constructed as part of the relocation effort under Alternative 1, no new trips would occur along Airport Road through the CONA neighborhood. Instead, existing trips from the north GA area would be removed from Airport Road and added to the new trips occurring east via the proposed “north side” road. Details of the trip generation and the trip distribution assumed in the traffic impact analysis are shown in **Table 4.16K**.

TABLE 4.16K
Trip Generation (Short-Term Projects)
Alternative 1

Project Component	# of Units	Daily Trip Rate	Weekday AM Peak Hour			Weekday PM Peak Hour		
			Peak Hour Rate	% In	% Out	Peak Hour Rate	% In	% Out
Hangars (per unit)¹		1.41	0.17	83%	17%	0.32	45%	55%
North Side via CONA:								
Redistributed existing hangar trips	-7	-10	-1	-1	0	-2	-1	-1
North Side via “north side” road:								
Relocated GA hangars	44	62	7	6	1	14	6	8
New GA hangars	7	10	1	1	0	2	1	1
Redistributed existing hangar trips	7	10	1	1	0	2	1	1
Relocated ARFF ²	1	20	10	5	5	4	2	2
Total Trips (North Side)		92	18	12	6	20	9	11
South Side:								
Hangar removal	-44	-62	-7	-6	-1	-14	-6	-8
ARFF removal	-1	-20	-10	-5	-5	-4	-2	-2
Total Net New Trips		10	1	1	0	2	1	1

Source: Mott MacDonald 2018 (**Appendix M**, Table 13).
¹ Rates based on actual hangar gate counts for the hangars to be relocated.
² Trips generated by the aircraft rescue and firefighting (ARFF) building are based on ARFF staffing, schedule, and incident reports (November 1 - December 31, 2016)

Similar to the Proposed Project, once the hangar users have left the airport property, they are assumed to travel on the street network using the following percentages: approximately 39 percent of project trips are expected on streets east of the Airport using Highway 68; 28 percent are expected on streets west or southwest towards Monterey; and 33 percent are expected on streets north towards Seaside, Sand City, or farther north. The project trip distribution was estimated based on existing traffic circulation patterns, proximity to population and employment centers, and engineering judgment. Detailed trip assignments through the study intersections are included in the TIA (**Appendix M**, Figures 18 - 19). In the short term, Alternative 1 would reduce trips on Highway 68 due to the relocation of 44 GA hangars and the existing ARFF building from the south side of the Airport to the north side.

Table 4.16L shows the project intersection LOS for the study intersections with the Alternative 1 short-term project trips added. Two intersections that are currently operating deficiently would have at least one additional project-related trip occur in the peak hour where the deficiency is occurring. These intersections are highlighted in the table.

TABLE 4.16L
Existing Plus Project Intersection LOS With and Without Mitigation (Short-Term Projects)
Alternative 1

Study #	Intersection	Intersection Control	LOS Standard	Peak Hour	Existing		Project Trips	Existing Plus Alternative		With Mitigation	
					Delay	LOS		Delay	LOS	Delay	LOS
1	Olmsted Road/ Highway 68	Signal	C/D	AM PM	51.0 126.0	D F	-10 -11	50.2 123.1	D F	n/a	n/a
2	Olmsted Road/ Garden Road	One-way Stop	D	AM PM	10.7 10.8	B B	-17 -18	20.2 15.6	C C	n/a	n/a
3	Olmsted Road/ Fred Kane Drive	All-Way Stop	D	AM PM	7.6 8.2	A A	0 0	7.4 7.5	A A	n/a	n/a
4 (CONA)	Airport Road/ Euclid Avenue	Two-Way Stop	D	AM PM	9.8 10.1	A B	-1 -2	9.8 10.1	A B	n/a	n/a
5 (CONA)	Airport Road/N. Fremont Street	Signal	D	AM PM	11.7 14.2	B B	-3 -4	11.7 14.2	B B	n/a	n/a
6	Del Monte Blvd/ Highway 218	Signal	C/D	AM PM	34.3 38.9	C D	4 4	34.3 39.0	C D	33.0 33.7	C C
7	Highway 218/ Fremont Blvd	Signal	C/D	AM PM	31.3 35.6	C D	4 4	31.4 46.3	C D	26.1 32.6	C C
8	Highway 218/ Gen. Jim Moore Blvd	Signal	C/D	AM PM	17.0 15.2	B B	6 6	17.0 15.3	B B	n/a	n/a
9	Highway 218/ Del Rey Gardens Drive	One-Way Stop	C/D	AM PM	24.1 19.0	C C	18 20	24.5 19.0	C C	n/a	n/a
10	Highway 218/ Ryan Ranch Road	Signal	C/D	AM PM	6.9 16.6	A B	10 12	6.9 16.8	A B	n/a	n/a
11	Josselyn Canyon Road/Highway 68	Signal	C/D	AM PM	44.5 19.8	D B	-2 -3	44.4 19.7	D B	11.3 12.1	B B
12	Highway 218/ Highway 68	Signal	C/D	AM PM	24.3 29.7	C C	3 4	24.4 30.0	C C	13.3 16.3	B C
13	Ragsdale Drive/ Highway 68	Signal	C/D	AM PM	12.3 4.2	B A	-1 -1	12.3 4.2	B A	n/a	n/a
14	York Road/ Highway 68	Signal	C/D	AM PM	25.3 42.8	C D	-1 -1	25.3 42.8	C D	15.8 21.3	C C
15	Pasadera Drive/ Highway 68	Signal	C/D	AM PM	47.5 14.5	D B	-1 -1	47.1 14.5	D B	11.0 10.6	B B
16	Laureles Grade Road/Highway 68	Signal	C/D	AM PM	27.2 31.7	C C	-1 -1	27.2 31.6	C C	14.8 11.9	B B
17	Corral de Tierra Road/Highway 68	Signal	C/D	AM PM	35.2 57.8	D E	-1 -1	35.1 57.6	D E	16.9 14.3	C B
18	San Benancio Road/Highway 68	Signal	C/D	AM PM	70.3 18.9	E B	-1 -1	70.2 18.9	E B	17.9 13.0	C B
19	Torero Drive/ Highway 68	One-Way Stop	C/D	AM PM	> 300 111.3	F F	-1 -1	> 300 111.3	F F	16.4 21.6	C C

Source: Mott MacDonald 2018 (Appendix M, Tables 14 and 15).

NOTE: Intersections that are currently operating deficiently and would have at least one additional project-related trip occur in the peak hour where the deficiency is occurring are bolded in the table.

N. Fremont/Highway 1/Highway 68 Merge Areas (Exhibit 4.16G). Similar to the Proposed Project, the redistribution of trips generated by the relocated 44 hangars from the southeast GA area to the northern GA area would not significantly change the number of trips on weaving segments #1 and #2. As shown in **Table 4.16K**, in the short term, Alternative 1 is estimated to generate at most two new peak hour trips, one inbound and one outbound. The one inbound and one outbound trip generated by seven new hangars would add, on average, less than one peak hour trip to weaving segments #1 and #2.

The redistribution of trips generated by the relocated 44 hangars would reduce the number of trips on weaving segments #3 and #4 as trips to and from the north would no longer use the N. Fremont Street/Highway 1/Highway 68 interchange. Therefore, in the short term, Alternative 1 would have a Less than Significant impact on these weaving segments.

Long-Term Project Impacts (Programmatic)

The long-term development scenarios are the same for the Proposed Project and for Alternative 1. As previously discussed, **Table 4.16F** identifies the estimated trip generation based on the identified potential land uses for purposes of the programmatic traffic analysis. However, no long-term site-specific development plans, land uses, densities, or intensities have been proposed and site-specific development information for the long-term scenario is infeasible and speculative. Further environmental review and analysis would be performed, as appropriate under CEQA, if, and when, more definitive long-term development plans are proposed. Proposed Alternative 1 long-term projects could result in almost 1,000 peak hour trips in each timeframe (AM and PM) on the north side of the Airport due to the construction of additional hangars, and office and/or light industrial development. These trips would use the proposed “north side” road to access Canyon Del Rey Boulevard via Del Rey Gardens Drive. On the south side of the Airport, almost 1,400 peak hour trips in each timeframe (AM and PM) could occur due to proposed non-aviation land uses along the new Highway 68 frontage road. These trips would occur on Olmsted Road, Garden Road, and Highway 68. Potentially Significant Impacts would result. See Section 5.16 for projected cumulative impacts and recommended mitigation.

Construction Impacts

Similar to the Proposed Project, Alternative 1’s proposed short-term project construction is also expected to occur in five phases. A description of the construction activities associated with each phase is included in **Table 4.16M**. **Table 4.16N** provides estimates of the total number of construction-related round trips for each phase of construction based on input from the project civil engineers. The construction-related round trips per phase were converted to ADT and are shown in **Table 4.16O**. The average number of truck trips per hour was also estimated.

As a conservative estimate, construction trips were assumed to occur only five days a week (i.e., Monday through Friday). If work is also conducted on the weekend, then the average number of construction trips for each day would be reduced. For purposes of this analysis, an average of 240 working days per year was estimated. This assumes 20 working days per month for 12 months of each year.

TABLE 4.16M
Construction Activities (Short-Term Projects)
Alternative 1

Phase	Area of Airport	Years per Phase	Description of Activity
Phase 1 (2019 - 2021)	North	3	GA preparation/install hangars; construct new ARFF building; construct "north side" road
Phase 2 (2022-2025)	South	4	Demolish south GA/ARFF; grade and construct terminal apron, roads, rental car and terminal surface lots; repair haul road
Phase 3 (2026)	South	1	Restripe Taxiway "A"; demolish old terminal
Phase 4 (2027)	South	1	Construct surface parking along Fred Kane Drive
Phase 5 (2028)	North/South	1	Construct Highway 68 frontage road cul-de-sac
Total		10	

GA = general aviation; ARFF = aircraft rescue and firefighting building

TABLE 4.16N
Construction Round Trips¹ (Short-Term Projects)
Alternative 1

Phase ²	Area of Airport	Years Per Phase	Construction Workers ³	Materials and Equipment Deliveries ⁴	On-Airport Earth Removal ^{4,5,6}	Off-Airport Earth Removal ^{4,5}	Construction Debris Removal ⁴	Total Round Trips ^{1,6}
Phase 1	North	3	5,439	4,066	2,428	0	0	9,505
Phase 2	South	4	9,934	4,969	7,524	1,316	629	16,848
Phase 3	South	1	663	87	0	0	120	870
Phase 4	South	1	1,167	1,501	0	1,460	0	4,128
Phase 5	South	1	694	288	0	0	0	982
TOTAL		10	17,897	10,911	9,952	2,776	749	32,333

Source: Mott MacDonald 2018 (**Appendix M**, Table 17)

¹ One round trip = two total trips (one inbound, one outbound)

² Phase duration assumed to include 12 calendar months for each year of each phase.

³ Construction workers assumed to arrive/depart site in passenger vehicles (cars & pickup trucks).

⁴ Assumes deliveries of materials and equipment, earth removal, and construction debris removal are all made by trucks.

⁵ Assumes 25 cubic yards (cy) of earth removal per haul trip. Each truckload has a return trip with an empty truck. This equates to a total of 34,700 cy of earth removal: 2,776 earth removal round trips/2 = 1,388 outbound hauls. 1,388 hauls x 25 cy/haul = 34,700 cy

⁶ On-airport earth removal trips are assumed to have both trip ends onsite and are excluded from construction vehicle trip totals.

TABLE 4.16O
Construction Trips (Short-Term Projects) - Average Trips Per Day/Hour¹
Alternative 1

Phase ²	Area of Airport	Years per Phase	Passenger Vehicle Trips per Day	Truck Trips per Day ²	Total Trips per Day	Total Trips per Day in PCE ³	Truck Trips per Hour	Truck Trips per Hour in PCE
Phase 1	North	3	14	12	26	38	2	4
Phase 2	South	4	22	14	36	50	2	4
Phase 3	South	1	6	2	8	10	1	2
Phase 4	South	1	10	24	34	58	3	6
Phase 5	South	1	6	2	8	10	1	2

Source: Mott MacDonald 2018 (**Appendix M**, Table 18)

¹ Average trips represent total trips (i.e., inbound and outbound); assumes 240 working days per year (20 working days per month x 12 months per year).

² Truck trips assume a conservative seven-hour workday, outside of peak hours (e.g., 9:00 AM to 4:00 PM)

³ Passenger Car Equivalents (PCE): one truck = two passenger vehicles (per HCM 2010 Exhibit 21-10).

NOTE: The highest number of trips generated by each phase are bolded.

For Alternative 1, Phase 2 is expected to generate the highest number of total daily trips (passenger vehicles and trucks) with an average of 36 daily trips. Assuming each truck is the equivalent of two passenger vehicles, construction of Alternative 1 would have the potential traffic impacts of about 58 passenger vehicle trips per day, which would occur in Phase 4.

Passenger vehicle trips are anticipated for the construction workers. For Alternative 1, Phase 2 is expected to generate the highest number of daily trips by construction workers with an average of 22 daily trips. This is a conservative estimate; if work is conducted on weekends, the number of daily trips for each day would be reduced.

Truck trips are anticipated for the delivery of materials and equipment, earth removal, and construction debris removal. Truck trips were assumed to occur five days a week between the hours of 9:00 AM and 4:00 PM, for a total of seven hours per day. This is a conservative estimate; if work is also conducted on weekends or during a longer workday, the average number of trips for each day would be reduced. Delivery of materials and equipment is expected to occur during all construction phases. Earth removal is expected to occur in Phases 2 and 4. It is estimated that a total of 34,700 cubic yards (cy) of earth would be hauled offsite during Phases 2 and 4 (16,450 cy during Phase 2 and 18,250 cy during Phase 4), while no offsite earth removal is expected during Phases 1, 3, and 5. Construction debris removal is expected to occur in Phases 2 and 3 only.

Daily truck trips associated with deliveries of materials and equipment, earth removal, and the removal of construction debris were combined and estimated for each construction phase. Phase 4 is expected to generate the highest number of daily truck trips, with an average of 24 daily truck trips. Assuming each truck is the equivalent of two passenger vehicles, construction of Alternative 1 in the short term would have the potential traffic impacts of about 58 passenger vehicle trips per day.

Truck trips were also combined and estimated on an hourly basis for each construction phase. The highest number of hourly truck trips is estimated to occur during Phase 4, with an average of three truck trips per hour. Assuming each truck is the equivalent of two passenger vehicles, Alternative 1 would have the potential traffic impacts of about six passenger vehicle trips per hour during the short term.

A comparison of the amount of construction vehicle trips in relation to the existing traffic volumes on the roads near the project site is provided in **Table 4.16P**. The total daily construction vehicle trips, including passenger vehicles and trucks, were converted to passenger car equivalents (PCE) and assigned to the available haul routes. The haul routes and construction phases where construction-related trips would represent the highest percentage of existing daily traffic are shown shaded in **Table 4.16P**.

A map showing the proposed construction vehicle haul routes is included in **Exhibit 4.12H** (Section 4.12.2, Land-Based Noise). Alternative 1 construction haul routes for construction activities on the north side of the Airport include Del Rey Gardens Drive and Highway 218. Construction activities for Alternative 1 on the north side of the Airport would represent about 3.8 percent (Phase 1) of the existing traffic on Del Rey Gardens Drive and 0.3 percent (Phase 1) of the existing traffic on Highway 218.

Alternative 1 haul routes for construction activities on the south side of the Airport include Olmsted Road and Highway 68. Construction activities for Alternative 1 on the south side of the Airport would represent about 1.0 percent (Phase 4) of the existing traffic on Olmsted Road and 0.3 percent (Phase 4) of the existing traffic on Highway 68.

TABLE 4.16P
Construction Trips as a Percentage of Existing ADT (Short-Term Projects)
Alternative 1

Construction Phase	Total Daily Construction Trips (PCE) ¹	Construction Activity Area	Proposed Haul Routes ²	Existing ADT	Construction Trips Percentage of ADT
1	38	North	Del Rey Gardens Drive	1,000	3.8 %
1	38	North	Highway 218	13,200	0.3 %
2	50	South	Olmsted Road	5,800	0.9 %
2	50	South	Highway 68	18,800	0.3 %
3	10	South	Olmsted Road	5,800	0.2 %
3	10	South	Highway 68	18,800	0.1 %
4	58	South	Olmsted Road	5,800	1.0 %
4	58	South	Highway 68	18,800	0.3 %
5	10	South	Olmsted Road	5,800	0.2 %
5	10	South	Highway 68	18,800	0.1 %

Source: Mott MacDonald 2018 (**Appendix M**, Table 19)
 ADT = average daily traffic volume (i.e., trips); PCE = passenger car equivalent
¹ Total Daily Construction Trips includes trips by construction workers and truck trips, with truck trips converted to PCE.
² Haul routes include roads closest to the project site that would be most affected by construction vehicle trips. Construction vehicles would disperse onto other roads as they move farther from the project site, reducing the potential for construction traffic impacts.
 NOTE: The haul routes and construction phases where construction-related trips would represent more than one percent of existing daily traffic are bolded.

Construction vehicle trips associated with Alternative 1 in the short term would represent a small fraction (3.8 percent or less) of the existing daily volumes on the study road network. However, construction-related trips would be added to intersections and road segments that have been identified as operating deficiently during the peak commute hours under existing conditions. As a result, short-term construction traffic impacts of Alternative 1 would be Potentially Significant, albeit temporary.

Similar to the Proposed Project, no long-term site-specific development plans, land uses, densities, or intensities have been proposed under Alternative 1 for the long-term project phase, and site-specific development information for the long-term scenario is infeasible and speculative. However, similar to the short-term analysis provided above, it is anticipated that construction-related trips would be added to intersections and road segments that are projected to operate deficiently during the peak commute hours under future conditions. Based on the same modeling efforts conducted for air quality and GHGs emissions using the worst-case land use assumptions for proposed long-term projects, an estimated 394 construction trips could occur from north side long-term projects and an estimated 127 construction trips could occur from south side long-term projects (see **Appendix E**). The timing of these trips is unknown. As a result, long-term project construction traffic impacts are also likely to be Potentially Significant, albeit temporary. Further environmental review and analysis would be performed, as appropriate under CEQA, if, and when, more definitive long-term development plans are proposed.

Less than Significant Impacts:

For numerous intersections along Highway 68 that are operating at deficient LOS during at least one of the peak hours, Alternative 1 would have a Less than Significant impact per Threshold 4.16-1. Either the redistribution of traffic that would occur with the relocation of the existing hangars would result in an overall reduction of traffic at the intersection, or Alternative 1 is not expected to add traffic during the peak hour to the intersection that is operating deficiently under existing conditions.

In the short term, Alternative 1 is expected to add three AM peak hour trips and four PM peak hour trips to the following roadway segment. This will not be enough of an increase in traffic to affect traffic operations on the following segments operating deficiently under existing conditions. Impacts would be Less than Significant per Threshold 4.16-1:

- #4: Highway 68, from Olmsted Road to Highway 218

The one inbound and one outbound trip generated by seven new hangars would add, on average, less than one peak hour trip to the westbound Highway 68 to southbound Highway 1 merge with southbound Highway 1 and the northbound Highway 1 to eastbound N. Fremont Street merge with northbound Highway 1 weaving segments. Impacts would be Less than Significant per Threshold 4.16-1.

Significant Impact TR-4 (Alt. 1):

Based on the Caltrans impact criteria, the addition of a single project trip at an intersection that is operating deficiently can be considered an impact. Thus, Alternative 1 would have a Potentially Significant impact at the following intersections that are operating deficiently under existing conditions in the short term per Threshold 4.16-1:

- #6: Del Monte Boulevard/Highway 218 (four PM peak hour trips)
- #7: Highway 218/N. Fremont Boulevard (four PM peak hour trips)

Significant Impact TR-5 (Alt. 1):

Alternative 1 long-term projects would generate additional project-related vehicular trips that would impact existing and future congested intersections and Highway 68 segments within the project study area. Alternative 1 long-term traffic impacts are considered Potentially Significant per Threshold 4.16-1.

Significant Impact TR-6 (Alt.1): *Project-related short- and long-term construction trips would be added to intersections and road segments that have been identified as operating deficiently during the peak commute hours under existing conditions or are anticipated to operate deficiently under future conditions. As a result, Alternative 1 construction traffic impacts would be Potentially Significant, albeit temporary, per Threshold 4.16-1.*

4.16.5.2 Threshold 4.16-2: Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety facilities

Proposed Project and Alternative 1

Short-Term and Long-Term (Programmatic) Project Impacts

The proposed relocated commercial terminal layout includes a designated transit bus stop just west of the terminal building that is approximately 65 feet long. This stop would continue to provide transit service to the relocated terminal via Highway 68 and Olmsted Road. Line 56 traverses between Salinas and Monterey, and Line 93 travels between downtown Monterey and the Ryan Ranch Business Park. This is consistent with City of Monterey Circulation Element Policy i1 to, “Work with the Airport District and the hospitality industry to provide a direct and affordable transit service between the Monterey Peninsula (*sic*) Airport and the local shuttle service area to reduce congestion.” No transit features are proposed for the north side of the Airport or for the proposed Highway 68 frontage road at this time.

The Proposed AMP’s sustainable action plan also includes the following initiatives for transportation demand management (TDM) that could encourage transit use at the Airport (Coffman Associates 2015:Table D12, #7, 8, and 24):

- Provide incentives, such as rebates and/or preferred parking, for staff vanpools/carpools and alternatively fueled vehicles;
- Provide subsidized bus passes to employees and construction workers; and
- Collaborate with local transit operators to expand public transit opportunities to the Airport when transit operators change routes.

The Proposed Project would not substantially disrupt transit service and no impact to transit would occur.

The Airport currently supports bicycle use by airport employees and the public by providing convenient, secure bicycle facilities on airport premises. Two bike storage containers are currently available for pub-

lic use at the terminal’s east second-level entrance and is proposed to be relocated along with the commercial terminal building. No bicycle or pedestrian features are proposed for the north side of the Airport or for the proposed Highway 68 frontage road at this time.

The Proposed AMP’s sustainable action plan includes the following initiative for TDM (Coffman Associates 2015:Table D12, #11):

- Pursue LEED certification or equivalent for future MPAD facilities, including a future terminal building... support bicycle use by airport employees and the air traveling public by providing convenient, secure bicycle facilities for use on airport premises.

As discussed in Section 3.3, the layout for the proposed commercial terminal complex includes pedestrian walkways adjacent to curbside bus, taxi, and drop-off/pick-up areas, as well as between the relocated terminal building and a rental car ready/return lot. A sidewalk along the internal side of the terminal loop road will enhance pedestrian safety between the terminal parking garage and the terminal loop road.

The proposed commercial terminal complex layout under Alternative 1 is similar to the Proposed Project with the exception of a surface parking lot instead of a parking garage south of the relocated terminal. A sidewalk along the internal side of the terminal loop road will enhance pedestrian safety between the terminal parking lot and the terminal loop road. The proposed commercial terminal layout would still include a designated transit bus stop just west of the terminal building that is approximately 65 feet long. Two bike storage containers that are currently available for public use would be relocated along with the commercial terminal building. No transit, bicycle, or pedestrian features are proposed for the north side of the Airport or for the proposed Highway 68 frontage road at this time. The Proposed AMP’s sustainable action plan TDM initiatives related to transit and bicycle use would still be incorporated.

The Proposed Project and Alternative 1 would not conflict with adopted or draft policies, plans, or programs regarding bicycle or pedestrian facilities nor would it substantially disrupt bicycle or pedestrian facilities. No impact to bicycle or pedestrian facilities would occur.

4.16.5.3 Threshold 4.16-3: Substantially increase a hazard related to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) or result in inadequate emergency access

Proposed Project

Short-Term and Long-Term (Programmatic) Project Impacts

The Proposed Project includes three proposed new roads: a new terminal loop road, a new Highway 68 frontage road, and a new “north side” road. These roads would be constructed with two 12-foot-wide lanes with curbs and gutters as needed for drainage or delineation. No incompatible uses would occur as the roads would be internal to the Airport. For the terminal loop road and the new Highway 68 front-

age road, connections would be made to Olmsted Road and the intersection of Olmsted Road with Garden Road would be converted to a roundabout. These roadway connections would be subject to City of Monterey engineering standards and review.

The proposed “north side” road would connect to Del Rey Gardens Drive in the City of Del Rey Oaks and would be subject to City of Del Rey Oaks engineering standards and review. The “north side” road would contain an approximate 13 percent roadway profile grade to ascend from its connection point with Del Rey Gardens Drive to the airport plateau. A series of retaining walls are proposed with a maximum height of 15 feet. Graded slopes are proposed to be at ratios of 2:1 or flatter. Extensive landscaping and revegetation for slope stabilization and erosion control would be included.

The design features of three new proposed roads are not expected to cause hazards related to geometric design, incompatible uses, or inadequate emergency access. (See also Section 4.9.5.5 for a discussion of emergency response). All three roads have been designed by an experienced professional engineer qualified to work in California and final plans will be reviewed by the respective cities with jurisdiction over the improvements, as appropriate. In the case of the roads with only airport oversight, professional standards and review will be used.

Less than Significant Impact: The design features of three new proposed roads would not substantially increase hazards related to a design feature, incompatible uses, or inadequate emergency access. All three roads have been designed by an experienced professional engineer qualified to work in California and impacts would be Less than Significant per Threshold 4.16-3.

Alternative 1

Short-Term and Long-Term (Programmatic) Project Impacts

Alternative 1 includes the same three proposed roads as the Proposed Project: a proposed terminal loop road, a proposed Highway 68 frontage road, and a proposed “north side” road. For the terminal loop road and the new Highway 68 frontage road, connections would be made to Olmsted Road and the intersection of Olmsted Road with Garden Road would be converted to a roundabout. The proposed “north side” road would connect to Del Rey Gardens Drive.

Under Alternative 1, the proposed terminal loop road would be aligned closer to Highway 68 to allow more room for the replacement terminal parking lot. In addition, the Highway 68 frontage road would be constructed as a cul-de-sac instead of a loop road to avoid sensitive plants. Neither of these design changes would result in additional hazards, incompatible uses, or inadequate emergency access. (See also Section 4.9.5.5 for a discussion of emergency response).

Less than Significant Impact: The design features of three new proposed roads would not substantially increase hazards related to a design feature, incompatible use, or inadequate emergency access. All three roads have been

designed by an experienced professional engineer qualified to work in California and impacts would be Less than Significant per Threshold 4.16-3.

4.16.5.4 Threshold 4.16-4: Conflict with an applicable congestion management plan, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways

Proposed Project and Alternative 1

Short-Term and Long-Term (Programmatic) Project Impacts

TAMC's 2018 RTP, which updates the congestion management program for Monterey County (AMBAG 2014), provides a Policy Element, a Financial Element, and a regional list of transportation investments to achieve regional GHG emission targets and support the 2018 MTP/SCS under consideration by AMBAG. It also includes TDM measures to improve the ability of county residents to meet daily needs without having to drive. As discussed under Threshold 4.16-2, the Proposed Project and Alternative 1 would not interfere with transit, bicycle, or pedestrian facilities, and the Proposed AMP includes its own set of TDM measures as part of its sustainable action plan. Roundabouts are also discussed as an important strategy for achieving the RTP's goals, as they allow for free movement of vehicles at intersections, which reduces vehicle emissions, and have been proved safer than signalized intersections (TAMC 2018b:38). The proposed roundabout at Olmsted and Garden roads is consistent with this RTP goal.

Thus, the Proposed Project and Alternative 1 would be consistent with a congestion management program. In addition, according to AMBAG, a large percentage of residents within the tri-county area commute to areas outside the region for employment (2018c:1-5). Proposed light industrial, commercial, office, and retail employment at the Airport would provide additional employment opportunities within the county, which could reduce the average work trip travel time and amount of congested VMT⁹ currently projected to occur (see also the discussion of employment and other growth forecasts included in Section 4.13 of this EIR).

The 2018 RTP also includes regional transportation investments, including airport revenue and expenditures within its analysis. As previously discussed in Section 4.16.1, the 2018 RTP assumes 172 based aircraft and 92,890 annual aviation operations in 2020 at the Airport based on AMBAG's 2006 *Regional Airport System Plan*. For purposes of comparison, the aviation forecasts approved by FAA for use in the Proposed AMP are for 160 based aircraft and 64,600 annual operations in 2018. Actual airport numbers

⁹ When examining VMT to understand potential GHGs, one must take into account various speeds at which cars travel. A vehicle traveling at slow or very high speeds on a highway emits more GHG emissions than one traveling at 45 to 55 mph. For this reason, planners often look to congested VMT to gain a better understanding of impact on emissions. The 2040 MTP/SCS aims to reduce this congested VMT by providing a host of transportation options such that people do not have to drive everywhere, but have alternative options available, particularly for shorter distance trips (AMBAG 2018a:5-7). For purposes of the 2040 MTP/SCS EIR analysis, congested conditions are roadways operating at LOS E or LOS F during peak periods (AMBAG 2018b:395).

for 2015 were 113 based aircraft and 67,292 annual operations. Realistically, airport forecasts are just predictions based on known market factors and regional and national trends. Actual numbers at an airport can vary from year to year based on various anomalies. The 2018 RTP, however, assumes that the growth of population in the region will moderately increase commercial and general aviation demand (TAMC 2018b:63).

4.16.5.5 Threshold 4.16-5: Increase VMT when compared to existing conditions within Monterey County due to proposed land use development

According to the 2040 MTP/SCS EIR, nearly 15,836,000 vehicle miles were traveled each day within the AMBAG region in 2015. For Monterey County (light truck and cars only), daily VMT was 8,778,578 (AMBAG 2018b:Table 26). The 2040 MTP/SCS emphasizes a regional land use scenario that promotes mixed-use and infill development in existing commercial corridors in combination with high-quality transit service and improved bicycle and pedestrian infrastructure. Mixed-use and infill projects would help reduce VMT because they would locate people closer to existing goods and services, thereby resulting in shorter vehicle trips and they would locate people closer to existing transportation hubs, thereby encouraging the use of alternative modes of transit (e.g., buses) and resulting in fewer vehicle trips (AMBAG 2018b:244).

The 2040 MTP/SCS includes a list of projects that have been incorporated into the plan. Included is the “construction of a new terminal building, roads and surface parking at the Monterey Airport (sic)” (AMBAG 2018b:62). Suburban Commercial/Mixed Use land use on non-aviation airport parcels along Highway 68 are also included (AMBAG 2018b:Figure 3). The land use scenario envisioned by the 2040 MTP/SCS promotes the development of existing vacant or underutilized properties to locate people closer to existing employment, goods and services within established communities (AMBAG 2018b:387).

Proposed Project and Alternative 1

Short-Term and Long-Term (Programmatic) Project Impacts

The Proposed Project and Alternative 1 would provide numerous safety and infrastructure enhancements to the Airport to meet FAA standards and to address deficiencies in the Airport’s commercial terminal and ARFF buildings. As previously discussed, the proposed ARFF and commercial terminal and apron relocations, including terminal replacement parking, are not capacity-increasing projects and would not affect VMT levels in the region.

Proposed hangar development (up to seven additional hangars in the short term and 106 hangars in the long term) would have unknown effects to VMT levels as it is not known where these future aviation users would travel from to get to the Airport.

Long-term projects proposed for the north and south sides of the Airport would be in underutilized areas of the Airport. The Airport itself is centrally located within Monterey County and is surrounded by exist-

ing housing and available goods and services. This indicates that future VMT associated with the proposed long-term non-aviation development may reduce county or regionwide VMT by having additional employment opportunities within these established communities.

Based on CalEEMod analysis completed, daily VMT associated with the future hangar and non-aviation development could be 53,035 (**Table 4.16Q**). This would represent approximately 0.6 percent of all existing VMT countywide and 0.3 percent of the VMT in the AMBAG region (based on 2015 data). Although the based aircraft and other airport growth that appear to be envisioned in the 2006 AMBAG *Regional Airport System Plan*, and thus the 2040 MTP/SCS, is generally consistent with the growth patterns predicted in the Proposed AMP, no significance thresholds to determine acceptable VMT changes over the existing conditions have yet been adopted by local jurisdictions or Monterey County. Therefore, the impacts of proposed long-term hangar users and non-aviation development in terms of VMT is unknown and speculative, and, therefore, Potentially Significant.

Significant Impact TR-7: *Since the location and commute patterns of future users of additional hangars and future employees or clients of proposed long-term non-aviation projects are unknown and speculative, impacts of the Proposed Project or Alternative 1 in terms of VMT are Potentially Significant per Threshold 4.16-5.*

Project Area	Unit of Development	Annual VMT	Daily VMT
North Side (Short-Term Projects)			
Hangars	7 hangars	29,195	80
North Side (Long-Term Projects)			
General Light Industry	400,000 sf	6,147,656	16,843
Office Park	325,000 sf	6,923,508	18,968
Hangars	106 hangars	435,007	1,192
Total (North Side)		13,535,366	37,083
South Side (Long-Term Projects)			
General Office Building	94,000 sf	1,882,456	5,157
High Turnover Restaurant	10,000 sf	1,534,798	4,205
Medical Office Building	45,000 sf	2,405,236	6,590
Total (South Side)		5,822,490	15,952
TOTAL BUILD OUT		19,357,856	53,035

NOTE: Based on CalEEMod analysis. CalEEMod estimates activity based on average ITE trip rates (9th edition) for each land use category and the square footage for each land use. Since aircraft storage hangars are not included as a land use in CalEEMod, user-defined inputs were used based on information provided in the Traffic Impact Analysis (10 trips per day in the short term and 149 trips per day in the long term). CalEEMod default trip lengths were used for the purposes of this analysis. This includes 9.5 miles per trip for activity classified as “home to work” and 7.3 miles for all other types of activity. CalEEMod differentiates activity levels for weekdays, Saturdays, and Sundays. For the purposes of this analysis, it was assumed that weekend traffic activity would be the same as weekday traffic activity for the hangars.

4.16.5.6 Threshold 4.16-6: Result in impacts addressed in applicable Circulation Element policies of local jurisdictions

Proposed Project

The following City of Monterey Circulation Element policies are considered impact thresholds for project components affecting the City of Monterey CONA neighborhood:

Circulation Element Policy b5: Do not support non-aviation uses within the Monterey Peninsula Airport District that create unnecessary traffic impacts in adjacent residential neighborhoods.

Circulation Element Policy c8: Minimize traffic impacts in residential neighborhoods by routing truck and through traffic onto highways and arterial streets, even where such routing is not the shortest distance between two points.

Construction and Short-Term Project Impacts

During the construction and operation of proposed short-term projects, the Proposed Project has the potential of adding traffic to the following residential streets in the CONA neighborhood:

- Airport Road
- Ramona Avenue
- Casanova Avenue
- Euclid Avenue

Construction impacts would be temporary and have been described previously in Section 4.16.5.1. The routing of construction trucks through the CONA neighborhood (as shown on **Exhibit 4.12G**) would not be consistent with City of Monterey Circulation Element Policy c8, although the impact would be temporary. Although the policy inconsistency is considered Less than Significant due the temporary nature of the impact, under Threshold 4.16-1, mitigation is proposed to limit the hours of construction traffic through the neighborhood. See Section 4.16.6.

During operation of the proposed short-term projects, based on the analysis and levels of service shown in **Table 4.16E**, the study intersections within the CONA neighborhood (#4 and #5) currently operate at acceptable levels of service (LOS A and LOS B) and would continue to operate at acceptable levels of service with the Proposed Project in the short term.

The effect of adding project-related traffic to the streets listed above was also evaluated using the TIRE index. TIRE index values range from 0.0 and 5.0, with 0.0 representing the least effect of traffic on a residential street and 5.0 representing the greatest effect. A TIRE index of 3.0 typically represents the threshold at which the character of a residential street changes from a residential street to a traffic-carrying street. A change in the TIRE index of less than 0.1 would not be noticed by a resident, whereas a change of 0.1 or more would be noticeable to residents. More information regarding the TIRE index is provided in an appendix to the TIA (**Appendix M**).

Table 4.16R provides a summary of existing daily traffic carried by the seven study street segments. Although the existing volume of daily traffic on all study segments within CONA is equal to or exceeds a TIRE index value of 3.0, indicating the dual purpose of the streets to accommodate both residential and commercial traffic, the Proposed Project would have no impact on the TIRE index for all but one of the study street segments. The TIRE index of Airport Road south of Euclid Avenue is expected to increase by 0.1 with the Proposed Project; however, there is only one residential unit on this study segment. The lack of change in the TIRE index for the remainder of the CONA neighborhood streets indicates that there would not be unnecessary traffic impacts to the CONA residential neighborhood as a result of the Proposed Project since the additional traffic would not be noticeable to almost all the residents.

TABLE 4.16R
TIRE Index Summary for the Casanova Oak Knoll Association (CONA) Neighborhood
Proposed Project

Street Segment	Existing Conditions		Proposed Project	Existing + Proposed Project (Short-Term Projects)		Change in TIRE Index
	ADT	TIRE Index	ADT	ADT	TIRE Index	
Airport Road between Fairground and Dundee Drive	3,223	3.5	35	3,258	3.5	0.0
Airport Road between Lilac Street and Mitcher Street	2,405	3.4	35	2,440	3.4	0.0
Airport Road between Mitcher Street and Euclid Avenue	1,753	3.2	35	1,788	3.2	0.0
Airport Road south of Euclid Avenue	1,349	3.1	78	1,427	3.2	0.1
Ramona Avenue between Littleness Avenue and Lerwick Drive	985	3.0	9	994	3.0	0.0
Casanova Avenue between Melway Circle and the shopping center driveway	5,250	3.7	35	5,285	3.7	0.0
Euclid Avenue between Airport Road and Casanova Avenue	3,139	3.5	39	3,178	3.5	0.0

Source: Mott MacDonald 2018 (**Appendix M**, Table 8).
 TIRE = Traffic Infusion on Residential Environment; ADT = average daily traffic

Long-Term Project Impacts (Programmatic)

In the long term, Airport Road is proposed to be closed to traffic east of Gate V22 and trips associated with proposed construction or operation of long-term hangars or non-aeronautical project components, as well as existing hangar trips from the northeast ramp, would be directed to the proposed “north side” road. At this time, ADT within the CONA neighborhood would decrease slightly.

Less than Significant Impact:

The addition of Proposed Project traffic in the short term would be temporary during construction and slightly noticeable to only the closest neighbor to the Airport during the operation of proposed short-term projects. No LOS deficiencies would occur. In the long term, ADT within the CONA neighborhood would decrease slightly. Impacts per Threshold 4.16-6 would be Less than Significant.

Alternative 1

No impacts to the CONA neighborhood would occur under Alternative 1. Since Airport Road would be closed to airport traffic east of Gate V22, the CONA neighborhood would see a slight decrease (10 ADT) in airport-related traffic on the neighborhood streets.

4.16.5.7 Threshold 4.16-7: Result in a change in air traffic patterns, including an increase in traffic levels or a change in location that results in substantial safety risks

Proposed Project and Alternative 1

Short-Term and Long-Term (Programmatic) Project Impacts

No changes to the runway lengths, runway thresholds, or airport reference codes based on critical aircraft are planned as a result of the Proposed Project or Alternative 1. The future instrument approach capability for the Airport under the Proposed Project and Alternative 1 is planned to remain as is depicted on the current airport layout plan (ALP). Runway 10R will remain the precision instrument approach with visibility minimums not lower than ½-mile. Runway 28L is shown on the ALP with a visibility minimum of ¾ mile. Both ends of Runway 10L-28R are shown with future 1-mile visibility minimums. Since no changes to the runways, runway thresholds, or visibility minimums would occur under the Proposed Project or Alternative 1, no changes to air traffic patterns or related safety risks would occur.

Increased activity levels are forecast to occur at the Airport in the future in both AMBAG's *Regional Airport System Plan* and in the FAA-approved forecasts dated September 24, 2014 (refer to **Table 1A**). Based on the airfield capacity analysis provided in Chapter Three of the Proposed AMP, the Airport currently operates at approximately 43 percent of the airfield's annual service volume (Coffman Associates 2015). By the end of the Proposed AMP planning period, based on projected increased activity, the Airport is expected to operate at approximately 66 percent of the airfield's annual service volume. Thus, the existing airfield configuration and approaches are satisfactory through the Proposed AMP planning period and no substantial safety risks are anticipated due to the increased levels of activity.

In addition, the Proposed Project and Alternative 1 include numerous safety enhancements, including an increase in separation distances from the primary runway to parallel taxiways and aircraft parking areas, extension of an existing parallel taxiway for the full length of the secondary runway, removing existing CFR, Title 14, Part 77 obstructions, and acquiring control of RPZs.

Less than Significant Impact:

No changes to air traffic patterns are planned and the Airport is expected to operate at a satisfactory annual service volume throughout the planning horizon of the Proposed Project or Alternative 1. The Proposed Project and Alternative 1 include numerous safety enhancements to the airfield that will help to minimize existing or future safety risks and impacts per Threshold 4.16-7 are Less than Significant.

4.16.6 Mitigation Program

Proposed Project

No mitigation is required for the Less than Significant impacts identified in Section 4.16.5.

4.16.6.1 Threshold 4.16-1 - Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit

For impacts under Threshold 4.16-1, the following intersection improvements (TR/mm-1 through TR/mm-5) are recommended to mitigate existing and Proposed Project LOS impacts (Impact TR-1). These intersection improvements would also address the addition of peak hour trips on impacted roadway segments, which contribute to the intersection LOS congestion. Future intersection improvements for long-term projects under the Proposed Project (Impact TR-2) are included in Section 5.16.3 since the solutions must also include other cumulative traffic.

TR/mm-1: Intersection #6: Del Monte Boulevard/Highway 218 – Prior to the first occupancy of a project element that contributes at least one (1) new peak hour traffic trip to the intersection, add a second northbound Del Monte Boulevard left turn lane.

Although this impact could be mitigated by constructing the stated improvement, the impact is considered Significant and Unavoidable at this time because the improvement necessary to reduce the significant impact is infeasible as it is within the jurisdiction and control of another agency (Caltrans) and implementation within the necessary timeframe cannot be assured.

Further, the proposed mitigation measure may be only feasible if allowed by federal law; federal law states that airport revenues and FAA grant funds may not be used for purposes other than the capital or operating costs of the airport, the local airport system, or other local facilities owned or operated by the airport owner or operator that are directly and substantially related to the air transportation of passengers and property. These restrictions impact the Airport's ability to fund and implement off-airport mitigation measures. Now that the Airport has identified specific mitigation measures for Proposed Project impacts, it will make specific requests to the FAA, where appropriate, for it to allow funding of off-airport mitigation measures. Because the Airport does not currently have a determination from the FAA that funding for any off-airport mitigation improvements will be allowed, however, the mitigation measures are considered infeasible. Detailed information about the law and regulations prohibiting diversion of airport revenues and FAA grants is found in Appendix N to this Draft EIR.

TR/mm-2: Intersection #7: Highway 218/Fremont Boulevard – Prior to the first occupancy of a project element that contributes at least one (1) new peak hour traffic trip to the intersection, add a second northbound Highway 218 left turn lane.

Although this impact could be mitigated by constructing the stated improvement, the impact is considered Significant and Unavoidable at this time because the improvement necessary to reduce the significant impact is infeasible as it is within the jurisdiction and control of another agency (Caltrans) and implementation within the necessary timeframe cannot be assured.

Proposed Mitigation Measure TR/mm-2 is not considered feasible because the FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.

TR/mm-3: Intersection #14: York Road/Highway 68 - Prior to the first occupancy of a project element that contributes at least one (1) new peak hour traffic trip to the intersection, convert this intersection to a roundabout, as proposed in TAMC's *SR 68 Scenic Highway Plan* study. Per the TAMC website, Measure X sales tax funds have been dedicated for this improvement. Federal and state funding from SB 1 programs may also be available.

Although this impact could be mitigated by constructing the stated improvement, the impact is considered Significant and Unavoidable at this time because the improvement necessary to reduce the significant impact is infeasible as it is within the jurisdiction and control of another agency (Caltrans) and implementation within the necessary timeframe cannot be assured.

Proposed Mitigation Measure TR/mm-3 is not considered feasible because the FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.

TR/mm-4: Intersection #17: Corral De Tierra Road/Highway 68 – Prior to the first occupancy of a project element that contributes at least one (1) new peak hour traffic trip to the intersection, convert intersection to a roundabout, as proposed in TAMC's *SR 68 Scenic Highway Plan* study. Per the TAMC website, Measure X sales tax funds have been dedicated for this improvement. Federal and state funding from SB 1 programs may also be available.

Although this impact could be mitigated by constructing the stated improvement, the impact is considered Significant and Unavoidable at this time because the improvement necessary to reduce the significant impact is infeasible as it is within the jurisdiction and control of another agency (Caltrans) and implementation within the necessary timeframe cannot be assured.

Proposed Mitigation Measure TR/mm-4 is not considered feasible because the FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.

TR/mm-5: Intersection #19: Torero Drive/Highway 68 – Prior to the first occupancy of a project element that contributes at least one (1) new peak hour traffic trip to the intersection, convert intersection to a roundabout, as proposed in TAMC’s *SR 68 Scenic Highway Plan* study. Per the TAMC website, Measure X sales tax funds have been dedicated for this improvement. Federal and state funding from SB 1 programs may also be available.

Although this impact could be mitigated by constructing the stated improvement, the impact is considered Significant and Unavoidable at this time because the improvement necessary to reduce the significant impact is infeasible as it is within the jurisdiction and control of another agency (Caltrans) and implementation within the necessary timeframe cannot be assured.

Further, proposed Mitigation Measure TR/mm-5 is not considered feasible because the FAA may not authorize the use of any FAA grant funds or Airport revenue to be used to construct or fund any off-Airport improvements or mitigation measure.

Construction-related traffic impacts under the Proposed Project (Impact TR-3) can be mitigated through the following measure:

TR/mm-6: Offsite truck hauling operations for either short- or long-term construction projects shall not occur during the hours of 7:00 AM through 9:00 AM or 4:00 PM through 6:00 PM, Monday through Friday, to avoid peak hour traffic conditions.

Alternative 1

No mitigation is required for the Less than Significant impacts identified in Section 4.16.5.

The following intersection improvements (TR/mm-7 and TR/mm-8) are recommended to mitigate existing and Alternative 1 LOS impacts (Impact TR-4). These intersection improvements would also address the addition of peak hour trips on impacted roadway segments, which contribute to the intersection LOS congestion. Future intersection improvements for long-term projects under Alternative 1 (Impact TR-5) are included in Section 5.16.3 since the solutions must also include other cumulative traffic.

TR/mm-7 (Alt. 1): Intersection #6: Del Monte Boulevard / Highway 218 – Prior to the first occupancy of a project element that contributes at least one (1) new peak hour traffic trip to the intersection, add a second northbound Del Monte Boulevard left turn lane.

Although this impact could be mitigated by constructing the stated improvement, the impact is considered Significant and Unavoidable at this time because the improvement necessary to reduce the significant impact is infeasible as it is within the jurisdiction and control of another agency (Caltrans) and implementation within the necessary timeframe cannot be assured.

Further, proposed Mitigation Measure TR/mm-7 (Alt.1) is not considered feasible because the FAA may not authorize the use of any FAA grant funds or Airport revenue to be used to construct or fund any off-Airport improvements or mitigation measure.

TR/mm-8 (Alt. 1): Intersection # 7: Highway 218 / Fremont Boulevard – Prior to the first occupancy of a project element that contributes at least one (1) new peak hour traffic trip to the intersection, add a second northbound Highway 218 left turn lane.

Although this impact could be mitigated by constructing the stated improvement, the impact is considered Significant and Unavoidable at this time because the improvement necessary to reduce the significant impact is infeasible as it is within the jurisdiction and control of another agency (Caltrans) and implementation within the necessary timeframe cannot be assured.

Further, proposed Mitigation Measure TR/mm-8 (Alt.1) is not considered feasible because the FAA may not authorize the use of any FAA grant funds or Airport revenue to be used to construct or fund any off-Airport improvements or mitigation measure.

Construction-related traffic impacts under Alternative 1 (Impact TR-6) can be mitigated through the following measure:

TR/mm-9: Offsite truck hauling operations for either short- or long-term construction projects shall not occur during the hours of 7:00 AM through 9:00 AM or 4:00 PM through 6:00 PM, Monday through Friday, to avoid peak hour traffic conditions.

4.16.6.2 Threshold 4.16-5: Increase VMT when compared to existing conditions within Monterey County due to proposed land use development

Proposed Project or Alternative 1

For Impact TR-7 related to potential future VMT impacts, AMBAG’s 2040 MTP/SCS EIR contains the following mitigation measure. This measure can only be effectively implemented once AMBAG, the county, and other local jurisdictions have developed appropriate significance thresholds for VMT. MPAD, as well as other jurisdictions, have two years to incorporate a VMT metric once the final CEQA Guideline Update is official.

TR/mm-10: Implementing agencies shall evaluate VMT as part of project-specific review and discretionary approval decisions for land use projects under either the Proposed Project or Alternative 1. Where project-level significant impacts are identified, implementing agencies shall identify and implement measures that reduce VMT. Examples of measures that reduce VMT include infill development, mixed use and transit-oriented development, complete street programs, reduced parking requirements, and providing alternative transportation facilities, such as bike lanes and transit stops.

4.16.7 Level of Significance After Mitigation

Table 4.16S summarizes the potential impacts of the Proposed Project and Alternative 1 for Thresholds 4.16-1 and 4.16-5 and identifies the level of significance after proposed mitigation.

4.16.7.1 Threshold 4.16-1 - Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit

Proposed Project and Alternative 1

Both Impacts TR-1 and TR-2 (Proposed Project) or Impacts TR-4 and TR-5 (Alternative 1) are considered Significant and Unavoidable since the improvements are within the jurisdiction and control of another agency (Caltrans) and implementation within the necessary timeframe cannot be assured. Further, the proposed mitigation measures for these significant impacts is not considered feasible because the FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.

Impact TR-3 (Proposed Project) or Impact TR-6 (Alternative 1) would be Less than Significant with the measure provided and further mitigation is not required.

4.16.7.2 Threshold 4.16-5: Increase VMT when compared to existing conditions within Monterey County due to proposed land use development

Proposed Project or Alternative 1

Impact TR-7 is considered Potentially Significant and Unavoidable since there is no way to determine the success of the proposed measure (TR/mm-10) until appropriate VMT significance thresholds have been developed.

TABLE 4.16S
Summary of Potentially Significant Impacts and Mitigation – Transportation/Traffic
Proposed Monterey Regional Airport Master Plan

Proposed Project	Mitigation Program	Alternative 1	Mitigation Program	Level of Significance after Mitigation
Threshold 4.16-1 - Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit				
<u>Impact TR-1:</u> Impacts to five intersections that are operating deficiently under existing conditions in the short term.	TR/mm-1 through TR/mm-5	<u>Impact TR-4:</u> Impacts at two intersections that are operating deficiently under existing conditions in the short term.	TR/mm-7 and TR/mm-8	Significant and Unavoidable
<u>Impact TR-2:</u> Impacts to intersections and highway segments that are projected to operate deficiently under future conditions in the long term.	See Section 5.5.16 for cumulative mitigation measures.	<u>Impact TR-5:</u> Impacts to intersections and highway segments that are projected to operate deficiently under future conditions in the long term.	See Section 5.16.3 for cumulative mitigation measures.	Potentially Significant and Unavoidable
Impact TR-3: Project-related short- and long-term construction trips.	TR/mm-6	<u>Impact TR-6:</u> Project-related short- and long-term construction trips.	TR/mm-9	Less than Significant
Threshold 4.16-5: Increase VMT when compared to existing conditions within Monterey County due to proposed land use development				
<u>Impact TR-7:</u> Future VMT impacts are unknown and speculative at this time.	TR/mm-10	Same as Proposed Project	TR/mm-10	Potentially Significant and Unavoidable

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Chapter Four

4.17 – TRIBAL CULTURAL RESOURCES

4.17.1 Regulatory Setting

Assembly Bill (AB) 52 formalizes the lead agency–tribal consultation process under state law and requires that a lead agency under the *California Environmental Quality Act* (CEQA) initiate consultation with California Native American groups that are traditionally and culturally affiliated with the project area, including tribes that may not be federally recognized. As the lead agency for the Proposed Project, the Airport is required to begin consultation prior to the release of a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report (EIR).

Section 4 of AB 52 added Public Resources Code (PRC), Sections 21074(a) and (b), which address tribal cultural resources and cultural landscapes. Section 21074(a) defines tribal cultural resources as one of the following:

1. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
 - a. Included or determined to be eligible for inclusion in the California Register of Historical Resources.
 - b. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
2. 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

If the California Native American tribe requests consultation regarding project alternatives, mitigation measures, or significant effects to tribal cultural resources, the consultation shall include those topics (PRC, Section 21080.3.2[a]). The environmental document and the mitigation monitoring and reporting program (where applicable) shall include any mitigation measures that are adopted (PRC, Section 21082.3[a]). Section 6 of AB 52 also added PRC, Section 21080.3.2, which states that parties may propose mitigation measures “capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource.”

Within the CEQA context, it is important to understand the distinction and relationship between *tribal cultural resources*, on one hand, and *archaeological resources*, on the other. Tribal cultural resources are those resources that a tribe or group of tribes considers significant or culturally important from a tribal perspective. For this reason, CEQA now requires that lead agencies consult with interested tribes to determine (i) whether such resources exist on a project site, (ii) whether they are significant, (iii) whether they will be adversely affected by the proposed project, and (iv) the best means to mitigate the anticipated impact and protect the resources in question. (See PRC, Section 21080.3.2.) Provided the lead agency and the affected tribes agree to a mitigation plan, that plan will be included in the EIR and incorporated into the project's overall mitigation monitoring and reporting program (MMRP). (See PRC, Section 21082.3[a] and [b].) If, however, the lead agency and the affected tribe(s) cannot agree on mitigation for the identified significant effects on tribal cultural resources, the lead agency may independently devise and adopt mitigation measures to address the impacts in question. Such measures must generally conform to the policies, preferences, and examples set forth in PRC, Section 21084.3. Examples of acceptable mitigation include preserving the resource in place; treating the resource with culturally appropriate dignity by protecting the cultural character and integrity of the resource, protecting the traditional use of the resource, and protecting the confidentiality of the resource; placing the resource in a permanent conservation easement; and protecting the resource by other feasible means. (PRC, Section 21084.3(b).)

Archaeological resources, by contrast, are identified through an archaeological analysis using standard archaeological techniques. In some cases, the archaeological resources on a given site will be related to Native American Indians, in which case the resources may be considered a tribal cultural resource as well. In any event, however, significant archaeological resources must be assessed and mitigated pursuant to the standards and rules set forth in the CEQA Guidelines, including CEQA Guidelines, Section 15126.4. The standards and rules differ somewhat from those that apply to tribal cultural resources.

Because tribal cultural resources and archaeological resources are treated slightly differently under CEQA, this EIR includes a separate analysis for each type of resource. The reader will note, however, that, in some cases, the same physical resource qualifies as both a tribal cultural resource and an archaeological resource and, as such, is addressed in both sections of the Draft EIR.

4.17.2 Methodology

On December 28, 2015, the Airport contacted the following Native American tribal representatives regarding the preparation of this EIR: Jakki Kehl, Ohlone/Costanoan Tribe; Valentin Lopez, Amah Mutsun Tribal Band; Edward Ketchum, Amah Mutsun Tribal Band; Irenne Zwierlein, Amah Mutsun Tribal Band of Mission San Juan Bautista; Tony Cerda, Coastanoan Rumsen Carmel Tribe; Ann Marie Sayers, Indian Canyon Mutsun Band of Costanoan; Louise Miranda-Ramirez, Ohlone/Coastanoan-Esselen Nation; Christianne Arias, Ohlone/Coastanoan-Esselen Nation; Pauline Martinez-Arias, Ohlone/Coastanoan-Esselen Nation; and, Ramona Garibay, Trina Marine Ruano Family (Ohlone/Costanoan, Bay Miwok, Plains Miwok, Patwin).

Louise Miranda-Ramirez of the Ohlone/Coastanoan-Esselen Nation (OCEN) responded with a request for consultation under AB 52 on January 11, 2016. In her letter, Ms. Miranda-Ramirez stated that OCEN

objected to all excavation in known cultural lands even when they have been disturbed and have been considered of no archaeological value. She requested repatriation of materials from CA-MNT-1438/H, which are currently curated by the Monterey Historical Society in Salinas. She also requested that OCEN be provided with archaeological reports and that she be consulted regarding archaeological activities that might impact tribal cultural resources. This included mitigation and data recovery programs that might include tribal cultural resources, reburial of Native American human remains and cultural items, and, when required, an OCEN- approved Native American monitor be onsite. She also requested a consultation meeting regarding the Proposed Airport Master Plan (Proposed AMP).

A consultation meeting took place on October 4, 2016, which included representatives of the Airport and Ms. Miranda-Ramirez. The results of that meeting have been used to assess potential impacts to tribal cultural resources related to the Proposed Project and its alternatives. Ms. Miranda-Ramirez expressed concern for the repatriation of artifacts from the Airport's Runway Safety Area Improvements Project (RSA Project). Due to federal funding, the Federal Aviation Administration (FAA) required that non-burial items associated with that project be curated at an appropriate facility. The Airport also reiterated that one of the lessons learned from the RSA Project was the need for early tribal consultation. Ms. Miranda-Ramirez further requested that the Airport supply copies of reports relevant to tribal cultural resources.

Mr. John Holson of Pacific Legacy, Inc. spoke with Ms. Miranda-Ramirez on May 2, 2018 regarding the recommendations she offered in her January 11, 2016 letter and in the October 4, 2016 meeting. She indicated her position was similar to her letter dated January 11, 2016 with some additional requests. She stated that the tribe's first preference is no disturbance. She also requested that artifacts recovered from tribal cultural resources be repatriated to the tribe and, if there is ground disturbance that may potentially affect a tribal cultural resource, that an OCEN-approved monitor be used. She also requested copies of relevant archaeological reports and wished to review the Proposed AMP. Finally, she requested ongoing consultation regarding any ground-disturbing developments on airport property.

4.17.3 Existing Conditions

The Airport recently completed an archaeological survey of the project study area being considered in this EIR (refer to Exhibit 4.5A) (SWCA 2018). Archival research conducted prior to the 2018 study indicated that most of the project study area had been subject to archaeological investigations that would potentially encompass tribal cultural resources, including pedestrian survey, monitoring, and data recovery. Two tribal cultural resources are located within the project study area. These include prehistoric resources CA-MNT-1438/H (P-27-001459) and PL-Airport 1. The first of these resources was originally recorded in 1977 as historic period site CA-MNT-728. No prehistoric material was noted, though shell fragments were observed. The site record was updated in 1983, which noted that the resource was badly damaged east of the airport fence line but still intact to the west within airport boundaries. The prehistoric and historic period components of CA-MNT-728 and CA-MNT1438H were combined as CA-MNT-1438/H in 2006. In 2014, prehistoric cultural materials were encountered during vegetation removal for the Airport's RSA Project. The resource could not be avoided, and a data recovery effort was undertaken by Pacific Legacy (Holm et al. 2016). The resource was assumed to be eligible for the National Register of Historic Places and California Register of Historical Resources.

Data recovery excavations revealed a diverse prehistoric assemblage with multiple subsurface features and human remains. In addition, all culturally sensitive soils associated with the site were excavated and relocated to an area within the Airport known not to contain archaeological resources (Holm et al. 2016). Cultural deposits were thus removed as a part of the RSA Project; however, remnants of the site remain extant below (east) of the RSA Project area.

Prehistoric resource PL-Airport-1 consists of excavated and redeposited soils from multi-component site CA-MNT-1438/H. No known cultural material was identified within the site area prior to the introduction of soils from CA-MNT-1438/H. Soils excavated from CA-MNT-1438/H during data recovery and construction for the RSA Project in 2014 were redeposited within the boundary of PL-Airport-1 so that they might be marked and protected from further disturbance. All work conducted at CA-MNT-1428/H and PL-Airport 1 was overseen by OCEN Native American tribal monitors.

4.17.4 Thresholds of Significance

The following threshold of significance is used in this EIR in accordance with CEQA Guidelines, Appendix G, as revised by AB 52. A significant impact to tribal cultural resources would occur if the Proposed Project or Alternative 1 would:

- Threshold 4.17-1: Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC, Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
 - i. Listed or eligible for listing in the California Register of Historic Resources, or in a local register as defined in PRC, Section 5020.1k, or
 - 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 PRC, Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC, Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.

4.17.5 Impact Analysis

In March 2014, the State Historic Preservation Officer (SHPO) concurred with the FAA determination that CA-MNT-1438/H is eligible for the California Register of Historic Resources for management purposes. Thus CA-MNT-1438/H, known to contain Native American remains, is, as defined in PRC, Section 21074, a site with cultural value to OCEN and eligible for listing on the CRHR. PL-Airport-1, the site where soils from CA-MNT-1438/H were deposited, is also of cultural value to OCEN as the soils potentially contain human remains. Both the Proposed Project and Alternative 1 exclude development within the areas of previously documented resources CA-MNT-1438/H and PL-Airport-1. As such, these tribal cultural resources can be avoided. The Proposed Project and Alternative 1 would also avoid project impacts around the current Tarp's Roadhouse, which contains remnants of CA-MNT-1438/H (originally recorded as CA-MNT-728/H).

- 4.17.5.1 Threshold 4.17-1 - Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC, Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:**
- i. **Listed or eligible for listing in the California Register of Historic Resources, or in a local register as defined in PRC, Section 5020.1k, or**
 - 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 PRC, Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC, Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.**

Proposed Project and Alternative 1

Construction and Short- and Long-Term (Programmatic) Project Impacts

Two known tribal cultural resources, CA-MNT-1428/H and PL-Airport-1 are within the project study area. Both these resources lie outside proposed development areas and can be avoided. No significant effects to either of these resources are anticipated if those areas are excluded from development.

Although no other significant tribal cultural resources were identified within the project study area, there remains the potential for unknown tribal cultural resources that could be adversely impacted by future construction activity. This possibility is considered a Potentially Significant impact. See Section 4.17.6 for mitigation.

Significant Impact TRIB-1: Unknown tribal cultural resources could be adversely impacted by proposed construction or operation of proposed short- and long-term projects under the Proposed Project or Alternative 1.

4.17.6 Mitigation Program

The following mitigation measures would apply to Significant Impact TRIB-1, as appropriate, if either the Proposed Project or Alternative 1 is selected.

Proposed Project and Alternative 1

TRIB/mm-1: The Airport shall continue to consult with OCEN regarding projects requiring ground-disturbing activities within the project study area. The Airport shall also provide OCEN with copies of cultural resource reports that include tribal cultural resources. In addition, the Airport shall provide OCEN with a copy of the Proposed AMP for review.

TRIB/mm-2: If previously undocumented tribal cultural resources are discovered (e.g., inadvertent discovery), the Airport shall consult with OCEN regarding proper treatment and disposition of the finds. This could include the repatriation of items of cultural patrimony, OCEN participation in the development of treatment plans, use of an approved OCEN Native American monitor, and review of treatment plan documents and reports.

4.17.7 Level of Significance after Mitigation

No significant impacts to known tribal cultural resources are anticipated as these resources will be avoided and preserved in place. If previously undocumented tribal cultural resources are discovered during ground-disturbing activities (Impact TRIB-1), TRIB/mm-1 and -2 would reduce impacts to those resources to Less than Significant levels provided that treatment measures developed by the Airport, in consultation with OCEN, are adopted (**Table 4.17A**). See also CUL/mm-3, which requires an archaeological monitoring plan for areas shown in Exhibit 4.5E.

TABLE 4.17A Summary of Potentially Significant Impacts and Mitigation – Tribal Cultural Resources Proposed Monterey Regional Airport Master Plan				
Proposed Project	Mitigation Program	Alternative 1	Mitigation Program	Level of Significance After Mitigation
Threshold 4.17-1 - Cause a substantial adverse change in the significance of a tribal cultural resource ...				
<u>Impact TRIB-1</u> : Unknown tribal cultural resources could be adversely impacted by proposed construction	TRIB/mm-1 and TRIB/mm-2	Same as Proposed Project	TRIB/mm-1 and TRIB/mm-2	Less than Significant

Chapter Four

4.18 – UTILITIES AND SERVICE SYSTEMS

This section describes existing utilities and service systems serving the Airport and identifies and addresses potential impacts relating to the following utilities identified in the *California Environmental Quality Act* (CEQA) Guidelines, Appendix G (2017) as potential considerations: water supply and service (Section 4.18.1); wastewater (sewer) service/treatment (Section 4.18.2); and solid waste disposal (Section 4.18.3). Stormwater drainage systems (and associated water quality) have been previously addressed in Section 4.10, Hydrology and Water Quality in this Environmental Impact Report (EIR). Energy utility service (electricity and natural gas) is addressed in Section 4.6, Energy.

4.18.1 Water Supply and Service

4.18.1.1 Regulatory Setting

Federal Regulations

The *Safe Drinking Water Act* (SDWA), originally passed in 1974, protects public health through the regulation of the country's public drinking water and its sources, including rivers, lakes, reservoirs, springs, and groundwater wells. The law authorizes the United States (U.S.) Environmental Protection Agency (U.S. EPA) to set national health-based standards for all public drinking water in the U.S. to protect the public from both man-made and naturally occurring contaminants. States can apply to the U.S. EPA for "primacy" (primary enforcement authority), which gives states the authority to implement SDWA within their jurisdictions if they can show they will adopt standards at least as stringent as the U.S. EPA's and ensure water systems meet these standards (U.S. EPA website 2018a). As of July 1, 2014, the California State Water Resources Control Board (SWRCB) has been granted primacy to enforce federal and state safe drinking water acts and is responsible for the regulatory oversight of approximately 8,000 public water systems throughout the state (California SWRCB website 2018a).

State Regulations

As discussed above, SWRCB is responsible for administering water rights in California, which it does through a variety of water rights programs, including compliance monitoring, drought year information resources, water availability analysis, water use reports, and water quality certification. The water availability analysis program is required by the California Water Code and mandates that each water right

application that is submitted to SWRCB include “sufficient information to demonstrate a reasonable likelihood that unappropriated water is available for appropriation” (Water Code, Section 1260[k]). Section 10912 of the Water Code (per Senate Bill [SB] 610 and SB 221) requires that water assessments must be furnished to local governments for certain projects subject to CEQA. These projects are specifically defined by Water Code, Section 10912(a) as follows (California Department of Water Resources [DWR] 2003):

Water Code, Section 10912. For the purposes of this part, the following terms have the following meanings:

(a) “Project” means any of the following:

- (1) A proposed residential development of more than 500 dwelling units.
- (2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet (sf) of floor space.
- (3) A proposed commercial office building employing more than 1,000 persons or having more than 250,000 sf of floor space.
- (4) A proposed hotel or motel, or both, having more than 500 rooms.
- (5) A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 sf of floor area.
- (6) A mixed-use project that includes one or more of the projects specified in this subdivision.
- (7) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling unit project.

(b) If a public water system has fewer than 5,000 service connections, then “project” means any proposed residential, business, commercial, hotel or motel, or industrial development that would account for an increase of 10 percent or more in the number of the public water system’s existing service connections, or a mixed-use project that would demand an amount of water equivalent to, or greater than, the amount of water required by residential development that would represent an increase of 10 percent or more in the number of the public water system’s existing service connections.

The California Legislature enacted the *Urban Water Management Planning Act* (Water Code, Section 10610 et seq.) in 1983. This Act requires urban water suppliers to develop water management plans every five years to actively pursue the efficient use of available supplies. These urban water management plans (UWMPs) must identify short-term and long-term water demand management measures to meet increasing water demands. In 2009, the state enacted the *Water Conservation Act of 2009* (SB X7-7), which requires that all water suppliers increase their water sufficiency. The California DWR is also responsible for completing numerous conservation actions involving urban water projects, agriculture projects, or both (California DWR website 2018).

In September 2014, California passed legislation requiring that the state’s critical groundwater resources be sustainably managed by local agencies. The *Sustainable Groundwater Management Act* (SGMA) (Water Code, Section 10720 et seq.) grants local agencies the power to sustainably manage groundwater. The Act also requires groundwater sustainability plans (GSPs) for medium- and high-priority groundwater basins. The AMBAG region is part of a collaborative effort to implement the SGMA and form groundwater sustainability agencies (GSAs) for medium- and high-priority groundwater basins. GSAs in the AMBAG region include: Pajaro Valley Water Management Agency, Salinas Valley Basin Groundwater Sustainability Agency, Arroyo Seco Groundwater Sustainability Agency, Marina Coast Water District, Monterey Peninsula Water Management District (MPWMD), County of Santa Cruz – West Santa Cruz Terrace, Santa Margarita Groundwater Agency, and the San Benito County Water District Groundwater Sustainability Agency. Each agency is required to prepare their own GSP, which must be completed by January 31, 2020. As discussed in more detail below, in Regional/Local Regulations, the Airport falls within the MPWMD’s jurisdiction.

The 2016 *California Green Building Standards Code* (CalGreen) (California Code of Regulations [CCR], Title 24, Part 11) includes mandatory measures for residential and non-residential development that require water efficiency and conservation for both indoor and outdoor water use. Specifically, for indoor water use, the requirements include separate water submeters for subsystems and reduced flow fixtures for water closets, showerheads, wall-mounted urinals, faucets, fountains, and plumbing fixtures and fittings. For outdoor water use, there are limitations on the amount and type of water that can be used for landscape irrigation (i.e., graywater, rainwater).

Water sources within central California have been impacted by the drought conditions experienced over the past several years. Governor Edmund G. Brown, Jr. declared a drought State of Emergency in January 2015 and directed state officials to take all necessary action to prepare for water shortages. On May 5, 2015, an emergency regulation was passed by the SWRCB, which required an immediate 25 percent statewide reduction in overall potable urban water use. Executive Order (EO) B-37-16, *Making Water Conservation a California Way of Life*, signed on May 9, 2016, also set forth actions to use water more wisely, eliminate water waste, strengthen local drought resilience, and improve agricultural water use efficiency and drought planning. On May 31, 2018, Governor Brown signed SB 606 and Assembly Bill [AB] 1668, which include the following permanent statewide water efficiency standards and other provisions (California Office of Governor website 2018):

- Establishing an indoor, per person water use goal of 55 gallons per day (gpd) until 2025, 52.5 gpd from 2025 and 50 gpd beginning in 2030;
- Creating incentives for water suppliers to recycle water; and
- Requiring both urban and agricultural water suppliers to set annual water budgets and prepare for drought.

Regional/Local Regulations

At the regional level, the Airport is within MPWMD. Founded in 1978, MPWMD is a California Special District whose boundaries encompass the cities of Carmel-by-the-Sea, Del Rey Oaks, Monterey, Pacific Grove, Sand City, portion of Monterey County, and the Airport. The MPWMD does not regulate land uses, but rather regulates some aspects of water production and distribution by private purveyors (i.e., California American Water [CalAm]). One of the responsibilities of MPWMD is to balance water supply and demand through the MPWMD Water Allocation Program and to carefully track how much of the allotted water has been used by member jurisdictions. Every applicant must receive the jurisdiction's authorization for a specific quantity of water or sufficient water use credits before applying to MPWMD for a water permit. MPWMD evaluates a project's water demand and issues a water permit for the project as depicted on the final construction plans.

Water permit applications are processed in accordance with MPWMD Rules and Regulations. All Non-Residential users must comply with MPWMD's extensive water conservation and water efficiency standards (per Regulation XIV, Water Conservation and Regulation XV, Expanded Water Conservation and Standby Rationing Plan). The Airport is subject to these rules and regulations prior to issuance of a water permit.

On March 24, 2011, the California Public Utilities Commission (CPUC) approved a request from CalAm to place a moratorium on water service connections. This action granted CalAm the right to refuse to connect new customers in certain areas of its Monterey District and to institute a moratorium on new or expanded water service connections for projects that obtained all their necessary governmental permits after October 20, 2009.

MPWMD promotes water conservation and practices that reclaim water, as well as practices to improve and augment the environment along local streamside habitats. MPWMD serves approximately 112,000 people within the participating jurisdictions. MPWMD has several goals, of which three are particularly relevant to this analysis (MPWMD website 2018):

1. Increase the water supply to meet community and environmental needs;
2. Protect the quality of surface and groundwater resources and continue the restoration of the Carmel River environment; and,
3. Manage and allocate available water supplies and promote water conservation.

MPWMD is currently in Stage 1 Water Conservation, which is to remain in effect at all times and applies to all water users per the *Monterey Peninsula Water Conservation and Rationing Plan* (MPWMD 2016). Stage 1 focuses on strategies to reduce water waste, which is defined as the indiscriminate, unreasonable, or excessive running or dissipation of water. Stage 1 requires many prohibitions and restrictions on water use. Prohibitions and restrictions applicable to the Airport include the following:

- Water waste caused by correctable leaks, breaks, or malfunctions;
- Indiscriminate or excessive water use which allows excess to run to waste;
- Washing hard-surfaced areas, buildings, or structures with potable water;
- Irrigation between 9:00 AM and 5:00 PM on any day, and irrigation on any day other than Saturdays and Wednesdays. Limited hand watering of plants or bushes with a small container or a bucket is permitted on any day at any time;
- Irrigating during rainfall and for 48 hours after measurable precipitation;
- Use of water for irrigation or outdoor purposes in a manner inconsistent with California’s Model Water Efficient Landscape Ordinance (CCR, Title 23, Water, Division 2, Department of Water Resources, Chapter 2.7, and any successor regulations) where applicable, or in a manner inconsistent with local regulations;
- Washing commercial aircraft, cars, buses, boats, trailers, or other commercial vehicles with potable water, except at water efficient commercial or fleet vehicle or boat washing facilities where equipment is properly maintained to avoid wasteful use;
- Serving drinking water to any customer unless expressly requested, by a restaurant, hotel, café, cafeteria, or other public place where food is sold, served, or offered for sale;
- Unreasonable or excessive use of potable water for dust control or earth compaction without prior written approval of the General Manager where sub-potable water or other alternatives are available or satisfactory; and
- Water use more than a water ration.

The Airport has its own water allocation and does not rely on surrounding jurisdictions to meet its water supply needs. Rather, its water allocation is provided via CalAm-owned infrastructure. However, since the portion of the Airport along its frontage with Highway 68 is located within the City of Monterey, the following *City of Monterey General Plan* (2016) Public Facilities Element program would be applicable to this portion of the Airport property:

Program m.1.7. Encourage landscaping with drought-resistant native plants in both existing and proposed public and private development projects.

Lastly, the Airport plans to pursue Leadership in Energy and Environmental Design (LEED) for the proposed relocated commercial terminal building and ARFF building (Section 2.6.3). To achieve any level of LEED certification, the Airport would be required to adhere to the following three water conservation credits (U.S. Green Building Council [USGBC] website 2018):

1. Reduce outdoor water use by either landscaping in a way that does not require a permanent irrigation system or to reduce the project's landscape water requirement by at least 30 percent from the calculated baseline for the site's peak watering month.
2. Reduce aggregate indoor water consumption by 20 percent from the baseline through the use of toilets/urinals, faucets, showerheads, as well as appliances that rely on water (i.e., dishwashers, ice machines) and heat rejection and cooling processes that require water.
3. Install permanent water meters that measure the total potable water use for the building and associated grounds. Data must be metered and compiled into monthly and annual summaries to be submitted to the USGBC for five years post LEED certification date or when occupancy begins.

4.18.1.2 Methodology

This EIR addresses the Airport's current water allocation to determine if there are sufficient water supplies available to serve the Proposed Project or Alternative 1 using water demand factors available from MPWMD. MPWMD assigns a water demand use factor (i.e., Group number I, II, III) to the various land uses within its service base, which is computed using the anticipated annual water use of a project based on the development's type and size (MPWMD 2017a). Groups are split into three types, as follows:

- Group I (0.00007 acre-feet¹ per sf [AF per sf]): Auto uses, retail, warehouse, dental/medical/veterinary clinic, office, bank, supermarket, church, nail salon, grocery stores, tasting room, fast photo, convenience store, dry cleaner (no onsite laundry), school, and gym.
- Group II (0.00002 AF per sf): Bakery, pizza, coffee house, ice cream shop, dry cleaner (with onsite laundry), catering, deli, bar, and sandwich shop.
- Group III (various AF per sf depending on specific factors of number of beds, stations, people, toilets, etc.): Assisted living, beauty shop/dog grooming, child/dependent adult day care, dormitory, laundromat, meeting hall/banquet room, motel/hotel/bed and breakfast, irrigated areas, plant nursery, public toilet, public urinal, restaurant, restaurant (24-hour and fast food), self-storage, skilled nursing/Alzheimer's care, spa, swimming pool, and theater.

For projects in this EIR that do not have an identical use to those described in the Group numbers above, either the existing water demand or existing water use demand factor from an existing permit is used (e.g., the proposed relocated commercial terminal building uses the existing building's water demand use factor) or the most similar use type is assumed to be close enough to provide an approximate annual water demand.

¹ An acre-foot is a water measurement defined by the volume of water necessary to cover one acre of surface area to a depth of one foot and is most commonly used to describe groundwater volume and usage. It is equal to 43,560 cubic feet or 325,851 gallons. In this EIR, it is primarily used to discuss the Airport's water allocation. All other water use is described in gallons or, to allow the comparison of allocated water with projected water demand, both acre-feet and gallons are provided.

Water use credits, which can be applied to projects that exhibit “permanent abandonment of capacity,” are also considered. A permanent abandonment of capacity refers to the installation of water fixtures or appliances that achieve greater water efficiency than what MPWMD mandates, or the demolition/removal of uses within an existing building that reduces a facility’s overall water demand.

Based on the water allocation established by MPWMD in June 1993, the Airport has 8.10 AF of water available to consume every month (97.20 AF per year). Twenty-five water permits have been issued to the Airport since 1994, using a total of 2.90 AF of the Airport’s allocation every month (34.84 AF per year). The Airport, therefore, has 5.20 AF per month (62.37 AF per year) remaining of its original allocation for future uses (Airport records regarding water permits issued from 1993 - March 31, 2017). Thus, this EIR uses the Airport’s remaining annual water allocation (i.e., 62.37 AF) to evaluate if there are sufficient entitlements for the Proposed Project or Alternative 1.

This EIR also uses the mandatory water conservation strategies per the *Monterey Peninsula Water Conservation and Rationing Plan* (MPWMD 2016), as well as the overall goals of the MPWMD and applicable City of Monterey general plan policies, to evaluate the Proposed Project and Alternative 1. Water savings resulting from mandatory compliance with this regulation do not result in water use credits, but rather are necessary components of any new construction.

To estimate water use during construction, information regarding the number of water trucks that would be used and for how long (i.e., number of days) were summed by project phase (Kimley-Horn Associates [KHA] 2017; Neill Engineers 2017; and DWL Architects 2017). Based on past construction projects at the Airport, each water truck was assumed to have a 4,000-gallon water capacity.

To estimate water use for the potential aircraft wash rack, water use data was collected from the Mesa Falcon Field Airport (Shiner, B., Airport Projects and Operations Supervisor 2018) and Scottsdale Airport (Williams, C., Senior Management Analyst 2018), both of which have aircraft wash racks with metered water use. These airports have a similar usage rate to what Monterey Regional Airport management anticipates for the proposed aircraft wash rack (i.e., one or two washes per day).

The potential need to upgrade existing water service lines are also examined.

4.18.1.3 Existing Conditions

Existing Water Entitlements

As previously discussed, MPWMD is charged with allocating water within the Monterey Peninsula region and permitting the use of water credits for each jurisdiction/district, including the Airport. In June 1993, MPWMD established a water allocation for each jurisdiction within its District (Ordinance No. 70). The water allocations were based on the development of the Paralta Well in the Seaside Groundwater Basin (308 AF), as well as the creation of a District Reserve with 50 AF for regional projects with public benefit. Two years later, Ordinance 73 was adopted which eliminated the District Reserve and allocated the remaining 34.72 AF of water equally to the eight participating jurisdictions (4.34 AF per jurisdiction) (MPWMD 2017b).

As of October 31, 2017, a total of 25.41 AF (7.4 percent) of the Paralta Well allocation remained available for use for all participating jurisdictions within MPWMD. In addition, Pre-Paralta water² in the amount of 35.92 AF is available to the participating jurisdictions, as well as 29.05 AF from other public water credits (MPWMD 2017c). Between the Airport's Paralta Well allocation (3.76 AF per month) and MPWMD Water Allocation Program (4.34 AF per month), the Airport has an overall allocation of 8.10 AF of water per month (97.20 AF per year). To date, the Airport has permitted water use of 2.90 AF per month (34.84 AF per year), of which 5.20 AF of water per month (62.37 AF per year) remains unused (Airport records regarding water permits issued from 1993 - March 31, 2017).

The Airport's available water to allocate to new sources/users decreases as permits are issued for the expansion of existing facilities or the construction of new ones within the MPWMD. As permits are issued, the Airport's remaining 5.20 monthly (62.37 AF yearly) water allocation will draw down. To provide flexibility to the participating jurisdictions, MPWMD allows the application of water credits. Water credits allow the reinvestment of water saved through toilet retrofits and other permanent water savings methods at publicly owned and operated facilities. Fifteen percent of these savings are set aside to meet MPWMD's long-term water conservation goals and the remainder of the savings are credited to the applicable jurisdiction's allocation (MPWMD 2017b).

The Airport has taken steps to make its facilities more water efficient. It has installed low-flow fixtures in the existing commercial terminal restrooms and incorporated water efficient landscaping policies. The Monterey Jet Center has also installed low-flow toilets. The Airport's restaurants place signs at each table to inform customers that water will only be served when specifically requested. Several of these projects received onsite water credits, including the toilet retrofits at the Monterey Jet Center and the Airport's rental car Quick Turn Around (QTA) facility for its use of reclaimed water. The QTA facility is designed to recycle 95 percent of the water used at the facility's car wash.

CalAm provides the actual water service that the Airport receives for its Paralta Well allocation and District Reserve Share (i.e., 8.10 AF per month; 97.20 AF per year), although a few tenants own their own wells (see *Airport Well System* discussion below). CalAm water is measured through four meters located throughout the airport property. One meter is located on Olmsted Road north of Garden Road and measures water used by the commercial terminal, the ARFF station, some water uses at the QTA, and the minimal water usage at the southeast GA ramp. Two meters are located near the air traffic control tower and in the southwest ramp area on Henderson Way and Sky Park Way, respectively. A fourth meter is located on the north side of the Airport on Airport Road east of Euclid Avenue. On the north side of the Airport, CalAm has an eight- to 12-inch-diameter water line that runs along Airport Road and terminates at the existing north side GA apron. This line primarily provides for fire suppression through the numerous hydrants along the routes. On the south side of the Airport near the southeast GA ramp and the existing commercial terminal, CalAm has a metered six-inch water main that runs down Olmsted Road with connections for potable water use at the southeast GA hangars, existing ARFF, and commercial terminal. A six-inch-diameter service line from the southeast GA hangars to Taxiway "A" is also present for irrigation and fire hydrants (KHA 2018).

² Pre-Paralta refers to additional water from expired or canceled permits that were issued prior to January 1991.

Airport Well System

In addition to the water the Airport receives from CalAm for its Paralta Well allocation and District Reserve Share, the Airport manages eight water wells located around the Airport, as shown on **Exhibit 4.18A**. These eight water wells on airport property are separate from the water supply the Airport is allocated by MPWMD. There are three wells on the southern half of the Airport and five on the northern part of airport property, as described below.

- **Flight Way Self Storage Well (south side)**. This well is located south of Runway end 28L near the public self-storage bays. It was permitted in 1998 and was constructed by Flight Way Self Storage for their use. Specifically, the well supplies water for six toilets, as well as a water hose that is used for landscaping and miscellaneous tenant purposes. The bathroom facility that is supplied by this well is used by tenants that come in and out of the facility and one property manager that works at the facility's office fulltime Monday through Friday 9:00 AM to 5:30 PM and Saturdays 9:00 AM to Noon. The well is 500 feet deep and has been metered for 15 years. As of 2013, the well had supplied 0.33 AF of water (107,500 gallons); typically, however, approximately 100 gallons per year are used from this well.
- **Sky Park Self Storage Facility Well (south side)**. This well is at the Sky Park Self Storage tenant property located at 400 Sky Park Way. It was permitted in 1997 and constructed by the tenant for tenant use, but the lease agreement allows the Airport to use the well. The Sky Park Self Storage Facility well is 500 feet deep, with a two-horsepower pump. At the time of activation, the water level was at 97 feet below ground surface (bgs) and it produced water at a rate of 12 gallons per minute (gpm). This tenant only uses this well for landscaping purposes and its bathroom facilities. The well's production in Fiscal Years (FY) 2015 and FY 2017 ranged from 3,810 to 8,160 gallons per year (Airport Submeter Water Data #2328936).
- **Tarpy's Roadhouse Well (south side)**. This well is located at Tarpy's Roadhouse just east of Runway end 28L. It was constructed over 65 years ago and has been idle since 1995 due to a shorted-out pump. Tarpy's Roadhouse currently uses CalAm water as this well is inactive. However, Tarpy's Roadhouse provides its own utility connections and thus its water consumption does not use the Airport's monthly allocation of 8.10 AF. The amount of water used, as well as the purposes for which the water used, is not monitored by the Airport.
- **U.S. Army Corps of Engineers (USACE) Well System (north side)**. Five wells are situated along the northern boundary of the Airport in a light industrial/commercial area (i.e., Old North Side Industrial Area) and were previously USACE remediation wells. The USACE well system was studied in the *Feasibility Investigation of Monterey Peninsula Airport District Well System* (Allterra 2015). The current system consists of three extraction wells, two injection wells, conveyance piping, electrical infrastructure, and a fenced compound occupied by two storage tanks, transfer pumps, system piping manifolds, and a digital system control interface, as shown on **Exhibit 4.18B**. The extraction wells are equipped with four-inch-diameter stainless steel pumps and are fully operational. The injection wells are equipped with subsurface water conveyance piping and electrical conduit runs, which could be used to retrofit the injection wells with extraction pumps if deemed necessary and/or feasible.

The injection wells are also in proper working order. **Table 4.18A** provides details on these five existing wells at the Airport.

TABLE 4.18A
Old North Side Industrial Area/North Side Well Analysis
Monterey Regional Airport

Well Designation ¹	Date Installed	Screen Interval ²	Most Recent DTW ³
Extraction Well-2	May 2, 2002	43-74	48.30
Extraction Well-3	May 7, 2002	43.5-73.5	45.50
Extraction Well-4	May 6, 2002	43.5-78.5	46.01
Injection Well-10	May 8, 2002	38.5-78.3	Not measured
Injection Well-12	May 8, 2002	44.5-79.5	Not measured

Source: Allterra 2015
¹ Well designation numbers reflect a previous numbering system that included additional wells that are no longer available.
² Measured in feet below ground surface (bgs)
³ DTW: Depth to Water, as of August 26, 2014
 NOTE: Tops of well casing were not surveyed during this study. All depths are measured from the top of the casing, which is roughly equivalent to the ground surface.

This north side well system is served by a shallow aquifer located in the Canyon Del Rey area. According to the Allterra study (2015), the aquifer is presumed to consist of saturated, relatively unconsolidated quaternary aged deposits, including eolian, alluvial, and marine terrace deposits, with a depth of approximately 78.5 feet below ground surface (bgs). The aquifer is estimated to have the following transmissivity³ (sf per day) for each of the extraction wells:

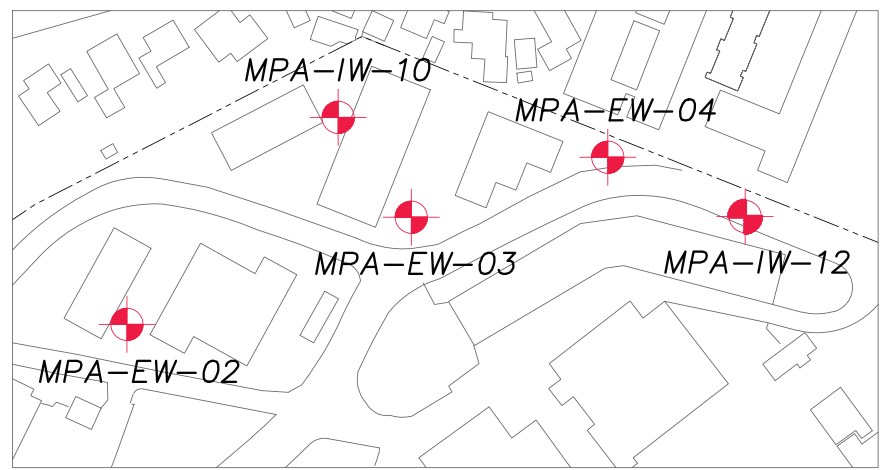
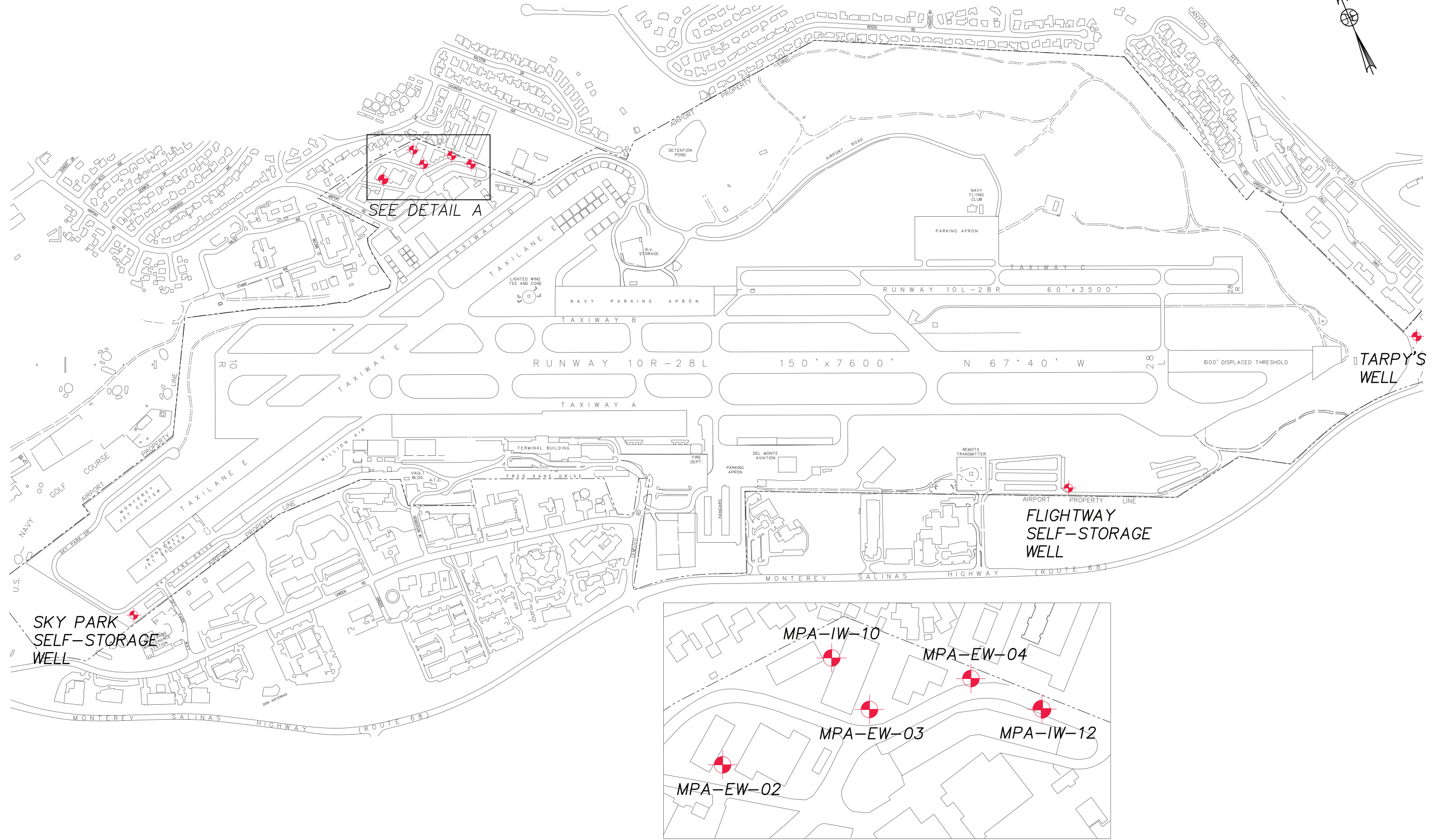
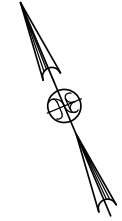
- Extraction Well-2: 23.3 sf per day
- Extraction Well-3: 43.9 sf per day
- Extraction Well-4: 58.1 sf per day

For long-term use of the extraction wells, the following were estimated as the sustainable extraction rates for continual system operation:

- Extraction Well-2: 13.5 gallons per minute (gpm)
- Extraction Well-3: 25.7 gpm
- Extraction Well-4: 27.0 gpm

Based on “worst-case” estimates in the 2015 Allterra study, it is estimated that the current extraction wells could be pumped continuously at the recommended extraction rates (above) for approximately 14.5 years without aquifer recharge through precipitation and 25.7 years with aquifer recharge through precipitation. Existing system infrastructure would be adequate to accommodate a sustainable combined pumping rate of approximately 66.2 gpm, which equates to approximately 34.3 million gallons annually (approximately 105 AF per year). This north side well system is not part of the Airport’s CalAm Paralta allocation.

³ Transmissivity is the rate at which water (of a relatively constant density and viscosity) is transmitted through a unit width of an aquifer or confining bed under a unit hydraulic gradient. It is a function of properties of the liquid, the porous media, and the thickness of the porous media.



DETAIL A

Source: Neill Engineers Corp. (April 2014)

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Scale: 1" = 80'
Photo Source: Google Earth 2/4/2018



LEGEND

- Airport Property Line
- Extraction Well to Airport
- Injection Well to Airport for Repurpose
- Extracted Groundwater Conveyance Line
- ReInjection Conveyance Line
- Treatment System

KEY

- EW Extraction Well
- IW Injection Well
- MPA Monterey Peninsula Airport

Source: Feasibility Investigation of Monterey Peninsula Airport District Well System, Allterra (May 2015)

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No changes have been made to the north side wells system since the remediation or since this feasibility study was completed. Currently, airport maintenance staff is the only party using the extraction wells. In 2015, a meter was installed to track the water usage of this system, which as of February 2018, reported a total consumption of 379 gallons since the installation of the meter. The water from the extraction wells is transported via a water truck that brings the water to landscaped areas. Due to the slow pumping rate of the extraction wells, the water is generally only used for landscaping purposes; however, the water is also used for construction projects at the Airport, when feasible. The two injection wells are not currently being used for any purpose at the Airport.

Existing Water Users

CalAm-Metered Water Use

Total CalAm water use at the Airport from 2015 through 2017 is summarized in **Table 4.18B**. Annual usage has been relatively steady over this three-year period, increasing from approximately 5.1 million gallons in 2015 to 5.3 million gallons in 2017. The Airport has four main water meters that represent water use for the entirety of the Airport (i.e., terminal building, hangars, ARFF building, non-aeronautical uses, Runway Safety Area Improvement Project [RSA Project] mitigation, etc.), except for select tenants who provide their own water. Tenants that are **excluded** from the Airport’s annual water consumption include: Tarp’s Roadhouse, all properties at Stone Creek, Flight Way Self Storage, and Sky Park Self Storage.

TABLE 4.18B				
Existing CalAm Water Usage Summary				
Monterey Regional Airport				
Main Meters		Calendar Year (CY) Water Usage (gal)		
Meter(s)	Meter Description	2015	2016	2017
70007179/51359913	Airport	431,601	380,473	1,040,757
60233855	Garden Road	37,695	39,489	42,781
70009344/31933600	Sky Park Way	4,620,167	4,679,109	4,209,365
X51442999/70022435	North Side	23,706	40,384	53,024
Total Airport Water Usage (gal)¹		5,113,169	5,139,455	5,345,927²
Select Submeters				
08184235	Quick Turnaround facility (QTA) ³	144,270	183,680	303,560 ²
60823038	Monterey Fire Department	10,415	15,446	16,434
99122145	Navy Flying Club	1,992	2,900	924

Source: Monterey Regional Airport 2018.
gal = gallon

¹ Total airport water usage reflects water usage by all buildings/facilities/tenants **except** Tarp’s Roadhouse, all properties at Stone Creek, Flight Way Self Storage, and Sky Park Self Storage. All landscaping functions are provided from non-potable water from the north side wells, except for the RSA Project mitigation, which uses CalAm water and is reflected in this total.

² Total usage reflects a water leak that occurred in the summer of 2017.

³ The Airport is currently working on reinstating the Customer Facility Charge on rental cars to construct a pipeline and hold tank system from the north side wells to allow the QTA to use non-potable water for the car wash facility.

NOTE: Numbers reflect rounding.

Commercial Terminal Building. The Airport has a commercial passenger terminal building that was originally constructed in 1950. Since then, numerous additions and reconfigurations have taken place to address changes in aviation demand and passenger preference for terminal facilities. Today, the facility is comprised of a two-story structure with primary passenger functions taking place on the ground level (including loading and unloading of aircraft), and administrative and restaurant functions taking place on the second floor. The building encompasses approximately 47,000 sf of space on the ground floor and 21,000 sf on the second floor, with an overall building footprint of approximately 70,000 sf.

The commercial terminal building received a water permit on May 1, 1996. The terminal building's water demand was 0.61 AF of water per month; however, due to the demolition of offices, an onsite water credit of 0.57 AF was applied,⁴ making the net water allocation of the permit 0.04 AF of water. A year and a half later, on October 31, 1997, another water permit was issued for the commercial terminal building for 0.17 AF of water per month, which came from the District Reserve, rather than from the Airport's 8.10 AF monthly water allocation. However, this additional amount was offset by an onsite credit due to office demolition; thus, no loss of overall water allocation to the Airport occurred.

ARFF Building. The Airport's ARFF facility is an approximate 8,500-sf building centrally located on the airfield at the east end of the commercial aircraft apron facing Taxiway "A" at the intersection with Taxiway "K." Water using activities at the existing ARFF building consist of firefighting, truck cleaning, and restroom and kitchen facility use, as the fire station is staffed with firefighters 24 hours per day. At least four firefighters are on duty for any given shift. Water use at the ARFF building has increased from 10,415 gallons in 2015 to 16,434 gallons in 2017, with an average use of 14,098 gallons per year (Sub-meter #60823038) (**Table 4.18B**). The ARFF's water consumption includes training activity (i.e., water from fire hydrants). Fire hydrant water is supplied primarily from a hydrant on Airport Road and is included within the Airport's overall water use.

Hangar Facilities. The Airport provides 414,800 sf of aircraft storage space (Coffman Associates 2015:Table 1M). Approximately 181,400 sf of this space is contained in conventional hangars. Individual box hangars represent approximately 161,500 sf, and the T-hangars represent the remaining 71,900 sf. Water use in these facilities result primarily from those hangars with office space, as these are the components of hangars that would have water hooks-ups for bathrooms, kitchens, etc. Hangars that strictly store aircraft, like T-Hangars, generally do not consume much water. For example, the hangars on the southeast side only use water for one restroom and do not have separate water meters. Existing hangars on the north GA ramp have water service primarily for fire suppression purposes.

Most restroom facilities for the hangars, besides the one facility on the southeast side and two facilities on the Navy Flying Club Apron (one in a hangar, one in the office building), are portable toilets. There are 10 total portable toilets around the Airport, five on the south side and five on the north side. Only one of these has a hand wash facility, and that water is provided by the servicing company Golden State Portables, not CalAm (i.e., does not count toward the Airport's water allocation).

⁴ This water credit was from the Paralta Well allocation for the Airport.

Landscaping

Water from the extraction wells in the Old North Side Industrial Area (i.e., north side wells) of the Airport is transported via a water truck to landscaped areas. The Airport itself uses this non-potable water source around the terminal and public areas for land that is landscaped; however, CalAm water is used for the RSA Project mitigation, which includes watering native plants in the retaining walls built at the east of Runway end 28L.

Construction Activity

The most recent construction activity at the Airport that required water was the RSA Project. From September 2014 through February 2015 (i.e., six months), 80,830 gallons of water from an onsite water tank was used, primarily for sprinkler dust and soil compaction/wetting efforts. In addition to the onsite water tank, during much of the construction there were two trucks, each with a 4,000-gallon capacity that provided water. During one phase of construction, a third water truck was added. These water trucks filled up from the Fairgrounds, as the contractor, Granite Rock, had an agreement with the Fairgrounds in exchange for water. Well water was used sparingly during construction due to low-flow rates. Although the well water was not monitored, it is estimated there were 20 to 30 truckloads (each with a 4,000-gallon capacity) of water utilized from this source (Hamilton, B., KHA, Project Engineer 2018).

4.18.1.4 Thresholds of Significance

The CEQA Guidelines, Appendix G (2017) have been used to establish significance thresholds to determine if the Proposed Project or Alternative 1 would have a significant environmental impact on the Airport's water supply and/or service. The Proposed Project or Alternative 1 would result in a significant impact if they would:

- Threshold 4.18.1-1: Have insufficient water supplies available to serve the Proposed Project or Alternative 1 from existing entitlements and resources or require new or expanded entitlements; or
- Threshold 4.18.1-2: Require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

4.18.1.5 Impact Analysis

Implementation of the Proposed Project or Alternative 1 would involve relocation of the proposed commercial terminal and ARFF buildings, as well as the relocation and construction of the Airport's southeast ramp hangar facilities, and future long-term aeronautical or non-aeronautical buildout of the Airport. In addition to construction water use, proposed project components with potential to impact the Airport's water supply and/or service include:

- North side GA hangar improvements and relocation
- Replacement of ARFF building
- Replacement of commercial terminal building

- Future long-term aeronautical development
- Future long-term non-aeronautical development
- Landscaping and biological mitigation

CalGreen would apply to all new development at the Airport. CalGreen improves the public health, safety, and general welfare of people through enhanced design and construction of buildings and encourages sustainable construction practices in several areas, one of which is water efficiency and conservation. Specifically, water conservation measures would be required to be incorporated into project design and would include plumbing fixtures and fittings with lower flush volumes, fixture flow, and/or use per cycle. Additional requirements to reduce outdoor water use would include the use of graywater or rainwater in landscaped areas and/or type of landscaping allowable based on water consumption.

Threshold 4.18.1-1 - Have sufficient water supplies available to serve the Proposed Project or Alternative 1 from existing entitlements and resources or would new or expanded entitlements be required.

Proposed Project and Alternative 1

The potential water supply impacts of the Proposed Project and Alternative 1 would be similar so the potential impacts discussed below would apply to both the Proposed Project and Alternative 1. In addition, implementation of the Proposed Project and Alternative 1 is scheduled to occur over a multi-year period. Therefore, the analysis of impacts related to water demand and supplies and changes in water associated with the construction of the proposed improvements and facilities that may occur considers phased development of the facilities at the Airport.

Threshold 4.18.1-1 focuses on whether the Airport has sufficient water supplies available to serve the Proposed Project or Alternative 1 from existing entitlements and resources or if the proposed developments would require new or expanded entitlements. As previously mentioned, the Airport currently has 5.20 AF of water monthly (62.37 AF per year) remaining of the Airport's allocation for future use.

The following analysis focuses on individual projects of the Proposed Project or Alternative 1 that would result in water use, including during construction, followed by a conclusion as to overall water availability for all projects. **Table 4.18C** summarizes estimated water demand of the Proposed Project and Alternative 1, including proposed long-term projects. In the future, long-term proposed projects (assuming worst-case scenario estimates) are anticipated to increase the Airport's water demand by 63.55 AF per year, or nearly 21 million gallons.

All subsequent landscaping would be served by existing non-potable water sources (i.e., Old North Side Industrial Area extraction wells) consistent with the Airport's current practice and would not implicate the Airport's CalAm water allocation. Future proposed biological mitigation would also be served by existing non-potable water sources.

TABLE 4.18C

**CalAm Water Demand
Proposed Project and Alternative 1**

Proposed Project and Alternative 1	Project Size (sf)	MPWMD Factor	Annual Water Demand (AF)	Annual Water Demand (gal)
Short-term Projects				
Net north side hangar increase (7 hangars) ¹	70,000	0.00001	0.70	228,096
Temporary ARFF Relocation	8,500	0.00001	N/A ²	N/A
Permanent ARFF Facility ³	5,000 (net)	0.00001	0.05 ⁴ (net)	16,293 (net)
New Commercial Terminal Building	30,000 (net)	0.00001	0.30 ⁴ (net)	97,755 (net)
<i>Short-term Projects Subtotal</i>			<i>1.05 (net)</i>	<i>342,144 (net)</i>
Long-term Projects (worst case)				
South Side Non-Aeronautical Development				
3.2-acre lot				
– 0.2 acres of high turnover restaurant	10,000	0.00002	0.20	65,170
– 1.0 acres of medical/dental office	45,000	0.00007	3.15	1,026,431
3.6-acre lot of office	94,000	0.00007	6.58	2,144, 100
North Side Development				
Aircraft wash rack - 28.11 gallons per day ⁵	N/A	N/A	0.03	10,260
106 Nested T-Hangars ⁶	178,398	0.00001	1.78	581,312
9-acre Old North Side Industrial Area ⁷	69,400	0.00007	N/A	N/A
Light industrial	400,000	0.00007	28.00	9,123,828
Office development	325,000	0.00007	22.75	7,413,110
<i>Long-term Development Subtotal</i>			<i>62.50</i>	<i>20,364,210</i>
Total Increase in Annual Water Demand			63.55	20,706,354
MPWMD = Monterey Peninsula Water Management District; sf = square feet; AF = acre-feet; gal = gallon; N/A = not applicable; represents an existing use to be replaced in-kind. ¹ Assumes seven, 100-foot by 100-foot box hangars based on the average size of the proposed hangar pads. ² 8,500 sf is the same as the existing ARFF structure; thus, no change in water demand for the temporary north side ARFF is anticipated. ³ Based on existing submeter data, the ARFF used an average of 14,098 gallons per year. Therefore, a MPWMD water use factor of 0.00001 has been used to estimate future water use. The existing ARFF building is approximately 8,500 sf, which using a MPWMD factor of 0.0001 = 0.085 AF per year or 27,697 gallons per year of water. Thus, the MPWMD water use method would overestimate the ARFF's existing water use but would provide a conservative estimate of future water use using a standardized methodology. ⁴ Prior to construction, the applicable onsite credits for the LEED certification would be applied, and the water demand would be less than what is indicated in this table. ⁵ Based on wash rack use at similar airports; assumes one wash per day. ⁶ The analysis assumes 106, 51-foot by 33-foot T-hangars. ⁷ Amount shown is anticipated redevelopment of approximately 65,000 sf of permanent building space and 4,400 sf of modular building space. NOTE: Numbers reflect rounding.				

Construction Impacts

Water use during construction would occur during all phases of construction for the Proposed Project or Alternative 1. The Airport would require the contractor to use water from the five north side wells as construction water uses do not require potable water, as well as to secure their own water sources, as necessary. Construction water use estimates for proposed short-term projects are based on the number of days water trucks would be used during the various phases of construction. Each water truck is assumed to have a 4,000-gallon capacity.

As shown in **Table 4.18D**, the Proposed Project would use marginally less water than Alternative 1; however, both would use approximately 7.2 million gallons of water for all of construction (assuming full

buildout). Because the Airport would require the contractor to use non-potable water from the north side wells, the water demand for either the Proposed Project or Alternative 1 would not affect the Airport’s water allocation from the MPWMD. As previously discussed, the existing system infrastructure for the north side well system would be adequate to accommodate a sustainable combined pumping rate of approximately 66.2 gpm, which equates to approximately 34.3 million gallons annually. The ability of the north side wells to supply 34.3 million gallons annually would more than accommodate the total water demanded for either the Proposed Project or Alternative 1 during construction. Therefore, impacts to the Airport’s water supply during construction of proposed short-term projects are considered Less than Significant.

TABLE 4.18D
Construction Water Use (Short-Term Projects)
Proposed Project and Alternative 1

Proposed Project Phase	Proposed Project Water Use (gal)	Alternative 1 Phase	Alternative 1 Water Use (gal)
Phase 1 (2019-2021)	568,000	Phase 1 (2019-2021)	1,948,000
Phase 2 (2022-2026)	2,164,000	Phase 2 (2022-2025)	2,740,000
Phase 3 (2027)	308,000	Phase 3 (2026)	308,000
Phase 4 (2028)	2,312,000	Phase 4 (2027)	1,784,000
Phase 5 (2029)	1,844,000	Phase 5 (2028)	440,000
Total	7,196,000	Total	7,220,000

Sources: KHA 2017; Neill Engineers 2017; DWL Architects 2017.
 gal = gallon
 NOTE: Numbers reflect rounding.

For the construction of proposed long-term projects, water would also be required. At this time, the phasing and amount of water needed is not known; proposed long-term projects are evaluated at only a programmatic level in this EIR. However, given the sources of construction water identified above for the proposed short-term projects, i.e., existing on-airport non-potable water supplies, impacts to the Airport’s water supply during construction of proposed long-term projects are also considered Less than Significant.

Short-Term Project Impacts

North Side GA Hangar Improvements and Relocation. The existing north side GA area currently contains six portable (Port-a-Port) T-hangars, and a hangar and trailer that serve the Navy Flying Club. The Airport’s existing southeast GA area has one conventional hangar, one box hangar, and 42 T-hangars. The southeast GA uses to be relocated in the first phase of the Proposed Project and Alternative 1 would include approximately 126,000 sf of aircraft hangar space (44 hangars). This would have no impact on the Airport’s water supply as these uses are existing and are simply being relocated to another part of the Airport. There would be no upgrade in the restroom facilities because of this relocation (i.e., the number of toilets would remain the same; no additional restroom facilities are planned).

To allow for the proposed relocation of GA tenants from the southeast part of the Airport to its north side, pavement and infrastructure for one row of 25 T-hangars, two rows of box hangars (18 total), two

executive hangars, and six graded hangar pads are proposed under the Proposed Project and Alternative 1 to increase the number of hangars on the north side by 51 (see Exhibit 2D). This would increase the number of hangars at the Airport overall by seven (i.e., net increase of seven hangars). At a factor of 0.0001, which is the MPWMD demand factor for existing hangars at the Airport, the proposed net increase in hangars could create an additional demand of approximately 0.70 AF per year (approximately 228,096 gallons) of water from miscellaneous water uses, such as hose bibs and utility sinks. As discussed in the wastewater section, additional restrooms are not proposed. (The analysis assumes seven 100-foot by 100-foot box hangars based on the average size of the proposed hangar pads [i.e., a total of 70,000 sf]).

ARFF Building Relocation. Under both the Proposed Project and Alternative 1, the existing ARFF building (8,500 sf) is proposed to be demolished and a permanent ARFF building constructed. Preliminary site layouts propose a two-story ARFF structure with approximately 13,400 sf (6,000 sf for five apparatus bays, 6,400 sf for living quarters [2 floors], and 1,000 sf for service functions). A building footprint of approximately 175 feet by 60 feet is proposed, which would increase the overall building size by approximately 5,000 sf when compared to the existing ARFF facility. The new ARFF would be constructed using LEED certification practices in keeping with the Airport's sustainability goals and objectives (Section 2.5.3 and Section 4.18.1). Under the Proposed Project, a temporary ARFF building would first be constructed until the permanent site where the existing commercial terminal is located is available. The size and function of the temporary ARFF building would be approximately the same as the existing structure and no change to the water use is anticipated for the temporary ARFF building.

As a conservative analysis, it has been assumed that the entire new ARFF building (i.e., approximately 13,400 sf) would require water use and would fall within MPWMD Group I (a water demand factor of 0.00001 AF per sf) since the uses in Group I most closely correlate with the use of the ARFF building. Based on the anticipated net increase in sf of the new building compared to the existing building (5,000 sf), the projected net increased water use for the permanent ARFF building would be 0.05 AF annually (approximately 16,293 gallons) of water per year (5,000 sf multiplied times the Group I factor of 0.00001 AF per sf).

Given the Airport's commitment to achieve LEED certification of the ARFF building, the Airport would receive onsite credits for the use of water conservation features, such as low-flow bathroom facilities, the reduction of outdoor irrigation, and the installation of water appliances and processes that rely on less water than traditional appliances and processes. The projected net water demand of the future ARFF building is, therefore, likely to be less than 0.05 AF of water annually (calculated in preceding paragraph). The achievement of LEED certification for the ARFF building would have the beneficial impact of meeting the Airport's sustainability goals related to water conservation.

Commercial Terminal Building Relocation. The existing terminal building has several functional areas that are undersized and cannot be easily expanded or changed. The relocated commercial terminal building is proposed to have a building footprint of approximately 100,000 sf. At this time, there are no conceptual plans that show how the interior building space would be designed. Based on preliminary analysis of the proposed future commercial building's functional spaces, approximately eight percent

(8,000 sf) of the building would be used for administrative functions and 16 percent (16,000 sf) for building systems (utilities) and support areas. The remaining 76 percent (76,000 sf) of the building would be used for arrival and departure functions, the main concourse, and other public spaces (DWL Architects 2017). No changes are proposed to the number of commercial aircraft loading gates.

The existing terminal building is classified as Group I and uses a non-residential water use factor of 0.00001 AF per sf. It is assumed this water use factor would apply to the new facility. As a conservative estimate, it is assumed that all the proposed replacement commercial terminal building's functional spaces would require water use. The existing commercial terminal building is approximately 70,000 sf, while the replacement facility would be 100,000 sf. This represents a net increase of 30,000 sf, to which the MPWMD factor would be applied. Thus, the factor of 0.00001 AF per sf of water has been multiplied by the anticipated net increase of approximately 30,000 sf for a future projected net increased annual water demand of 0.30 AF (97,755 gallons).

Like the ARFF building, the incorporation of indoor and outdoor water conservation strategies that are necessary to satisfy LEED requirements for the proposed replacement terminal would result in a reduction in water use compared to the existing terminal. The achievement of LEED certification would both support the Airport's sustainability goals, as well as utilize water conservation features that are not available in the existing terminal building. For example, the required use of LEED monitoring and reporting standards would hold the Airport accountable for its monthly and annual water use, as well as alert the Airport to any activities causing excessive water use, like a leak.

Long-Term Project Impacts (Programmatic)

Long-term Aeronautical Projects. There is a location identified for a future wash rack on the north GA hangar area. As described in Section 4.18.1.2, Methodology, water usage from aircraft wash racks at two other airports was obtained to establish an approximate water use for this proposed future project component. Based on the data provided, an average of 28.11 gallons per wash was used to determine the average water use per wash. It is estimated by airport management (Morello, C., Senior Manager, Development and Environment 2018) that this aircraft wash rack could be used an average of one time per day at the Airport. Therefore, annual usage of the proposed aircraft wash rack would be approximately 10,260 gallons per year or 0.03 AF per year (see **Table 4.18C**).

Future construction of an expanded GA area on the northeast side is considered in the Proposed Project or Alternative 1 to accommodate potential long-term growth in fixed-based aircraft at the Airport. The Proposed Project or Alternative 1 reserve space for an additional 106 nested T-hangars, which could demand approximately 1.78 AF (approximately 581,312 gallons) of water annually, assuming each T-Hangar is 51 feet by 33 feet and would utilize water at a factor of 0.00001.

Other future proposed aeronautical hangar projects located on the northwest ramp would replace or demolish existing hangars. No increase in land use intensity would occur in this area and no increase in water demand is expected to occur.

Long-term Non-Aeronautical Projects. There are several areas of airport property that are proposed for non-aeronautical projects under either the Proposed Project or Alternative 1:

- A south side 3.2-acre parcel of land could be developed, based on the applicable City of Monterey zoning,⁵ with a one-story building(s) covering approximately 40 percent of the site (i.e., approximately 1.25 acres). Based on this assumption, approximately 10,000 sf of high turnover restaurant and 45,000 sf of medical/dental office area have been assumed for purposes of this analysis.⁶ Per MPWMD Group II non-residential water use factors, a 10,000-sf high-turnover restaurant would use 0.00002 AF per sf, resulting in a water demand of 0.20 AF (approximately 65,170 gallons) annually. A 45,000-sf medical/dental office (Group I) would require 3.15 AF (approximately 1,026,431 gallons) of water annually (non-residential water use factor of 0.00007).
- A south side 3.6-acre parcel could also be developed based on the applicable City of Monterey zoning. Approximately 30 percent of the site (i.e., 1.1 acre) could be developed with a two-story office building(s) based on the applicable City of Monterey zoning⁷. Based on this assumption, approximately 94,000 sf of office development could occur. Using the MPWMD Group I non-residential water use factors for warehouses and office uses, the future uses would be assigned a water demand of 0.00007 AF per sf. Thus, as a conservative estimate, total demand of 6.58 AF (2,144,100 gallons) of water annually could occur.
- Old North Side Industrial Area Redevelopment. The Proposed Project or Alternative 1 proposes the redevelopment of approximately nine acres of an Old North Side Industrial Area of the Old North Side military complex (see Exhibit 2K). The area is located between the existing (off-Airport) Fleet Numerical Meteorology and Oceanography Center and an on-Airport hangar area (described in Section 2.6.2.6) and contains twelve permanent buildings of varying sizes and ages, as well as four temporary buildings. To facilitate the redevelopment, approximately 65,000 sf of permanent building space and approximately 4,400 sf of modular building space could be replaced. One newer building with an approximate 20,500-sf building footprint would remain as is.

⁵ The proposed project areas along the north side of Highway 68 were purchased by the Airport after the California legislature established the Airport boundaries and remain under the land use control of the City of Monterey. These areas are zoned I-R-130-D2 (Industrial, Administration, Research District – 130,000 sf minimum – Development Control Overlay District) (City of Monterey 2017).

⁶ To make a conservative generalized estimate of the amount of future buildout of the Airport that could occur, this EIR uses the buildout scenarios contained in the traffic report. Representative land uses were assumed, which include general light industrial and office park on the north side of the Airport, and high-turnover restaurant, medical-dental office, and general office on the south side of the Airport. These non-aeronautical land uses were chosen for evaluation to represent a conservative assessment of potential future development upon airport buildout. Based on these assumptions, approximately 94,000 sf of general office, 45,000 sf of medical-dental office, and 10,000 sf of retail could occur on non-aeronautical parcels along Highway 68 based on allowable land uses per City of Monterey zoning. On the north side of the Airport, up to 400,000 sf of light industrial and 325,000 sf of office space was assumed.

⁷ Ibid.

This component of the Proposed Project or Alternative 1 is focused on redevelopment of existing uses at land use intensities no greater than what currently exists. Water demand is, therefore, assumed to stay the same as the existing condition (or reduced to the extent that older, less efficient water fixtures are replaced with more efficient ones).

- **North Side Development.** The Airport has approximately 90 acres of undeveloped land on the north-east side of the Airport, some of which could accommodate light industrial, office, or flex space,⁸ as well as less intense land uses. Preliminary land use and marketing analyses have identified possible site plans for an approximate 25-acre area located between the north side GA area and an existing berm, which include office, light industrial, or flex space in one- or two-story buildings. Based on the preliminary land use analysis, this EIR considers a maximum of 400,000 sf of proposed light industrial and 325,000 sf of office development under either the Proposed Project or Alternative 1 (see Footnote 6).

Light industrial and office uses are also considered Group I by the MPWMD with a water demand of 0.00007 AF per sf. For the 400,000 sf of light industrial proposed, the anticipated water demand would be as much as 28.00 AF (approximately 9,123,828 gallons) of water per year. For the 325,000 sf of office development, the annual water demand could be as high as 22.75 AF (approximately 7,413,110 gallons).

Conclusion

Table 4.18C (above) summarizes the anticipated annual water demand for the Proposed Project or Alternative 1 for all proposed short- and long-term projects, which is 63.55 AF of water per year (20,706,354 gallons).

In the short term, development associated with the Proposed Project or Alternative 1 would not exceed the Airport's existing remaining CalAm allocation of 62.37 AF per year. The short-term development could demand a net increase of 1.05 AF of water per year (342,144 gallons). This estimate does not include any water credits related to achieving a level of LEED certification for the proposed relocated terminal and ARFF buildings. Achievement of indoor and outdoor water use reduction (per LEED certification requirements) at the permanent ARFF facility and relocated commercial terminal would support the Airport's sustainability goals. Thus, in the short term, the Proposed Project or Alternative 1 would have a Less than Significant impact on its existing water entitlements and a Beneficial impact of supporting the Airport's sustainability goals.

When considering the full buildout of the Proposed Project or Alternative 1 in the long term, the demand for water could exceed the Airport's remaining allocation from CalAm. It is estimated that in the worst-case scenario, the full buildout of the Proposed Project or Alternative 1 (including the short-term development discussed in the preceding paragraph) could require 63.55 AF (20,706,354 gallons), which would exceed the Airport's existing entitlements by 1.18 AF per year (0.10 AF per month). Therefore, impacts

⁸ Flex space refers to industrial space that allows other types of compatible uses.

on the Airport’s existing water entitlements in the future long term are considered Potentially Significant. See Section 4.18.1.7 for mitigation. Again, this estimate does not include any water credits related to achieving a level of LEED certification for the proposed relocated terminal and ARFF buildings or any future buildings constructed as part of the long-term buildout.

Less Than Significant Impacts: *The Airport’s remaining water entitlements of 62.37 AF per year could accommodate the short-term development associated with the Proposed Project or Alternative 1 and would be a Less than Significant impact per Threshold 4.18.1-1.*

The Airport would require construction contractors to use non-potable well water available from the Old North Side Industrial Area (north side wells) to avoid use of potable, CalAm supplied water. All construction water demands for the Proposed Project or Alternative 1 would be met by these wells and construction impacts would be a Less than Significant impact per Threshold 4.18.1-1.

Project-related landscaping and biological mitigation would be served by existing non-potable water sources (i.e., Old North Side Industrial Area extraction wells) consistent with the Airport’s current practices and would not implicate the Airport’s CalAm water allocation. These non-potable water needs would be a Less than Significant impact per Threshold 4.18.1-1.

Beneficial Impact: *Achievement of indoor and outdoor water use reduction (per LEED certification requirements) at the proposed permanent ARFF facility and relocated commercial terminal would support the Airport’s sustainability goals and would be a Beneficial impact per Threshold 4.18.1-1.*

Significant Impact UTIL-1: ***Future long-term buildout of the Proposed Project or Alternative 1 could demand water in excess of what the Airport currently has remaining in its allocation.***

Threshold 4.18.1-2 - Require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Proposed Project and Alternative 1

The proposed development areas of the Proposed Project or Alternative 1 are currently served by potable water via connections with CalAm’s service infrastructure. In addition, on-airport wells are proposed to be used to supplement the potable water supply by providing non-potable water for landscaping and other suitable uses (i.e., construction uses; toilet facilities, if applicable).

Construction Impacts

No construction of new water facilities or expansion of existing facilities are proposed to provide non-potable water for construction of proposed short- and long-term projects.

Short-Term Project Impacts

North Side Infrastructure. CalAm has a water line that runs along Airport Road and terminates at the Navy Flying Club Apron on the north side of the Airport. This line primarily provides fire suppression through the numerous hydrants along the route and can be extended to provide water and/or fire suppression to the new hangars being proposed for this area. However, since the line narrows from a 12-inch-diameter line down to an eight-inch-diameter line at its terminus, the narrower portion of the line may have to be upsized to a 12-inch-diameter line to handle the increased water demand (KHA 2018). Water supply to a temporary ARFF building (Proposed Project) or a permanent ARFF building (Alternative 1) on the north GA apron would also use the existing water line in Airport Road. Upgrades to the existing service line would be done during the construction of the proposed hangar development in an area which would, therefore, already be disturbed. The environmental effects that could occur if an upsizing of the water line is necessary would be Less than Significant as the area would already be under construction for the proposed development.

South Side Infrastructure. Water supply to the permanent ARFF building proposed under the Proposed Project would use existing water lines to the existing terminal building. No upgrades are anticipated to be necessary.

A new service connection from the main CalAm line in Olmsted Road would be necessary to service the replacement commercial terminal building; however, based on the preliminary design report, the existing water main in Olmsted Road is estimated to have the capacity to supply the new commercial terminal (KHA 2018). Most of the existing water lines within the southeast GA area would require demolition, except for the irrigation line down to Taxiway "A." Water service to the irrigation system would likely be disrupted during certain project phases.

Installation of the new service line would be done during the construction of the proposed commercial terminal and apron redevelopment. The area in which the new service line would be placed would, therefore, be entirely disturbed. The environmental effects that would occur due to demolition of existing water lines and the installation of a new water line would, therefore, be Less than Significant as the area would already be under construction for the proposed commercial terminal and apron redevelopment.

Long-Term Project Impacts (Programmatic)

For proposed long-term projects, potable and non-potable water infrastructure would also be required. As discussed under Short-Term Project Impacts, existing water infrastructure is available on the Airport to serve proposed long-term projects. At this time, the details of any connections to CalAm's existing water lines to serve proposed long-term projects are unknown and speculative since the exact location

UTIL/rr-2 In conjunction with the development of the Proposed Project or Alternative 1, building plans and site improvement plans shall demonstrate compliance with applicable non-residential mandatory measures in the *California Green Building Standards Code* (CalGreen).

UTIL/rr-3 In conjunction with the development of the Proposed Project or Alternative 1, new or modified water service to the site shall comply with the District’s rules and regulations, including design and construction of connections and water facilities, payments for service, conditions for service, and compliance with its permanent and emergency water conservation programs that outline escalating water restrictions under water supply shortage conditions and other general provisions.

4.18.1.7 Level of Significance after Mitigation

In the long term, aspects of the Proposed Project and Alternative 1 (i.e., non-aeronautical development) could exceed the Airport’s water allocation by 0.10 AF per month. However, for both the Proposed Project or Alternative 1, incorporation of mitigation measures UTIL/mm-1 through UTIL/mm-3 would reduce these potentially significant impacts to water supply to a Less than Significant level.

Table 4.18E summarizes the potentially significant impact and associated mitigation measures.

TABLE 4.18E Summary of Potentially Significant Impacts and Mitigation – Water Supply and Service Proposed Monterey Regional Airport Master Plan				
Proposed Project	Mitigation Program	Alternative 1	Mitigation Program	Level of Significance After Mitigation
Threshold 4.18.1-1 – Have insufficient water supplies available to serve the Proposed Project or Alternative 1 from existing entitlements and resources or require new or expanded entitlements				
<u>Impact UTIL-1</u> : Future airport buildout could exceed its water entitlements	UTIL/mm-1 through UTIL/mm-3; UTIL/rr-1 through UTIL/rr-3	Same as Proposed Project	UTIL/mm-1 through UTIL/mm-3; UTIL/rr-1 through UTIL/rr-3	Less than Significant

4.18.2 Wastewater (Sewer) Service/Treatment

In simple terms, wastewater can be defined as “used” water or the water left over after its use in numerous applications, such as industrial, agricultural, municipal, or domestic uses. Sewage is a subset of wastewater and encompasses the used water and added waste of a community which is carried away by drains and sewers. In this EIR, since the wastewater at the Airport is disposed of through a system of pipes or conduits (sewers) connected to the City of Monterey’s municipal sewer system, the terms “wastewater” and “sewage” are used interchangeably. Effluent generally refers to treated wastewater that is discharged from point sources (such as pipes and ditches) into the waters of the U.S. or the ocean.

4.18.2.1 Regulatory Setting

Federal Regulations

As previously discussed in Section 4.10, the *Clean Water Act* (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the U.S. and regulating quality standards for surface waters. For point source discharges, Section 402 of the CWA authorizes the U.S. EPA and/or an approved state (like California) to administer the National Pollutant Discharge Elimination System (NPDES) program (California SWRCB 2014). Direct discharges of treated wastewater to waters of the U.S require a NPDES Wastewater Discharge Permit.

The National Categorical Pretreatment Standards are an additional component of the NPDES program that can be enforced at all levels of government; however, the U.S. EPA has prohibitions that must be incorporated (as defined in Code of Federal Regulations [CFR], Title 40, Part 403). These national pretreatment standards forbid the discharge of any pollutant(s) to a publicly owned treatment works (POTW) that could cause pass through⁹ or interference.¹⁰ Local jurisdictions must establish the actual discharge standards that are relevant to its local POTW. Pretreatment standards can be expressed as numeric limits, narrative prohibitions, and best management practices (BMPs) (U.S. EPA website 2018b).

State Regulations

The *Porter-Cologne Water Quality Control Act* is the primary state law governing water quality as it relates to wastewater disposal. This Act creates a comprehensive program to protect water quality, as well as its beneficial uses. It applies to surface waters, wetlands, and ground water, as well as point and nonpoint sources of pollution. Per this law (California Water Code, Section 13000 et seq.), California's policy is that the quality of all the waters of the state shall be protected; that all activities impacting water quality shall be regulated to the highest attainable water quality; and the state shall exercise its power to protect water quality in California from degradation. The *Porter-Cologne Act* also established nine Regional Water Quality Control Boards (RWQCBs) and the State Water Board. These entities are charged with the implementation of many of the CWA's provisions. See a related discussion in Section 4.10.

The Airport is in the Central Coast RWQCB (Region 3), which imposes wastewater treatment standards on both public and private wastewater treatment facilities through the state's waste discharge requirement permitting process discussed in the next paragraph (County of Monterey 2008). The wastewater treatment standards for the Central Coast RWQCB prohibit: the introduction of incompatible wastes; discharge of any radiological, chemical, or biological warfare agent or radioactive waste; discharge of toxic wastes; the introduction of pollutants to the collection, treatment, or disposal system by an indirect discharger that inhibits or disrupts the treatment process, system operation, or eventual use or disposal of sludge; and the introduction of pollutant-free wastewater to the collection, treatment, and disposal

⁹ Pass through is a discharge that exits a POTW into a water of the U.S. in a quantity or concentration that could cause a violation of any requirements of the POTW's NPDES permit (U.S. EPA website 2018b).

¹⁰ Interference is a discharge that could inhibit or disrupt the POTW, its treatment or sludge process, use, or disposal, and thus would cause a violation of a POTW's NPDES permit (U.S. EPA website 2018b).

system in amounts that threaten compliance with the applicable discharge requirements (Central Coast RWQCB 2013).

The SWRCB adopted Statewide General Waste Discharge Requirements (Discharge Requirements) for Sanitary Sewer Systems, Order No. 2006-0003-DWQ on May 2, 2006. All public agencies that own or operate a sanitary sewer system that has more than one mile of pipes or sewer lines conveying wastewater to a publicly owned treatment facility must apply for coverage under these Discharge Requirements. Coverage under the Discharge Requirements required these public wastewater agencies to develop and implement sewer system management plans and report all sewer system overflows to the SWRCB. The Discharge Requirements prohibit sewer system overflows that result in a discharge of untreated or partially treated wastewater to the public wastewater agency to take all feasible steps to eliminate overflows and, if an overflow occurs, to take all feasible steps to contain and mitigate the impacts of the overflow.

Regional/Local Regulations

For the Monterey region, the Central Coast RWQCB uses the regulations established in Ordinance No. 2008-01: *Wastewater Discharge Ordinance of the Monterey Regional Water Pollution Control Agency* (Monterey Regional Water Pollution Control Agency [MRWPCA]) for the interception, treatment, and disposal of sewage and wastewater (MRWPCA 2008). This ordinance is the legal authority that sets requirements for discharges into the wastewater collection and treatment system of the Monterey Regional Water Pollution Control Agency (now Monterey One Water [M1W]) and all tributary collection systems and enables the enforcement of the National Categorical Pretreatment Standards (described above). This ordinance also enables M1W to adhere to the water quality requirements set by the Central Coast RWQCB and all applicable effluent limitations, national standards of performance, toxic and pretreatment effluent standards, and any other discharge criteria which are required by state or federal law. Additionally, Monterey County's Health Department reviews and monitors sewage capabilities in conjunction with the Central Coast RWQCB.

The City of Monterey's Public Facilities Element of its general plan (2016) includes programs to ensure that its infrastructure capacity is maintained. The following program would be applicable to the Airport, which connects to the city's sewer system:

Program a.3.1. Monitor limited public services (e.g., water, sewer, streets) and develop a system to determine the impacts of proposed developments on these resources.

4.18.2.2 Methodology

The Airport (and the City of Monterey) do not track wastewater generation for the Airport's contribution to the city's municipal system, only the cost of providing sewer service (see Section 4.18.2.3, Existing Conditions for more information). However, the baseline of wastewater generation at the Airport is assumed to be its existing potable water consumption for the Airport (**Table 4.18B**) since most facilities are not equipped to use graywater. During those years, as noted on the table, there was no measured draw-down from fire hydrants for fire suppression.

Table 4.18F reflects the Airport’s estimated annual wastewater generated between 2015 and 2017, as well as the annual and daily average wastewater generation. For purposes of the analysis, it is assumed that all wastewater estimated in **Table 4.18F** is collected by the Airport’s sewer lines and conveyed to the City of Monterey’s sewer system.

Future project-related wastewater generation has been estimated using water demand factors available from MPWMD. The previously determined water consumption of existing and future facilities from Section 4.18.1, Water Supply and Service are assumed to be equivalent to the amount of wastewater required for each of the proposed facilities (except for hangar facilities [see discussion below]). MPWMD water use factors have been used in lieu of the City of Monterey’s average daily sewage production rates as the city’s sewer rates were last updated in 1988 and no longer represent present daily or forecasted water use. Water-conserving fixtures are now a normal accepted practice and are utilized at the Airport, thus, average water use, and wastewater generation has been reduced since the 1980s.

Main Meters/Location		Estimated Wastewater Generation (gallons)			Average Annual Wastewater Generation (gallons)	Average Daily Wastewater Generation (gallons)
Meter(s)	Meter Description	2015	2016	2017	2015-2017	2015-2017
70007179/51359913	Airport	431,601	380,473	1,040,757	617,610	1,692
60233855	Garden Road	37,695	39,489	42,781	39,988	110
70009344/31933600	Sky Park Way	4,620,167	4,679,109	4,209,365	4,502,880	12,337
Subtotal	South Side	5,089,463	5,099,071	5,292,903	5,160,478	14,139
X51442999/70022435	North Side ¹	23,706	40,384	53,024	39,038	107
Total Estimated Wastewater Generation		5,113,169	5,139,455	5,345,927	5,199,517	14,245

Source: Wastewater generation is estimated based on Airport Water Meter Readings for 2015-2017 (Monterey Regional Airport 2018).

¹ Includes the Old North Side Industrial Area and the Navy Flying Club.

NOTE: Numbers reflect rounding.

Most hangar facilities at the Airport do not have restrooms, but rather utilize portable toilet facilities. Therefore, the MPWMD water demand factors, which are based on building size, do not accurately reflect water demand (or wastewater generation) for the Airport’s hangars. According to the American Water Works Association, an average toilet consumes 3.5 gallons per flush (gpf), with an estimated five flushes per day (Regional Water Providers Consortium 2018). Therefore, for hangar facilities with a restroom, approximately 17.5 gallons per day (gpd) of water demand/wastewater generation (or 6,388 gallons annually) per restroom has been assumed.

There is potential for a wash rack on the north side of the Airport. As described in the Water Supply and Service section, water usage from the aircraft wash racks at two other airports was obtained to establish an approximate water use of this proposed future development. Based on the data provided, an average

of 28.11 gallons per wash was used to determine the average water use per wash (10,260 gallons per year).

Using the above wastewater generation assumptions, this EIR evaluates the Airport's current wastewater collection infrastructure, as well as the applicable sewer system of the City of Monterey, to determine if there is sufficient capacity available to serve the Proposed Project or Alternative 1.

This EIR also considers the capacity of the M1W regional wastewater treatment plant (RTP) to determine if the Proposed Project or Alternative 1 would require the construction or expansion of a new wastewater facility (i.e., if the facility has the capacity to serve the proposed projects). NPDES permit requirements of the Central Coast RWQCB have been used to determine if the Proposed Project or Alternative 1 would exceed regional wastewater treatment requirements. These permit requirements have been discussed previously in Section 4.18.2.1.

4.18.2.3 Existing Conditions

Existing Wastewater (Sanitary Sewer) Service and Generation

The Airport entered into an agreement with the City of Monterey in 1973 for its sewer service. The original fee for sewer service was a flat rate of \$1,764 per year. The Airport currently pays \$504.40 per month (or \$6,053 annually) for sewer service for all tenants at the Airport, except for Tarp's Roadhouse, all properties at Stonecreek, Sky Park Self Storage Facility, and Flight Way Self Storage. These tenants control their own sewer service and are not affected by the Proposed Project or Alternative 1. For those tenants that are covered by the Airport's sewer service and have water facilities within their buildings, they are billed monthly for sewer based on the size (sf) of their building. Note that portable toilet facilities, which are cleaned weekly, are billed separately.

On the north side of the Airport, the primary areas that generate wastewater are in the Old North Side Industrial Area, where some restrooms are in the existing businesses and at the Navy Flying Club, which has two restrooms - one in its hangar and one in its office. Some hangars also contain miscellaneous water uses that would generate minimal wastewater, such as hose bibs and utility sinks. Most other existing hangars on the north side do not have restroom facilities but rather use strategically placed portable toilets for bathrooms that can be conveniently accessed by most north side users. As mentioned previously, there are 10 portable toilets around the Airport, five on the south side and five on the north side. Only one has a hand wash facility (water is provided by Golden State Portables). These facilities are cleaned once per week. As shown in **Table 4.18F**, based on existing water demand, the north side is estimated to have generated an annual average of 39,038 gallons of wastewater (107 gpd) from 2015 to 2017.

The bulk of wastewater generation on the south side of the Airport is by the commercial terminal building, with additional wastewater generated by the ARFF building, the Del Monte Aviation and Monterey Jet Center offices, as well as some wastewater generation from the QTA facility, which implements a graywater recycling operation. The southeast hangars share one restroom facility, which is supplemented by portable toilets for additional bathroom use. As shown in **Table 4.18F**, based on existing

water demand, the south side is estimated to have generated an annual average of 5,160,478 gallons of wastewater (14,139 gpd) from 2015 to 2017. The ARFF building, which has a separate submeter, generated an annual average of 14,098 gallons of wastewater (39 gpd) (based on its water usage, see **Table 4.18B**).

Sanitary Sewer Infrastructure

The Airport owns two sanitary sewer lines that service facilities on the south side of the Airport. The western line services the commercial terminal building and fixed base operator (FBO) facilities to the west before tying in to the City of Monterey's sewer line off Garden Road. The eastern line services the ARFF building and the southeast hangar's restroom. It is a six-inch-diameter vitrified clay pipe that ties in to the City of Monterey's sewer line that runs parallel to the Highway 68 right-of-way.

In addition, the Airport owns an eight-inch-diameter polyvinyl chloride (PVC) sewer line on the north side of the Airport that runs down Airport Road and terminates before reaching the Navy Flying Club. At the west end, this line connects to a six-inch-diameter sewer line owned by the City of Monterey at the intersection of Airport Road and Euclid Avenue. Due to a lack of development on the north side, this eight-inch-diameter line is underutilized (KHA 2018).

From 1998 to 1999, the City of Monterey evaluated its sewer system. Based on the findings of the sewer assessment, the city commenced a multi-million-dollar capital replacement program. Annual inspections of the sewer pipe system are performed to adjust the maintenance and capital replacement programs, and modern technologies in areas of sewer pipe replacement and sewer maintenance are investigated on a continuous basis. Also, the protection of the Monterey Bay National Marine Sanctuary has become an integral element of the city's policies and standards with respect to the maintenance and capital replacement of the sewer and storm drain systems (*City of Monterey General Plan*, as amended March 2016). Based on the city's 1988 Sewer Fee Study Update provided to the Airport in support of this EIR analysis, both sides of the Airport are contained in the city's Sanitary Sewer Service Area F. As such, both sides ultimately flow into the same sewer system network (City of Monterey 1988).

The maintenance of the City of Monterey's sewage system is shared between the City of Monterey and the MRWPCA, a regional sewer treatment agency. The sewer collection system operated by the city consists of approximately 102 miles of sewer lines and five sewer lift stations with maintenance contracted out. Costs for maintenance and replacement of sewer pipes are recovered in a sewer surcharge fee, based on the monthly sewer utility costs. The treatment of the sewage is the responsibility of the MRWPCA, which owns and operates a treatment facility, now known as the Monterey One Water (M1W) Regional Treatment Plant (RTP) (City of Monterey 2016).

The M1W RTP is located approximately nine miles north within the City of Marina. It operates under NPDES Permit No. CA0048551, which serves as the Discharge Requirements pursuant to Article 4, Chapter 4, Division 7 of the California Water Code, as well as Section 402 of the CWA and implementation regulations adopted by the U.S. EPA. The permit allows the RTP to discharge into a specified location in the Pacific Ocean at a rate of discharge that should not exceed 81.2 million gallons per day (mgd). M1W

currently serves approximately 250,000 people and treats 18.5 mgd of wastewater. The RTP has a design capacity of 29.6 mgd (M1W website 2018).

Per the M1W, 60 percent of incoming wastewater is highly treated through their water recycling facility and distributed for irrigation uses on farmlands in northern Monterey County. M1W performs secondary treatment of the remaining wastewater, which is then discharged through an ocean outfall located two miles into Monterey Bay.

4.18.2.4 Thresholds of Significance

The CEQA Guidelines, Appendix G (2017) have been used to establish significance thresholds to determine if the Proposed Project or Alternative 1 would have significant environmental impacts related to the Airport's wastewater disposal. The Proposed Project or Alternative 1 would result in a significant impact if it would:

- Threshold 4.18.2-1: Exceed wastewater treatment requirements of the applicable RWQCB;
- Threshold 4.18.2-2: Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effect, due to a determination by the wastewater treatment provider that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments; or
- Threshold 4.18.2-3: Require an expansion of City of Monterey sewer infrastructure, the construction of which could cause significant environmental effect.

4.18.2.5 Impact Analysis

Neither the Proposed Project nor Alternative 1 would result in any changes to the areas of the Airport west or southwest of the existing commercial terminal and, thus, no changes to wastewater treatment, generation, or disposal for those areas would occur. Therefore, the following analysis focuses on those areas of the Airport that could result in increased wastewater generation as a result of the Proposed Project or Alternative 1.

Threshold 4.18.2-1 - Exceed wastewater treatment requirements of the applicable RWQCB

Proposed Project and Alternative 1

As previously discussed, the M1W RTP operates under NPDES permit no. CA0048551, which serves as the Discharge Requirements pursuant to Article 4, Chapter 4, Division 7 of the California Water Code, as well as Section 402 of the CWA and implementation regulations adopted by the U.S. EPA.

Construction Impacts

Construction sewer service would be provided by portable toilets serviced by a licensed service. No impacts to wastewater treatment requirements of the Central Coast RWQCB would occur.

Short-Term Project Impacts

No changes to the types of pollutants that would be transported in the Airport's wastewater to the RTP would occur because of the Proposed Project or Alternative 1 due to the proposed short-term projects. The Proposed Project and Alternative 1 would redevelop existing areas of the Airport with similar types of land uses to what currently exists. The existing commercial terminal and ARFF buildings would be relocated and 43 replacement hangars and seven new hangars would be placed on the north side of the Airport. Additional roads are also proposed. None of these land uses are different than what is already occurring on the Airport and there would be no additional wastewater from these facilities under either the Proposed Project or Alternative 1 than what is occurring under existing conditions. Therefore, short-term impacts to the wastewater treatment requirements of the RTP would be Less than Significant.

Long-Term Project Impacts (Programmatic)

In the long term, the types of wastewater pollutants that could occur are not fully known. For example, a wash rack is a possibility on the north GA area as a result of the Proposed Project or Alternative 1. Generally, wastewater from the washing or rinsing of aircraft must be directed to the sanitary sewer system, rather than a storm drain so that dirt or other pollutants are treated at a wastewater treatment plant prior to being released into waters of the U.S. An impervious wash surface, such as concrete, protected by berms or swales and a drain fitted with an oil separator would be required to direct all wastewater into the sewer system. The amount of wastewater pollutants allowed with such an improvement would be specified prior to operation and approval by the Airport and additional environmental review may be required prior to approval.

Additional redevelopment could include different types of businesses in the Old North Side Industrial Area, while additional non-aeronautical development could occur on either the north or south side and could include land uses, such as a restaurant, medical or dental offices, or light industrial businesses. Although the potential types of wastewater pollutants for these types of business are not fully known, the Airport and its tenants are required to follow all existing laws and regulations regarding chemicals and other processed materials and byproducts. It is unlikely that the types of businesses locating at the Airport in the long term would result in any type of wastewater pollutant that cannot be adequately treated at the RTP under its existing treatment processes and permit conditions; however, additional environmental review may be required prior to approval.

However, based on communication with M1W (McCullough, M. 2018), the Monterey Pump Station can accommodate both the short- and long-term estimates of wastewater and no concerns regarding wastewater treatment have been identified. Therefore, the potential short- and long-term project impacts to the wastewater treatment requirements of the RTP are considered Less than Significant.

Less Than Significant Impact:

Based on information currently available, no significant impacts or exceedances of the wastewater treatment requirements of the M1W RTP would occur in either the short or long term under either the Proposed Project or Alternative 1 and impacts related to Threshold 4.18.2-1 would be Less than Significant.

Threshold 4.18.2-2 - Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effect, due to a determination by the wastewater treatment provider that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments

*Proposed Project and Alternative 1*Construction Impacts

Construction sewer service would be provided by portable toilets serviced by a licensed service. No expanded or new wastewater treatment facilities would be necessary.

Short-Term Project Impacts

The M1W RTP currently treats 18.5 mgd of wastewater. It has a design capacity of 29.6 mgd and, thus, currently has a remaining capacity of 11.1 mgd (M1W website 2018). Based on the existing wastewater estimates for the Airport shown in **Table 4.18F**, the Airport currently disposes of approximately 14,245 gpd to the RTP, which is 0.05 percent of its total capacity and 0.13 percent of its remaining capacity.

Table 4.18G summarizes the anticipated wastewater generation for the Proposed Project or Alternative 1 for the net increase in number or size of development projects for both the short and long term. In the short term, and as a conservative estimate, additional wastewater could be generated incrementally by the increased sizes of the proposed relocated commercial terminal and ARFF buildings. This would only occur if the increased building size has an increase in restrooms or other water uses that are connected to the Airport's sewer system. In addition, due to the water conservation measures required to build the relocated facilities to LEED certification standards, it is possible that wastewater generation could decrease over what currently occurs. However, a conservative estimate is that the Airport's wastewater generation could increase by 313 gpd due to proposed short-term projects (i.e., north side hangars [net increase of seven]; commercial terminal building; temporary and permanent ARFF).

**TABLE 4.18G
Wastewater Generation
Proposed Project or Alternative 1**

Facility	Number or Size (net increase)	MPWMD Factor ¹	Annual Water Use (AF)	Annual Water Use/Wastewater Generation (gallons)	Daily Water Use/Wastewater Generation (gallons)
Short-Term Projects					
North Side – Hangars	7	N/A ²	N/A	0 ³	0 ³
South Side – Terminal Building	30,000 sf	0.00001	0.30	97,755	268
South Side – ARFF (Proposed)/ North Side - ARFF (Alt. 1)	5,000 sf	0.00001	0.05	16,293	45
Short-Term Subtotal				114,048	313
Long-Term Projects					
North Side – 106 Nested T-Hangars	106	N/A ²	N/A	0 ⁴	0 ⁴
North Side – Aircraft Wash Rack	1	N/A	N/A	10,260 ⁵	28 ⁵
South Side - Restaurant	10,000 sf	0.00002	0.20	65,170	179
South Side – Medical/Dental	45,000 sf	0.00007	3.15	1,026,431	2,812
South Side – Office Space	94,000 sf	0.00007	6.58	2,144,100	5,874
North Side – Old North Side Industrial Area		N/A	N/A	0 ³	0 ³
North Side – Light Industrial	400,000 sf	0.00007	28.00	9,123,828	24,997
North Side – Office Space	325,000 sf	0.00007	22.75	7,413,110	20,310
Long-Term Subtotal				19,782,899	54,200
Total Wastewater Increase				19,896,947	54,513

AF = acre-foot; N/A = not applicable; sf = square foot

¹ Monterey Peninsula Water Management District water factors (measured in AF). An acre-foot is a water measurement defined by the volume of water necessary to cover one acre of surface area to a depth of one foot and is most commonly used to describe groundwater volume and usage. It is equal to 43,560 cubic feet or 325,851 gallons.

² Most hangars at the Airport do not have a restroom so wastewater estimates are on a case-by-case basis.

³ Represents an existing use to be replaced in-kind and no additional restrooms are anticipated.

⁴ There are no plans for additional restrooms in the hangars on the north side in the long term. All other restroom needs will be provided by portable toilets (per airport management).

⁵ Based on similar airports, assumes one wash per day.

NOTE: Numbers reflect rounding.

Long-Term Project Impacts (Programmatic)

In the long term, additional wastewater would be generated by proposed non-aeronautical projects that could occur on either the north or south side, as well as a proposed aircraft wash rack. The proposed addition of another 106 T-hangars and the redevelopment of the Old North Side Industrial Area is not expected to generate additional wastewater since the redevelopment would not increase the actual land use intensity of the industrial area and the T-hangars are not likely to include additional restrooms. At this time, the Airport anticipates that the new hangars would rely on existing portable toilets and would

not be equipped with any miscellaneous water users (i.e., hose bibs, utility sinks) (Morello, C., Senior Manager, Development and Environment 2018).

Overall, in both the short and long terms, the total estimated wastewater increases from the Proposed Project or Alternative 1 are approximately 54,513 gpd, which is 0.49 percent of the M1W RTP's remaining capacity. Considering the M1W RTP is currently under capacity, and the increase in wastewater generation is far below the processing capabilities of the RTP, neither the Proposed Project nor Alternative 1 would necessitate the construction or expansion of the M1W RTP due to inadequate capacity. Further, as previously mentioned, no concerns regarding wastewater treatment have been identified (McCullough, M., M1W, Government Affairs Administration 2018).

Less Than Significant Impact: *Neither the short- or long-term projects under the Proposed Project or Alternative 1 would require the construction or expansion of the M1W RTP due to inadequate capacity and impacts related to Threshold 4.18.2-2 would be Less than Significant.*

Threshold 4.18.2-3 - Require an expansion of City of Monterey sewer infrastructure, the construction of which could cause significant environmental effect

Proposed Project or Alternative 1

Construction Impacts

Construction sewer service would be provided by portable toilets serviced by a licensed service. No impacts to City of Monterey sewer infrastructure would occur.

Short-Term and Long-Term Project (Programmatic) Impacts

In contrast to the impact of the estimated total increases in wastewater on the M1W RTP, this threshold considers elements of the Proposed Project or Alternative 1 as they relate to the City of Monterey's existing sewer infrastructure. Since the north side of the Airport and the south side of the Airport use different on-airport sewer lines and tie into different city sewer lines, the north and south side impacts are addressed separately. However, as noted in Section 4.18.2.3, ultimately both sides are in the same Sanitary Sewer Service Area. **Table 4.18.2H** summarizes the potential increases in wastewater for each side for the Proposed Project; **Table 4.18.2I** summarizes the potential increases in wastewater for each side for Alternative 1. Overall, buildout of the Proposed Project would result in an increase of 45,353 gpd of wastewater on the north side and an increase of 9,160 gpd on the south side. Buildout of Alternative 1 would result in an increase of 45,474 gpd of wastewater on the north side and an increase of 9,076 gpd on the south side. This difference between the alternatives is due only to the site of the proposed permanent ARFF relocation.

TABLE 4.18H
Wastewater Generation - North Side vs. South Side
Proposed Project

Facility	Net Number or Size Increase	MPWMD Factor ¹	Annual Water Use (AF)	Annual Water Use/ Wastewater Generation (gallons)	Daily Water Use/ Wastewater Generation (gallons)
North Side					
Short term – Hangars	51	N/A ²	N/A	6,388 ³	18 ³
Subtotal (Short-term Projects)				6,388	18
Long term – 106 Nested T-Hangars	106	N/A ²	N/A	0 ⁴	0 ⁴
North Side – Aircraft Wash Rack	1	N/A	0.03	10,260 ⁵	28 ⁵
Long term – Old North Side Industrial Area	0	N/A	N/A	0	0
Long term – Light Industrial	400,000 sf	0.00007	28.00	9,123,828	24,997
Long term – Office Space	325,000 sf	0.00007	22.75	7,413,110	20,310
Subtotal (Long-term Projects)				16,547,198	45,335
North Side Subtotal				16,553,586	45,353
South Side					
Short term – Hangars	- 43	N/A ²	N/A	- 6,388 ³	-18 ³
Short term – Terminal Building	30,000 sf	0.00001	0.30	97,755	268
Short term – ARFF	5,000 sf	0.00001	0.05	16,293	45
Subtotal (Short-term Projects)				107,660	295
Long term – Restaurant	10,000 sf	0.00002	0.20	65,170	179
Long term – Medical/Dental	45,000 sf	0.00007	3.15	1,026,430	2,812
Long term – Office Space	94,000 sf	0.00007	6.58	2,144,100	5,874
Subtotal (Long-term Projects)				3,235,700	8,865
South Side Subtotal				3,343,360	9,160

AF = acre-foot; N/A = not applicable; sf = square foot

¹ Monterey Peninsula Water Management District water factors (measured in AF). An acre-foot is a water measurement defined by the volume of water necessary to cover one acre of surface area to a depth of one foot and is used most commonly used to describe groundwater volume and usage. It is equal to 43,560 cubic feet or 325,851 gallons.

² Many hangars at the Airport do not have a restroom so wastewater estimates are on a case-by-case basis.

³ Based on information from the American Water Works Association, one additional restroom in place of one restroom in the southeast GA area is anticipated at 6,388 gallons of wastewater annually.

⁴ There are no plans for additional restrooms on the north side in the long term. All other restroom needs will be provided by portable toilets (per airport management).

⁵ Based on similar airports, assumes one wash per day.

NOTE: Numbers reflect rounding.

TABLE 4.181
Wastewater Generation - North Side vs. South Side
Alternative 1

Facility	Net Number or Size Increase	MPWMD Factor ¹	Annual Water Use (AF)	Annual Water Use/Wastewater Generation (gallons)	Daily Water Use/Wastewater Generation (gallons)
North Side					
Short term – Hangars	43	N/A ²	N/A	6,388 ³	18 ³
Short term – ARFF	13,500 sf	0.00001	0.14	43,990	121
Subtotal (Short-term Projects)				50,378	139
Long term – 106 Nested T-Hangars	106	N/A ²	N/A	0 ⁴	0 ⁴
North Side – Aircraft Wash Rack	1	N/A	0.03	10,260 ⁵	28 ⁵
Long term – Old North Side Industrial Area	0	N/A	N/A	0	0
Long term – Light Industrial	400,000 sf	0.00007	28.00	9,123,828	24,997
Long term – Office Space	325,000 sf	0.00007	22.75	7,413,110	20,310
Subtotal (Long-term Projects)				16,547,198	45,335
North Side Subtotal				16,597,576	45,474
South Side					
Short term – Hangars	- 43	N/A ²	N/A	- 6,388 ³	- 18 ³
Short term – Terminal Building	30,000 sf	0.00001	0.30	97,755	268
Short term – ARFF	- 8,500 sf	N/A ⁶	N/A	- 14,098	- 39
Subtotal (Short-term Projects)				77,269	211
Long term – Restaurant	10,000 sf	0.00002	0.20	65,170	179
Long term – Medical/Dental	45,000 sf	0.00007	3.15	1,026,430	2,812
Long term – Office Space	94,000 sf	0.00007	6.58	2,144,100	5,874
Subtotal (Long-term Projects)				3,235,700	8,865
South Side Subtotal				3,312,969	9,076

AF = acre-foot; N/A = not applicable; sf = square foot

¹ Monterey Peninsula Water Management District water factors (measured in AF). An acre-foot is a water measurement defined by the volume of water necessary to cover one acre of surface area to a depth of one foot and is most commonly used to describe groundwater volume and usage. It is equal to 43,560 cubic feet or 325,851 gallons.

² Many hangars at the Airport do not have a restroom so wastewater estimates are on a case-by-case basis.

³ Based on information from the American Water Works Association, one additional restroom in place of one restroom in the southeast GA area is anticipated at 6,388 gallons of wastewater annually.

⁴ There are no plans for additional restrooms on the north side in the long term. All other restroom needs will be provided by portable toilets (per airport management).

⁵ Based on similar airports, assumes one wash per day.

⁶ Based on actual average water use from 2015-2017.

NOTE: Numbers reflect rounding.

For the proposed ARFF building and commercial terminal building, **Table 4.18J** summarizes the fixture and fitting code requirements per LEED certification standards. These requirements, which are necessary to meet LEED certification, would be applied to these buildings, reducing the amount of wastewater generated. At the time of this EIR, the number of restroom facilities (toilets and faucets), as well as kitchen facilities and showerheads are unknown and, therefore, wastewater amounts that are provided are conservative estimates based off existing water consumption.

TABLE 4.18J
LEED Fixture and Fitting Code Requirements
Proposed Project and Alternative 1

Fixture, Fitting, or Appliance	Baseline Requirement
Water closet (toilet)	1.6 gpf
Urinal	1.0 gpf
Public lavatory (restroom) faucet	0.5 gpm at 60 psi
Private lavatory faucet	2.2 gpm atr 60 psi
Kitchen faucet (excludes faucets used exclusively for filling operations)	2.2 gpm atr 60 psi
Showerhead	2.5 gpm at 80 psi per shower stall

Source: USGBC website 2018.
 gpf = gallons per flush; gpm = gallons per minute; psi = pounds per square inch

North Side

- **North Side GA Hangar Improvements and Relocation.** Existing wastewater generation on the north GA ramp is limited as the existing Navy Flying Club has only two restroom facilities. As part of the Proposed Project and Alternative 1, the number of hangars on the north side of the Airport would increase by 43; however, these hangars would only have one additional bathroom facility. As discussed in Section 4.18.2.2, approximately 6,388 gallons of water demand/wastewater generation annually per restroom could be generated. This equates to approximately 17.5 gpd.
- **ARFF Building Relocation.** Under the Proposed Project, the ARFF would be slightly larger (5,000 sf) but would remain on the south side of the Airport. Under Alternative 1, the ARFF would be located on the north side of the Airport. As a result, estimated north side wastewater increase is 45,353 gpd for the Proposed Project and 45,474 gpd for Alternative 1 (**Tables 4.18H** and **4.18I**). The proposed new ARFF would be constructed using LEED certification practices. This would require the facility to reduce indoor water use using low-flow toilets and urinals, faucets, showerheads, appliances that rely on water (i.e., dishwashers and heating and cooling processes) and is likely to reduce the amount of wastewater output from the new ARFF building below what is provided as a conservative estimate in **Tables 4.18H** and **4.18I**.
- **Long-term Projects.** Long-term buildout of the north side could include a wash rack and future non-aeronautical projects. The Proposed Project or Alternative 1 also reserves space for an additional 106 nested T-hangars. As previously discussed, many hangar facilities at the Airport are not connected to the sewer system but rather rely on portable toilets and have minimal other water uses. Wastewater estimates have been discussed previously under Threshold 4.18.2-2 and are identified

in **Tables 4.18H** and **4.18I**. The estimates are the same for both the Proposed Project and Alternative 1.

In the short term, only minor increases in the amount of wastewater generation on the north side would occur (approximately 18 gpd for the Proposed Project [**Table 4.18H**] and 139 gpd for Alternative 1 [**Table 4.18I**] due to a proposed permanent ARFF on the north side). The Airport owns an eight-inch-diameter PVC sewer line that runs down Airport Road. The southeast GA facilities to be relocated to the north side (and a temporary ARFF under the Proposed Project and a permanent ARFF under Alternative 1) would connect to this existing eight-inch-diameter line at the west end of Airport Road. At its west end, this line connects to a six-inch-diameter line owned by the City of Monterey at the intersection of Airport Road and Euclid Avenue. Due to the lack of development on the north side, the Airport's existing sewer line is underutilized and impacts to the city's sewer line are Less than Significant due to the minor amount of additional wastewater generated by the short-term north side facilities.

Overall, buildout of the north side could increase wastewater generation by approximately 45,325 gpd under the Proposed Project (**Table 4.18H**) or approximately 45,474 under Alternative 1 (**Table 4.18I**). The proposed long-term aeronautical and non-aeronautical development on the north side are also assumed to connect to the Airport's existing eight-inch-diameter sewer line. Since the Airport's sewer line connects to the city's sewer line, the city system would need to be further evaluated regarding the increased flows into the system from the new facilities. Since the City of Monterey is currently completing an updated study of its sewer system needs and because future buildout could occur over 20 years, it is not possible to determine whether the future long-term wastewater generation could create significant impacts to the city's sewer infrastructure or whether significant environmental effects would occur due to any required upgrades. Therefore, at this time, potential impacts to the city from long-term buildout on the north side are Potentially Significant. At the time future development is proposed, additional environmental analysis may be required. See Section 4.18.2.6 for mitigation.

South Side

- **GA Hangar Relocation.** Existing wastewater generation on the southeast GA ramp is limited to one restroom facility. As part of the Proposed Project and Alternative 1, this restroom would be removed. As discussed in Section 4.18.2.2, approximately 6,388 gallons of water demand/wastewater generation is currently generated annually. The proposed GA hangar relocation would, therefore, result in an accompanying decrease in wastewater generation on the south side (approximately 18 gpd).
- **Commercial Terminal Building Relocation.** The proposed relocated commercial terminal building would increase in building footprint about 30,000 sf from the existing structure under either the Proposed Project or Alternative 1. Similar to the ARFF building, the commercial terminal building would be constructed to LEED certification standards (see **Table 4.18J**). The proposed facility would, therefore, incorporate wastewater reduction methods through low-flow fixtures and restroom facilities, as well as a reduction in the amount of wastewater generated from heating and cooling processes. Although the proposed relocated terminal building would be larger in size than the existing structure, it is not known if water demand or associated wastewater generation would increase. As

a conservative estimate, a wastewater generation has been applied to the entire net increase in building space (i.e., 30,000 sf) in **Tables 4.18H** and **4.18I** for an estimated increase of approximately 268 gpd.

- **ARFF Building Relocation.** Under the Proposed Project, the ARFF would be slightly larger (5,000 sf) but would remain on the south side of the Airport. Under Alternative 1, it would be moved to the north side. As a result, estimated south side wastewater change related to the ARFF proposed relocation is an increase of 45 gpd for the Proposed Project and a reduction of 39 gpd for Alternative 1. As previously discussed, the proposed relocated ARFF would be constructed using LEED certification practices and is likely to reduce the amount of wastewater output from the new ARFF building below what is provided as a conservative estimate in **Tables 4.18H** and **4.18I**.
- **Long-term Projects.** Long-term buildout of the south side could include future non-aeronautical projects. Wastewater estimates have been discussed previously under Threshold 4.18.2-2 and are identified in **Tables 4.18G, 4.18H, and 4.18I**. The estimates are the same for both the Proposed Project and Alternative 1 (i.e., 8,865 gpd).

Overall, buildout of the south side could increase wastewater generation by approximately 9,160 gpd under the Proposed Project (**Table 4.18H**) or 9,076 gpd for Alternative 1 (**Table 4.18I**). In the short term, additional wastewater the Proposed Project would result in an increase of 295 gpd (**Table 4.18H**), while Alternative 1 would result in a decrease of 211 gpd due to the relocation of the permanent ARFF to the north side (**Table 4.18I**). As previously discussed, the Airport owns two sanitary sewer lines that service facilities on the south side of the Airport. One sewer line (western) services the commercial terminal building and FBO facilities to the west before they tie-in to the City of Monterey's sewer line off Garden Road (KHA 2018). The second line (eastern) services the existing southeast hangars and ARFF. It is a six-inch-diameter vitrified clay pipe that ties in to the City of Monterey's sewer line running parallel to the Highway 68 right-of-way.

With the proposed relocation of the existing commercial terminal building, the load on the existing airport western sewer line would be reduced, while the load on the eastern airport sewer line would increase. The new sewer laterals for the proposed commercial terminal building would be sized appropriately before connection into the City of Monterey's sewer line. Since the Airport has two lines that connect to the City of Monterey, it is assumed that the reduction in demand on the western line, in conjunction with the increase in demand on the eastern line, would create a negligible increase into the overall demand capacity of the city system. However, since the airport lines enter the city system at different access points, the city system would need to be further evaluated regarding the demand shift from the western line to the eastern line and any potential localized capacity issues. The impacts of development on the south side of the Airport is Potentially Significant. See Section 4.18.2.6 for mitigation.

Due both to the fact that the City of Monterey is currently completing an updated study of its sewer system needs and the fact that future buildout could occur more than 20 years from now, it is not possible to determine whether the future long-term wastewater generation could create significant impacts to the city's sewer infrastructure or whether significant environmental effects would occur due to any

required upgrades. The city has not provided information regarding its ability to provide the required sanitary service at this time. Therefore, potential impacts to the city from long-term buildout on the south side remain Potentially Significant. See Section 4.18.2.6 for mitigation.

Less Than Significant Impact: *In the short term, proposed development on the north side of the Airport would have Less than Significant impacts to the City of Monterey sewer infrastructure for either the Proposed Project or Alternative 1 (Threshold 4.18.2-3).*

Significant Impact UTIL-2: *On the south side of the Airport near the commercial terminal, the Airport’s sewer lines enter the city system at different access points. The city system would need to be further evaluated regarding the demand shift from the western line to the eastern line to identify and address potential localized capacity issues for the short-term projects.*

Significant Impact UTIL-3: *In the long term, projects under the Proposed Project or Alternative 1 for both the south and north sides of the Airport may exceed the capacity of the available city sewer infrastructure, potentially requiring an upsizing of the city’s sewer lines.*

4.18.2.6 Mitigation Program

No mitigation would be required for the Less than Significant Impacts identified above. The following mitigation measures would apply to either the Proposed Project or Alternative 1 to ensure the capacity of the City of Monterey’s wastewater infrastructure is not exceeded.

Proposed Project and Alternative 1

UTIL/mm-4: The Airport shall initiate coordination with the City of Monterey prior to any development on the north or south sides of the Airport to determine if the Proposed Project or Alternative 1 would exceed the capacity of the city’s sewer system.

UTIL/mm-5: The Airport shall pay a reasonable “fair share” cost of project impacts pursuant to the City of Monterey’s capital improvement program for any needed sewer upgrades.

Regulatory Requirements

UTIL/rr-4: In conjunction with the development of the Proposed Project or Alternative 1, building plans and site improvement plans shall show compliance with pertinent regulations related to sewer system connections, installation of on-site facilities for industrial dischargers and food service establishments (e.g., pretreatment equipment, pollution control facilities, spill containment facilities, accidental slug

control plans, and monitoring/metering facilities), as well as obtain the necessary discharge permits and comply with the discharge limits, prohibitions, monitoring and reporting, inspection and sampling, and other provisions of the permit.

4.18.2.7 Level of Significance after Mitigation

In the long term, aspects of the Proposed Project and Alternative 1 could exceed the existing wastewater infrastructure currently available for the Airport. For both the Proposed Project and Alternative 1, the incorporation of mitigation measures UTIL/mm-4 and UTIL/mm-5, in conjunction with UTIL/rr-4, would make the impacts Less than Significant.

Table 4.18K summarizes the potentially significant impacts and associated mitigation measures.

TABLE 4.18K Summary of Potentially Significant Impacts and Mitigation – Wastewater (Sewer) Service/Treatment Proposed Monterey Regional Airport Master Plan				
Proposed Project	Mitigation Program	Alternative 1	Mitigation Program	Level of Significance After Mitigation
Threshold 4.18.2-3 – Require an expansion of City of Monterey sewer infrastructure, the construction of which could cause significant environmental effect				
Impact UTIL-2: South side demand shift could cause sewer capacity issues in the short term.	UTIL/mm-4 and UTIL/mm-5; UTIL/rr-4	Same as Proposed Project	UTIL/mm-4 and UTIL/mm-5; UTIL/rr-4	Less than Significant
Impact UTIL-3: In the long term, proposed airport projects could exceed existing City of Monterey sewer infrastructure on either side of the Airport.	UTIL/mm-4 and UTIL/mm-5; UTIL/rr-4	Same as Proposed Project	UTIL/mm-4 and UTIL/mm-5; UTIL/rr-4	Less than Significant

4.18.3 Solid Waste Disposal

4.18.3.1 Regulatory Setting

Federal Regulations

The U.S. EPA is the lead agency that enforces federal regulations impacting public health as it relates to the environment (see also Section 4.9.1). The U.S. EPA primarily regulates household, industrial, and manufacturing solid waste under the *Resource Conservation and Recovery Act of 1976* (RCRA). RCRA’s goals are to protect public health and the environment from the hazards of solid waste disposal; to conserve energy and natural resources through recycling and recovery efforts; to reduce or eliminate waste; and to clean up waste that may have spilled, leaked, or been improperly disposed. This Act regulates the generation, storage, treatment, and disposal of waste. Under RCRA Subtitle D, states are encouraged to develop comprehensive plans to manage nonhazardous industrial solid and municipal waste. Subtitle D also establishes criteria for municipal solid waste landfills and prohibits the open dumping of solid waste. (Additional information on RCRA is available in Section 4.9.1.)

The *Pollution Prevention Act* focuses on reducing the amount of pollution through cost-effective changes in production, operation, and raw materials use. Regulation regarding the treatment and disposal of solid waste prior to the passage of this Act focused on compliance, whereas the *Pollution Prevention Act* targets opportunities for source reduction. Source reduction focuses on the practices that work proactively to reduce the amount of substances that require recycling, treatment, and/or disposal.

State Regulations

California's Department of Resources Recycling and Recovery (CalRecycle) brings together the state's recycling and waste management programs and efforts to foster environmental stewardship in California. Through initiatives like the *Integrated Waste Management Act* and *Beverage Container Recycling and Litter Reduction Act*, CalRecycle helps Californians to create a society that uses less materials, recycles more, and conserves resources. CalRecycle's vision is to inspire and challenge Californians to achieve the highest waste reduction, recycling, and reuse goals in the nation. The Waste Permitting, Compliance, and Mitigation Division of CalRecycle is responsible for solid waste, discarded tires, recycled content products, and local government regulatory mandates and activities. This division ensures, among other things, that solid waste disposal sites are properly closed and maintained; that solid waste management facilities and operations are inspected; and that local governments make a good faith effort to implement unique waste diversion programs.

The *Integrated Waste Management Act of 1989* (Assembly Bill [AB] 939) requires that each municipality in California divert at least 50 percent of its solid waste from landfill disposal through source reduction, recycling, and composting. The Act established a waste management hierarchy to guide local agencies in solid waste management (in order of importance): 1) source reduction; 2) recycling and composting; and 3) environmentally safe transformation and land disposal. In addition, it requires all California counties to provide at least 15 years of ongoing landfill capacity.

AB 341 *Solid Waste: diversion*, approved in October 2011, set forth the requirements of the statewide mandatory commercial recycling program, which has the goal of reducing greenhouse gas emissions through the diversion of commercial solid waste to recycling efforts. This regulation states that not less than 75 percent of solid waste generated be source reduced, recycled, or composted by the year 2020. The more stringent standards of AB 341 are applicable to all future projects at the Airport.

The California Department of Toxic Substances Control (DTSC) manages the Hazardous Waste Management Program, which provides guidelines on the various regulations relating to hazardous waste generators, transporters, facilities, and disposal. Asbestos-containing materials are regulated by DTSC when it is a hazardous waste. Friable, finely divided, and powdered wastes containing more than one percent asbestos are classified as hazardous wastes in California. A landfill must have special authorization to accept asbestos-containing materials, and there are also special packaging requirements required for transportation and subsequent disposal (California DTSC website 2018a) (see discussion in Section 4.9.1 as well).

CCR, Title 8, Division 1, Chapter 4, Subchapter 4, Article 4. Dusts, Fumes, Mists, Vapors, and Gases regulates asbestos and lead exposure in all construction work, including the proper handling and disposal.

Specifically, prompt clean-up and disposal of wastes and debris contaminated with asbestos must be done in leak-tight containers. Any asbestos waste, scrap, debris, bags, containers, equipment, and contaminated clothing consigned for disposal shall be collected and disposed of in sealed, labeled, impermeable bags or other closed, labeled, impermeable containers. For lead, it is considered a hazardous waste if the contaminated material contains greater than 1,000 parts per million total lead concentration, in which case it must be disposed of in a Class I hazardous waste landfill (California DTSC website 2018b).

There are three classes of landfills, all of which accept several types of materials. Exact material types can vary by landfill, but each class of landfill has a specific type of waste it can/cannot accept. Class I sites may accept hazardous and nonhazardous wastes. Class II sites may accept designated¹¹ and non-hazardous wastes, and Class III sites may accept nonhazardous wastes (California SWRCB website 2018b).

CalGreen (CCR, Title 24, Part 11) includes mandatory measures for residential and nonresidential development in a variety of categories, one of which relates to material conservation and resource efficiency. To minimize construction waste and associated disposal, as well as to increase recycling rates, CalGreen requires the following:

- Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste;
- Submittal of a construction waste management plan if a local jurisdiction does not have an ordinance that is more stringent;
- Utilize a waste management company that can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with Section 5.408.1.2 of CCR, Title 24, Part 11;
- Verification that Universal Waste items, such as fluorescent lamps and ballast and mercury-containing thermostats (as well as other California prohibited Universal Waste materials), are disposed of properly and diverted from landfills; and,
- One-hundred percent of trees, stumps, rocks, and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled onsite until the storage site is developed.

¹¹ Designated waste, as defined in California Water Code, Section 13173 can only be discharged at Class I waste management units or at Class II waste management units which comply with the applicable SWRCB-promulgated provisions and have been approved by the RWQCB for containment of the particular kind of waste to be discharged. Decomposable wastes in this category can be discharged to Class I or II land treatment units (California Water Code, Section 1058).

Local Regulations

Solid waste disposal for the Monterey area is managed by the Monterey Regional Waste Management District (MRWMD), which covers a total of 853 square miles and serves approximately 170,000 people. MRWMD's facilities are located on a 475-acre property, two miles north of Marina, adjacent to the M1W RTP. The property consists of a 315-acre permitted sanitary landfill (Monterey Peninsula Landfill [MPL]), along with a 126-acre buffer area, 20 acres for a materials recovery facility (MRF), a 12-acre community franchise collection facility, and administrative and maintenance buildings (MRWMD website 2018a).

The MRWMD is responsible for implementing environmental controls and monitoring activities at the MPL, as well as funding and overseeing design and capital construction improvements to comply with regulatory requirements. The Solid Waste Facility Permit for the MRWMD operation states that the peak tonnage of incoming waste shall not exceed 2,000 vehicle trips and 3,500 tons per day (MRWMD 2016 Annual Report). Additionally, for any construction and demolition load that exceeds 10 cubic yards of capacity, prior approval from the District Engineering Department must be received. Accepted construction and demolition waste includes: asphalt, drywall, concrete, brick, rock, roofing tile, and clean/uncontaminated soil. Oversized concrete and mixing concrete area also accepted. Construction loads cannot be contaminated with garbage or debris.

As a Class III landfill, the MPL cannot accept waste that is defined as hazardous by RCRA and/or CCR, Title 22, including: hazardous waste, friable asbestos, radioactive waste, and untreated medical waste. Non-friable asbestos containing waste can be accepted at the MPL if the waste contains less than 10,000 parts per million (ppm) (one percent) asbestos, as these are considered non-hazardous wastes. For acceptance at the MPL, several procedures are necessary for disposal:

- Non-friable asbestos-containing waste must be pre-approved by MRWMD staff prior to acceptance at the MPL.
- Non-friable waste must be double-wrapped and sealed in plastic of six-millimeter thickness, or completely covered in the truck bed by a tightly secured tarp from which the fibers cannot escape.
- Each shipment must be accompanied by a completed Generator Waste Profile manifest form.
- Each load must be scheduled at least 72 hours prior to arrival. Hours of acceptance are 7:00 AM to 4:00 PM, Monday through Friday.

Sites in the Monterey County area are also known to have levels of chromium that trigger soluble threshold limit concentration (STLC) testing, which could necessitate additional testing to ensure materials can be accepted by the MPL (Rameriz, D., MRWMD, Senior Engineer 2018).

MRWMD implements a waste screening program that covers soil disposal. MRWMD requests that customers complete the Generator Waste Manifest and provide as much information as possible about the project such that a determination of the type of analytic testing required can be established.

The Monterey County *2010 Monterey County General Plan* Public Services Element (2013) has several goals related to recycling and solid waste, including:

Goal PS-5: Maximize the amount of solid waste that is diverted from local landfills through recycling, composting and source reduction.

Goal PS-6: Ensure the disposal of solid waste in a safe and efficient manner.

The *City of Monterey General Plan* Public Facilities Element (2016) contains a goal and numerous policies regarding waste reduction:

Goal n: Continue to provide facilities to implement cost-effective and incentive-based recycling programs and education for items, such as yard waste, vehicle oil, food containers, cardboard, and mixed paper to divert waste generated by residential and commercial customers.

Policy n.1: Continue to provide specific waste reduction and recycling programs for users, such as manufacturing, restaurant, business, military, and residential customers.

Policy n.2: Encourage the development of commercial composting and educational programs.

Policy n.3: Implement waste and recycling enclosure standards for all new developments and remodels.

The Airport would also be subject to LEED certification requirements per USGBC. For Materials and Resources credits, the following measures would be required:

- Construction and demolition waste management planning. The goal of this credit is to reduce construction and demolition waste disposed of in landfills and incineration facilities by recovering, reusing, and recycling materials. A final report that details all major waste streams generated, including disposal and diversion rates, is required. This credit requires the development and implementation of a construction and demolition waste management plan that:
 - Establishes waste diversion goals for the project by identifying a minimum of five materials targeted for diversion; and,
 - Specification of whether materials will be separated or comingled and a description of the diversion strategies planned for the project.
- Storage and collection of recyclables. The intent of this credit is to reduce the waste that is generated by building occupants and hauled to and disposed of in landfills (i.e., operational waste). This credit requires dedicated areas for building occupants to recycle materials. The recyclable materials must include mixed paper, corrugated cardboard, glass, plastics, and metals, with appropriate measures taken for the safe and proper collection of at least two of the following: batteries, mercury-containing lamps, and electronic waste.

4.18.3.2 Methodology

For construction solid waste generation, this EIR uses the number of truck trips hauling construction and demolition waste offsite to estimate the amount of construction solid waste. Each truck capacity is 16 cubic yards (cy), which are assumed to be at full capacity on each trip to the MPL. Construction truck trip estimates were provided by KHA (2017), Neill Engineers (2017), and DWL Architects (2017).

For operational solid waste generation, this EIR uses solid waste generation factors available from CalRecycle. CalRecycle compiled solid waste generation rates for commercial and industrial activities over an amount of time (i.e., day, year) to estimate new developments' impact on the local waste stream. These estimates were compiled from city and county planning departments, as well as environmental departments across the State of California (CalRecycle website 2018).¹² CalRecycle rates used for each type of development are as follows. Note that each solid waste generation rate was normalized to be on a per pound (i.e., /one pound [lb]) basis.

- All hangar types: Manufacturing/Warehouse at a rate of 1.42 lb/100 sf/day
- ARFF building: Manufacturing/Warehouse at a rate of 1.42 lb/100 sf/day
- Commercial terminal building: Commercial at a rate of 5 lb/1,000 sf/day
- High turnover restaurant: Restaurant at a rate of 0.005 lb/sf/day
- Medical/dental office: Professional office at a rate of 0.084 lb/sf/day
- Office: Office at a rate of 0.006 lb/sf/day
- Light Industrial: Industrial at a rate of 0.006 lb/sf/day

Total solid waste generation (construction and operation) are compared to existing permitted landfill capacity to determine if there is sufficient capacity available at the MPL to serve the Proposed Project or Alternative 1. All mandatory waste diversion rates of the various state regulations would be incorporated into the Proposed Project or Alternative 1.

4.18.3.3 Existing Conditions

The MPL currently receives approximately 490,000 tons per year (approximately 1,300 tons per day) of municipal solid waste for disposal (MRWMD 2016). MRWMD is currently filling in its fifth landfill module since the MPL became operational in 1965. Module 5 is a 23-acre site that began accepting waste in 2013 and has a total waste capacity of 5,000,000 tons. The MPL is projected to reach capacity in the year 2115.

The MRF is the MRWMD's first, publicly owned infrastructure for recycling and reuse. Over the last 20 years, the MRF has diverted more than 1.6 million tons of recyclable and reusable materials from landfill disposal. A second MRF was opened in February 2018, expanding the MRWMD's ability to divert mate-

¹² The CalRecycle rates are used for the commercial terminal building and ARFF building to estimate waste generation, too, because the existing conditions for these buildings are provided in cy (a measurement of volume), which cannot be converted to pounds (a measurement of weight).

rials from disposal. The MRF processes recyclables collected from both residential and commercial sectors in the Monterey Peninsula region, as well as construction and demolition debris and commercial mixed waste. The MRF can also handle clean loads of source separated green and wood waste. The second MRF facility supports the state's goal of recycling 75 percent of all materials received by 2020, as well as helps ensure compliance with the CalGreen 65 percent diversion requirement for new construction and demolition projects (MRWMD website 2018b).

Airport Solid Waste Generation

The Airport and its associated tenants and passengers generate waste, both on the airside and landside. Solid waste generation estimates for the Airport are only available for the operational trash that is generated from the commercial terminal building. Of the data available for the terminal building, only common area trash and recycling (which includes rental car and the Transportation Security Administration [TSA]) are captured. In the terminal building, the airlines and the restaurant have their own dumpsters and are responsible for their own costs and pickup. All other tenants on the Airport are responsible for their own solid waste, including Tarpy's Roadhouse, properties at Stonecreek, Flight Way Self Storage, Sky Park Self Storage, QTA facility, DelMonte Aviation, and Monterey Jet Center.

Commercial Terminal Building. The commercial terminal building's solid waste estimates only capture the public area of the terminal, which includes the actual terminal, passenger passageways, rental car area, and TSA. As discussed, the airlines and restaurants have their own dumpsters and are responsible for their own solid waste disposal. The terminal's waste stream, which includes solid waste and food waste, is collected and sorted into a four-yard dumpster. Recyclable materials (paper, plastic, and aluminum cans) are collected at numerous recycling bins throughout the terminal building and transferred to one of three 96-gallon recycle toter carts. The terminal building began its recycling program in 2008. Waste Management, Inc., the waste handling contractor, removes the solid waste and recycling materials five times per week. An additional recycling dumpster located outside the baggage make-up area, provided as a complimentary service by Waste Management, Inc., is available primarily for cardboard box recycling.

A detailed breakdown of solid waste and recycled material removed from the terminal building was not readily available; therefore, an estimate of total waste generated at the terminal has been prepared for purposes of this EIR and assumes that the solid waste and recycling receptacles are full for each pick-up (which occurs five times per week) by Waste Management, Inc. This results in an estimated 20 cy of solid waste and eight cy of recycled materials each week from the terminal building.

ARFF Building. The daily garbage generated is collected by the Airport's maintenance staff and is captured in the commercial terminal building solid waste figures described above. The ARFF building has a five-yard dumpster for other large waste that is emptied every three months. The only hazardous waste generated is oil from the maintenance of the vehicles, which is disposed of by the City of Monterey with their other vehicle oil disposal.

Hazardous Materials. Several properties at the Airport are also known and/or suspected to contain hazardous materials, including: the commercial terminal building, ARFF building, buildings in the northwest

area of the Airport (i.e., Old North Side Industrial Area), and some hangars. These buildings are suspected to contain lead-based paint and/or asbestos based on the date constructed (i.e., prior to the outlaw of lead-based paint and/or asbestos). The most information is known about hazardous materials for the commercial terminal building as it was tested for asbestos and lead contamination in 2004 (see Section 4.9.3 for a complete discussion of types and quantities of hazardous materials). Any hazardous materials encountered would require special handling and disposal practices. Airport Administration does not have access to any other data than for the commercial terminal building and ARFF building as these are the only entities the Airport directly controls. Further, construction waste estimates from past projects and solid waste from all other tenants at the Airport are not available.

4.18.3.4 Thresholds of Significance

The CEQA Guidelines, Appendix G (2017) have been used to establish significance thresholds to determine if the Proposed Project or Alternative 1 would have a significant environmental impact related to the Airport's solid waste generation. The Proposed Project or Alternative 1 would result in a significant impact if it would not:

- Threshold 4.18.3-1: Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or,
- Threshold 4.18.3-2: Comply with federal, state, and local statutes and regulations related to solid waste.

4.18.3.5 Impact Analysis

Threshold 4.18.3-1 - Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs

All projects associated with the Proposed Project or Alternative 1 would generate construction waste that would require disposal at local landfills and every project would be required to apply the diversion strategies of CalGreen (see Section 4.18.3.1). Similarly, land use development projects, like the proposed non-aeronautical uses, would also be required to comply with a 75 percent diversion rate, as specified by AB 341. Compliance with these requirements would ensure that solid waste generated from proposed development would be minimized to the extent practical and that diversion rates would increase into the future as future airport development occurs. The handling of hazardous solid waste disposal is also addressed under this threshold.

For the non-diverted waste generated by projects included in the Proposed Project or Alternative 1, solid waste would require disposal in the MPL. As previously discussed, this landfill is projected to reach capacity in the year 2115; however, with future expansion of an existing recycling facility and the anticipated innovations in waste diversion, it is anticipated that the MPL will have a life expectancy beyond 2115 in the future (MRWMD website 2018a).

As previously discussed, the use of trucks with greater than 10 cy of capacity for construction and demolition waste requires prior approval from the MRWMD Engineering Department, with a potential additional fee per truck load. The Airport would be subject to coordination with the MRWMD Engineering Department, as well as an additional fee.

Proposed Project or Alternative 1

Construction Impacts

Short-term, construction-related solid waste impacts would result from the generation of debris from the demolition of buildings (i.e., southeast GA hangars and the existing ARFF and commercial terminal buildings) and the removal of existing pavement and infrastructure associated with the proposed safety enhancement project, as well as the generation of other construction debris from all proposed projects. **Table 4.18L** provides construction waste generation estimates based on the number of truck trips (in a 16-cy truck) related to construction debris removal specifically for each phase of the Proposed Project or Alternative 1. In addition to the construction debris listed in the table, there would be additional dumpsters on airport property for the duration of demolition projects. All construction waste would be hauled to the MPL, except for construction waste deemed hazardous (see discussion for **Threshold 4.18.3-2**). The MPL currently has a projected capacity of 490,000 tons per year through the Year 2115.¹³

Construction Phase	Construction Debris Removal (off-Airport) ¹			
	Proposed Project		Alternative 1	
	Truck Trips	Solid Waste (cy)	Truck Trips	Solid Waste (cy)
Phase 1	0	0	0	0
Phase 2	629	10,064	629	10,064
Phase 3	120	1,920	0	0
Phase 4	0	0	120	1,920
Phase 5	0	0	0	0
TOTAL	749	11,984	749	11,984

Sources: KHA 2017; Neill Engineers 2017, 2018; DWL Architects 2017.
¹ Based on a 16 cubic-yard (cy) truck at full capacity.
 NOTE: Numbers reflect rounding.

The MPL has a peak daily vehicle trip of 2,000, as well as a peak tonnage per day of 3,500 that cannot be exceeded. For short-term project construction impacts, the solid waste impact was derived from the estimation of truck trips and their hauling capacity (16 cy) as the data available for construction debris generation is in cy, whereas the MPL’s permitted capacity is based on tons. The peak number of trips (i.e., 629) for both the Proposed Project and Alternative 1 would occur during Phase 2, which for the Proposed Project is a span of five years, and for Alternative 1 is a span of four years. For the Proposed Project, this represents an average of 0.52 trips per day (629 truck trips ÷ 5 years ÷ 240 working days per year = 0.52 average truck trips per day). For Alternative 1, this represents an average of 0.66 trips per

¹³ With future expansion of an existing recycling facility and the anticipated innovations in waste diversion, it is anticipated that the MPL will have a life expectancy beyond 2115 in the future (MRWMD Website).

day (629 truck trips ÷ 4 years ÷ 240 working days per year = 0.66 average truck trips per day). Given the MPL's daily vehicle trip capacity of 2,000, the generation of an average of less than one truck trip per day during the peak construction trip years would result in a Less Than Significant Impact for solid waste as it would not exceed the MPL's peak daily vehicle trip limit.

Short-Term and Long-Term (Programmatic) Project Impacts

The primary proposed short-term project solid waste generators would be the proposed replacement commercial terminal building, the replacement ARFF facility, and future non-aeronautical development. The hangars that are proposed on the north side of the Airport could also generate additional solid waste. Total estimated operational solid waste generation from the following projects would be a net increase of approximately 12,492 pounds per day (see **Table 4.18M**) based on commercial solid waste generation rates from CalRecycle (2018) for various building types and uses. Solid waste generation approximations are based on varying data from cities and counties in California that CalRecycle summarized to provide a general level of information for planning purposes only.

Relocated Commercial Terminal Building. The increase in solid waste generation at the proposed replacement commercial terminal building has been estimated based on the net increase in sf of the building footprint (i.e., approximately 30,000 sf) since it is not known at this time exactly how the additional space would be used. Using a rate of five pounds per day per 1,000 sf, the estimated net solid waste generation would be 150 pounds per day (CalRecycle website 2018). In addition, the replacement terminal building would place a larger emphasis on sustainability (i.e., LEED certification), which would result in a greater amount of waste diversion, as well as increased recycling capabilities (see discussion of LEED certification Materials and Resources required credits in Section 4.18.3.1).

Relocated ARFF Facility. The estimated increase in solid waste generation at the proposed replacement ARFF facility, based on a net increase of approximately 5,000 sf of building, would be 71 pounds per day. (This estimate uses a generation rate of 1.42 pounds per 100 sf per day since the ARFF building was assumed to be best represented by a manufacturing/warehouse use.) Like the proposed replacement commercial terminal building, the replacement ARFF building would be constructed and operated to LEED certification standards that would reduce its present contributions to the MPL, despite the new facility being larger than the existing ARFF building.

Hangars (Short-Term and Long-Term Projects). The net increase in hangars on the north side in the short term (assumed to be 70,000 sf based on seven box hangars) could generate approximately 994 pounds of solid waste per day. In the long term, if the proposed 106 nested T-Hangars are developed on the north side, there would be an estimated 2,533 pounds per day in solid waste generation (see **Table 4.18M**). However, although the T-hangars were assumed to be best represented by a manufacturing/warehouse use, it is unlikely that they would generate near the amount of solid waste as an actual manufacturing plant or warehouse. Thus, this is a "worst case" analysis that is highly speculative.



TABLE 4.18M

Solid Waste Generation

Proposed Project or Alternative 1

Proposed Project or Alternative 1	Project Size (sf)	Solid Waste Generation Factor	Solid Waste Generation (lb/day)
GA Hangar Improvements and Relocation			
North Side Hangar Increase (7 box hangars)	70,000 (net)	1.42 lb/100 sf/day	994
106 Nested T-Hangars (long term)	178,398	1.42 lb/100 sf/day	2,533
ARFF Building			
Temporary North Side Relocation	Same as existing	N/A	N/A
Permanent South Side Facility	5,000 (net)	1.42 lb/100 sf/day	71
New Commercial Terminal Building			
New Commercial Terminal Building	30,000 (net)	5 lb/1,000 sf/day	150
South Side Non-Aeronautical Development			
3.2-acre lot			
0.2 acres of high turnover restaurant	10,000	0.005 lb/sf/day	50
1.0 acre of medical/dental office	45,000	0.084 lb/sf/day	3,780
3.6-acre lot of office	94,000	0.006 lb/sf/day	564
Old North Side Industrial Area Redevelopment			
9-acre lot of industrial	69,000	N/A	N/A
North Side Development			
Light industrial	400,000	0.006 lb/sf/day	2,400
Office development	325,000	0.006 lb/sf/day	1,950
Total Solid Waste Generation			12,492 lb/day

Source: CalRecycle website 2018.

sf = square feet; lb = pound; N/A = not applicable, represents an existing use to be replaced in-kind, not contributing to an increase in solid waste generation.

NOTE: Numbers reflect rounding.

Non-Aeronautical Projects. Future buildout of non-aeronautical uses on the north and south sides of airport property could generate varying amounts of solid waste based on the type of actual development. Based on the existing zoning, the 3.2-acre lot on the south side of the Airport could be developed with a mix of a high turnover restaurant (i.e., fast food) and medical/dental offices. Assuming a 10,000-sf high-turnover restaurant with a solid waste generation rate of 0.005 pounds per sf per day, approximately 50 pounds of solid waste per day could be generated using solid waste generation rates available by CalRecycle (2018) (**Table 4.18M**). A 45,000-sf medical/dental office, which would be best associated with the solid waste generation rate of a professional office, (i.e., 0.084 pounds per sf per day), could generate approximately 3,780 pounds of waste per day. Future north side non-aeronautical development (assuming 400,000 sf of light industrial and 325,000 sf of office) could generate 2,400 and 1,950 pounds per day of solid waste, respectively. (The light industrial and office development were estimated assuming a solid waste generation rate of 0.006 pounds per sf per day.)

For long-term operational impacts, the estimated total solid waste generation for the full buildout of the Proposed Project or Alternative 1 would be 12,492 pounds per day, or 6.25 tons per day. This would result in an annual solid waste generation of 2,281 tons. The MPL can handle 3,500 tons daily and the approximate 2,281 tons per year that would be generated by the Airport would not exceed the permitted capacity. Therefore, operational solid waste generation due to the Proposed Project or Alternative 1 would be Less than Significant.

Less Than Significant Impact: *Solid waste generated in the short or long term would not exceed the MPL’s permitted capacity under either the Proposed Project or Alternative 1 and impacts under Threshold 4.18.3-1 would be Less than Significant.*

Threshold 4.18.3-2 – Comply with federal, state, and local statutes and regulations related to solid waste

Proposed Project or Alternative 1

Construction, and Short-Term and Long-Term (Programmatic) Project Impacts

The Airport complies with all applicable federal, state, and local regulations (see Section 4.18.3.1) as they relate to solid waste generated at the Airport for both construction and demolition waste, as well as operational solid waste. Existing tenants at the Airport are also required, by their lease language, to comply with all state laws that regulate solid waste and recycling. For both the aeronautical and non-aeronautical development proposed at the Airport under the Proposed Project or Alternative 1, all future tenants would also be subject to the Airport’s lease agreements requiring compliance with all solid waste and recycling laws for the State of California.

As previously discussed in Threshold 4.18.3-1, there are two parcels proposed for development on the south side of the Airport that are within the jurisdiction of the City of Monterey. One of the city’s Public Facilities Element policies (Policy n.3) states that all new developments must implement waste and recycling enclosure standards. The south side non-aeronautical developments would be subject to this city policy as well as the Airport’s lease stipulations.

As discussed in Section 4.9.3, the existing commercial terminal building is 60 years old and is known to contain hazardous materials, specifically asbestos and lead-based paint. In addition to the commercial terminal building, the ARFF, buildings in the Old North Side Industrial Area, and select hangars are also suspected to contain hazardous materials. Should hazardous materials be encountered, proper handling and disposal requirements would be followed.

As discussed, the MPL only accepts non-friable asbestos, non-friable waste, and chromium-contaminated soils under a certain threshold. For all other hazardous waste (i.e., friable asbestos, lead-based paint, etc.), it would have to be hauled to the Kettleman Hills Facility in Kettleman City, CA, which accepts virtually all solid, semi-solid, and liquid hazardous and extremely hazardous wastes (California DTSC website 2018c). Demolition activity could trigger special handling and disposal requirements should the waste be eligible for disposal at the MPL. For disposal at the MPL, mitigation would be necessary to ensure proper handling and transport procedures were followed. For all other hazardous waste, disposal would be required at the Kettleman Hills Facility. Impacts are, therefore, considered to be Potentially Significant. Mitigation would be necessary to guarantee compliance with hazardous materials handling and disposal protocols are followed.

Less than Significant Impact: Proposed development under the Proposed Project or Alternative 1 would be required to adhere to applicable state and local laws regarding non-hazardous solid waste and recycling based on the Airport’s tenant lease policies and impacts would be Less than Significant per Threshold 4.18.3-2.

Significant Impact UTIL-4: **Demolition of the existing commercial terminal and ARFF buildings, as well as the Old North Side Industrial Area and select hangars, would be likely to require special handling and disposal protocols to ensure the waste is accepted at the appropriate facility.**

4.18.3.6 Mitigation Program

No mitigation program would be required for the Less than Significant Impacts identified above. The following mitigation measure would apply to either the Proposed Project or Alternative 1 to ensure the handling and disposal requirements of the hazardous waste facilities are followed. Section 4.9.6 also includes regulatory requirements for the disposal of hazardous materials. See HAZ/rr-2, HAZ/rr-8, and HAZ/rr-9 regarding the disposal of asbestos and lead-based paint.

Proposed Project and Alternative 1

- UTIL/mm-6: The Airport shall require its contractor to follow all protocols for hazardous waste that could be accepted at the MPL (i.e., non-friable asbestos, non-friable waste, chromium-contaminated soils), including:
- Receiving pre-approval from MRWMD staff for non-friable asbestos;
 - Double-wrapping and sealing in six-millimeter plastic, or completely covering the truck bed with a tightly secured tarp to ensure non-friable waste fibers cannot escape;
 - Completing the Generator Waste Profile manifest form for each shipment;
 - Scheduling each load at least 72 hours prior to arrival; and
 - Determining the level of STLC testing required to ensure chromium levels are acceptable.

Regulatory Requirements

UTIL/rr-5: All proposed projects at the Airport shall meet the requirements per AB 341 *Solid Waste: diversion*, which states that not less than 75 percent of solid waste generated be source reduced, recycled, or composted by the year 2020.



UTIL/rr-6: All proposed projects at the Airport shall meet the requirements CalGreen (CCR, Title 24, Part 11), which includes mandatory measures for nonresidential development in a variety of categories.

4.18.3.7 Level of Significance after Mitigation

For both the Proposed Project and Alternative 1, the incorporation of mitigation measure UTIL/mm-6 would make impacts Less than Significant.

Table 4.18N summarizes the potentially significant impacts and associated mitigation measures.

TABLE 4.18N Summary of Potentially Significant Impacts and Mitigation – Solid Waste Disposal Proposed Monterey Regional Airport Master Plan				
Proposed Project	Mitigation Program	Alternative 1	Mitigation Program	Level of Significance After Mitigation
Threshold 4.18.3-2 – Comply with federal, state, and local statutes and regulations related to solid waste				
Impact UTIL-4: Demolition of hazardous materials would require special handling and disposal	UTIL/mm-6	Same as Proposed Project	UTIL/mm-6	Less than Significant



Chapter Five

CUMULATIVE IMPACT ANALYSIS

Chapter Five

CUMULATIVE IMPACT ANALYSIS

5.1 INTRODUCTION

As defined by the *California Environmental Quality Act* (CEQA) Guidelines (California Code of Regulations [CCR], Title 14, Section 15355), cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

- a) The individual effects may be changes resulting from a single project or a number of separate projects.
- b) The cumulative impact from several projects is the change in the environment which results in the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable, probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

As set forth in CEQA Guidelines, Section 15130(b), the discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood or occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. Rather, the discussion should be “guided by the standards of practicality and reasonableness.” Cumulative impacts can be tied to a list of past, present, and probable future projects producing related or cumulative impacts, or a summary of projections contained in an adopted local, regional, or statewide plan or related planning document that describes or evaluates conditions contributing to the cumulative effect.

The cumulative impacts analysis presented in this chapter is a hybrid approach that considers not only local development projects, but regional and airport-related growth projections. Specifically, with respect to cumulative traffic conditions, the 2014 Association of Monterey Bay Area Governments (AMBAG) regional travel demand model has been used to project future traffic volumes along the Highway 68 corridor. In addition, the Federal Aviation Administration (FAA)-approved growth forecasts, prepared as part of the Proposed AMP for future operations and enplanements at the Airport (**Appendix B**), have been included in the cumulative impact analysis, as discussed in Section 5.3 below.

This chapter includes a discussion of the applicable cumulative impact study area and regional growth projections (Section 5.2), probable future projects within the study area (Section 5.3), and on-airport development (Section 5.3). A resource-specific analysis of cumulative impacts for all impact categories analyzed at a project-specific analysis in Chapter Four is in Section 5.5. Following this discussion, Section

5.6 contains a summary of all potential cumulative impacts related to implementation of the Proposed Project or Alternative 1.

5.2 CUMULATIVE IMPACT STUDY AREA AND REGIONAL GROWTH PROJECTIONS

The cumulative impact study area can vary by discipline. For example, while cumulative air quality and greenhouse (GHG) impacts should be considered in a larger regional or global context, the cumulative traffic analysis is focused on the street network in the areas adjacent to and up- and downstream from the Airport. Another cumulative impact study area considered in this EIR is the AMBAG tri-county region comprised of Monterey, San Benito, and Santa Cruz counties. AMBAG’s *2040 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS)* is based on the growth projections shown in **Table 5A**, which form the basis for meeting statewide GHG goals.

Growth Indicator	2015	2025	2035
Population			
Monterey County	432,637	462,678	489,451
AMBAG ¹	762,676	816,900	862,200
Housing			
Monterey County	137,177	149,032	158,151
AMBAG ¹	262,660	282,368	297,851
Employment			
Monterey County	203,550	218,203	230,212
AMBAG ¹	337,600	363,300	384,800

Source: AMBAG 2018
 AMBAG = Association of Monterey Bay Area Governments; AMP = Airport Master Plan
¹ AMBAG serves a tri-county region comprised of Monterey, San Benito, and Santa Cruz counties

The Airport is adjoined by the cities of Monterey and Del Rey Oaks. Other jurisdictions in the vicinity include the cities of Marina, Seaside, and Sand City, unincorporated areas of the County of Monterey, and Carmel Valley. An extensive arterial and highway system surrounds the Airport, providing access from several locations. Freeway access to the Airport is from Highway 1 via the Highway 1/Highway 68/Fremont Street interchange or the Highway 1/ Highway 218 (Canyon del Rey Boulevard) interchange. Access to the existing commercial terminal area is from Olmsted Road, access to fixed base operator (FBO) areas is from Garden Road, and access to the uses on the north side of the Airport is from Fremont Street via Airport Road.

The traffic impact study area (shown on Exhibit 4.16C) was selected based on several factors: 1) the *City of Monterey General Plan’s* Circulation Element program j.2.1, which states: “Define the traffic impact study area to be analyzed as all roadway segments where project traffic is expected to increase the existing traffic by two percent (2%) or more” (City of Monterey 2016); 2) coordination with the California Department of Transportation (Caltrans), the Transportation Agency for Monterey County (TAMC), Monterey County, and the cities of Monterey, Del Rey Oaks, and Seaside as part of a formal process conducted at the initiation of the traffic impact study (**Appendix M**), in which the aforementioned agencies were asked to review and comment on a traffic impact study memorandum of assumptions (MOA); and 3) the traffic engineer’s professional judgment, for example, additional areas were considered where

up- or downstream impacts on regional highways could occur (i.e., Highway 68 and segments of Highway 218 [Canyon Del Rey Road/Boulevard]).

Cumulative study areas considered for other resource areas discussed in this chapter are described in each respective cumulative impact analysis contained in Section 5.5 of this chapter.

5.3 PROBABLE FUTURE CUMULATIVE PROJECTS

Per CEQA Guidelines, Section 15065(a)(3), cumulative analyses shall include “probable future projects,” which this EIR defines as projects with approved or pending development applications (i.e., proposed). Therefore, a list of recently approved or proposed development projects has been generated for use in this cumulative analysis and includes major land development projects within the cities of Marina, Seaside, Sand City, Monterey, Del Rey Oaks, and certain unincorporated areas of Monterey County. These projects were identified as those with a potential to contribute to cumulative impacts, specifically traffic impacts, of the Proposed Project or Alternative 1. The project list was compiled through research using local planning or community development department websites at the onset of the traffic study and were updated in November 2017 and March 2018 (and re-verified in July 2018). None of these projects were completed at the time of the existing conditions baseline (2015) or the updated traffic counts completed in 2016.¹ **Table 5B** provides a brief description of these projects and their locations. **Exhibit 5A** provides a map of the projects in relation to the Airport.

TABLE 5B Cumulative Development Projects Monterey Regional Airport			
Project No.	Project/Location	Brief Description	Status¹
City of Marina			
1/26	The Dunes on Monterey Bay ² (formerly University Villages) - east of Highway 1, south of Imjin Parkway	429 acres; mixed use - 1,237 DU, regional and promenade retail, hotels, offices, and parks	Phase 1 - approved; Phases 2 & 3 - proposed
2	California State University, Monterey Bay (CSUMB) Staff housing - North campus	492 units	approved
3/26	CSUMB Student growth	3,054 students (2015-2025); 3,054 students (2025-2035)	approved
4	Sea Haven ³ (formerly Marina Heights)- 3 rd Avenue/Imjin Parkway	248 acres; 1,050 DU, 35 ac of parks and open space	approved
City of Seaside⁴			
5	Seaside Resort - 2 McClure Way - golf course between General Jim Moore Boulevard & Monterey Road	85 acres; 275-room hotel, 175 timeshares, 125 residential lots	approved
6	Seaside Senior Assisted Living - 550 Monterey Road	5.5 acres; 144 DU	approved
7	Veterans Cemetery - Normandy/Parker Flats Road	16.4 acres; burial ground and administration/maintenance facilities	approved
8	Dadwal - Lightfighter Drive/2 nd Avenue	110-room hotel 8,000 sf - restaurant	approved

¹ This list of proposed projects, as well as approved projects, was vetted by adjacent jurisdictions (cities of Del Rey Oaks, Monterey, and Seaside, Monterey County, TAMC, and Caltrans) as part of a memorandum of assumptions (MOA) prepared for the traffic study (**Appendix M**). Proposed projects are those projects that were noted on the relevant city and county planning websites as potential projects that had yet to be approved (i.e., have not yet received an entitlement to develop).



TABLE 5B (Continued)			
28	The Projects at Main Gate - Lightfighter Drive/2 nd Avenue	53 acres; mixed use - residential, retail, hotel, and entertainment	proposed
29	West Broadway Urban Village Specific Plan - Broadway Avenue between Del Monte Boulevard and Fremont Street	40 acres; mixed use - 494 DU, 325,500 sf of office/commercial/retail space, 250-room hotel; public library	proposed
City of Sand City			
9	The Collection at Monterey Bay ⁵ - Highway 1/Tioga Avenue	234-unit condo hotel; 108-unit resort; 3 restaurants	approved
10	Monterey Bay Shores ⁶ - between Highway 1/Fremont Boulevard offramp and ocean	56-unit condo hotel; 162-room hotel; 42-unit visitor-serving condo hotel; 96 residential condos	approved
City of Monterey⁷			
11	Ryan Ranch Road - 1 Ryan Ranch Road/Highway 216	14,280 sf - storage	approved
12	Monterey Motorsports Vehicle Storage Facility - 2969 Monterey Salinas Highway	88-unit commercial condominium vehicle storage facility (59,520 sf)	approved
13	2201 North Fremont Street	mixed use	approved
14	10-20 Ryan Court	108,000 sf - auto storage 9,800 sf - office	approved
15	Middlebury Institute of International Studies (MIIS) Master Plan Update - downtown Monterey	850 students	approved
16	2 Upper Ragsdale Drive	66,173 sf - medical office	approved
17	Ocean View Plaza - 480 Cannery Row	mixed use - 87,362 sf commercial, 30,000 sf restaurant, 8,400 sf coastal/community use; 51 DU	approved
Unincorporated County of Monterey⁸			
18	East Garrison Specific Plan - Reservation Road between Davis and Blanco Roads	3 phased subdivisions for 1,400 DU/lots, commercial, and public uses	approved
19	Monterra Ranch - Monterra Ranch Road	151 DU	approved
20	Pasadera - Pasadera Drive	43 DU	approved
21	Harper 14 Lots of Record - Encina Hills, near San Benancio Road	14 DU	approved
22	Oaks Subdivision - near San Benancio Road	11 DU	approved
23	Laguna Seca Business Park - York Road/Highway 68	20,000 sf - office on York Road 104 DU - condominiums	approved
24	Corral De Tierra Shopping Center - Corral de Tierra Road	mixed use	approved
25	Ferrini Ranch Subdivision - south side of Highway 68 between River Road and San Benancio Road	866 acres; 212 residential lots and 600 acres of open space	approved
30	Wang Subdivision (Ferrini Ranch) - near San Benancio Road - Single Family - Inclusionary Housing	23 DU 6 DU	proposed
31	Harper Canyon/Encina Hills Subdivision - near San Benancio Road	17 DU	proposed
Carmel Valley			
32	September Ranch subdivision - 676 Carmel Valley Road	110 DU	proposed
33	Rancho Cañada - Carmel Valley Road/Rio Road	281 DU	proposed
DU = dwelling unit; sf = square feet ¹ Status confirmed in July 2018 as noted below: ² City of Marina website 2018. Available at: http://www.ci.marina.ca.us/index.aspx?NID=204 , accessed July 2018 ³ City of Marina website 2018. Available at: http://www.ci.marina.ca.us/index.aspx?NID=788 , accessed July 2018 ⁴ City of Seaside website 2018. Available at: https://www.ci.seaside.ca.us/281/Major-Development-Projects , accessed July 14, 2018 ⁵ California State University, Monterey Bay, EcoViz website 2018. Available at: http://ecoviz.csUMB.edu/wiki/index.php/CEQA_Summary_of_The_Collection_at_Monterey_Bay_Resort , accessed July 2018 ⁶ Monterey Bay Shores website 2018. Available at: https://www.montereybayshores.com/at_a_glance.html , accessed July 2018 ⁷ City of Monterey website 2018. Available at: https://monterey.org/Services/Planning/Development-Projects , accessed July 2018 ⁸ County of Monterey website 2018. Available at: http://www.co.monterey.ca.us/government/departments-i-z/resource-management-agency-rma/planning/current-major-projects , accessed July 2018			



APPROVED PROJECTS			PROPOSED PROJECTS
1	The Dunes on Monterey Bay (Phs 1)	10	Monterey Bay Shores
2	CSUMB North Campus Housing	11	Ryan Ranch Road (Storage Buildings)
3	CSUMB Students (2015-2025)	12	2969 Monterey Salinas Hwy Office Building
4	Marina Heights	13	2201 N. Fremont Mixed Use
5	Seaside Resort	14	10-20 Ryan Court
6	Seaside Senior Assisted Living	15	MIIS Master Plan Update
7	Veterans Cemetery	16	2 Upper Ragsdale Drive (Med Office /Clinics)
8	Dadwal proposed hotel and restaurant	17	Ocean View Plaza
9	The Collection at Monterey Bay	18	East Garrison
		19	Monterra Ranch
		20	Pasadera
		21	Harper 14 Lots of Record
		22	Oaks Subdivision
		23	Laguna Seca Business Park
		24	Corral De Tierra Shopping Center
		25	Ferrini Ranch
		26	The Dunes on Monterey Bay (Phs 2 & 3)
		27	CSUMB Students (2025-2035)
		28	The Projects at Main Gate
		29	West Broadway Corridor
		30	Wang Subdivision
		31	Harper Canyon/Encina Hills Subdivision
		32	September Ranch
		33	Rancho Canada

Source: Mott MacDonald 2018

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5.4 MONTEREY REGIONAL AIRPORT DEVELOPMENT

5.4.1 Airport Development Projects

Three recent development projects have been constructed within the past three years at the Airport:

- The Runway Safety Area (RSA)² Improvements Project (RSA project) was completed in 2015 and included the installation of engineered materials arresting systems (EMAS)³ on both ends of the primary runway (Runway 10R-28L) in compliance with FAA safety standards. Extensive grading activities were necessary to construct six terraced retaining walls on the Airport's east end to provide a level surface for placement of a 390-foot EMAS bed. The relocation of an existing vehicle service road was also required. On the west end of Runway 10R-28L, two retaining walls were required for installation of a 390-foot EMAS bed and the relocation of an existing vehicle service road. The amount of Landing Distance Available (LDA) on the runway was reduced from 7,008 feet to 7,000 feet due to this project; 100 percent of the FAA-required RSA was provided.
- A solar project, located on 2.97 acres in the northeast quadrant of the Airport, was completed in 2017.⁴ The photovoltaic array was constructed in an open field with the highest point located approximately nine feet above the ground. The total power output for the system is approximately 862 kilowatts (kW).
- The Airport has recently replaced the runway and taxiway system edge lighting for Taxiway "A" and Runway 10R-28L with light-emitting diodes (LED). This project included an upgrade to the electric vault and the installation of a new regulator.

In addition, the Airport is currently resurfacing the pavement on the smaller runway, Runway 10L-28L. As a part of this maintenance project, precision approach path indicators (PAPIs) located in conjunction with the runway ends will be installed.

In addition to the above past and current airport projects, the Airport is completing the federal environmental review process for one proposed future project (i.e., Infield and Taxiway Improvements Project⁵). This future airport project would resurface 15 existing infield areas located between Runway 10R-28L and parallel taxiways located to the north and south of the runway to enhance safety. Most of these infield areas are covered with a "chip seal" pavement surface treatment of liquid asphalt and fine aggregate. This chip seal treatment is decomposing into small pieces of material (foreign object debris or FOD), which can be blown into aircraft and damage propellers, engines, and other parts of the aircraft,

² The RSA is a defined surface surrounding the runway that is prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway.

³ EMAS is made up of blocks of crushable concrete that are used to slow aircraft and allow them to come to a stop in a shorter distance. EMAS is used at the Airport in lieu of a traditional graded surface due to the constrained topography and distance that exists on the runway plateau.

⁴ A Notice of Determination regarding Negative Declaration certification for the solar farm project was filed with the Monterey County Clerk on January 11, 2017.

⁵ A Notice of Determination regarding Negative Declaration certification for the Infield and Taxiway Improvements Project was filed with the Monterey County Clerk on April 11, 2018.

resulting in aircraft component failures that can cause aircraft accidents. The proposed Infield and Taxiway Improvements Project also includes the removal of Taxiway “E,” and the reconfiguration of the Taxiway “F” and Taxiway “K” intersections and associated infield areas between Runway 10R-28L and Taxiway “A” to enhance safety by providing sufficient separation between aircraft to meet FAA taxiway and hold line design standards. To accommodate the reconfiguration of Taxiways “F” and “K,” Taxiway “A” (and its associated storm drains and service road) at its connection with these taxiways would be shifted south. As part of this project, the surface grades of the infield areas would be modified to meet FAA design standards, which will minimize the presence of ponded water on the airfield during storm events.

5.4.2 Airport Operational Growth

The Airport’s last adopted airport master plan, the *Monterey Peninsula Airport Master Plan Update*, was completed in 1992, and was based on a 20-year aviation forecast of 129,600 annual operations (takeoffs and landings) by 2010 (MPAD 1992, Table 1-1). According to FAA’s air traffic control tower (ATCT) counts, however, annual operations at the Airport in 2010 were only 55,332 (FAA 2015). The new 20-year forecasts approved by FAA for use in this Proposed Airport Master Plan (Proposed AMP) are shown in **Table 5C (Appendix B)**. Proposed Project buildout years for this EIR are 2025 (short-term projects) and 2035 (long-term projects), which generally align with Proposed Project implementation phases. The 2025-year forecast activity (for purposes of analysis) has been interpolated between the Proposed AMP forecast activity for years 2023 and 2033, which are shown in **Table 5C**. The 2035-year forecast activity (for purposes of analysis) has been calculated using the average annual growth rate for 2033 from Chapter Two of the Proposed AMP (**Appendix B**). For the purposes of this EIR, 2015 has been established as the base year and information from the FAA’s Air Traffic Activity Data System (ATADS) has been used (FAA 2015).

It should also be noted that previous airport growth forecasts have been incorporated into some regional plans and studies relating to future regional traffic volumes and populations. For example, TAMC’s 2018 *Regional Transportation Plan (RTP)* used 2006 forecasted airport aviation activity from the *Regional Airport System Plan*, which had significantly higher airport-based aircraft numbers and airport annual aviation operations for 2020 and 2025 than the aircraft numbers and annual aviation operations used in the current FAA-approved forecast for the Airport in 2020 and 2025. This higher 2006 airport growth forecast for the Airport was also utilized in the AMBAG 2014 and 2018 MTP/SCS.

**TABLE 5C
FAA-Approved 20-Year Aviation Forecasts
Monterey Regional Airport**

	EXISTING ¹		FAA-APPROVED FORECAST ACTIVITY		
	2013 ¹	2015 ²	2018 ¹ (Years 1-5)	2023 ¹ (Years 6-10)	2033 ¹ (Years 11-20)
Enplaned Passengers	200,651	182,553³	223,000	245,000	275,000
Commercial Operations					
Air Carrier/Air Taxi ⁴	15,964	13,901	16,700	19,000	22,800
General Aviation (GA) Operations					
Itinerant ⁵	25,270	28,387	28,100	31,300	40,400
Local ⁶	10,876	20,763 ⁷	11,800	12,800	15,900
<i>Total</i>	36,146	49,150	39,900	44,100	56,300
Military Operations					
Itinerant ⁵	803	955	900	900	900
Local ⁶	914	3,286	600	600	600
<i>Total</i>	1,717	4,241	1,500	1,500	1,500
Total Airport Operations	53,827	67,292	58,100	64,600	80,600
Based Aircraft	152	113⁸	160	175	200

¹ Coffman Associates 2015 (**Appendix B**)

² EIR base year from FAA Air Traffic Activity Data System Standard Report - Monterey Regional Airport.

³ Airport records. Email from MRY to Judi Krauss, Coffman Associates, February 3, 2017.

⁴ Includes commercial passenger aircraft and chartered aircraft.

⁵ Itinerant operations are all operations other than local operations.

⁶ Local operations are those that operate in the local traffic pattern or within sight of the airport; are known to be departing for, or arriving from, flight in the local traffic practice areas located within a 20-mile radius of the airport; or execute simulated instrument approaches or low passes at the airport (Title 14 Code of Federal Regulations [CFR] Section 170.3 - Definitions).

⁷ A flight school was opened in August 2014 that has increased local GA operations beyond what was anticipated in the Proposed AMP forecasts. This forecast anomaly is not considered to affect the viability of the forecasts. Enplanements and commercial operations remain within the forecasted activity levels.

⁸ GCR, Inc. 2016. Airport Master Record, Form 5010-1 - Monterey Regional Airport

5.5 CUMULATIVE IMPACT ANALYSIS

5.5.1 Aesthetics

The relevant geographic area of analysis for cumulative aesthetics impacts includes the Airport proper and views and scenic resources along Highway 68, which is a designated scenic corridor. As shown in **Exhibit 5A**, there are several approved or proposed cumulative projects along this corridor, while other approved or proposed cumulative projects are in other areas of the Monterey Peninsula and would not contribute to a scenic corridor cumulative impact.

Proposed Project and Alternative 1

As described in Section 4.1, the Proposed Project and Alternative 1's Highway 68 frontage road and terminal area parking and circulation components would result in the removal of existing trees. An overall landscape plan for the terminal complex and Highway 68 frontage road, as well as the required 100-foot

setback, are not yet available. In addition, drainage improvements for the proposed terminal complex and long-term non-aeronautical development have not yet been determined, but they are likely to include a stormwater detention basin near the northeast corner of the Olmsted Road/Highway 68 intersection. This corner also contains mature trees that provide screening of the existing airport parking lot and southeast general aviation (GA) area and may be removed as part of the Proposed Project and Alternative 1. These aspects of the Proposed Project and Alternative 1 could also contribute to cumulative aesthetic impacts to the Highway 68 scenic corridor.

The Proposed Project and Alternative 1 would not create significant cumulative impacts to scenic vistas or result in cumulatively substantial new sources of substantial light and glare. Since the Airport is not located within a scenic vista, it would not contribute to a cumulative impact in conjunction with other cumulative projects that may be within a scenic vista. All airport lighting would be directed internally to the airport property and potential reflective surfaces would be shielded by the vegetation and buffers planned or present on the airport property.

Cumulative projects constructed, approved, or proposed along the Highway 68 corridor could also have an adverse effect on the viewsheds and resources of the scenic corridor due to a loss of coast live oaks and other mature trees, grading, and intrusion of structures within the highway viewshed. This includes the recent on-airport RSA Project. Therefore, cumulative aesthetics impacts of the Proposed Project or Alternative 1, in combination with other cumulative projects, are Potentially Significant.

Mitigation Program

No mitigation measures other than those already proposed in Section 4.1.6 are available to mitigate Potentially Significant cumulative impacts of the Proposed Project or Alternative 1 related to Aesthetics. AES/mm-1 through AES/mm-3 require that landscaping plans and approved architectural treatments for building facades visible from the highway be incorporated into proposed on-airport development projects. In addition, AES/rr-1 through AES/rr-2 are already in place with the City of Monterey to control impacts to the resources of the highway.

Level of Significance After Mitigation

Similar to the project-specific impacts described in Section 4.1, cumulative impacts of the Proposed Project or Alternative 1's plans along the highway are Potentially Significant and Unavoidable at this time since the effectiveness of landscaping and building architectural treatments cannot be ascertained at this time.

5.5.2 Agriculture and Forest Resources

Since no impacts to agricultural and forest resources would occur due to the Proposed Project or Alternative 1, no cumulative impacts would result as well. The Proposed Project and Alternative 1 would not contribute to cumulative impacts related to the conversion of prime farmland, unique farmland, or farmland of statewide importance.

5.5.3 Air Quality

The relevant geographic area of analysis for cumulative air quality impacts is the North Central Coast Air Basin (NCCAB), which is managed by the Monterey Bay Air Resources District (MBARD). All the cumulative projects shown in **Exhibit 5A** are located within the NCCAB. The NCCAB is currently in attainment with all federal criteria air pollutant standards. With respect to state criteria air pollutant standards, the NCCAB is classified as nonattainment for coarse particulate matter (PM₁₀) and nonattainment-transitional for ozone (O₃). As previously noted in Section 4.3, the MBARD has prepared an air quality management plan (AQMP) with control measures to meet the ambient air quality standards for which the NCCAB does not currently attain (MBARD 2017). The AQMP includes emissions inventories outlining projected emissions in the NCCAB.

Proposed Project and Alternative 1

Construction activities associated with implementation of the Proposed Project and Alternative 1 would result in emissions of fugitive dust, some of which will include inhalable particulates classified as PM₁₀, NO_x, and VOC, which are precursors of ozone. In addition, vehicular emissions related to proposed short- and long-term projects would create additional particulate matter and ozone precursors. Both these sources of emissions (i.e., construction and operation) would contribute to the existing PM₁₀ and O₃ nonattainment status under state standards within the NCCAB, in conjunction with other approved and proposed cumulative projects and regional growth.

In addition, forecast operational activity at the Airport through the year 2035 would increase aircraft emissions. **Table 5D** shows the projected emissions that would be expected to occur due to this airport-related growth. The standard methodology for analyzing air emissions conditions at airports involves the use of a computer simulation model. Specifically, the FAA has approved the Aviation Environmental Design Tool (AEDT) for calculating aircraft operational emissions for environmental documentation. Additional information regarding the model may be found in **Appendix K**.

Year	Tons/Year					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
2015	6.2	14.1	146.1	2.0	0.4	0.4
2025	7.1	23.0	156.4	2.8	0.6	0.6
2035	8.8	26.2	202.8	3.2	0.7	0.7

Source: AEDT analysis (**Appendix E**)

The Proposed Project and Alternative 1, in conjunction with other local and airport-related cumulative projects, as well as future airport and regional growth, would contribute additional particulate matter and ozone precursors within the NCCAB. Given the nonattainment status of the NCCAB for these criteria pollutants under state standards, the cumulative impact to Air Quality is considered Potentially Significant.

Mitigation Measures

Consistency with the AQMP and all applicable MBARD rules is already required of cumulative projects within the NCCAB. In addition, transportation demand measures, including TR/mm-6, TR/mm-9, and TR/mm-10 (Section 4.16.6) would be implemented for the Proposed Project or Alternative 1, as appropriate. Other mitigation measures are not readily available to mitigate cumulative air quality issues.

Level of Significance After Mitigation

Given the nonattainment status of the NCCAB for ozone and particulate matter, cumulative air quality impacts would be Unavoidable and Significant, even after mitigation and enforcement of the current MBARD regulatory requirements.

5.5.4 Biological Resources

The relevant geographic area of analysis for cumulative biological resource impacts is the Airport proper, as well as the entire Monterey Peninsula region, including the former Fort Ord.

Proposed Project and Alternative 1

The impacts to special status species and habitats, as discussed in Section 4.4.5, are cumulative in nature as the species and habitats discussed in that section are affected by ongoing pressure from cumulative development. These pressures include, but are not limited to, loss of habitat and habitat fragmentation, erosion and sedimentation, manmade intrusions, such as light, noise, and overall activity, and the introduction of nonnative invasive species. The Proposed Project and Alternative 1, in conjunction with other cumulative projects, on- and off-airport, would contribute to Significant and Unavoidable cumulative impacts. Although the project-specific mitigation program contained in Section 4.4.6 identifies numerous mitigation measures to minimize or avoid project-specific impacts to biological resources, they cannot reduce the overall cumulative effects that ongoing urbanization and the development of agriculture has had, and will continue to have, on sensitive biological resources as discussed below:

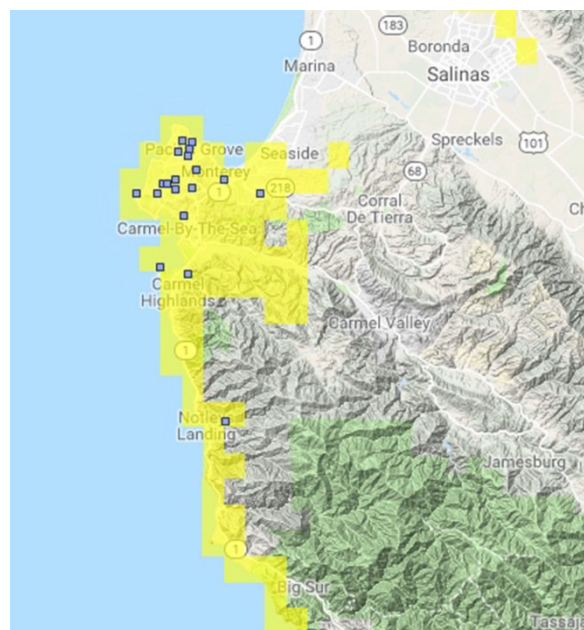


Exhibit 5B. Estimated Plant Range and Known Occurrences of Yadon's Piperia

ous mitigation measures to minimize or avoid project-specific impacts to biological resources, they cannot reduce the overall cumulative effects that ongoing urbanization and the development of agriculture has had, and will continue to have, on sensitive biological resources as discussed below:

Yadon's piperia. *Piperia yadonii*, also known as Yadon's piperia or Yadon's rein orchid, is a federally endangered and California Native Plant Society (CNPS)-listed 1B.2 species orchid endemic to a narrow range of coastal habitat in northern Monterey County, California. The major threat to its survival from the Proposed Project and Alternative 1, in conjunction with other cumulative projects, is continuing land development and associated habitat loss. Yadon's piperia is confined to a handful of locations in the coastal area of north Monterey County, primarily the Del Monte Forest on the Monterey Peninsula. **Exhibit 5B**

shows the estimated range (yellow area) and locations of known occurrences (blue squares) in the Monterey Peninsula (CNPS website 2018). The Proposed Project and Alternative 1 would result in the removal of approximately 460 and 156 individual Yadon’s piperia, respectively. This level of plant loss, in conjunction with similar plant loss from other projects within the identified study area, would contribute to a significant cumulative impact on this species. The project’s contribution to the impact is considered cumulatively considerable absent mitigation. Moreover, the recommended mitigation for this impact (BIO/mm-9, BIO/mm-10, and BIO/mm-21), while capable of reducing the magnitude of the effect, will not be sufficient to render project-specific impacts to Yadon’s piperia Less than Significant. For this reason, the Proposed Project and Alternative 1’s contribution to the cumulative impact on this species would be cumulatively considerable even after mitigation.

Sandmat manzanita. *Arctostaphylos pumila* is a species of manzanita known by the common name sandmat manzanita. This shrub is endemic to California where it grows on the coastline near Monterey. In the wild, this plant derives a lot of moisture from fog but does not respond well to salt spray directly on it. It is considered rare due to its limited distribution in the wild and is included on CNPS List 1B.2. The Proposed Project and Alternative 1, in conjunction with other cumulative projects, would result in the removal of approximately 1,518 and 1,450 individual sandmat manzanita, respectively. This level of plant loss, in conjunction with similar plant loss from other projects within the identified study area, would contribute to a significant cumulative impact on this species. **Exhibit 5C** shows the estimated range (yellow area) and locations of known occurrences (blue squares) in the Monterey Peninsula (CNPS website 2018). The Proposed Project and Alternative 1’s contribution to the impact is considered cumulatively considerable absent mitigation. Moreover, the recommended mitigation for this impact (BIO/mm-3, BIO/mm-12, and BIO/mm-21), while capable of reducing the project-specific impact to Less than Significant, will not be sufficient to render the project’ contribution to the cumulative impact less than cumulatively considerable.

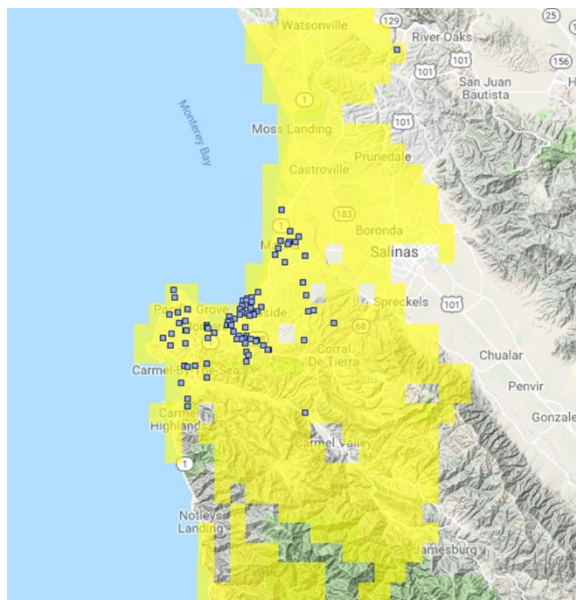


Exhibit 5C. Estimated Plant Range and Known Occurrences of Sandmat Manzanita

Monterey spineflower. *Chorizanthe pungens* is a federally threatened and CNPS-listed 1B.2 species of flowering plant in the buckwheat family known by the common name Monterey spineflower. It is endemic to California, where it is known from the San Francisco Bay Area south along the Central Coast. It grows mainly in coastal habitat and that of the hills and mountains overlooking the coastline. Threats to this plant and other endemic species include the destruction of the local habitat during sand mining. The Proposed Project and Alternative 1 would remove approximately 500 individual Monterey spineflowers. This level of plant loss, in conjunction with similar plant loss from other projects within the identified study area, would contribute to the significant cumulative impact on this species. **Exhibit 5D** shows the

estimated range (yellow area) and locations of known occurrences (blue squares) in the Monterey Peninsula (CNPS website 2018). The Proposed Project and Alternative 1’s contribution to the impact is considered cumulatively considerable absent mitigation. However, the proposed mitigation for project-specific impacts on Monterey spineflower, as set forth in BIO/mm-8, BIO/mm-17, and BIO/mm-21, would be sufficient to reduce the impact to Less than Significant at the project-level. These mitigation measures would also be sufficient to render the Proposed Project and Alternative 1’s contribution to the cumulative impact less than cumulatively considerable.

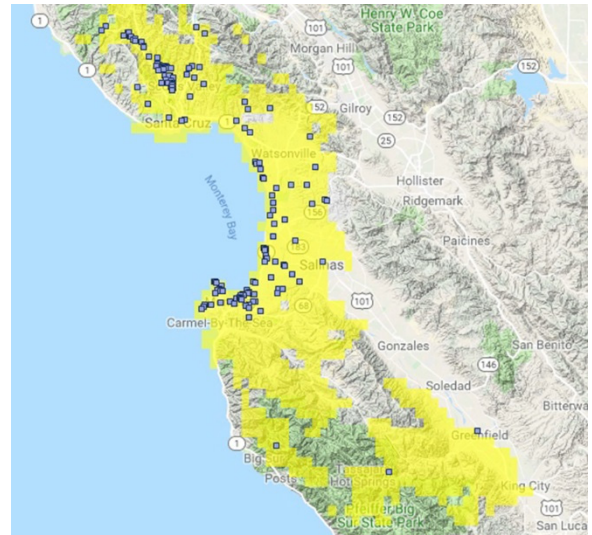


Exhibit 5D. Estimated Plant Range and Known Occurrences of Monterey Spineflower

Coast live oak. The coast live oak is one of the only California native oak that actually thrives in the coastal environment. It enjoys the mild winter and summer climate afforded by ocean proximity, and it is somewhat tolerant of aerosol-borne sea salt. The coastal fog supplies relief from the rainless California summer heat. It is the dominant overstory plant of the coast live oak woodland habitat. Normally, the tree is found on well-drained soils of coastal hills and plains, usually near year-round or perennial streams, but is also often found in rocky hillsides that capture and hold more moisture. *Quercus agrifolia* var. *agrifolia* is one of two recognized varieties and is found along the coast from Sonoma County southward. Exhibit 5E shows the estimated range (yellow area) and locations of known occurrences (blue squares) along the coast, including in the Monterey Peninsula (CNPS website 2018). The Proposed Project and Alternative 1 would remove 705 and 657 coast live oak trees, respectively. This level of tree loss, in conjunction with similar tree loss from other projects within the identified study area, would contribute to the significant cumulative impact on this species. The Proposed Project and Alternative 1’s contribution to the impact is considered cumulatively considerable absent mitigation. The recommended mitigation for this impact (BIO/mm-32 through BIO/mm-35) would reduce the project-specific impact on this species to Less than Significant. These mitigation measures, however, would not be sufficient to render the project’s contribution to the cumulative impact less than cumulatively considerable.

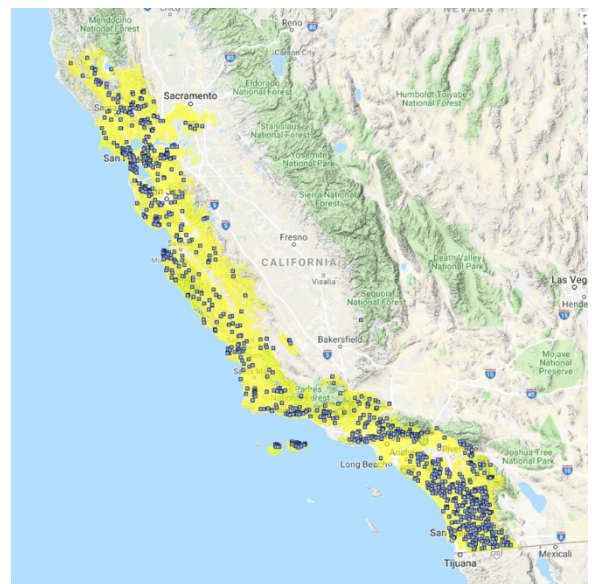


Exhibit 5E. Estimated Plant Range and Known Occurrences of Coast Live Oak

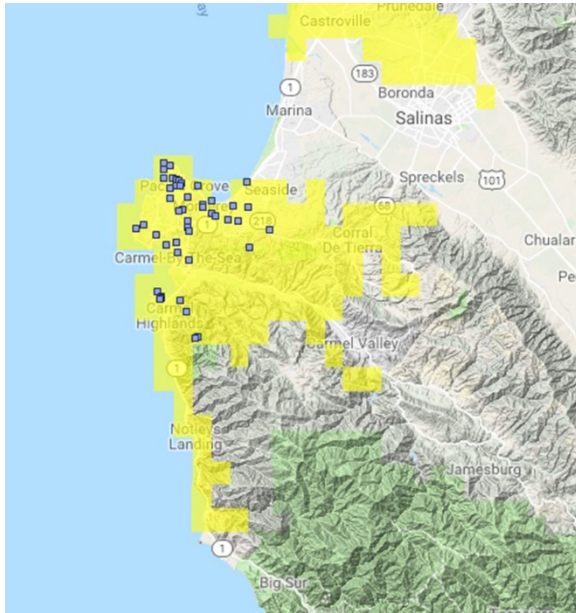


Exhibit 5F, Estimated Plant Range and Known Occurrences of Monterey Pine

Monterey pine. *Pinus radiata*, commonly known as Monterey pine, is native to three very limited areas located in Santa Cruz, Monterey Peninsula, and San Luis Obispo Counties in California, and also to Guadalupe and Cedros Islands in Mexico. In its natural state, Monterey pine is a rare and endangered tree, and is twisted, knotty, and full of sap/resin and not suitable for lumber. Yadon's piperia, discussed above, is endemic to the same pine forest adjacent to Pebble Beach. A remnant Monterey pine stand in Pacific Grove is a prime wintering habitat of the monarch butterfly. **Exhibit 5F** shows the estimated range (yellow area) and locations of known occurrences (blue squares) in the Monterey Peninsula (CNPS website 2018). The Proposed Project and Alternative 1 would result in the removal of 323 and 305 individual Monterey pines, respectively. This level of tree loss, in conjunction with similar tree loss from other projects within the identified study area, would contribute to a significant cumulative impact

on this species. The Proposed Project and Alternative 1's contribution to the impact is considered cumulatively considerable absent mitigation. Moreover, the recommended mitigation for this impact (BIO/mm-22 through BIO/mm-31), while capable of reducing the magnitude of the effect, will not be sufficient to render project-specific impacts to Monterey pine less than significant. For this reason, the project's contribution to the cumulative impact on this species would remain cumulatively considerable even after mitigation.

Mitigation Program

Mitigation to minimize cumulative impacts of the Proposed Project or Alternative 1 related to Biological Resources at the project-specific level, including impacts to Yadon's piperia, sandmat manzanita, Monterey spineflower, coast live oak, and Monterey pine, are listed in Section 4.4.6. Additional mitigation measures for other cumulative projects are under the jurisdiction of the approving local planning department and/or the California Department of Fish and Wildlife (CDFW) or the U.S. Fish and Wildlife Service (USFWS) when issuing Incidental Take Permits.

Level of Significance After Mitigation

Due to the ongoing urbanization and agriculture development of the Monterey Peninsula region, the Proposed Project's contribution to cumulative biological impacts on the species discussed above remain Unavoidable and Significant. Alternative 1, while resulting in fewer project specific impacts to the plants and trees identified above, would also nevertheless make a considerable contribution to the cumulative loss of these species. Therefore, Alternative 1's contribution to this cumulative impact would remain Significant and Unavoidable.

5.5.5 Cultural Resources

The relevant geographic area of analysis for cumulative cultural resource impacts is the Airport proper. Cultural resources include both prehistoric and historic occurrences, both of which have been identified on the Airport in the past. Since cultural resources are location-specific, cumulative impacts off the Airport have not been discussed.

Proposed Project and Alternative 1

Archival research presented in Section 4.5 has revealed that the entire Airport has been subject to multiple cultural resources assessments of varying types and intensity, including architectural surveys and evaluations, archaeological surveys, archaeological monitoring, and archaeological data recovery.

With respect to historic resources, several historic-era buildings or remnant structures are located within Airport; however, all but one (P-27-1459, Tarpy's Roadhouse) have been determined ineligible for national, state, or local historic designation. Neither the Proposed Project, Alternative 1, nor other airport cumulative projects would have any impact on Tarpy's Roadhouse as no development or redevelopment is proposed in this area of the Airport. Therefore, cumulative impacts to historic resources would be Less than Significant.

With respect to archaeological resources, there is one previously identified archaeological prehistoric site at the Airport. As part of the Airport's RSA Project, in 2015 data recovery efforts were conducted on the affected portion of the prehistoric component of P-27-1459 (CA-MNT-1438/H), which included all portions of the site inside the Airport's perimeter fence. No other archaeological sites have been discovered at the Airport, including the cultural survey completed for the Airport's proposed Infield and Taxiway Improvements project, and the Proposed Project and Alternative 1 would not adversely affect this site. If cultural resources or human remains, prehistoric or otherwise, are discovered at a later time due to construction activities, standard required protocols would be followed.

Although the Airport has completed cultural surveys for all its past, current, and proposed cumulative projects and the only archaeological site known to be present has been mitigated through data recovery efforts, not all areas of the Airport have had adequate ground visibility for the field survey efforts. Therefore, the Proposed Project and Alternative 1 would have Potentially Significant impacts related to unknown archaeological resources that could be present. For the same reason, cumulative impacts to Cultural Resources could also be Potentially Significant.

Based on the types of geologic units present at the Airport, as well as the lack of fossil finds in the area, the Airport is considered to have a zero-to-low potential for containing paleontological resources. Thus, potential cumulative impacts to paleontological resources due to the Proposed Project or Alternative 1 are also Less than Significant.

Mitigation Program

No mitigation other than those already proposed in Section 4.5.6 are necessary to mitigate Potentially Significant cumulative impacts of the Proposed Project or Alternative 1 related to Cultural Resources. CUL/mm-1 through CUL/mm-3 require that cultural resource awareness training be conducted for all construction personnel, that construction activities halt immediately if cultural resources are exposed during construction, and that an archaeological monitoring plan be implemented in those areas subject to disturbance that have dense vegetation.

Level of Significance After Mitigation

Similar to the project-specific impacts described in Section 4.1, cumulative impacts of the Proposed Project or Alternative 1 due to possibility of undiscovered cultural resources at the Airport would be mitigated to Less than Significant due to the incorporation of CUL/mm-1 through CUL/mm-3, as necessary.

5.5.6 Energy

The geographic scope for cumulative impacts related to energy conservation encompasses the Airport and Monterey Peninsula region. The Proposed Project and Alternative 1, as with other new development, would require energy for construction and operation. These ongoing activities and their associated energy requirements are supported in part by various energy providers throughout the region. These providers continually assess projected demand and plans and operate accordingly.

As discussed in Section 4.6 in Chapter Four, the Proposed Project and Alternative 1 construction fuel consumption would be temporary in nature and not cause long-lasting energy impacts. In addition, California energy efficiency requirements, coupled with Leadership in Energy and Environmental Design (LEED) energy-efficient design mandates associated with the Proposed Project and Alternative 1, would ensure that the proposed project components would operate at a higher energy efficiency than current land uses at the Airport, despite the overall increase in demand for energy.

Various federal and state energy regulations would also result in the substantial reduction of the project's energy consumption annually as proposed long-term projects are fully realized. As discussed previously in Section 4.6.6, California's *Building Energy Efficiency Standards for Residential and Nonresidential Buildings* (CCR, Title 24, Part 6) would apply to all new development or redevelopment, including compliance with the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) 90.1 2013 national standards; efficiency requirements for elevators and digital controls, as well as energy efficiency measures pertaining to building envelopes; mechanical systems; indoor, outdoor, and sign lighting; electrical power distribution; and solar readiness. The California Green Building Standards Code (CCR, Title 11, Part 24 [CalGreen]) sets minimum requirements for new residential and nonresidential construction through improved efficiency and process improvements and incorporates voluntary measures to encourage nonmandatory building practices that improve public health, safety, and general welfare by promoting more sustainable design through its LEED certification process.

Energy consumption for certain buildings, like the commercial terminal building, would have a net decrease in the future for its energy demand (specifically for natural gas). Further, utilizing the energy generated by the on-airport solar farm to support future development, as well as obtaining LEED certification for the relocated commercial terminal, the relocated airport rescue and firefighting (ARFF), and future non-aeronautical buildings, would address potential energy impacts of the Proposed Project and Alternative 1 by reducing the inefficient, wasteful, and unnecessary consumption of energy per PRC, Section 21100(b)(3).

As with the Proposed Project and Alternative 1, other new development in the surrounding area would also be subject to California energy efficiency requirements and would result in a lower increase in cumulative energy demand. In addition, California's aggressive renewable portfolio standard (RPS) is making headway in addressing California renewable energy needs. As of the middle of 2018, California load serving entities (LSEs) are ahead of schedule based on an approximation of generation from RPS-eligible sources divided by retail sales (California Energy Commission 2018). The Energy Commission estimates that 32 percent of 2017 retail electricity sales in California were served by renewable energy sources, such as wind, solar, geothermal, biomass, and small hydroelectric. In addition, California has exceeded the state's goals for large-scale renewable energy sources. Based on the above, cumulative impacts related to energy would be Less than Significant.

5.5.7 Geology and Soils

The relevant geographic area of analysis for cumulative geology and soils impacts is the Airport proper. Geologic hazard impacts, such as seismic hazards, including ground rupture, ground acceleration, liquefaction, and dynamic settlement, are location-specific and do not compound or increase in combination with past, present, or future projects or increased growth. Any future development within the Airport would encounter geologic and seismic risks based on their individual site constraints, but these risks would not be compounded by other airport projects. Therefore, cumulative impacts related to Geology and Soils would not occur.

5.5.8 Greenhouse Gas Emissions

As to the relevant geographic area of analysis, environmental impacts to climate change resulting from the emission of GHGs are experienced globally (and, unlike criteria air pollutants, are not experienced locally). GHG impacts also are cumulative by nature.⁶ As such, the information and analysis provided in Section 4.8 of this EIR are relevant to this chapter's assessment of cumulative impacts.

Proposed Project and Alternative 1

Construction activities associated with implementation of the Proposed Project and Alternative 1, including a loss of sequestered carbon due to vegetation removal, would result in emissions of GHGs. The use of utilities for the proposed buildings, as well as vehicular emissions related to proposed short- and

⁶ In the context of CEQA, "GHG impacts are exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective." (CAPCOA 2008:35)

long-term projects, would create additional GHGs. In addition, forecast operational activity at the Airport through the year 2035 would increase aircraft emissions. **Table 5E** shows the projected GHG emissions that would be expected to occur due to this airport-related growth. (The standard methodology for analyzing GHGs from aircraft operations involves the use of the FAA-approved AEDT for calculating aircraft operational emissions. Additional information regarding the model is in **Appendix K.**)

Year	Metric Tons/Year			
	CO ₂	CH ₄	N ₂ O	CO ₂ e ¹
2015	4,245.3	2.9	297.4	4,545.6
2025	5,894.9	4.0	413.0	6,311.9
2035	6,893.5	4.7	482.9	7,381.1

Source: AEDT analysis (**Appendix E**)
¹Emissions of CO₂, CH₄, and N₂O were converted to CO₂e using global warming potentials of 1, 25, and 298, respectively, as contained in the United Nation’s Intergovernmental Panel on Climate Change, Fifth Assessment Report (IPCC 2009).
 NOTE: Numbers reflect rounding.

The Proposed Project’s and Alternative 1’s construction and operation would contribute to the generation of GHGs, in conjunction with airport-forecasted growth, other approved and proposed cumulative projects, and regional growth and are Potentially Significant and Unavoidable, as provided in Section 4.8 of this EIR.

Mitigation Program

No mitigation measures other than those already proposed in Section 4.8 are available to mitigate cumulative impacts of the Proposed Project or Alternative 1 related to GHGs. GHG/mm-1 through GHG/mm-5 require: (1) reduced emission construction vehicles and/or equipment and use methods, (2) reduced energy use during construction administration, (3) future tenant lease agreements to use high-efficiency equipment and lighting, (4) installation and maintenance of electric vehicle charging stations; and, (5) provision of a transit bus stop to serve the relocated commercial terminal. In addition, transportation demand measures, including TR/mm-6, TR/mm-9, and TR/mm-10 (Section 4.16.6) would be implemented for the Proposed Project or Alternative 1, as appropriate. Other mitigation measures are not readily available to mitigate cumulative GHG issues.

Level of Significance After Mitigation

As provided in Section 4.8, although cumulative GHG emissions impacts would be reduced with the implementation of the mitigation program, GHG impacts would remain Potentially Significant and Unavoidable.

5.5.9 Hazards and Hazardous Materials

The relevant geographic area of analysis for cumulative hazards and hazardous materials impacts is the Airport proper. Potential adverse impacts associated with a hazardous material release or spill diminish

in magnitude with distance. Therefore, risks associated with hazards and hazardous materials are generally site-specific, and future projects that could contribute to cumulative impacts would be those projects that would occur or transport hazardous materials in the immediate vicinity of the project site. Adherence to existing regulatory requirements pertaining to hazards and hazardous materials is designed to minimize exposure and protect human health and the environment.

Proposed Project and Alternative 1

The Proposed Project and Alternative 1, in conjunction with other past, present, and reasonably foreseeable airport projects, would result in continued transport and use of similar types of hazardous materials that are currently handled at the Airport. Based on previous demolition projects at the Airport, there are potential hazardous materials releases that could result from the demolition of older buildings on airport property, including the existing commercial terminal building and existing ARFF. However, the requirements of the California Unified Program Administration (CUPA), California Hazardous Waste Control Law (HWCL), Monterey Bay Air Resources District (MBARD), California Division of Occupational Safety and Health (Cal/OSHA), California Fire Code, and National Pollutant Discharge Elimination System (NPDES) would ensure that impacts related to the demolition of older buildings on the Airport are Less than Significant.

Compliance with applicable federal, state, and local requirements, also including emergency response plans, spill response plans, stormwater pollution prevention plans (SWPPPs), best management practices (BMPs), and spill prevention, control, and countermeasure (SPCC) plans, all of which would be required for cumulative projects located on the Airport in proximity to the Proposed Project or Alternative 1 short-term and long-term proposed projects. Safety procedures for construction are also required for airports per FAA AC 150/5370-2G, *Operational Safety on Airports During Construction* (2017). As a result of the required implementation of existing hazardous materials regulations (see Section 4.9.6, HAZ/rr-1 through HAZ/rr-10), cumulative impacts related to the handling, storage, use, or transport of hazardous materials from cumulative projects occurring at the Airport would be Less than Significant.

As noted in Section 4.9.5, a decline in off-airport emergency response time during construction would be Significant and Unavoidable for the Proposed Project until the proposed “north side” road is complete. Cumulative projects listed in Section 5.3 include specific plans and development projects that do not require the use of the proposed “north side” road, nor would they increase the need for emergency response services from the Airport. Therefore, cumulative impacts related to off-airport emergency response times are Less than Significant.

5.5.10 Hydrology and Water Quality

The relevant geographic area of analysis for cumulative surface hydrology and water quality impacts is Hydrologic Unit Subbasin 309.50 of the Central Coast Regional Water Quality Control Board’s (RWQCB) Region 3 hydrologic planning area, which encompasses the Airport (refer to Exhibit 4.10B). The relevant geographic area of analysis for cumulative groundwater impacts is the service area of the Monterey Peninsula Water Management District (MPWMD), which manages groundwater resources for the Monterey Peninsula.

Proposed Project and Alternative 1

As described in Section 4.10, implementation of the Proposed Project or Alternative 1 would include both construction activity and permanent changes to impervious surfaces located in the south and north parts of the Airport; however, surface water quality impacts are considered Less than Significant based on existing airport water pollutant sampling. Relative to cumulative impacts, the Airport and surrounding areas are situated within an urbanized setting that has been in a developed state for many years. Many of the cumulative projects listed in Section 5.3 involve redevelopment of previously improved parcels that are mostly paved and are, or were, occupied by urban uses. Redevelopment of those parcels with other urban uses is not expected to result in adverse impacts to the hydrology and water quality of the subbasin.

In addition, new development and redevelopment in Monterey County are subject to the requirements of the Central Coast RWQCB Resolution R3-2013-0032, *Post-Construction Requirements for Development in the Central Coast Region*. The installation of new impervious surface requires approval of a stormwater management plan (SWMP). Monterey County and the Monterey Peninsula cities of Carmel-by-the-Sea, Del Rey Oaks, Monterey, Pacific Grove, Sand City, and Seaside are participating members of the Monterey Regional SWMP. Participating members collaborate on projects and other permit-related activities to satisfy a number of their individual MS4 General Permit requirements.⁷ The MS4 Permit, which sets forth requirements for the local implementing programs, provides the regulatory basis for avoiding adverse hydrology and water quality impacts from new development and significant redevelopment, as would apply to the cumulative projects described in Section 5.3. Based on the existing regulations and permitting processes already in place, cumulative impacts to surface hydrology and water quality would be Less than Significant.

Full buildout of the Proposed Project or Alternative 1 (based on long-term worst-case development assumptions) could be approximately 1.18 Acre-Feet (AF) above the Airport's existing available annual groundwater entitlements from California American Water (CalAm). Cumulative projects listed in Section 5.3 would also require water, at least some of which would come from groundwater. Since evaluating the proposed water sources and groundwater demand for each of the cumulative projects is beyond the scope of this EIR, it is assumed that cumulative impacts to groundwater supplies within the region could occur and are Potentially Significant.

Mitigation Program

Mitigation measure HYD/mm-1 states, "Proposed long-term projects shall not proceed without a guaranteed water source that has been approved by the MPWMD and that shows that adverse groundwater impacts to constrained basins would not occur." This measure would ensure that cumulative impacts to the groundwater basin as a result of the Proposed Project or Alternative 1 do not occur as well.

⁷ The California Department of Transportation (Caltrans) also has a statewide stormwater National Pollutant Discharge Elimination System (NPDES) permit (Order 99-06-DWQ) issued by the State Water Resources Control Board (SWRCB). The Caltrans Permit requires Caltrans to regulate nonpoint source discharge from its properties, facilities, and activities and requires development of a program for communication with local agencies and coordination with other municipal stormwater permitting (MS4) programs where those programs overlap geographically with Caltrans facilities.

Level of Significance After Mitigation

Upon implementation of HYD/mm-1, significant cumulative impacts to hydrology and water quality would be Less Than Significant.

5.5.11 Land Use and Planning

The relevant geographic area of analysis for cumulative impacts on land use and planning includes the Airport proper, Monterey County, and the cities of Monterey and Del Rey Oaks (see Exhibit 4.11A).

Proposed Project and Alternative 1

Cumulative development projects listed in Section 5.3, in combination with Proposed AMP projects, could pose the potential for impacts to land use and planning. As discussed in Section 4.11, the Proposed Project and Alternative 1 would not conflict with many aspects of land use plans, policies, or regulations related to land use planning (including, but not limited to, the City of Monterey and Monterey County zoning, TAMC's 2018 regional transportation plan (RTP), and AMBAG's 2018 MTP/SCS). However, proposed short-term and long-term AMP projects, as well as other cumulative projects generating traffic in the area, would result in Potentially Significant impacts with the *General Plan Update for the City of Del Rey Oaks*, Policies C-3 and C-13 (City of Del Rey Oaks 1997) and *City of Monterey General Plan*, Circulation Element goal j. and associated policies and programs related to future traffic volumes at city intersections. See Section 5.5.16, which identifies significant cumulative traffic impacts anticipated for intersections and highway segments within the traffic impact study area.

In addition, forecasted future airport operations (2025 and 2035) are inconsistent with *City of Monterey General Plan* Noise Element, Policy b.4 and *Casanova-Oak Knoll Neighborhood Plan*, Noise Goals 2, 3, and 4 (City of Monterey 1985) related to restricting future aircraft growth at the Airport. These policy inconsistencies are also considered Potentially Significant cumulative impacts to land use and planning (Section 4.10.5).

Mitigation Program

FAA regulations and requirements relating to the use of airport revenue, as well as the federal preemption of the use of airports, make it difficult to fully mitigate the policy inconsistencies described above as discussed in Section 4.10.5 through 4.10.7. In addition, cumulative traffic impacts on the regional transportation system, which includes two state highways (Highways 68 and 218), require regional transportation improvements for cumulative impacts through 2025 (see Section 5.5.16, CUM/TR/mm-1 through CUM/TR-8 or CUM/TR 10 through CUM/TR-12). However, these measures are not considered feasible for the Airport to implement because the recommended street improvements are within Caltrans' jurisdiction, and FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure. By 2035, additional regional transportation improvements could be required to the highways in the cumulative traffic study area.

It should be noted that by 2020 per Senate Bill (SB) 743, local jurisdictions will be required to adopt different transportation metrics that could affect their general plan policies. Future measurements of transportation impacts may include vehicle miles traveled (VMT), VMT per capita, automobile trip generation rates, or automobile trips generated. In most cases, a project's effect on automobile delay will no longer constitute a significant environmental impact.

Level of Significance After Mitigation

Since mitigation is not available for the cumulative policy inconsistencies listed above because the recommended mitigation measures are considered infeasible for purposes of CEQA and the local control of airports is federally preempted, the land use plan policy inconsistencies identified above are considered Potentially Significant and Unavoidable.

5.5.12 Noise

Section 4.12, Noise, addresses potential impacts related to aircraft noise, roadway traffic noise, and construction noise. The analysis of aircraft noise presented in that section accounts for existing and future aircraft operations at Monterey Regional Airport through 2035, the buildout year for the Proposed Project or Alternative 1. Aircraft noise impacts to the nearby area are dominated by operations at the Airport. Although aircraft operations also occur at Marina Municipal Airport (7.5 miles north), Salinas Municipal Airport (10 miles northeast), and Carmel Valley Vintage Airfield (9.5 miles southeast) in the Monterey Peninsula region, such operations do not overlap with those of Monterey Regional Airport, but rather are separated from the airport. There is no overlap between 60 Community Noise Equivalent Level (CNEL) exposure contours for these four airports. Thus, the relevant geographic area of analysis for cumulative impacts on noise includes the area within the 60 CNEL noise contours for the Airport (see Exhibits 4.12B, 4.12C, and 4.12D).

Proposed Project and Alternative 1

The analysis of traffic noise impacts accounts for future increases in background traffic that would occur in conjunction with future regional growth (**Appendix L**). As such, the analysis already accounts for cumulative traffic noise impacts. Relative to cumulative impacts associated with the combination of the three types of noise sources - aircraft noise, traffic noise, and construction noise - the most notable potential for such impacts is primarily associated with only the combination of aircraft noise and traffic noise. As shown in **Exhibit 5A**, the vast majority of the cumulative projects are located well away from the project site, which avoids the potential for any notable combined construction noise impacts.

The evaluation of combined noise levels was considered in terms of the thresholds of significance related to increases in exterior noise levels in noise-sensitive areas; specifically, whether there would be: (1) a 1.5 dB or more increase resulting in noise-sensitive areas being exposed to 65 CNEL or greater, as compared to the existing (2015) baseline condition; or (2) a 3.0 dB or more increase resulting in noise-sensitive areas being exposed to 60 CNEL to less than 65 CNEL, as compared to the existing (2015) baseline condition.

In evaluating the potential for such increases in noise levels, it is useful to understand how noise levels from two sources are added, which is done logarithmically based on the sound energy level of each source, to determine the combined (cumulative) noise level. Relative to whether the combined noise levels from two sources would result in a 1.5 decibel (dB) increase or a 3.0 dB increase, the noise levels generated by the sources need to produce similar noise levels in order to result in those levels of increase. For example, two noise sources that generate equal sound energy levels, in terms of dB, will result in a combined, cumulative noise level that is 3.0 dB higher than the level that would occur from either source individually (i.e., 65 dB + 65 dB = 68 dB). If, on the other hand, the noise levels from two sources are substantially different, say they differ by 10 dB or more, the cumulative noise level is approximately the same as the louder noise source (i.e., 65 dB + 55 dB = 65.4 dB, which rounds to 65 dB). Relative to whether a 1.5 dB increase would occur when combining two noise sources, there would generally need to be a 4.0 dB increase to result in a 1.5 dB increase in the louder of the two sources (i.e., 65 dB + 61 dB = 66.5 dB).

Section 4.12.2 summarizes the results of the roadway (traffic) noise modeling completed for the Proposed Project and Alternative 1 and includes a description of roadways where there are noise-sensitive uses nearby. **Table 5F** identifies the roadway segments with noise-sensitive uses nearby, the existing noise levels in terms of the modeled roadway CNEL levels for 2015 baseline conditions, the approximate CNEL for aircraft noise for that area, the combined 2015 roadway and 2015 aircraft noise, the future (2035) roadway noise levels, the approximate CNEL for aircraft noise in 2035 estimated for that area, and the combined 2035 roadway noise and 2035 aircraft noise CNEL.

As indicated in **Table 5F**, the combined 2035 roadway noise level and 2035 future aircraft noise level would not result in more than a 1.5 dB increase within the 65 CNEL or a 3.0 dB between the 60 to 65 CNEL increase over the existing (2015 baseline) cumulative roadway and aircraft noise CNEL. Therefore, there would be a Less than Significant cumulative noise impact along roadways in the vicinity of the Airport and along Highway 68. However, Potentially Significant aircraft noise exposure levels associated with airport operations in 2025 and 2035 would be the same for the Proposed Project, Alternative 1, and the No Project (Alternative 3) described in Chapter Three, Section 3.5.3. As such, Significant Impacts NOI-1 and NOI-2 (see Section 4.12.6) related to future operational growth at the Airport are beyond the ability of the Airport to mitigate and are considered Significant and Unavoidable.

Mitigation Program

No mitigation is available to mitigate exterior noise levels that would be above the acceptable noise standards for four residences by 2035 based on anticipated increases in aircraft operations.

Level of Significance After Mitigation

Significant Impacts NOI-1 and NOI-2 (see Section 4.12.6) are beyond the ability of the Airport to mitigate and are considered Significant and Unavoidable.

TABLE 5F
Long-Term Contribution to Cumulative Noise
Proposed Project and Alternative 1

Roadway (segment)	CNEL (dB)						
	Existing Traffic Noise ¹	2015 Aircraft Noise ²	Cumulative Existing Traffic and 2015 Aircraft Noise ²	Proposed Project & Alt. 1 Cumulative Long-Term Traffic Noise ¹	2035 Aircraft Noise ²	Proposed Project & Alt. 1 Cumulative Long-Term Traffic and 2035 Aircraft Noise ²	dB Change ²
M1 Hammond Road Residence	53.0	52.4	55.7	54.0	53.2	56.6	0.9
M2 Oak Crest Circle Residence	59.0	51.5	59.7	60.0	52.8	60.8	1.1
M3 Vista Monterra	42.0	41.5	44.8	43.0	42.9	46.0	1.2
M4 Blue Larkspur Lane	57.0	48.6	57.6	58.0	49.9	58.6	1.0
M5 Boots	59.0	45.5	59.2	60.0	47.3	60.2	1.0
M6 Capote Drive	62.0	33.5	62.0	63.0	35.3	63.0	1.0
M7 Espada Drive	53.0	35.7	53.1	54.0	36.6	54.1	1.0
M8 Corral de Tierra Residence	47.0	38.15	47.5	48.0	40.2	48.7	1.2
M9 Airport Rd Residence	57.0	57.1	60.1	58.0	58.6	61.3	1.2
M10 Airport Road Curve	53.0	62.6	63.1	54.0	63.9	64.3	1.2
M11 Lerwick Drive	50.0	60.6	61.0	51.0	61.9	62.2	1.2
M12 Airport Near Euclid	49.0	60.6	60.9	51.0	61.6	62.0	1.1
M13 Quail Run Court	54.0	59.1	60.3	55.4	59.5	60.1	0.7
M14 Los Encinos Drive	57.0	53.7	58.7	58.0	53.9	59.4	0.7
M15 Angelus Way	59.0	53.9	60.2	61.0	53.6	61.7	1.5
M16 Ramona Avenue	49.0	58.9	59.3	51.0	59.9	60.4	0.8
M17 Oak Tree Lane	48.0	48.5	51.3	49.0	48.3	51.7	0.4
M18 Pheasant Road	47.0	60.4	61.0	49.0	60.8	61.1	0.1
M19 Rosita Road	46.0	55.0	55.5	47.0	54.8	55.5	0.0

¹ Dudek analysis, April 2018 (Appendix L)

² Coffman Associates, Inc. analysis

5.5.13 Population/Housing

The geographic scope for cumulative impacts related to population and housing is contained within the Seaside-Monterey Census County Division (CCD). The Proposed Project and Alternative 1 would not displace existing housing or people or construct additional housing units. The Airport does not contain housing on its property and the parcels recommended for acquisition are either vacant or currently developed with office buildings. No cumulative impacts to population and housing resources would occur.

5.5.14 Public Services (Fire Protection, Emergency Services, and Police Protection)

Because the Airport provides its own fire protection, emergency services, and police protection, the geographic scope for cumulative impacts related to public services is the Airport proper. As discussed under Section 5.5.13 above, the Proposed Project and Alternative 1 would not result in changes to population and housing. Therefore, other types of population-based public services, such as schools, parks, and other public facilities, would not be affected and cumulative impacts in conjunction with other approved and proposed cumulative projects listed in Section 5.3 would not occur.

Proposed Project and Alternative 1

Cumulative impacts related to fire protection, emergency services, and police protection could occur due to projected airport operational growth in conjunction with the Proposed Project and Alternative 1. Other cumulative airport projects listed in Section 5.4 are maintenance or safety enhancement projects that would not cause additional demand on the Airport's fire and police staff, and, in the case of the RSA Project, provided additional emergency services access through the construction of the east and west vehicle service roads.

Since the Airport is capable of providing its own fire protection and police protection facilities, no impacts to the surrounding county or local jurisdictions would occur as a result of the Proposed Project or Alternative 1 in conjunction with future airport operational growth to maintain acceptable service ratios, response times, or other performance objectives, and new or altered government public service facilities would not be required. Further, the Airport would continue to conduct ongoing reviews of staffing and equipment levels to ensure that adequate fire and police protection are provided at the Airport per its Airport Certification Manual. Cumulative impacts to fire protection, emergency services, and police protection are Less than Significant.

5.5.15 Recreation

The geographic scope for cumulative impacts related to increased recreational demand is contained within the Seaside-Monterey Census County Division (CCD). Increased recreational demand is related to an increase in population and housing. Since the Proposed Project and Alternative 1 would not displace existing housing or people or construct additional housing units, no cumulative impacts to increased recreational demand would occur.

5.5.16 Transportation/Traffic

The following discussion of cumulative traffic impacts is taken from the Traffic Impact Analysis (TIA) report completed on the Proposed Project and Alternative 1 to evaluate potential traffic impacts on the surrounding roadway network (**Appendix M**).

As previously discussed in Section 4.16, Transportation/Traffic, the following criteria for impacts have been used by Caltrans to determine the significance of potential impacts to roadway and intersection level of service (LOS) on state highways. All study intersections not on state highways are within the City of Monterey. However, because the City of Monterey does not have impact criteria for roadway impacts, the Monterey County impact criteria has been used for those intersections within the city's jurisdiction per consultation with the City of Monterey Traffic Engineer (email dated October 28, 2016).

- Caltrans Impact Criteria. Per the *Guide for the Preparation of Traffic Impact Studies* (Caltrans 2002), Caltrans perceives an impact when there is any degradation in the performance measure in an intersection operating at or below LOS D. If a facility is currently operating at or below LOS D, then any trips added represent a potential impact, and the performance measure should be brought back to predevelopment conditions. While a single trip added to a degraded facility is not usually reflected in the performance measure, Caltrans reserves the ability to consider a single trip as an impact.
- Monterey County Impact Criteria. Per the *Guide for the Preparation of Traffic Impact Studies* (County of Monterey 2014), an impact at a signalized study intersection is defined to occur under the following conditions:
 - A significant impact would occur if an intersection operating at LOS A, B, C or D degrades to E or F. For intersections already operating at unacceptable level E, a significant impact would occur if a project adds 0.01 or more during peak hours to the critical movement's volume-to-capacity ratio. If the intersection is already operating at LOS F, any increase (one vehicle) in the critical movement's volume-to-capacity ratio is considered significant.

An impact at an unsignalized study intersection is defined to occur under the following conditions:

- An impact would occur if an all-way stop-controlled or roundabout-controlled intersection, based on the average delay, operates at LOS F or any traffic signal warrant is met.
- An impact would occur if a two-way stop-controlled intersection, based on the worst approach delay, operates at LOS F or any traffic signal warrant is met.

Cumulative Short-Term (10-Year) Traffic Conditions

This section describes traffic conditions in the study area under a future cumulative scenario within a timeframe of approximately 10 years. This scenario does not include trips generated by the Proposed Project or Alternative 1 but does include trips generated by the boarding of passengers (i.e., enplanements) at the Airport, as well as approved and proposed development projects and regional growth in

the study area. Traffic from these cumulative sources were combined and added to the existing conditions traffic volumes provided in Section 4.16.3 to obtain cumulative short-term (10-year) traffic volumes.

Anticipated growth in enplanements is expected to occur with or without the implementation of the Proposed Project or Alternative 1. As discussed in Chapter Two of the Proposed AMP, which is attached to the EIR as **Appendix B**, the aviation activity forecast for the Airport was based on projections of regional and national economic performance, and on overall aviation trends. Further, the forecast was approved by the FAA separate from the AMP and is not based on Airport improvement projects. Trips generated by increased enplanements at the Airport under cumulative short-term conditions were estimated based on aviation forecast projections in the Airport's Proposed AMP for the 10-year planning horizon. The Airport's enplanements, which were 197,322 in 2016, are projected to reach 245,000 within 10 years, representing an increase of approximately 24 percent. Therefore, to account for this projected increase, trips generated by the Airport in 2016 (based on traffic counts at the Airport's access points) were increased by 24 percent to estimate the trips generated by increased enplanements. As is the case with the existing trips generated by the Airport, the trips associated with the increased enplanements include trips made by employees, support services, etc.

As discussed previously in Section 5.4.2 above and in Section 4.16.1, forecasted airport growth data has been incorporated into some regional plans and studies relating to future regional traffic volumes and populations. TAMC's 2018 RTP used 2006 forecasted airport aviation activity from the *Regional Airport Systems Plan*, which had significantly higher airport-based aircraft numbers and airport annual aviation operations for 2020 and 2025 than the aircraft numbers and annual aviation operations used in the current FAA-approved forecast for the Airport in 2020 and 2025 (TAMC 2018). The higher 2006 forecast data for the Airport were also utilized in the AMBAG 2014 and 2018 MTP/SCS.

Trips from development external to the Airport were estimated based on approved projects in the study area that have not yet been constructed and future traffic volume forecasts developed for the *SR 68 Scenic Highway Plan* study (TAMC 2017). The *SR 68 Scenic Highway Plan* study utilized the 2014 AMBAG regional travel demand model to project future traffic volumes along the SR 68 (Highway 68) corridor, which includes intersections with Highway 68 within the study area. For purposes of this analysis, future traffic volume projections from the *SR 68 Scenic Highway Plan* were used as the basis for future traffic volumes along the Highway 68 corridor, and future traffic volumes for the remainder of the study area were developed based on the list of approved projects.

The list of approved projects and their trip generation estimates are provided in **Table 5G**. The locations of these cumulative projects have been previously shown in **Exhibit 5A**. The daily and peak hour trips for approved cumulative projects were added to the existing 2016 baseline traffic volumes at study intersections and roadway segments, along with future trips associated with projected airport operational growth, as well as regional growth forecasts for the Highway 68 corridor using AMBAG's regional traffic demand model to determine the future traffic volumes and cumulative impacts.

TABLE 5G
Trip Generation for Approved Cumulative Projects (as of March 1, 2018)
Monterey Regional Airport

Project	Daily Trips ¹	AM Peak Hour			PM Peak Hour		
		Volume	% of Daily	In/Out	Volume	% of Daily	In/Out
City of Marina:							
1. The Dunes on Monterey Bay (Phase 1) ²	34,135	1,619	5%	850/769	3,050	9%	1,604/1,446
2. CSUMB North Campus Housing ³	2,188	172	8%	34/138	211	10%	139/72
3. CSUMB Students (2015-2025) ³	2,959	262	9%	210/53	262	9%	79/183
4. Marina Heights	10,049	788	8%	197/591	1,061	11%	711/350
City of Seaside:							
5. Seaside Resort ⁴	5,672	267	5%	145/122	362	6%	180/182
6. Seaside Senior Assisted Living ⁵	447	29	6%	20/9	47	11%	24/23
7. Veterans Cemetery	776	28	4%	20/8	138	18%	46/92
8. Dadwal							
- Hotel	611	58	9%	34/24	66	11%	32/34
- Restaurant	1,017	86	8%	47/39	79	8%	47/32
City of Sand City:							
9. The Collection at Monterey Bay ⁶	3,669	194	5%	112/82	279	8%	141/138
10. Monterey Bay Shores ⁷	2,032	117	6%	51/66	155	8%	76/79
City of Monterey:							
11. Ryan Ranch Road (storage)	51	4	8%	3/1	5	10%	1/4
12. 2969 Monterey Salinas Highway (office)	657	93	14%	82/11	89	14%	15/74
13. 2201 North Fremont (mixed use)	110	8	7%	3/5	8	7%	4/4
14. 10-20 Ryan Court	286	27	9%	9/18	36	13%	14/22
- auto storage ⁸	142	36	25%	33/3	36	25%	3/33
- office	108	15	14%	13/2	15	14%	3/12
15. MIIS Master Plan Update	1,454	145	10%	113/32	145	10%	46/99
16. 2 Upper Ragsdale Drive ⁹ (medical office)	2,717	227	8%	188/39	302	11%	73/229
17. Ocean View Plaza ¹⁰	4,362	305	7%	183/122	325	7%	187/138
Unincorporated Monterey County:							
18. East Garrison ¹¹	12,391	975	8%	247/728	1,315	11%	793/522
19. Monterra Ranch	1,445	113	8%	28/85	153	11%	103/50
20. Pasadera	412	32	8%	8/24	43	10%	29/14
21. Harper 14 Lots of Record	134	11	8%	3/8	14	10%	9/5
22. Oaks Subdivision	105	8	8%	2/6	11	10%	7/4
23. Laguna Seca Business Park							
- York Road ¹² (office)	220	31	14%	27/4	30	14%	5/25
- Laguna Seca Villas ¹³ (condos)	664	53	8%	9/44	62	9%	42/20
24. Corral De Tierra Shopping Center ¹⁴	5,100	95	2%	63/32	235	5%	108/127
25. Ferrini Ranch ¹⁵	1,999	165	8%	49/116	226	11%	138/88
TOTAL APPROVED PROJECTS	95,912	5,963		2,783/3,180	8,760		4,659/4,101

TABLE 5G (Continued)

Source: Mott MacDonald 2018 (**Appendix M**, Attachment P: Lists and Maps of Approved and Proposed Projects)
 CSUMB = California State University, Monterey Bay; DU = dwelling unit; sf = square foot; condo = condominium;
 MIIS = Monterey Institute of International Studies

- ¹ Traffic volumes are based on trip generation rates quoted by the Institute of Transportation Engineers, *Trip Generation*, 9th Edition, unless otherwise noted.
- ² Higgins Associates 2004. Trip generation from *Marina University Villages Mixed Use Development Traffic Impact Study Report*.
- ³ Higgins Associates 2007. Trip generation from *CSUMB 2007 Master Plan Traffic Impact Analysis*.
- ⁴ Fehr & Peers 2004. Trip generation from *Transportation Impact Analysis for Seaside Resort*.
- ⁵ Hatch Mott MacDonald 2015. Trip generation from *Seaside Senior Assisted Living* letter report.
- ⁶ Fehr & Peers 2012. Trip generation from *The Collection at Monterey Bay Transportation Impact Analysis*.
- ⁷ Fehr & Peers 2008. Trip generation from *Focused Transportation Impact Analysis for the Proposed Monterey Bay Shores Resort Project in Sand City, California*.
- ⁸ Higgins Associates 2008a. Trip generation for Automotive Storage Facility from *Club Auto Sport Traffic Analysis, Ryan Ranch Campus, Monterey, California*.
- ⁹ Hatch Mott MacDonald 2016. Trip generation from *Community Hospital Ryan Ranch Traffic Report*.
- ¹⁰ Pacific Municipal Consultants 2001. Daily and PM peak hour trip generation for Ocean View Plaza from *Ocean View Plaza Draft Environmental Impact Report*. AM peak hour trip generation assumed as 7 percent of daily trips.
- ¹¹ Trip generation represents trips external to the development itself.
- ¹² Size of building unknown -- square footage used to derive trip generation is assumed, based upon other buildings within business park.
- ¹³ Monterey County Planning and Building Inspection Department 2006. Daily AM peak hour and PM peak hour trip generation for the Laguna Seca Villas project taken from *Laguna Seca Villas Initial Study*. Inbound and outbound distributions derived from ITE's *Trip Generation*, 9th Edition.
- ¹⁴ Hexagon Transportation Consultants 2005. AM and PM peak hour trip generation from *Corral De Tierra Mixed Use Development Final Traffic Report*. Daily trip generation estimated, based upon trip generation assumptions utilized in peak hour trip generation derivation in said report.
- ¹⁵ Higgins Associates 2008b. Trip generation from *Ferrini Ranch Subdivision Traffic Impact Analysis*.

NOTE: Although several of these approved projects were addressed in traffic studies prepared in the 2000s, they represent the buildout or a later phase of an adopted specific plan or development that had not been constructed as of March 1, 2018 when the traffic impact analysis was completed.

The following study intersections are projected to operate deficiently under cumulative short-term (10-year) traffic conditions:

- Intersection #1 – Olmsted Road/Highway 68 (AM and PM peak hour)
- Intersection #6 – Del Monte Boulevard/Highway 218 (AM and PM peak hour)
- Intersection #7 – Highway 218/Fremont Boulevard (AM and PM peak hour)
- Intersection #9 – Highway 218/Del Rey Gardens Drive (AM peak hour)
- Intersection #11 – Josselyn Canyon Road/Highway 68 (AM peak hour)
- Intersection #14 – York Road/Highway 68 (PM peak hour)
- Intersection #15 – Pasadera Drive/Highway 68 (AM peak hour)
- Intersection #16 – Laureles Grade Road/Highway 68 (AM and PM peak hour)
- Intersection #17 – Corral De Tierra Road/Highway 68 (AM and PM peak hour)
- Intersection #18 – San Benancio Road/Highway 68 (AM and PM peak hour)
- Intersection #19 – Torero Drive/Highway 68 (AM and PM peak hour)

The following road segments also operate deficiently under existing conditions and would continue to operate deficiently under cumulative short-term (10-year) traffic conditions:

- Segment #2 – Highway 68, from Begin/End Freeway to Josselyn Canyon Road
- Segment #3 – Highway 68, from Josselyn Canyon Road to Olmsted Road

- Segment #4 – Highway 68, from Olmsted Road to Highway 218
- Segment #6 – Highway 68, from Ragsdale Drive to Laureles Grade
- Segment #7 – Highway 68, from Laureles Grade to Corral De Tierra Road
- Segment #8 – Highway 68, from Corral De Tierra Road to Torero Drive
- Segment #9 – Highway 68, from Torero Drive to Begin/End Freeway

Cumulative Long-Term (20-Year) Traffic Conditions

This section describes traffic operations in the study area under cumulative conditions within a timeframe of approximately 20 years. This scenario does not include trips generated by the Proposed Project or Alternative 1 but does include trips generated by the boarding of passengers (i.e., enplanements) at the Airport, as well as other cumulative development projects and regional growth in the study area. A list of proposed projects and their trip generation estimates are provided in **Table 5H**. This list of projects, as well as approved projects, was vetted by adjacent jurisdictions (cities of Del Rey Oaks, Monterey, and Seaside, Monterey County, TAMC, and Caltrans) as part of the MOA prepared for the traffic study. Proposed projects are those projects that were noted on the relevant city and county planning websites as potential projects that had yet to be approved (i.e., have not yet received an entitlement to develop). The cumulative project traffic list was revalidated in November 2017 and March 2018 using the most current active project lists available on the respective planning websites and using cumulative project lists gathered for more recently initiated traffic studies in the area. (Note: As shown in **Table 5B**, the status of the proposed project list was re-verified in July 2018.) It should also be noted that the cumulative traffic assumed for the Highway 68 corridor did not rely on this cumulative project list but on regional growth projections used in the TAMC Highway 68 corridor study.

Project	Size	Daily Trips ¹	AM Peak Hour			PM Peak Hour		
			Volume	% of Daily	In/Out	Volume	% of Daily	In/Out
City of Marina:								
26. The Dunes on Monterey Bay ² (Phases 2 & 3)		45,662	2,896	6%	1,762/1,134	4,561	10%	2,127/2,434
27. CSUMB Students (2025-2035) ³	3,054 students	2,959	262	9%	210/53	262	9%	79/183
City of Seaside:								
28. The Projects at Main Gate ⁴		26,067	716	3%	437/279	1,931	7%	934/997
29. West Broadway Corridor ⁵		3,783	350	9%	191/159	362	10%	134/228
Unincorporated Monterey County:								
30. Wang Subdivision ⁶								
- Single Family	23 DU	220	17	8%	4/13	23	10%	14/9
- Inclusionary Housing	6 DU	35	3	9%	1/2	3	9%	2/1
31. Harper Canyon/Encina Hills Subdivision ⁷	17 DU	163	13	8%	3/10	17	10%	11/6
Carmel Valley:								
32. September Ranch	110 DU	1,053	83	8%	21/62	111	11%	70/41
33. Rancho Cañada	281 DU	2,689	211	8%	53/158	284	11%	179/105
TOTAL PROPOSED PROJECTS		82,631	4,551		2,682/1,869	7,554		3,550/4,004

TABLE 5H (Continued)

<p>Source: Mott MacDonald 2018 (Appendix M, Attachment P: Lists and Maps of Approved and Proposed Projects) CSUMB = California State University, Monterey Bay; DU = dwelling unit;</p> <p>¹ Traffic volumes are based on trip generation rates quoted by the Institute of Transportation Engineers, <i>Trip Generation</i>, 9th Edition, unless otherwise noted.</p> <p>² Higgins Associates 2004. Trip generation from <i>Marina University Villages Mixed Use Development Traffic Impact Study Report</i>.</p> <p>³ Higgins Associates 2007. Trip generation from <i>CSUMB 2007 Master Plan Traffic Impact Analysis</i>.</p> <p>⁴ Hexagon Transportation Consultants 2008. Trip generation from <i>Seaside Main Gate Retail Development Traffic Impact Analysis</i>.</p> <p>⁵ Fehr & Peers 2004b. Trip generation from <i>West Broadway Urban Village Specific Plan Transportation Study</i>. Includes proposed library opportunity site.</p> <p>⁶ Higgins Associates 2005. Trip generation from <i>Wang Subdivision Traffic Impact Analysis</i>.</p> <p>⁷ Hatch Mott MacDonald 2009. Trip generation from <i>Harper Canyon/Encina Hills Subdivision Traffic Impact Analysis</i>.</p> <p>NOTE: Although several of these proposed projects were addressed in traffic studies prepared in the 2000s, they represent the buildout or a later phase of an adopted specific plan or development that had not been approved as of March 1, 2018, when the traffic impact analysis was completed.</p>

For purposes of the cumulative traffic analysis, the proposed projects were assumed to be completed during the cumulative long-term (2035) traffic scenario. The cumulative short-term (2025) traffic scenario is less than seven years away and the development approval and construction process is a lengthy and time-consuming process. In addition, the development approval process is sometimes challenged, causing additional delays. In most cases, and especially for the larger, phased projects, if a project has not already received approval, it is unlikely that it would be constructed and occupied before 2025. Thus, the full traffic effects of the proposed projects are not likely to be experienced until after the short-term cumulative project (2025) scenario. The locations of these cumulative projects have been previously shown in **Exhibit 5A**.

The daily and peak hour trips shown in **Table 5H** were added to the existing 2016 baseline traffic volumes at study intersections and roadway segments, along with future trips associated with projected airport operational growth, as well as regional growth forecasts for the Highway 68 corridor using AMBAG’s regional traffic demand model to determine the future traffic volumes and cumulative impacts. The Airport’s enplanements were 197,322 in 2016. For the 20-year planning horizon, an increase of approximately 48 percent was assumed. To account for this projected increase, trips generated by the Airport in 2016 (based on traffic counts at the Airport’s access points) were increased by 48 percent to estimate the trips generated by increased enplanements. As is the case with the existing trips generated by the Airport, the trips associated with the increased enplanements include trips made by employees, support services, etc. Trips from development external to the Airport were estimated based on approved and proposed projects in the study area and future traffic volume forecasts developed for the *SR 68 Scenic Highway Plan* study.

The following study intersections are projected to operate deficiently under cumulative long-term (20-year) traffic conditions:

- Intersection #1 – Olmsted Road/Highway 68 (AM and PM peak hour)
- Intersection #6 – Del Monte Boulevard/Highway 218 (AM and PM peak hour)
- Intersection #7 – Highway 218/Fremont Boulevard (AM and PM peak hour)
- Intersection #9 – Highway 218/Del Rey Gardens Drive (AM and PM peak hour)
- Intersection #10 – Highway 218/Ryan Ranch Road (PM peak hour)
- Intersection #11 – Josselyn Canyon Road/Highway 68 (AM peak hour)

- Intersection #12 – Highway 218/Highway 68 (AM peak hour)
- Intersection #14 – York Road/Highway 68 (AM and PM peak hour)
- Intersection #15 – Pasadera Drive/Highway 68 (AM peak hour)
- Intersection #16 – Laureles Grade Road/Highway 68 (AM and PM peak hour)
- Intersection #17 – Corral De Tierra Road/Highway 68 (AM and PM peak hour)
- Intersection #18 – San Benancio Road/Highway 68 (AM and PM peak hour)
- Intersection #19 – Torero Drive/Highway 68 (AM and PM peak hour)

The following roadway segments are also projected to operate deficiently under cumulative long-term (20-year) traffic conditions:

- Segment #2 – Highway 68, from Begin/End Freeway to Josselyn Canyon Road
- Segment #3 – Highway 68, from Josselyn Canyon Road to Olmsted Road
- Segment #4 – Highway 68, from Olmsted Road to Highway 218
- Segment #6 – Highway 68, from Ragsdale Drive to Laureles Grade
- Segment #7 – Highway 68, from Laureles Grade to Corral De Tierra Road
- Segment #8 – Highway 68, from Corral De Tierra Road to Torero Drive
- Segment #9 – Highway 68, from Torero Drive to Begin/End Freeway

Proposed Project

Short-Term (10-Year) Cumulative Traffic Conditions

In the short term, the Proposed Project is estimated to generate 10 net new daily trips, with one trip occurring during the AM peak hour (one trip in, no trips out) and two trips occurring during the PM peak hour (one trip in, one trip out). The Proposed Project short-term trip distribution is described in Section 4.16.5 and Table 4.16D and was combined with the cumulative short-term conditions described in the preceding section to obtain cumulative short-term plus Proposed Project peak hour traffic volumes.

Table 5I summarizes the cumulative short-term plus Proposed Project intersection LOS at all 19 study intersections. These LOS are compared to the existing condition as well as the cumulative short-term without Proposed Project condition. LOS calculation worksheets and vehicle queue estimates are included in the appendices to the traffic impact study (TIA) (**Appendix M**). Since the addition of a single project trip at an intersection that is operating deficiently can be considered an impact, the Proposed Project would have Potentially Significant cumulative impacts at the following intersections under cumulative short-term plus Proposed Project conditions:

- Intersection #6 – Del Monte Boulevard/Highway 218 (AM and PM peak hour)
- Intersection #7 – Highway 218/Fremont Boulevard (AM and PM peak hour)
- Intersection #9 – Highway 218/Del Rey Gardens Drive (AM peak hour)
- Intersection #14 – York Road/Highway 68 (PM peak hour)
- Intersection #16 – Laureles Grade Road/Highway 68 (PM peak hour)
- Intersection #17 – Corral De Tierra Road/Highway 68 (PM peak hour)
- Intersection #18 – San Benancio Road/Highway 68 (PM peak hour)
- Intersection #19 – Torero Drive/Highway 68 (PM peak hour)

TABLE 5I
Cumulative Short-Term (10-Year) Plus Proposed Project Intersection Levels of Service
Monterey Regional Airport

Study No.	Intersection	Intersection Control	LOS Standard	Peak Hour	Existing Condition		Cumulative without Project (Short Term)		Project Trips	Cumulative with Project (Short Term)	
					Delay ¹	LOS	Delay ¹	LOS		Delay ¹	LOS
1	Olmsted Rd/ Highway 68	Signal	C/D	AM PM	51.0 126.0	D F	64.2 145.2	E F	-7 -13	64.1 143.4	E F
2	Olmsted Rd/ Garden Rd	One-way Stop	D	AM PM	10.7 10.8	B B	11.5 11.5	B B	-7 -12	23.5 17.5	C C
3	Olmsted Rd/ Fred Kane Dr	All-Way Stop	D	AM PM	7.6 8.2	A A	7.7 8.6	A A	0 0	7.7 8.4	A A
4 (CONA)	Airport Rd/ Euclid Ave	Two-Way Stop	D	AM PM	9.8 10.1	A B	9.9 10.2	A B	9 16	9.9 10.4	A B
5 (CONA)	Airport Rd/North Fremont St	Signal	D	AM PM	11.7 14.2	B B	12.6 14.8	B B	9 15	12.6 14.9	B B
6	Del Monte Blvd/ Highway 218	Signal	C/D	AM PM	34.3 38.9	C D	38.5 45.0	D D	1 2	38.5 45.0	D D
7	Highway 218/ Fremont Blvd	Signal	C/D	AM PM	31.3 46.1	C D	38.0 58.7	D E	5 9	38.2 59.3	D E
8	Highway218/Gen Jim Moore Blvd	Signal	C/D	AM PM	17.0 15.2	B B	19.5 18.5	B B	2 3	19.5 18.6	B B
9	Highway 218/Del Rey Gardens Dr	One-Way Stop	C/D	AM PM	24.1 19.0	C C	28.5 22.0	D C	1 1	28.5 22.0	D C
10	Highway 218/ Ryan Ranch Rd	Signal	C/D	AM PM	6.9 16.6	A B	7.4 25.7	A C	1 1	7.4 25.7	A C
11	Josselyn Canyon Rd/Highway 68	Signal	C/D	AM PM	44.5 19.8	D B	51.4 22.7	D C	-2 -5	51.1 22.4	D C
12	Highway 218/ Highway 68	Signal	C/D	AM PM	24.3 29.7	C C	32.2 33.1	C C	-2 -3	32.1 33.0	C C
13	Ragsdale Dr/ Highway 68	Signal	C/D	AM PM	12.3 4.2	B A	12.1 4.2	B A	0 1	12.1 4.2	B A
14	York Rd/ Highway 68	Signal	C/D	AM PM	25.3 42.8	C D	32.6 46.8	C D	0 1	32.6 46.8	C D
15	Pasadera Dr/ Highway 68	Signal	C/D	AM PM	47.5 14.5	D B	67.4 17.7	E B	0 1	67.4 17.7	E B
16	Laureles Grade Rd/Highway 68	Signal	C/D	AM PM	27.2 31.7	C C	36.6 39.5	D D	0 1	36.6 39.6	D D
17	Corral de Tierra Rd/Highway 68	Signal	C/D	AM PM	35.2 57.8	D E	91.4 64.3	F E	0 1	91.4 64.5	F E
18	San Benancio Rd/Highway 68	Signal	C/D	AM PM	70.3 18.9	E B	106.6 36.6	F D	0 1	106.6 36.8	F D
19	Torero Dr/ Highway 68	One-Way Stop	C/D	AM PM	> 300 111.3	F F	>300 156.5	F F	0 1	>300 156.5	F F

Source: Mott MacDonald 2018 (Appendix M, Tables 22 and 23)

LOS = level of service; Rd = Road; Dr = Drive; Ave = Avenue; CONA = Casanova Oak Knoll neighborhood; St = Street; Blvd = Boulevard; Gen = General

¹ Signal and all-way stop delay is average overall delay in seconds per vehicle (sec/veh); one- and two-way stop delay is worst approach delay in seconds per vehicle (sec/veh).

NOTE: Intersections/LOS in RED indicate a project-related cumulative impact.

The Proposed Project would also have Potentially Significant cumulative impacts on the following road segments under cumulative short-term (10-year) plus Proposed Project conditions:

- Segment #6 – Highway 68, from Ragsdale Drive to Laureles Grade
- Segment #7 – Highway 68, from Laureles Grade to Corral De Tierra Road
- Segment #8 – Highway 68, from Corral De Tierra Road to Torero Drive
- Segment #9 – Highway 68, from Torero Drive to Begin/End Freeway

The Proposed Project could add zero AM peak hour trips and one PM peak hour trip to these roadway segments, the effects of which would be negligible. However, in conjunction with other cumulative traffic, cumulative impacts to the highway segments listed above are Potentially Significant since the amount of traffic on the roadway segments has an indirect impact on the deficient LOS operation of the intersections in the same areas.

Based on the analysis, both the existing conditions and the 10-year cumulative conditions require major improvements to the local and regional road network to mitigate the overall congestion with or without the Proposed Project. However, due to the Caltrans impact criteria of one additional trip through a deficient intersection, cumulative impacts of the Proposed Project in the short term are still considered Potentially Significant.

Long-Term (20-Year) Cumulative Traffic Conditions

In the long term, the Proposed Project is estimated to generate almost 11,000 new daily trips (see Section 4.16.5 and Table 4.16F). **Table 5J** summarizes the cumulative long-term (20-year) plus Proposed Project intersection LOS at all 19 study intersections. These LOS are compared to the existing condition as well as the cumulative without Proposed Project condition. It should be noted that the deficient intersections (with the exception of Intersection #8, Highway 218/General Jim Moore Boulevard) would also operate at deficient LOS under cumulative without Proposed Project conditions and some currently operate at deficient LOS under the existing condition. LOS calculation worksheets and vehicle queue estimates are included in the appendices to the TIA (**Appendix M**).

As a result of the Proposed Project and other cumulative approved and proposed projects, the following study intersections would operate deficiently under cumulative long-term (20-year) plus Proposed Project traffic conditions:

- Intersection #1 – Olmsted Road/Highway 68 (AM and PM peak hour)
- Intersection #6 – Del Monte Boulevard/Highway 218 (AM and PM peak hour)
- Intersection #7 – Highway 218 Fremont Boulevard (AM and PM peak hour)
- Intersection #8 – Highway 218/General Jim Moore Boulevard (AM and PM peak hour)
- Intersection #9 – Highway 218/Del Rey Gardens Drive (AM and PM peak hour)
- Intersection #10 – Highway 218/Ryan Ranch Road (PM peak hour)
- Intersection #11 – Josselyn Canyon Road/Highway 68 (AM and PM peak hour)
- Intersection #12 – Highway 218/Highway 68 (AM and PM peak hour)
- Intersection #14 – York Road/Highway 68 (AM and PM peak hour)
- Intersection #15 – Pasadera Drive/Highway 68 (AM and PM peak hour)
- Intersection #16 – Laureles Grade Road/Highway 68 (AM and PM peak hour)
- Intersection #17 – Corral De Tierra Road/Highway 68 (AM and PM peak hour)

Intersection #18 – San Benancio Road/Highway 68 (AM and PM peak hour)
 Intersection #19 – Torero Drive/Highway 68 (AM and PM peak hour)

TABLE 5J
Cumulative Long-Term (20-Year) Plus Proposed Project Intersection Levels of Service
Monterey Regional Airport

Study No.	Intersection	Intersection Control	LOS Standard	Peak Hour	Existing Condition		Cumulative without Project (Long Term)		Project Trips	Cumulative with Project (Long Term)	
					Delay	LOS	Delay	LOS		Delay	LOS
1	Olmsted Rd/ Highway 68	Signal	C/D	AM	51.0	D	73.0	E	530	147.2	F
				PM	126.0	F	165.2	F		544	>300
2	Olmsted Rd/ Garden Rd	One-way Stop	D	AM	10.7	B	12.5	B	391	32.4	D
				PM	10.8	B	12.2	B		412	27.4
3	Olmsted Rd/ Fred Kane Dr	All-Way Stop	D	AM	7.6	A	7.8	A	0	7.7	A
				PM	8.2	A	8.9	A		0	7.9
4 (CONA)	Airport Rd/ Euclid Ave	Two-Way Stop	D	AM	9.8	A	10.1	B	-1	10.1	B
				PM	10.1	B	10.4	B		-2	10.4
5 (CONA)	Airport Road/ North Fremont St	Signal	D	AM	11.7	B	12.6	B	134	12.8	B
				PM	14.2	B	15.5	B		132	15.8
6	Del Monte Blvd/ Highway 218	Signal	C/D	AM	34.3	C	42.8	D	150	45.6	D
				PM	38.9	D	52.8	D		148	55.1
7	Highway 218/ Fremont Blvd	Signal	C/D	AM	31.3	C	46.5	D	365	55.7	E
				PM	46.1	D	72.2	E		361	106.3
8	Highway 218/ Gen Jim Moore Blvd	Signal	C/D	AM	17.0	B	24.0	C	487	67.3	E
				PM	15.2	B	23.4	C		481	48.1
9	Highway 218/ Del Rey Gardens Dr	One-Way Stop	C/D	AM	24.1	C	34.7	D	1,037	107.5	F
				PM	19.0	C	25.5	D		1,018	>300
10	Highway 218/ Ryan Ranch Rd	Signal	C/D	AM	6.9	A	8.1	A	606	12.8	B
				PM	16.6	B	45.7	D		595	59.4
11	Josselyn Canyon Rd/ Highway 68	Signal	C/D	AM	44.5	D	59.7	E	237	101.4	F
				PM	19.8	B	26.1	C		239	53.6
12	Highway 218/ Highway 68	Signal	C/D	AM	24.3	C	39.6	D	759	66.3	E
				PM	29.7	C	33.6	C		755	56.1
13	Ragsdale Dr/ Highway 68	Signal	C/D	AM	12.3	B	12.1	B	535	20.5	C
				PM	4.2	A	4.2	A		532	4.6
14	York Rd/ Highway 68	Signal	C/D	AM	25.3	C	42.3	D	507	122.4	F
				PM	42.8	D	51.1	D		503	84.8
15	Pasadera Dr/ Highway 68	Signal	C/D	AM	47.5	D	90.7	F	493	202.6	F
				PM	14.5	B	22.5	C		490	79.1
16	Laureles Grade Rd/ Highway 68	Signal	C/D	AM	27.2	C	44.0	D	479	112.3	F
				PM	31.7	C	42.6	D		477	88.4
17	Corral de Tierra Rd/ Highway 68	Signal	C/D	AM	35.2	D	166.9	F	451	260.8	F
				PM	57.8	E	73.1	E		449	155.8
18	San Benancio Rd/ Highway 68	Signal	C/D	AM	70.3	E	152.8	F	437	236.2	F
				PM	18.9	B	54.5	D		436	129.8
19	Torero Dr/ Highway 68	One-Way Stop	C/D	AM	> 300	F	>300	F	423	>300	F
				PM	111.3	F	208.1	F		423	>300

Source: Mott MacDonald 2018 (Appendix M, Table 29)

LOS = level of service; Rd = Road; Dr = Drive; Ave = Avenue; CONA = Casanova Oak Knoll neighborhood; St = Street; Blvd = Boulevard; Gen = General

¹ Signal and all-way stop delay is average overall delay in seconds per vehicle (sec/veh); one- and two-way stop delay is worst approach delay in seconds per vehicle (sec/veh).

NOTE: Intersections/LOS in RED indicate a project-related cumulative impact.

The following road segments operate deficiently under existing conditions and would continue to operate deficiently with the added traffic under either the cumulative long-term (20-year) without Proposed Project or plus Proposed Project traffic conditions:

- Segment #2 – Highway 68, from Begin/End Freeway to Josselyn Canyon Road
- Segment #3 – Highway 68, from Josselyn Canyon Road to Olmsted Road
- Segment #4 – Highway 68, from Olmsted Road to Highway 218
- Segment #6 – Highway 68, from Ragsdale Drive to Laureles Grade
- Segment #7 – Highway 68, from Laureles Grade to Corral De Tierra Road
- Segment #8 – Highway 68, from Corral De Tierra Road to Torero Drive

The Proposed Project could add from 400 to more than 500 AM or PM peak hour trips to these roadway segments. Thus, in conjunction with other cumulative traffic, cumulative impacts to the highway segments listed above are Potentially Significant since the amount of traffic on the roadway segments has an indirect impact on the deficient LOS operation of the intersections in the same areas.

In addition, although outside the project study area, traffic generated by the cumulative long-term (20-year) without Proposed Project and plus Proposed Project scenarios is expected to continue to impact the short weaving segments at the N. Fremont Street/Highway 1/Highway 68 interchange. In addition, mainline segments of Highway 1 would also likely be impacted. In conjunction with other cumulative traffic, cumulative impacts to the weaving segments are considered Potentially Significant since the weaving segments are already considered deficient.

Based on the analysis, the level of long-term development assumed under the Proposed Project, in addition to other cumulative projects and growth, would have Potentially Significant traffic impacts that would require major improvements to the local and regional road network.

Alternative 1

Short-Term (10-Year) Cumulative Traffic Conditions

In the short term, Alternative 1 is also estimated to generate 10 net new daily trips, with one trip occurring during the AM peak hour (one trip in, no trips out) and two trips occurring during the PM peak hour (one trip in, one trip out). The Alternative 1 short-term trip distribution is described in Section 4.16.5 and Table 4.16K and was combined with the cumulative short-term 10-year conditions to obtain cumulative short-term plus Alternative 1 peak hour traffic volumes. **Table 5K** summarizes the cumulative short-term plus Alternative 1 intersection LOS at all 19 study intersections. These LOS are compared to the existing condition as well as the cumulative short-term without Alternative 1 condition. LOS calculation worksheets and vehicle queue estimates are included in the appendices to the TIA (**Appendix M**).

Since the addition of a single project trip at an intersection that is operating deficiently can be considered an impact, Alternative 1 would have Potentially Significant cumulative impacts at the following intersections under cumulative short-term plus Alternative 1 conditions:

Intersection #6 – Del Monte Boulevard/Highway 218 (AM and PM peak hour)
 Intersection #7 – Highway 218/Fremont Boulevard (AM and PM peak hour)
 Intersection #9 – Highway 218/Del Rey Gardens Drive (AM peak hour)

TABLE 5K
Cumulative Short-Term (10-Year) Plus Alternative 1 Intersection Levels of Service
Monterey Regional Airport

Study No.	Intersection	Intersection Control	LOS Standard	Peak Hour	Existing Condition		Cumulative without Alt. 1 (Short Term)		Alt. 1 Trips	Cumulative with Alt. 1 (Short Term)	
					Delay ¹	LOS	Delay ¹	LOS		Delay ¹	LOS
1	Olmsted Rd/ Highway 68	Signal	C/D	AM	51.0	D	64.2	E	-10	64.2	E
				PM	126.0	F	145.2	F	-11	142.3	F
2	Olmsted Rd/ Garden Rd	One-way Stop	D	AM	10.7	B	11.5	B	-17	23.1	C
				PM	10.8	B	11.5	B	-18	17.3	C
3	Olmsted Rd/ Fred Kane Dr	All-Way Stop	D	AM	7.6	A	7.7	A	0	7.6	A
				PM	8.2	A	8.6	A	0	8.3	A
4 (CONA)	Airport Rd/ Euclid Ave	Two-Way Stop	D	AM	9.8	A	9.9	A	-1	9.9	A
				PM	10.1	B	10.2	B	-2	10.2	B
5 (CONA)	Airport Rd/North Fremont St	Signal	D	AM	11.7	B	12.6	B	-3	12.6	B
				PM	14.2	B	14.8	B	-4	14.8	B
6	Del Monte Blvd/ Highway 218	Signal	C/D	AM	34.3	C	38.5	D	4	38.6	D
				PM	38.9	D	45.0	D	4	45.0	D
7	Highway 218/ Fremont Blvd	Signal	C/D	AM	31.3	C	38.0	D	4	38.2	D
				PM	46.1	D	58.7	E	4	58.8	E
8	Highway 218/Gen Jim Moore Blvd	Signal	C/D	AM	17.0	B	19.5	B	6	19.6	B
				PM	15.2	B	18.5	B	6	18.7	B
9	Highway 218/Del Rey Gardens Dr	One-Way Stop	C/D	AM	24.1	C	28.5	D	18	29.3	D
				PM	19.0	C	22.0	C	20	22.1	C
10	Highway 218/ Ryan Ranch Rd	Signal	C/D	AM	6.9	A	7.4	A	10	7.4	A
				PM	16.6	B	25.7	C	12	26.1	C
11	Josselyn Canyon Rd/Highway 68	Signal	C/D	AM	44.5	D	51.4	D	-2	51.2	D
				PM	19.8	B	22.7	C	-3	22.6	C
12	Highway 218/ Highway 68	Signal	C/D	AM	24.3	C	32.2	C	3	32.2	C
				PM	29.7	C	33.1	C	4	33.5	C
13	Ragsdale Dr/ Highway 68	Signal	C/D	AM	12.3	B	12.1	B	-1	12.1	B
				PM	4.2	A	4.2	A	-1	4.2	A
14	York Rd/ Highway 68	Signal	C/D	AM	25.3	C	32.6	C	-1	32.5	C
				PM	42.8	D	46.8	D	-1	46.8	D
15	Pasadera Dr/ Highway 68	Signal	C/D	AM	47.5	D	67.4	E	-1	67.2	E
				PM	14.5	B	17.7	B	-1	17.6	B
16	Laureles Grade Rd/Highway 68	Signal	C/D	AM	27.2	C	36.6	D	-1	36.5	D
				PM	31.7	C	39.5	D	-1	39.3	D
17	Corral de Tierra Rd/Highway 68	Signal	C/D	AM	35.2	D	91.4	F	-1	91.2	F
				PM	57.8	E	64.3	E	-1	64.2	E
18	San Benancio Rd/Highway 68	Signal	C/D	AM	70.3	E	106.6	F	-1	106.5	F
				PM	18.9	B	36.6	D	-1	36.5	D
19	Torero Dr/ Highway 68	One-Way Stop	C/D	AM	> 300	F	>300	F	-1	>300	F
				PM	111.3	F	156.5	F	-1	156.5	F

Source: Mott MacDonald 2018 (Appendix M, Tables 24 and 25)

Alt. = Alternative; LOS = level of service; Rd = Road; Dr = Drive; Ave = Avenue; CONA = Casanova Oak Knoll neighborhood; St = Street; Blvd = Boulevard; Gen = General

¹ Signal and all-way stop delay is average overall delay in seconds per vehicle (sec/veh); one- and two-way stop delay is worst approach delay in seconds per vehicle (sec/veh).

NOTE: Intersections/LOS in RED indicate a project-related cumulative impact.

Alternative 1 would also have a Potentially Significant cumulative impact on the following road segment under cumulative short-term (10-year) plus Alternative 1 conditions:

Segment #4 – Highway 68, from Olmsted Road to Highway 218

Alternative 1 would add three AM peak hour trips and four PM peak hour trips to this roadway segment, the effects of which would be negligible. However, in conjunction with other cumulative traffic, cumulative impacts to the highway segments listed above are Potentially Significant since the amount of traffic on the roadway segments has an indirect impact on the deficient LOS operation of the intersections in the same areas.

Based on the analysis, both the existing conditions and the 10-year cumulative short-term conditions require major improvements to the local and regional road network to mitigate the overall congestion with or without Alternative 1. However, due to the Caltrans impact criteria of one additional trip through a deficient intersection, cumulative impacts of Alternative 1 in the short term are still considered Potentially Significant.

Long-Term (20-Year) Cumulative Traffic Conditions

Similar to the Proposed Project, in the long term, Alternative 1 is estimated to generate almost 11,000 new daily trips (see Section 4.16.5 and Table 4.16F). The only difference between the Alternative 1 and the Proposed Project long-term scenarios is that Alternative 1 includes the relocation of the proposed ARFF building from the south side of the Airport to the north side of the Airport. This would result in the same amount of net new traffic on the road network as the Proposed Project; however, under Alternative 1, traffic generated by the ARFF building would be redistributed from the south side of the Airport to the north side of the Airport.

Table 5L summarizes the cumulative long-term (20-year) plus Alternative 1 intersection LOS at all 19 study intersections. These LOS are compared to the existing conditions as well as cumulative without Alternative 1 condition. It should be noted that the deficient intersections (with the exception of Intersection #8, Highway 218/General Jim Moore Boulevard) would also operate at deficient LOS under cumulative without Alternative 1 conditions and some currently operate at deficient LOS under the existing condition. LOS calculation worksheets and vehicle queue estimates are included in the appendices to the TIA (**Appendix M**).

TABLE 5L
Cumulative Long-Term (20-Year) Plus Alternative 1 Intersection Levels of Service
Monterey Regional Airport

Study No.	Intersection	Intersection Control	LOS Standard	Peak Hour	Existing Condition		Cumulative without Alt. 1 (Long Term)		Alt. 1 Trips	Cumulative with Alt. 1 (Long Term)	
					Delay	LOS	Delay	LOS		Delay	LOS
1	Olmsted Rd/ Highway 68	Signal	C/D	AM PM	51.0 126.0	D F	73.0 165.2	E F	522 542	146.1 >300	F F
2	Olmsted Rd/ Garden Rd	One-way Stop	D	AM PM	10.7 10.8	B B	12.5 12.2	B B	381 407	31.6 27.1	D D
3	Olmsted Rd/ Fred Kane Dr	All-Way Stop	D	AM PM	7.6 8.2	A A	7.8 8.9	A A	0 0	7.6 7.8	A A
4 (CONA)	Airport Rd/ Euclid Ave	Two-Way Stop	D	AM PM	9.8 10.1	A B	10.1 10.4	B B	-1 -2	10.1 10.4	B B
5 (CONA)	Airport Road/ North Fremont St	Signal	D	AM PM	11.7 14.2	B B	12.6 15.4	B B	134 131	12.8 15.8	B B
6	Del Monte Blvd/ Highway 218	Signal	C/D	AM PM	34.3 38.9	C D	42.8 52.8	D D	151 148	45.7 55.1	D E
7	Highway 218/ Fremont Blvd	Signal	C/D	AM PM	31.3 46.1	C D	46.5 72.2	D E	369 363	56.2 106.5	E F
8	Highway 218/Gen Jim Moore Blvd	Signal	C/D	AM PM	17.0 15.2	B B	24.0 23.4	C C	493 486	68.0 47.6	E D
9	Highway 218/Del Rey Gardens Dr	One-Way Stop	C/D	AM PM	24.1 19.0	C C	34.7 25.5	D D	1,047 1,024	108.3 >300	F F
10	Highway 218/ Ryan Ranch Rd	Signal	C/D	AM PM	6.9 16.6	A B	8.1 45.7	A D	610 599	12.9 59.7	B E
11	Josselyn Canyon Rd/Highway 68	Signal	C/D	AM PM	44.5 19.8	D B	59.7 26.1	E C	233 238	101.0 53.6	F D
12	Highway 218/ Highway 68	Signal	C/D	AM PM	24.3 29.7	C C	39.6 33.6	D C	760 757	66.1 56.3	E E
13	Ragsdale Dr/ Highway 68	Signal	C/D	AM PM	12.3 4.2	B A	12.1 4.2	B A	536 532	20.4 4.5	C A
14	York Rd/ Highway 68	Signal	C/D	AM PM	25.3 42.8	C D	42.3 51.1	D D	508 504	122.0 84.9	F F
15	Pasadera Dr/ Highway 68	Signal	C/D	AM PM	47.5 14.5	D B	90.7 22.5	F C	494 491	202.5 79.1	F E
16	Laureles Grade Rd/Highway 68	Signal	C/D	AM PM	27.2 31.7	C C	44.0 42.6	D D	480 478	112.1 88.4	F F
17	Corral de Tierra Rd/Highway 68	Signal	C/D	AM PM	35.2 57.8	D E	166.9 73.1	F E	452 450	260.9 155.8	F F
18	San Benancio Rd/Highway 68	Signal	C/D	AM PM	70.3 18.9	E B	152.8 54.5	F D	438 437	236.2 129.9	F F
19	Torero Dr/ Highway 68	One-Way Stop	C/D	AM PM	> 300 111.3	F F	>300 208.1	F F	424 424	>300 >300	F F

Source: Mott MacDonald 2018 (Appendix M, Table 29)

Alt. = Alternative; LOS = level of service; Rd = Road; Dr = Drive; Ave = Avenue; CONA = Casanova Oak Knoll neighborhood; St = Street; Blvd = Boulevard; Gen = General

¹ Signal and all-way stop delay is average overall delay in seconds per vehicle (sec/veh); one- and two-way stop delay is worst approach delay in seconds per vehicle (sec/veh).

NOTE: Intersections/LOS in RED indicate a project-related cumulative impact.

As a result of Alternative 1 and other cumulative approved and proposed projects, the following study intersections would operate deficiently under cumulative long-term (20-year) plus Alternative 1 traffic conditions:

- Intersection #1 – Olmsted Road/Highway 68 (AM and PM peak hour)
- Intersection #6 – Del Monte Boulevard/Highway 218 (AM and PM peak hour)
- Intersection #7 – Highway 218 Fremont Boulevard (AM and PM peak hour)
- Intersection #8 – Highway 218/General Jim Moore Boulevard (AM and PM peak hour)
- Intersection #9 – Highway 218/Del Rey Gardens Drive (AM and PM peak hour)
- Intersection #10 – Highway 218/Ryan Ranch Road (PM peak hour)
- Intersection #11 – Josselyn Canyon Road/Highway 68 (AM and PM peak hour)
- Intersection #12 – Highway 218/Highway 68 (AM and PM peak hour)
- Intersection #14 – York Road/Highway 68 (AM and PM peak hour)
- Intersection #15 – Pasadera Drive/Highway 68 (AM and PM peak hour)
- Intersection #16 – Laureles Grade Road/Highway 68 (AM and PM peak hour)
- Intersection #17 – Corral De Tierra Road/Highway 68 (AM and PM peak hour)
- Intersection #18 – San Benancio Road/Highway 68 (AM and PM peak hour)
- Intersection #19 – Torero Drive/Highway 68 (AM and PM peak hour)

The following road segments operate deficiently under existing conditions and would continue to operate deficiently with the added traffic under either the cumulative long-term (20-year) without Alternative 1 or plus Alternative 1 traffic conditions:

- Segment #2 – Highway 68, from Begin/End Freeway to Josselyn Canyon Road
- Segment #3 – Highway 68, from Josselyn Canyon Road to Olmsted Road
- Segment #4 – Highway 68, from Olmsted Road to Highway 218
- Segment #6 – Highway 68, from Ragsdale Drive to Laureles Grade
- Segment #7 – Highway 68, from Laureles Grade to Corral De Tierra Road
- Segment #8 – Highway 68, from Corral De Tierra Road to Torero Drive

Similar to the Proposed Project, Alternative 1 could add from 400 to more than 500 AM or PM peak hour trips to these roadway segments. Thus, in conjunction with other cumulative traffic, cumulative impacts to the highway segments listed above are Potentially Significant since the amount of traffic on the roadway segments has an indirect impact on the deficient LOS operation of the intersections in the same areas.

In addition, although outside the project study area, traffic generated by the cumulative long-term (20-year) without Alternative 1 or plus Alternative 1 scenarios is expected to continue to impact the short weaving segments at the N. Fremont Street/Highway 1/Highway 68 interchange. In addition, mainline segments of Highway 1 would also likely be impacted. In conjunction with other cumulative traffic, cumulative impacts to the weaving segments are considered Potentially Significant since the weaving segments are already considered deficient.

Based on the analysis, the level of long-term development assumed under Alternative 1, in addition to other cumulative projects, would have Potentially Significant traffic impacts that would require major improvements to the local and regional road network.

Mitigation Program

Proposed Project - Short-Term (10-Year) Cumulative Traffic Conditions

The following roadway improvements would address cumulative short-term (10-year) plus Proposed Project traffic impacts. The Airport would be responsible for a fair-share contribution towards the total cost of these improvements, based on the number of project trips it would add to the deficient intersections (**Table 5I**). However, the following roadway improvements would be to Caltrans facilities and would have to be approved by Caltrans before implementation and would be subject to Caltrans timing. In addition, even with the Proposed Project’s fair-share contribution, there is no guarantee that there would be sufficient funding available to implement these improvements.

Further, a fair-share contribution may not be feasible if disallowed by federal law; federal law states that airport revenues and FAA grant funds may not be used for purposes other than the capital or operating costs of the airport, the local airport system, or other local facilities owned or operated by the airport owner or operator that are directly and substantially related to the air transportation of passengers and property. These restrictions impact the Airport’s ability to fund and implement off-airport mitigation measures. Now that the Airport has identified specific mitigation measures for Proposed Project cumulative impacts, it can make specific requests to the FAA, where appropriate, for it to allow funding of off-airport mitigation measures.

At this time, however, because the Airport does not currently have a determination from the FAA that funding for any off-airport mitigation improvements will be allowed, the following mitigation measures are considered infeasible. Detailed information about the law and regulations prohibiting diversion of airport revenues and FAA grants is found at **Appendix N** to this Draft EIR.

CUM TR/mm-1:

Prior to the first occupancy of any new or redeveloped facility that is part of the 10-year development of the Proposed Project, the following improvements to Intersection #6: Del Monte Boulevard/Highway 218 shall be in place:

- 1. Add 2nd Northbound Del Monte Blvd Left-Turn Lane;*
- 2. Add Northbound Del Monte Blvd Right-Turn Overlap Phasing;*
and
- 3. Add Southbound Del Monte Blvd Right-Turn Overlap Phasing*

Proposed Mitigation Measure CUM TR/mm-1 is not considered feasible because the mitigation project is within Caltrans’ jurisdiction and FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.

CUM TR/mm-2:

Prior to the first occupancy of any new or redeveloped facility that is part of the 10-year development of the Proposed Project, the following improvement to Intersection #7: Highway 218/Fremont Boulevard shall be in place:

1. Add 2nd Northbound Del Monte Blvd Left-Turn Lane

Proposed Mitigation Measure CUM TR/mm-2 is not considered feasible because the mitigation project is within Caltrans' jurisdiction and FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.

CUM TR/mm-3:

Prior to the first occupancy of any new or redeveloped facility that is part of the 10-year development of the Proposed Project, the following improvements to Intersection #9: Highway 218/Del Rey Gardens Drive shall be in place:

1. Signalize Intersection;
2. Add 2nd Northbound Highway 218 Through Lane; and
3. Add 2nd Southbound Highway 218 Through Lane

Proposed Mitigation Measure CUM TR/mm-3 is not considered feasible because the mitigation project is within Caltrans' jurisdiction and FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.

In addition, the following intersections should be converted to roundabouts as proposed in TAMC's *SR 68 Scenic Highway Plan* study. The conversion to roundabouts would also mitigate impacts to various roadway segments along Highway 68 within the study area, including those to roadway segments that would have additional trips from the Proposed Project (Roadway Segments #6, #7, #8 and #9). Per the TAMC website, Measure X sales tax funds have been dedicated to the *SR 68 Scenic Highway Plan*, which is also a candidate for federal infrastructure funding and state funding from SB 1 programs.

CUM TR/mm-4:

Prior to the first occupancy of any new or redeveloped facility that is part of the 10-year development of the Proposed Project, Intersection #14: York Road/Highway 68 shall be converted to a roundabout.

Proposed CUM TR/mm-4 is not considered feasible because the mitigation project is within Caltrans' jurisdiction and FAA may not authorize the use of any FAA grant funds or airport revenue to be used

to construct or fund any off-airport improvements or mitigation measure.

CUM TR/mm-5:

Prior to the first occupancy of any new or redeveloped facility that is part of the 10-year development of the Proposed Project, Intersection #16: Laureles Grade Road/Highway 68 shall be converted to a roundabout.

Proposed CUM TR/mm-5 is not considered feasible because the mitigation project is within Caltrans' jurisdiction and FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.

CUM TR/mm-6:

Prior to the first occupancy of any new or redeveloped facility that is part of the 10-year development of the Proposed Project, Intersection #17: Corral De Tierra/Highway 68 shall be converted to a roundabout.

Proposed Mitigation Measure CUM TR/mm-6 is not considered feasible because the mitigation project is within Caltrans' jurisdiction and FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.

CUM TR/mm-7:

Prior to the first occupancy of any new or redeveloped facility that is part of the 10-year development of the Proposed Project, Intersection #18: San Benancio/Highway 68 shall be converted to a roundabout.

Proposed Mitigation Measure CUM TR/mm-7 is not considered feasible because the mitigation project is within Caltrans' jurisdiction and FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.

CUM TR/mm-8:

Prior to the first occupancy of any new or redeveloped facility that is part of the 10-year development of the Proposed Project, Intersection #19: Torero Drive/Highway 68 shall be converted to a roundabout.

Proposed Mitigation Measure CUM TR/mm-8 is not considered feasible because the mitigation project is within Caltrans' jurisdiction

and FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.

In addition to the above proposed roadway improvements, SB 743 was signed into law and requires by July 1, 2020, that agencies use new metrics for analyzing transportation impacts under the CEQA to provide an alternative to LOS. Measurements of transportation impacts may include VMT, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated. In most cases, a project's effect on automobile delay will no longer constitute a significant environmental impact. As the region adopts the new VMT metric for determining the significance of traffic impacts, the following mitigation should be implemented for the Proposed Project's cumulative traffic impacts.

CUM TR/mm-9:

Implementing agencies shall evaluate VMT as part of project-specific review and discretionary approval decisions for land use projects consistent with then applicable regulatory requirements under CEQA. Where project-level significant impacts are identified, implementing agencies (including the Airport as applicable) shall identify and implement measures that reduce VMT. Examples of measures that reduce VMT include infill development, mixed use and transit-oriented development, complete street programs, reduced parking requirements, and providing alternative transportation facilities, such as bike lanes and transit stops.

Alternative 1 - Short-Term (10-Year) Cumulative Traffic Conditions

The following roadway improvements would address cumulative short-term (10-year) plus Alternative 1 traffic impacts. The Airport would be responsible for a fair-share contribution towards the total cost of these improvements, based on the relative number of project trips it would add to the intersection (**Table 5K**). However, these improvements would be to Caltrans facilities and would have to be approved by Caltrans before implementation and would be subject to Caltrans' timing. In addition, even with Alternative 1's fair-share contribution, there is no guarantee that there would be sufficient funding available to implement these improvements.

Further, a fair-share contribution may not be feasible if disallowed by federal law; federal law states that airport revenues and FAA grant funds may not be used for purposes other than the capital or operating costs of the airport, the local airport system, or other local facilities owned or operated by the airport owner or operator that are directly and substantially related to the air transportation of passengers and property. These restrictions impact the Airport's ability to fund and implement off-airport mitigation measures. Now that the Airport has identified specific mitigation measures for Alternative 1 cumulative impacts, it can make specific requests to the FAA, where appropriate, for it to allow funding of off-airport mitigation measures.

At this time, however, because the Airport does not currently have a determination from the FAA that funding for any off-airport mitigation improvements will be allowed, the following mitigation measures

are considered infeasible. Detailed information about the law and regulations prohibiting diversion of airport revenues and FAA grants is found at **Appendix N** to this Draft EIR.

CUM TR/mm-10 (Alt. 1):

Prior to the first occupancy of any new or redeveloped facility that is part of the 10-year development of Alternative 1, the following improvements to Intersection #6: Del Monte Boulevard/Highway 218 shall be in place:

- 4. Add 2nd Northbound Del Monte Blvd Left-Turn Lane;*
- 5. Add Northbound Del Monte Blvd Right-Turn Overlap Phasing;
and*
- 6. Add Southbound Del Monte Blvd Right-Turn Overlap Phasing*

Proposed Mitigation Measure CUM TR/mm-10 is not considered feasible because the mitigation project is within Caltrans' jurisdiction and FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.

CUM TR/mm-11 (Alt. 1):

Prior to the first occupancy of any new or redeveloped facility that is part of the 10-year development of Alternative 1, the following improvement to Intersection #7: Highway 218/Fremont Boulevard shall be in place:

- 2. Add 2nd Northbound Del Monte Blvd Left-Turn Lane*

Proposed Mitigation Measure CUM TR/mm-11 is not considered feasible because the mitigation project is within Caltrans' jurisdiction and FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.

CUM TR/mm-12 (Alt. 1):

Prior to the first occupancy of any new or redeveloped facility that is part of the 10-year development of Alternative 1, the following improvements to Intersection #9: Highway 218/Del Rey Gardens Drive shall be in place:

- 4. Signalize Intersection;*
- 5. Add 2nd Northbound Highway 218 Through Lane; and*
- 6. Add 2nd Southbound Highway 218 Through Lane*

Proposed Mitigation Measure CUM TR/mm-12 is not considered feasible because the mitigation project is within Caltrans' jurisdiction and FAA may not authorize the use of any FAA grant funds or

airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.

As discussed above under the Proposed Project's mitigation program, future measurements of transportation impacts may include VMT, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated. In most cases, a project's effect on automobile delay will no longer constitute a significant environmental impact. As the region adopts the new VMT metric, the following mitigation should be implemented for the Alternative 1's cumulative traffic impacts.

CUM TR/mm-13 (Alt. 1):

Implementing agencies shall evaluate VMT as part of project-specific review and discretionary approval decisions for land use projects consistent with then applicable regulatory requirements under CEQA. Where project-level significant impacts are identified, implementing agencies (including the Airport as applicable) shall identify and implement measures that reduce VMT. Examples of measures that reduce VMT include infill development, mixed use and transit-oriented development, complete street programs, reduced parking requirements, and providing alternative transportation facilities, such as bike lanes and transit stops.

Proposed Project and Alternative 1 - Long-Term (20-Year) Cumulative Traffic Conditions

In the cumulative long-term (20-year), major improvements to the regional and local roadway network will be necessary to achieve LOS C traffic operations in the study area under either the Proposed Project or Alternative 1. As previously discussed, these improvements would be to Caltrans facilities and would have to be approved by Caltrans before implementation. In addition, even with the Proposed Project or Alternative 1's fair-share contribution, there is no guarantee that there would be sufficient funding available to implement these improvements.

Further, a fair-share contribution may not be feasible if disallowed by federal law; federal law states that airport revenues and FAA grant funds may not be used for purposes other than the capital or operating costs of the airport, the local airport system, or other local facilities owned or operated by the airport owner or operator that are directly and substantially related to the air transportation of passengers and property. These restrictions impact the Airport's ability to fund and implement off-airport mitigation measures. Detailed information about the law and regulations prohibiting diversion of airport revenues and FAA grants is found at **Appendix N** to this Draft EIR.

The Proposed Project and Alternative 1 contributions to the cumulative long-term (20-year) have been based upon "worst-case" assumptions of potential future development on the north and south sides of the Airport. Project-specific traffic analyses will be necessary to reflect actual project conditions as these future projects are brought forth and detailed mitigation will be required at that time, consistent with then applicable regulatory requirements under CEQA. Thus, the following discussion of future roadway improvements that might be necessary is qualitative only.

- Highway 218 Corridor. It is anticipated that two Highway 218 through lanes would be required in each direction at the Highway 218 intersections with Del Monte Boulevard, N. Fremont Street, General Jim Moore Boulevard, Del Rey Gardens Drive, and Ryan Ranch Road. Two lanes in each direction would probably also be required at other intersections along the corridor, and possibly along the entire length of the corridor. TAMC is in the beginning stages of conducting a Highway 218 Corridor Study. When completed, the Highway 218 Corridor Study is expected to provide information regarding potential strategies for improving the corridor. Caltrans has also anticipated the widening of Highway 218, as described in a 2009 Caltrans “Transportation Planning Fact Sheet.”

At the Highway 218/Highway 68 intersection, the Highway 68 approaches are expected to require dual eastbound left-turn lanes, three westbound through lanes, and dual westbound right-turn lanes, while the southbound Highway 218 approach is expected to require triple southbound left-turn lanes and dual southbound right-turn lanes.

The Highway 218/Del Rey Gardens Drive intersection would provide the only public access to the development on the northeast side of the Airport. As a result, all traffic to the northeast side of the Airport would be concentrated at this intersection. At the Highway 218 / Del Rey Gardens Drive intersection, northbound Highway 218 is expected to require triple northbound left-turn lanes (in addition to two northbound and two southbound through lanes), and eastbound Del Rey Gardens Drive is expected to require dual left-turn lanes and dual right-turn lanes. The existing northbound left-turn lane at this intersection is extremely short (about 50 feet long) and is back-to-back with the southbound left-turn lane at the Monterey Peninsula School District driveway, which is only about 100 feet south of Del Rey Gardens Drive. To allow the widening of Highway 218 and the additional turn lanes at this location, the school district driveway may have to be realigned to form a four-legged intersection with Del Rey Gardens Drive. Realigning the school district driveway would require significant earthwork due to the steep embankment on the east side of Highway 218.

- Highway 68 Corridor. The *SR 68 Scenic Highway Plan* study identified a series of improvements along Highway 68 to relieve congestion and improve safety and reliability along the corridor, with improvements phased in over a 20-year timeframe. “Roundabout Corridor: Concept 1 – Modified,” the Preferred Corridor Concept in the *SR 68 Scenic Highway Plan* study, includes converting nine of the Highway 68 intersections in this study to roundabout control. The Highway 68 Improvement Corridor Team, which includes the Airport, Caltrans, TAMC, the County of Monterey, and the cities of Monterey, Del Rey Oaks and Seaside, will need to conduct further analysis to determine the improvements necessary to mitigate impacts caused by the cumulative long-term plus Proposed Project or Alternative 1 scenarios.
- Highway 1 and N. Fremont/Highway 1/Highway 68 Merge Areas. To mitigate cumulative impacts on the mainline segments of Highway 1 and the short weaving segments at the N. Fremont Street/Highway 1/Highway 68 interchange, the mainline may need to be widened to add another lane in each direction and the weaving segments may need to be lengthened.

- **Reduction of VMT.** As discussed above under the Proposed Project's mitigation program, future measurements of transportation impacts may include VMT, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated. In most cases, a project's effect on automobile delay will no longer constitute a significant environmental impact. As the region adopts the new VMT metric, mitigation should be required to mitigate cumulative impacts, such as: Implementing agencies (including the Airport as applicable) shall evaluate VMT as part of project-specific review and discretionary approval decisions for land use projects consistent with then applicable regulatory requirements under CEQA. Where project-level significant impacts are identified, implementing agencies shall identify and implement measures that reduce VMT. Examples of measures that reduce VMT include infill development, mixed use and transit-oriented development, complete street programs, reduced parking requirements, and providing alternative transportation facilities, such as bike lanes and transit stops.

Level of Significance After Mitigation

The Proposed Project and Alternative 1's cumulative short-term (10-year) and long-term (20-year) impacts are considered Significant and Unavoidable at this time. As discussed above under *Mitigation Program*, the roadway improvements necessary to reduce the significant impacts are infeasible for the Airport to implement as they are within the jurisdiction and control of another agency (Caltrans) and, thus, construction of the needed improvements within the necessary timeframe cannot be assured. In addition, FAA may not authorize the use of any FAA grant funds or airport revenue to be used to construct or fund any off-airport improvements or mitigation measure.

In the future, as VMT becomes the required traffic metric, proposed development projects at the Airport should incorporate appropriate transportation demand management (TDM) measures and practices into the proposed development. At that time, depending on the effectiveness of the TDM measures, cumulative impacts may be found to be mitigated below a Level of Significance.

5.5.17 Tribal Cultural Resources

The relevant geographic area of analysis for cumulative tribal cultural resource impacts is the Airport proper. Tribal cultural resources have been identified on the Airport in the past. Since impacts to tribal cultural resources are location-specific, cumulative impacts off the Airport have not been discussed.

Proposed Project and Alternative 1

At the Airport, there is one previously identified archaeological prehistoric site. As part of the Airport's RSA Project, data recovery efforts were conducted on the affected portion of the prehistoric component of P-27-1459 (CA-MNT-1438/H), which included all portions of the site inside the Airport's perimeter fence. No other prehistoric archaeological sites have been discovered at the Airport, including the cultural survey completed for the Airport's proposed Infield and Taxiway Improvements project. If tribal cultural resources or human remains are discovered later due to construction activities, standard required protocols would be followed.

As previously described in Section 4.17.2, the Airport contacted numerous Native American tribal representatives regarding the preparation of this EIR. Louise Miranda-Ramirez of the Ohlone/Costanoan-Esselen Nation (OCEN) responded with a request for consultation under Assembly Bill (AB) 52 on January 11, 2016. A consultation meeting took place on October 4, 2016, which included representatives of the Airport and Ms. Miranda-Ramirez. The results of that meeting have been used to assess potential impacts to tribal cultural resources related to cumulative impacts.

Although the Airport has completed cultural surveys for all its past, current, and proposed cumulative projects and the only archaeological site known to be present has been mitigated through data recovery efforts, not all areas of the Airport have had adequate ground visibility for the field survey efforts. Therefore, the Proposed Project and Alternative 1 would have Potentially Significant impacts related to unknown tribal cultural resources that could be present, given the Airport's overall sensitivity to such resources. For the same reason, cumulative impacts to Tribal Cultural Resources could also be Potentially Significant.

Mitigation Program

No mitigation measures other than those already proposed in Section 4.17.6 are necessary to mitigate Potentially Significant cumulative impacts of the Proposed Project or Alternative 1 related to Tribal Cultural Resources. TRIB/mm-1 and TRIB/mm-2 require that the Airport continue to consult with OCEN regarding projects requiring ground-disturbing activities within the project study area. The Airport shall also provide OCEN with copies of cultural resource reports that include tribal cultural resources. If previously undocumented tribal cultural resources are discovered (e.g., inadvertent discovery), the Airport shall consult with OCEN regarding proper treatment and disposition of the finds. This could include the repatriation of items of cultural patrimony, OCEN participation in the development of treatment plans, use of an approved OCEN Native American monitor, and review of treatment plan documents and reports.

Level of Significance After Mitigation

Similar to the project-specific impacts described in Section 4.17.5, cumulative impacts of the Proposed Project or Alternative 1 due to possibility of undiscovered tribal cultural resources at the Airport would be mitigated to Less than Significant due to the incorporation of TRIB/mm-1 and TRIB/mm-2, as necessary.

5.5.18 Utilities and Service Systems

The geographic scope for cumulative impacts related to water, wastewater (sewer), and solid waste disposal utilities/service systems encompasses the Monterey Peninsula region within the respective service districts of the MPWMD, the Monterey One Water (M1W) (formerly the Monterey Regional Water Pollution Control Agency [MRWPCA]), and the Monterey Regional Waste Management District (MRWMD). The Proposed Project and Alternative 1, as with other new development, would require service from these utility providers for construction and operation. These providers continually assess projected demand and plans and operate accordingly.

5.5.18.1 Water Supply and Service

Proposed Project and Alternative 1

As discussed previously under the discussion of groundwater demand in Section 5.5.10, full buildout of the Proposed Project or Alternative 1 (based on long-term worst-case development assumptions) could be approximately 1.18 Acre-Feet (AF) above the Airport's existing available annual groundwater entitlements from CalAm. Cumulative projects listed in Section 5.3 would also require potable water.

As of May 31, 2018, per SB 606 and Assembly Bill [AB] 1668, permanent statewide water efficiency standards and other provisions will be required of the Airport, the cumulative projects listed in Section 5.3, and of MPWMD (California Office of Governor website 2018) as follows:

- Establishing an indoor, per person water use goal of 55 gallons per day (gpd) until 2025, 52.5 gpd from 2025, and 50 gpd beginning in 2030;
- Creating incentives for water suppliers to recycle water; and
- Requiring both urban and agricultural water suppliers to set annual water budgets and prepare for drought.

In addition, beyond the available groundwater supply, desalination could be combined with aquifer storage and recovery in the Seaside Groundwater Basin to meet the Monterey Peninsula's potable water supply needs. The Monterey Peninsula Water Supply Project includes construction of a desalination plant in Marina that would produce 9,700 acre-feet per year (AFY) to serve cities throughout Monterey County (State of California Public Utilities Commission website 2018). The project has three components: desalination, aquifer storage and recovery, and Pure Water Monterey (groundwater replenishment). Up to 21 miles of desalinated water conveyance pipeline and mains, as well as associated facilities, including a pump station, are also planned. However, the project is still undergoing environmental review under CEQA. Thus, for the purposes of this analysis, the Monterey Peninsula Water Supply Project is considered speculative.

However, since evaluating the proposed water sources, potable water demand, and water reduction savings for each of the cumulative projects is beyond the scope of this analysis and since future water sources within the Monterey Peninsula region have not been secured, it is assumed that cumulative impacts to water supply and service within the region could occur and are Potentially Significant.

Mitigation Program

Mitigation measure HYD/mm-1 states, "Proposed long-term projects shall not proceed without a guaranteed water source that has been approved by the MPWMD and that shows that adverse groundwater impacts to constrained basins would not occur." This measure would ensure that cumulative impacts to water supply and service as a result of the Proposed Project or Alternative 1 do not occur as well.

Level of Significance After Mitigation

Upon implementation of HYD/mm-1, as well as required water conservation measures per SB 606 and AB 1668, significant cumulative impacts to water supply and service from the Proposed Project or Alternative 1 would be Less Than Significant.

5.5.18.2 Wastewater (Sewer) Treatment and Disposal

Proposed Project and Alternative 1

The M1W wastewater regional treatment plant (M1W plant) currently treats 18.5 million gallons per day (mgd) of wastewater. It has a design capacity of 29.6 mgd and, thus, currently has a remaining capacity of 11.1 mgd (M1W website 2018). The Airport currently disposes of approximately 14,245 gpd to the M1W plant, which is 0.05 percent of its total capacity and 0.13 percent of its remaining capacity. Overall, in both the short and long terms, the total estimated wastewater increases from the Proposed Project or Alternative 1 are approximately 54,513 gpd, which is 0.49 percent of the M1W plant's remaining capacity (Section 4.18.2.5).

Considering the M1W plant is currently under capacity, and the increase in wastewater generation is far below the processing capabilities of the M1W plant, additional wastewater generation from the other cumulative projects in conjunction with either the Proposed Project or Alternative 1 would not necessitate the construction or expansion of the M1W plant due to inadequate capacity. No concerns regarding wastewater treatment have been identified based on communication with M1W administrative personnel (McCullough, M., M1W, Government Affairs Administration 2018). In addition, as discussed above in Section 5.5.18.1, SB 606 and AB 1668 require that new projects establish an indoor, per person water use goal of 55 gpd until 2025, 52.5 gpd from 2025, and 50 gpd beginning in 2030. These water use goals will also reduce a proportionate amount of wastewater.

Cumulative impacts of the Proposed Project or Alternative 1 on wastewater treatment and disposal are considered Less than Significant.

5.5.18.3 Solid Waste Disposal

MRWMD's facilities are located on a 475-acre property, two miles north of Marina, adjacent to the M1W RTP. The Monterey Peninsula Landfill (MPL) currently receives approximately 490,000 tons per year (approximately 1,300 tons per day) of municipal solid waste for disposal (MRWMD website 2018). MRWMD is currently filling in its fifth landfill module since the MPL became operational in 1965. Module 5 is a 23-acre site that began accepting waste in 2013 and has a total waste capacity of 5,000,000 tons. The MPL is projected to reach capacity in the year 2115. The estimated total solid waste generation for the full buildout of the Proposed Project or Alternative 1 would result in approximately 6.25 tons per day (Section 4.18.3.5). However, the MPL can handle 3,500 tons per day.

Additional solid waste generation from the other cumulative projects in conjunction with either the Proposed Project or Alternative 1 would not necessitate the construction or expansion of the M1W

wastewater treatment plant due to inadequate capacity. Therefore, solid waste generation and disposal due to the Proposed Project or Alternative 1 would be Less than Significant.

5.6 SUMMARY OF CUMULATIVE IMPACTS

As described in Section 5.5, the Proposed Project and Alternative 1 could not only have potential impacts from the individual project components, but in conjunction with other approved or proposed projects on the Airport or in the surrounding area, as well as overall forecast airport and regional growth (Sections 5.2 through Section 5.4).

Table 5M provides a summary of the cumulative impacts of the Proposed Project or Alternative 1 when considered in conjunction with other cumulative projects. For all impact categories, the potential cumulative impacts of the Proposed Project and Alternative 1 would be the same. In most cases, the project-specific mitigation measures listed in Chapter Four would also mitigate potential cumulative impacts below a level of significance. However, in some cases, as identified in the table, additional mitigation measures are warranted. In other cases, cumulative impacts would be Significant and Unavoidable.

TABLE 5M Summary of Proposed Project and Alternative 1 Cumulative Impacts Proposed Monterey Regional Airport Master Plan			
Resource/Threshold	Cumulative Level of Significance	Proposed Mitigation	Level of Significance After Mitigation
AESTHETICS			
Impacts to the scenic viewshed and resources of Highway 68	Potentially Significant	AES/mm-1 through AES/mm-3 and AES/rr-1 and AES/rr-2	Potentially Significant And Unavoidable
AGRICULTURE AND FOREST RESOURCES			
No Impact	N/A	N/A	N/A
AIR QUALITY			
Additional criteria pollutants	Potentially Significant	AQ/rr-1 and AQ/rr-2; TR/mm-6, TR/mm-9; and TR/mm-10	Potentially Significant And Unavoidable
BIOLOGICAL RESOURCES			
Yadon’s piperia, sandmat manzanita, Monterey spineflower, coast live oak, and Monterey pine experience loss and ongoing pressure from cumulative development including, loss of habitat and habitat fragmentation, erosion/sedimentation, manmade intrusions such as light, noise and overall activity, and the introduction of nonnative invasive species	Potentially Significant	BIO/mm-1 through BIO/mm-47	Potentially Significant And Unavoidable

TABLE 5M (Continued)			
CULTURAL RESOURCES			
Impacts to historical or paleontological resources	Less than Significant	AES/mm-1 through AES/mm-3 and AES/rr-1 and AES/rr-2	N/A
Impacts to unknown cultural resources or human remains	Potentially Significant	CUL/mm-1 through CUL/mm-3	Less than Significant
ENERGY			
Potential wasteful, inefficient, or unnecessary consumption of energy resources	Less than Significant	ENERGY/rr-1 and ENERGY/rr-2	N/A
GEOLOGY AND SOILS			
No Impact	N/A	N/A	N/A
GREENHOUSE GAS EMISSIONS			
Additional greenhouse gas emissions	Potentially Significant	GHG/mm-1 through GHG/mm-5; TR/mm-6, TR/mm-9; and TR/mm-10	Potentially Significant And Unavoidable
HAZARDS AND HAZARDOUS MATERIALS			
Impacts related to the demolition of older buildings on the Airport, the handling, storage, use, or transport of hazardous materials, and off-airport emergency response times	Less than Significant	HAZ/rr-1 through HAZ/rr-10; also, UTIL/mm-6	N/A
HYDROLOGY AND WATER QUALITY			
Impacts to surface water quality	Less than Significant	None necessary	N/A
Impacts to groundwater quality and demand	Potentially Significant	HYD/mm-1	Less than Significant
LAND USE AND PLANNING			
Policy inconsistencies with the cities of Del Rey Oaks and Monterey regarding traffic levels of service and non-vehicular modes of transportation	Potentially Significant	CUM TR/mm-1 through CUM/TR/mm-12	Potentially Significant And Unavoidable
Policy inconsistencies with the City of Monterey and CONA regarding restricting future aircraft growth	Potentially Significant	None available due to federal preemption of airports	Potentially Significant And Unavoidable
NOISE			
Impacts related to cumulative noise impacts along roadways near the Airport	Less than Significant	None necessary	N/A
Exterior noise levels that would be above the acceptable noise standards for four residences by 2035 based on anticipated increases in aircraft operations	Potentially Significant	None available	Potentially Significant And Unavoidable
POPULATION AND HOUSING			
No Impact	N/A	N/A	N/A
PUBLIC SERVICES (Fire Protection, Emergency Services, and Police Protection)			
Impacts to adequate fire protection, emergency services, and police protection	Less than Significant	PS/rr-1 through PS/rr-4	N/A



TABLE 5M (Continued)			
RECREATION			
No Impact	N/A	N/A	N/A
TRANSPORTATION/TRAFFIC			
The level of potential short-term and long-term cumulative development that could occur by 2025 and by 2035, respectively, would require major improvements to the local and regional road network	Potentially Significant	CUM TR/mm-1 through CUM/TR/mm-13	Potentially Significant and Unavoidable
TRIBAL CULTURAL RESOURCES			
Impacts to unknown tribal cultural resources or human remains	Potentially Significant	TRIB/mm-1 and TRIB/mm-3	Less than Significant
UTILITIES/SERVICE SYSTEMS			
Future water sources within the Monterey Peninsula region have not been secured	Potentially Significant	UTIL/mm-1 through UTIL/mm-3; UTIL/rr-1 through UTIL/rr3	Less than Significant
Cumulative impacts on wastewater treatment and disposal	Less than Significant	UTIL/mm-4 through UTIL/mm-5; UTIL/rr-4	N/A
Cumulative impacts on solid waste disposal	Less than Significant	UTIL/mm-6; UTIL/rr-5 and UTIL/rr-6	N/A
N/A = not applicable NOTE: Refer to the appropriate sections of Chapter Four for the referenced project-specific mitigation and regulatory requirements.			



Chapter Six

OTHER REQUIRED CEQA SECTIONS

Chapter Six

OTHER REQUIRED CEQA SECTIONS

Pursuant to Sections 15130 and 15126.2 of the *California Environmental Quality Act* (CEQA) Guidelines, this chapter identifies significant environmental effects which cannot be avoided if the Proposed Project or Alternative 1 is implemented. It also describes significant irreversible changes that could occur and the potential for growth inducement. The discussion in this chapter is a summary of the in-depth analysis provided in Chapters Four and Five of this Environmental Impact Report (EIR). Additional information can, thus, be found in those chapters.

6.1 UNAVOIDABLE SIGNIFICANT ENVIRONMENTAL EFFECTS

Proposed Project

The Proposed Project would result in Significant and Unavoidable effects with respect to:

- Potentially significant impacts to the scenic resources of Highway 68 due to grading and tree removal during construction of the proposed Highway 68 frontage road, south side drainage improvements, and long-term non-aeronautical development (Impact AES-1);
- Aesthetic impacts related to the proposed commercial terminal complex parking garage, the scale of which would be bigger than other existing buildings located a similar distance from Highway 68 (Impact AES-3);
- Potentially unmitigable impacts to Monterey pine trees (*Pinus radiata*)/Monterey pine forest, a California Native Plant Society (CNPS) Rank 1B.1 plant and Sensitive Natural Community (Impacts BIO-4, BIO-20, BIO-28, and BIO-34) (323 trees and 5.27 acres in the short term; unknown in the long term);
- Potentially unmitigable impacts to Yadon's piperia (*Piperia yadonii*), a federal endangered plant (Impacts BIO-9 and BIO-25) (460 individuals in the short term; unknown in the long term);

- Future greenhouse gas (GHG) emissions above 2015 levels (a projected long-term increase of 15,191.7 metric tons/year (CO₂e¹) (Impact GHG-1);
- A decline in off-airport emergency response times in the short term (i.e., until a new “north side” road is constructed) (Impact HAZ-5);
- Inconsistencies with *General Plan Update for the City of Del Rey Oaks* (City of Del Rey Oaks 1997), Policies C-3 and 13 related to anticipated traffic impacts if proposed mitigation proves infeasible (Impact LU-1);
- Inconsistency with *General Plan Update for the City of Del Rey Oaks*, Policy C-17 related to the proposed “north side” road (Impact LU-2);
- Inconsistency with *City of Monterey General Plan* (City of Monterey 2016), Policy b.4 of its Noise Element, which states, “Support limiting the number of fixed-base general aviation aircraft at the airport to the existing number.” (Impact LU-3);
- Inconsistency with *City of Monterey General Plan*, Goal j, Policy j.2, and Programs j.1.1 and j.2.3 of its Circulation Element, which establish level of service (LOS D) as an acceptable automobile LOS standard for roadway segments that are not within a multi-modal corridor and require a traffic analysis to determine appropriate mitigation and the funding of a pro-rata share toward improvements if proposed mitigation proves infeasible (Impact LU-4);
- Inconsistency with *Casanova-Oak Knoll Neighborhood Plan* (CONA Neighborhood Plan) (City of Monterey 1985) goals and policies (Public Works Policies 15 and 16, and Airport Noise Policies 29, 34, and Program 34b) related to restricting the use of Airport Road for airport-related uses in the short term until the proposed “north side” road is constructed (Impact LU-5);
- Inconsistency with CONA Neighborhood Plan, Airport Noise Policy 34, which states that the neighborhood is opposed to the use of neighborhood residential streets by automobile and truck traffic going to and from the Airport and businesses on the Airport property as Airport Road would remain in use for existing or replacement airport land uses located west of Gate V22 (Impact LU-6);
- Inconsistencies with CONA Neighborhood Plan, Noise Goals 2, 3, and 4 (Impact LU-7) (see Impact NOI-1 and NOI-2 below);

¹ Different types of GHGs have varying global warming potentials (GWPs). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO₂) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as “carbon dioxide equivalent” (CO₂e) and is the amount of a GHG emitted multiplied by its GWP.

- Inconsistency with *Comprehensive Land Use Plan for Monterey Peninsula Airport*² (CLUP) (County of Monterey 1997) until the airport land use commission (ALUC) updates the CLUP consistent with the Proposed Project or Alternative 1 (Impact LU-8);
- One additional residence within the Airport’s 65-70 CNEL 2025 noise contour based on the Federal Aviation Administration (FAA)-approved operational forecasts (although this residence has been sound-attenuated for interior noise impacts) (Impact NOI-1);
- Four additional residences within the Airport’s 65-70 CNEL 2035 noise contour based on the FAA-approved operational forecasts (although these residences have been sound-attenuated for interior noise impacts) (Impact NOI-2);
- Reduced aircraft rescue and firefighting (ARFF) response times to areas off-airport below the recommended five-minute response time until the ARFF facility is permanently located on the south side or until the proposed “north side” road is constructed (Impact PS-1);
- Contributing project-related peak hour trips to five intersections located along Highway 68 or Highway 218 that are currently operating at unacceptable levels of service (Impact TR-1);
- Contributing project-related peak hour trips in the long term to intersections and highway segments that are projected to operate deficiently under future conditions (Impact TR-2);
- Future impacts related to increases in vehicle miles traveled (VMT), which are unknown and speculative at this time (Impact TR-7); and
- The following cumulative impacts as discussed in Chapter Five (see Section 5.6):
 - Impacts to the scenic viewshed and resources of Highway 68;
 - Additional criteria pollutants;
 - Yadon’s piperia, sandmat manzanita (*Arctostaphylos pumila*), Monterey spineflower (*Chorizanthe pungens*), coast live oak (*Quercus agrifolia*), and Monterey pine experience loss and ongoing pressure from cumulative development, including loss of habitat and habitat fragmentation, erosion/sedimentation, manmade intrusions, such as light, noise, and overall activity, and the introduction of non-native invasive species;
 - Additional GHG emissions;
 - Policy inconsistencies with the cities of Del Rey Oaks and Monterey regarding traffic LOS and non-vehicular modes of transportation;

² In 2011, the Monterey Peninsula Airport District (MPAD) changed the name of the Airport from Monterey Peninsula Airport to Monterey Regional Airport.

- Policy inconsistencies with the *City of Monterey General Plan* and CONA Neighborhood Plan regarding restricting future aircraft growth;
- Exterior noise levels that would be above the acceptable noise standards for four residences by 2035 based on anticipated increases in aircraft operations; and
- The level of potential short-term and long-term cumulative development that could occur by 2025 and by 2035, respectively, would require major improvements to the local and regional road network.

Alternative 1

Alternative 1 includes changes in the proposed project design and/or timing of proposed project components to avoid or reduce some, but not all, of the Significant Unavoidable impacts of the Proposed Project listed above. Alternative 1 would result in the following Significant and Unavoidable impacts with respect to:

- Potentially significant impacts to the scenic resources of Highway 68 due to grading and tree removal during construction of the proposed Highway 68 frontage road, south side drainage improvements, and long-term non-aeronautical development (Impact AES-1);
- Potentially unmitigable impacts to Monterey pine trees/Monterey pine forest, a CNPS Rank 1B.1 plant and Sensitive Natural Community (Impacts BIO-12, BIO-20, BIO-31, and BIO-34) (305 trees and 4.54 acres in the short term; unknown in the long term);
- Potentially unmitigable impacts to Yadon’s piperia, a federal endangered plant (Impacts BIO-17 and BIO-25) (156 individuals in the short term; unknown in the long term);
- Future GHG emissions above 2015 levels (a projected long-term increase of 15,080.2 metric tons/year (CO₂e) (Impact GHG-1);
- Inconsistencies with *General Plan Update for the City of Del Rey Oaks*, Policies C-3 and 13 related to anticipated traffic impacts if proposed mitigation proves infeasible (Impact LU-1);
- Inconsistency with *General Plan Update for the City of Del Rey Oaks*, Policy C-17 related to the proposed “north side” road (Impact LU-2);
- Inconsistency with *City of Monterey General Plan*, Policy b.4 of its Noise Element, which states, “Support limiting the number of fixed-base general aviation aircraft at the airport to the existing number.” (Impact LU-3);
- Inconsistency with *City of Monterey General Plan*, Goal j, Policy j.2, and Programs j.1.1 and j.2.3 of its Circulation Element, which establish LOS D as an acceptable automobile LOS standard for roadway

segments that are not within a multi-modal corridor and require a traffic analysis to determine appropriate mitigation and the funding of a pro-rata share toward improvements if proposed mitigation proves infeasible (Impact LU-4);

- Inconsistency with CONA Neighborhood Plan, Airport Noise Policy 34, which states that the neighborhood is opposed to the use of neighborhood residential streets by automobile and truck traffic going to and from the Airport and businesses on the Airport property as Airport Road would remain in use for existing or replacement airport land uses located west of Gate V22 (Impact LU-6);
- Inconsistencies with CONA Neighborhood Plan, Noise Goals 2, 3, and 4 (Impact LU-7) (see Impact NOI-1 and NOI-2 below);
- Inconsistency with the 1987 CLUP until the ALUC updates the CLUP consistent with Alternative 1 (Impact LU-8);
- One additional residence within the Airport’s 65-70 CNEL 2025 noise contour based on the FAA-approved operational forecasts (although this residence has been sound-attenuated for interior noise impacts) (Impact NOI-1);
- Four additional residences within the Airport’s 65-70 CNEL 2035 noise contour based on the FAA-approved operational forecasts (although these residences have been sound-attenuated for interior noise impacts) (Impact NOI-2);
- Contributing project-related peak hour trips to two intersections located along Highway 68 or Highway 218 that are currently operating at unacceptable levels of service (Impact TR-4);
- Contributing project-related peak hour trips in the long term to intersections and highway segments that are projected to operate deficiently under future conditions (Impact TR-5);
- Future impacts related to increases in VMT, which are unknown and speculative at this time (Impact TR-7); and
- The following cumulative impacts as discussed in Chapter Five (see Section 5.6):
 - Impacts to the scenic viewshed and resources of Highway 68;
 - Additional criteria pollutants;
 - Yadon’s piperia, sandmat manzanita, Monterey spineflower, coast live oak, and Monterey pine experience loss and ongoing pressure from cumulative development, including loss of habitat and habitat fragmentation, erosion/sedimentation, manmade intrusions, such as light, noise, and overall activity, and the introduction of non-native invasive species;
 - Additional GHG emissions;

- Policy inconsistencies with the cities of Del Rey Oaks and Monterey regarding traffic LOS and non-vehicular modes of transportation;
- Policy inconsistencies with the *City of Monterey General Plan* and CONA Neighborhood Plan regarding restricting future aircraft growth;
- Exterior noise levels that would be above the acceptable noise standards for four residences by 2035 based on anticipated increases in aircraft operations; and
- The level of potential short-term and long-term cumulative development that could occur by 2025 and by 2035, respectively, would require major improvements to the local and regional road network.

6.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Section 15126(c) of the CEQA Guidelines requires that an EIR describe any significant irreversible environmental changes, which would occur as a result of the proposed action should it be implemented. The environmental effects related to implementation of the Proposed Project and Alternative 1 are analyzed in Chapter Four of this EIR. Implementation of the Proposed Project or Alternative 1 would redevelop land with uses comparable to the uses currently existing on the site. When combined with the large capital investment required for implementation of the improvements, it is improbable that the site would revert to any other use. Therefore, the Proposed Project or Alternative 1 represents a long-term commitment to aviation support uses on the property.

Implementation of the Proposed Project or Alternative 1 would result in a permanent change from pervious surface to impervious surface at the Airport. In the short term, the Proposed Project would result in an additional 700,850 square feet (sf) of impervious surfaces due to the expansion and relocation of the proposed north side general aviation (GA) apron and hangars, the proposed relocation of the commercial terminal complex and apron, and the proposed “north side” and Highway 68 frontage roads. Alternative 1 would result in an additional 721,921 sf of impervious surface from the same projects. The increase in impervious surface when compared to the Proposed Project is primarily due to the construction of a surface parking lot in front of the relocated commercial terminal rather than a parking garage. In the long term, changes from pervious surface to impervious surface would also occur due to the proposed aeronautical and non-aeronautical development under either the Proposed Project or Alternative 1 but cannot be quantified at this time. The Proposed Project or Alternative 1 would also result in an accompanying loss of the existing vegetation as discussed in detail in Section 4.4.

Both the Proposed Project and Alternative 1 would also require the commitment and reduction of non-renewable and/or slowly renewable resources, including petroleum fuels (operation and construction), and natural gas (for construction, lighting, heating, and cooling of structures); and lumber, sand/gravel, steel, copper, lead, and other metals (for use in the building construction, piping, and roadway infrastructure). This commitment would represent the loss of renewable and non-renewable resources that

are generally not retrievable. (Although wood products can be replaced, the Proposed Project or Alternative 1 does not include a program to do so other than in the context of the biological resources mitigation program.)

Other resources that are slow to renew and/or recover from environmental stresses would also be impacted by the Proposed Project or Alternative 1, such as air quality through the combustion of fossil fuels and production of greenhouse gases and water, natural gas, and electricity usage associated with construction activities and operation. However, by complying with current design standards, the new facilities would be more energy efficient than the existing buildings, which were constructed when less stringent energy efficient requirements were in place. The generation of air emissions and GHGs from all stages of the projects (i.e., construction, operation, and vehicular traffic) could also cause irreversible environmental changes related to the degradation of the air basin and a potential change in climate.

As discussed in Section 2.6.3, as well as throughout the analysis in Chapters Four and Five, the Proposed Project and Alternative 1 include a commitment to conservation measures, mitigation measures, and regulatory requirements designed to minimize the use and loss of both renewable and non-renewable resources and to avoid significant environmental changes to the extent feasible.

6.3 GROWTH-INDUCING IMPACTS

Under CEQA Guidelines, Sections 15126(d) and 15126.2(d), a discussion of growth inducement should include “the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly in the surrounding environment,” “projects which would remove obstacles to population growth,” or “the characteristic[s] of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively.” CEQA Guidelines, Section 15126.2(d) also cautions against assuming that “growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.”

The Proposed Project and Alternative 1 are both primarily a capital improvement plan designed to accommodate the projected forecasts for the Airport through the year 2033 based on an examination of national and regional aviation and economic factors. The operational forecasts prepared for use in the Proposed Airport Master Plan (Proposed AMP) have been approved by FAA, assume a moderate pace of growth that is less than previous growth projections, such as the 2006 *Regional Airport System Plan*, which have been incorporated into the Transportation Agency for Monterey County’s (TAMC) 2018 *Monterey County Regional Transportation Plan* (TAMC 2018), and are independent of whether the proposed short- and long-term projects are implemented. As previously stated in Section 2.4, the purpose of the Proposed AMP is to address FAA airport design standards and to plan for projected aviation demand within a 20-year planning period, while considering safety, cost-effectiveness, and potential environmental and socioeconomic issues.

That being said, however, there are certain proposed project components that would allow the development of areas of the Airport that are currently not readily accessible for development. These aspects of the Proposed Project (or Alternative 1) would essentially remove obstacles to growth (e.g., through the construction or extension of infrastructure facilities that do not presently exist in the project area)

and allow for additional economic growth within the airport property as discussed below (Sections 6.3.1 and 6.3.3). As a result of these project components, both the Proposed Project and Alternative 1 are considered growth-inducing under CEQA.

6.3.1 Would the Proposed Project or Alternative 1 foster economic or population growth, or the construction of additional housing, either directly or indirectly in the surrounding environment?

Proposed Alternative and Alternative 1

Neither the Proposed Project nor Alternative 1 would construct additional housing units. Since direct population growth related to a project is determined by whether the project would construct or displace housing units, the Proposed Project and Alternative 1 would not directly foster population growth in the region.

As discussed in Section 4.13.5, the proposed short- and long-term projects could create as many as 2,500 new jobs, including approximately 1,575 office jobs, 100 restaurant jobs, 760 light industrial jobs, 14 additional jobs related to passenger amenities in the relocated commercial terminal, and other miscellaneous job opportunities. According to the Association of Monterey Bay Area Governments (AMBAG) regional growth forecasts (AMBAG 2018), employment in Monterey County from 2015 to 2035 is expected to grow by 26,662 jobs (Table 4.13A). Thus, the employment opportunities at the Airport due to proposed short- and long-term projects could represent approximately 9.4 percent of the projected future countywide jobs.

In general, the types of jobs that could be created by the Proposed Project and Alternative 1 are anticipated in the most current county and regional growth forecasts. Since the Airport is centrally located within the Seaside-Monterey Census County Division (CCD), the new employment opportunities would be considered “infill,” rather than the creation of a new employment center located away from available housing or other public services. The jobs created are not expected to require a specialized set of skills that is not available within the county employment pool. Since the jobs that could be created by the Proposed Project or Alternative 1 are anticipated in the most current countywide and regional growth forecasts and would not require special skills that are not available within the county employment pool overall, the employment opportunities associated with the Proposed Project or Alternative 1 would not indirectly foster population growth or the construction of additional housing.

The proposed long-term opportunities for non-aeronautical development at the Airport under the Proposed Project or Alternative 1 could foster economic growth in the area. These future economic investments would be driven by market factors and cannot be determined at the programmatic level of analysis included in this EIR. Detailed project proposals are not available at this time.

6.3.2 Would the Proposed Project or Alternative 1 remove obstacles to population growth?

Proposed Alternative and Alternative 1

As discussed above in Section 6.3.1, the Proposed Project and Alternative 1 would not remove obstacles to population growth. Implementation of the Proposed Project or Alternative 1 would redevelop land with uses comparable to the uses currently existing on the site. When combined with the large capital investment required for implementation of the improvements, it is improbable that the site would revert to any other use. Therefore, the Proposed Project or Alternative 1 represents a long-term commitment to aviation support uses on the property.

6.3.3 Would the Proposed Project or Alternative 1 encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively?

Proposed Alternative and Alternative 1

Proposed “North Side” Road

The proposed “north side” road would remove an impediment to the development of the Airport’s north side, which is currently constrained due to only one access through a residential neighborhood. The amount of traffic that can be accommodated, not only physically by the existing surface streets, but by the policies and goals of the City of Monterey for the CONA neighborhood, requires that an additional access be provided before future development of the Airport’s north side can occur. Thus, the proposed “north side” road would contribute directly to the amount of future landside development potentially located at the Airport. For purposes of analysis, the EIR assumed the following additional development once the proposed “north side” road is constructed as a worst case: 400,000 sf of light industrial development (for example, warehousing); 325,000 sf of office development; 106 additional aircraft storage hangars; and ancillary aeronautical uses, such as a wash rack and a maintenance yard. These assumptions were based on the amount of future hangar and other aeronautical needs described for the Airport in the Proposed AMP (Coffman Associates 2015), as well as a market/land use analysis prepared for the north side of the Airport to determine future north side non-aeronautical land uses at a conceptual level (**Appendix O**).

Chapters Four and Five of this EIR contain detailed analysis of the potential impacts that could occur from this future “north side” growth. These include: impacts to sensitive biological resources; additional vehicular traffic and associated vehicular noise, emissions, and GHGs; demand for utilities (electricity, water); and additional demand for wastewater and solid waste disposal.

Proposed Highway 68 Frontage Road

The proposed Highway 68 frontage road would remove an impediment to the development of an approximate 3.6-acre parcel on the Airport’s south side. This parcel, although owned by the Airport, has no access and is, thus, undevelopable at this time. With the construction of the proposed Highway 68 frontage road, the parcel could be opened up for landside development. For purposes of analysis, the

EIR assumed the following as a worst case: 94,000 sf of general office development, based on the development criteria contained in the City of Monterey Zoning Code for the subject parcel (City of Monterey 2017). Based on the analysis contained in Chapters Four and Five, potential impacts that could occur from this future “south side” growth include: impacts to sensitive biological resources; additional vehicular traffic and associated vehicular noise, emissions, and GHGs; demand for utilities (electricity, water); and additional demand for wastewater and solid waste disposal.

6.4 ENERGY ANALYSIS

Section 21100(b)(3) of the California Public Resources Code and Appendix F to the CEQA Guidelines require a discussion of potential energy impacts of proposed projects. Appendix F states:

The goal of conserving energy implies the wise and efficient use of energy. The means of achieving this goal include:

- (1) Decreasing overall per capita energy consumption,
- (2) Decreasing reliance of fossil fuels, such as coal, natural gas and oil, and
- (3) Increasing reliance on renewable energy sources.

Appendix F of the CEQA Guidelines also identifies that “EIRs include a discussion of the potential energy impacts of proposed project, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy.”

This discussion has been provided previously in Chapters Four and Five under Energy (see Section 4.6 and 5.5.6).



Chapter Seven

**DOCUMENT PREPARERS AND
AGENCIES CONSULTED**

Chapter Seven DOCUMENT PREPARERS AND AGENCIES CONSULTED

7.1 REPORT PREPARERS

Persons responsible for preparation of this Environmental Impact Report (EIR) document and significant supporting background analysis and materials are listed below:

NAME	ROLE IN STUDY	EDUCATION	PROFESSIONAL EXPERIENCE (Years)
REPORT PREPARERS			
<i>Coffman Associates</i>			
James Harris	Senior Project Manager	B.S., Civil Engineering	40
Judi Krauss, AICP	Project Manager; Principal Environmental Analyst	B.A., Environmental Studies; M.A., Economics;	21
David Fitz, AICP	Noise (Aircraft); Land Use Compatibility	M.S., Community and Regional Planning; B.A. Landscape Architecture	27
Kory Lewis	Air Quality; Greenhouse Gases	B.A., Geography; Masters, Urban Planning	12
Eric Pfeifer	Energy; Sustainability	B.S., Public Administration & Community Service - Airport Management; Master of Business Administration;	12
Tresa Carter, AICP Candidate	Hazards and Hazardous Materials; Energy; and Utilities	B.S. Environmental Studies, LEED Green Associate; M.S. Urban Planning,	2
Tim Kahmann	Geographic Information Systems (GIS) Manager	B.S. Geography; M.S. Geographic Information Systems	15
Chris Donnelly	GIS Specialist	B.S., Geography	10
Chris Riffle	Graphics Manager	B.F.A., Commercial Art	30
Jean Burbank	Report Graphics	B.A., Painting; Art Institute of Dallas	16
Amanda Schmalz	Report Graphics	Certificate (Graphic Design)	11
<i>Cornerstone Earth Group, Inc.</i>			
Scott E. Fitinghoff, PE, GE.	Geology and Soils	B.S., Civil Engineering; M.S. Civil Engineering	29
DUDEK			
Jennifer Reed	Carbon Sequestration	B.A. Environmental Studies; B.A. Geography	9
Scott Eckardt, RPF	Carbon Sequestration	B.S. Forestry and Natural Resources Management; M.A. Geography;	19
Christopher Barnobi, INCE Bd. Cert.	Acoustical Analysis (Construction and Vehicular)	B S. Mechanical Engineering, M.S. Mechanical Engineering	10



Jonathan V. Leech, INCE	Acoustical Analysis (Construction and Vehicular)	B.A. Environmental Studies/ Geology; Coursework in Graduate Acoustics Program	35
DWL Architects			
Steve Rao, A.I.A., LEED AP BD +C	Architectural Principal - Preliminary terminal and ARFF building analysis	B.S. Architecture; Master of Architecture, Energy Efficient Design	38
Sandra Kukla, A.I.A., LEED AP	Architect Designer - Preliminary terminal and ARFF building analysis	B.S. Design; Master of Architecture	24
Kimley-Horn Associates. Inc.			
Bob Hamilton, PE	Preliminary Project Engineering; Construction Estimates	B.S., Civil Engineering	13
Pearse Melvin, PE	Preliminary Project Engineering; Construction Estimates	B.E., National University of Ireland, Galway	28
Sam McWhorter, PE	Drainage Analysis	B.S., Civil Engineering; M.S., Civil Engineering	21
Mott MacDonald			
Leo Trujillo	Transportation analysis - Principal Engineer	B.S., Civil Engineering	20
Shruti Malik, TE, PMP, ENV SP	Transportation analysis - Principal Planner	B.E., Civil Engineering; M.S., Transportation Engineering	18
Julie Oates, PE, TE	Transportation analysis - Project Engineer	B.S., Civil Engineering	14
J. Daniel Takacs, TE	Transportation analysis - Principal Engineer	B.S., Transportation Engineering; M.S., Civil Engineering	39
Ravi Narayanan, PE, TE, PMP	Transportation analysis - Senior Project Manager	B.Tech., Civil Engineering; M.S., Civil/Transportation Engineering	22
Jeff Waller, TE	Transportation analysis - Project Engineer	B.S., Civil Engineering	19
Neill Engineers Corp.			
Sherman W. Low, PE	Preliminary Project Engineering; Construction Estimates; Airport conditions for soil and drainage	B.S. Civil Engineering	45
Pacific Legacy			
John Holson, RPA	Senior Archaeologist/ Tribal Cultural Resources Liaison	B.A. Anthropology; M.A. Cultural Resources Management	21
SWCA Environmental Consultants			
Travis Belt	Senior Biologist	B.S., Forestry and Natural Resources	17
Heather Gibson, RPA	Principal Investigator; Historical Archaeologist	M.A., Anthropology; Ph.D., Anthropology;	17
Leroy Laurie	Cultural Resource Specialist	B.S., Social Sciences	17
Kevin Howen	GIS Specialist	B.S., Earth Sciences w/major in Geographic Information Systems	7
EIR OUTREACH/COORDINATION			
CommuniQuest			
Christine Eberhart	Outreach Coordinator	B.A., International Studies; Graduate, U.S. Army Command & General Staff College; Master of Dispute Resolution;	34

7.2 LIST OF AGENCIES AND ORGANIZATIONS CONSULTED

Agencies consulted during preparation of this Environmental Impact Report (EIR) document are listed below:

Association of Monterey Bay Area Governments
California American Water (Monterey Region)
California Department of Fish and Wildlife, Region 4
California Department of Transportation (Caltrans), Districts 5 and 11
Caltrans Division of Aeronautics
California Environmental Protection Agency, Air Resources Board
California Environmental Protection Agency, Department of Toxic Substances
California Environmental Protection Agency, State Water Resources Control Board
California Highway Patrol
California Native Heritage Commission
California Natural Resources Agency, Department of Boating and Waterways
California Natural Resources Agency, Department of Parks and Recreation
California Natural Resources Agency, Department of Water Resources
California State Parks
Calvary Chapel Church
Casanova Oak Knoll Neighborhood Association (CONA)
City of Carmel by the Sea
City of Del Rey Oaks City Hall
City of Marina
City of Monterey Community Development Department
City of Monterey Fire Department
City of Monterey Public Works Department
City of Pacific Grove
City of Seaside
Comfort Inn Monterey Peninsula Airport
County of Monterey/Monterey Airport Land Use Commission
County of Monterey Resources Management Agency
Del Monte Aviation
Dole Fresh Vegetables, Company
Federal Aviation Administration, San Francisco Airports District Office
Fenton and Keller
Fitness Evolution
Highway 68 Coalition
Loyal Order Moose
Mesa Falcon Field Airport
Monterey Bay Air Resources Board (formerly Monterey Bay Unified Air Pollution Control District)
Monterey Audubon Society
Monterey County Farm Bureau
Monterey County Resource Management Agency

Monterey Jet Center
Monterey Navy Flying Club
Monterey One Water
Monterey Parks and Recreation
Monterey Peninsula Water Management District
Monterey Regional Waste Management District
Monterey Regional Water Pollution Control Agency
Monterey-Salinas Transit
Native American Heritage Commission
Oaks of Del Rey Homeowners Association
Office of Historic Preservation
Ohlone/Costanoan Nation

- Amah Mutsun Tribal Band
- Amah Mutsun Tribal Band of Mission San Juan Bautista
- Coastanoan Rumsen Carmel Tribe
- Indian Canyon Mutsun Band of Costanoan

Ohlone/Costanoan-Esselen Nation
Ohlone/Costanoan, Bay Miwok, Plains Miwok, Patwin

- Trina Marine Ruano Family

Pacific Gas and Electric Company
Pediatric Group of Monterey
Public Storage
Regional Water Quality Control Board - Region 3, Central Coast
Robert Talbott, Inc.
Saf Keep Storage
Scottsdale Airport
Sierra Club - Ventana Chapter
Team Fly Monterey
Transportation Agency for Monterey County
United States Army Corps of Engineers, San Francisco District
United States Department of the Navy - Navy Support Activity Monterey
United States Fish and Wildlife Service - Ventura Fish and Wildlife Office



Chapter Eight

REFERENCES AND WEBSITES USED

Chapter Eight REFERENCES AND WEBSITES USED

8.1 EXECUTIVE SUMMARY

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City of Monterey 2016. *City of Monterey General Plan*, amended March (Resolution No. 16-042).

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Chapter Nine

ACRONYMS AND ABBREVIATIONS

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ACRONYMS AND ABBREVIATIONS

AAE- Accredited Airport Executive (American Association of Airport Executives)
AB - Assembly Bill
AC - Advisory Circular
ACHP - Advisory Council on Historic Preservation
ACIP - Airport Capital Improvement Program
ACRP - Airport Cooperative Research Program
A.D. - anno Domini “in the year of the Lord”
ADG - Airplane Design Group
ADO - Airports District Office
ADT - average daily traffic
AEDT - Aviation Environmental Design Tool
AES - Aesthetics
AF - acre-feet
AFFF - aqueous film forming foam
AFY - acre feet per year
AGAI - Airport Ground Access Improvement Program
AGL - above ground level
AIA - Airport Influence Area
A.I.A. - American Institute of Architects certification
AICP- American Institute of Certified Planners
AIP - Airport Improvement Program
Airport - Monterey Regional Airport
ALP - Airport Layout Plan
ALUC - airport land use commission
ALUCP - Airport Land Use Compatibility Plan
AMBAG - Association of Monterey Bay Area Governments
AMP - Airport Master Plan
ANCA - *Airport Noise and Capacity Act of 1990*
AP - Alquist-Priolo
APUs - auxillary power units
AOA - airport operations area
AOC - Airport Operating Certificate
AOPA - Aircraft Owners and Pilots Association
AQ - Air Quality
AQMP - air quality management plan

ARC - Airport Reference Code
ARFF - aircraft rescue and firefighting
ARRA - *American Recovery and Reinvestment Act of 2009*
ARTCC - Air Route Traffic Control Center
ASHRAE - American Society of Heating, Refrigeration, and Air Conditioning Engineers
ASV - annual service volume
ATC - air traffic control
ATCT - air traffic control tower
ATSA - *Aviation and Transportation Security Act*
AvGas - aviation gasoline

B.A. - Bachelor of Arts
BAAQMD - Bay Area Air Quality Management District
Basin Plan - *Water Quality Control Plan for the Central Coast Region*
B.C. - before Christ
B.E. - Bachelor of Engineering
B.F.A. - Bachelor of Fine Arts
bgs - below ground surface
BIO - Biological Resources
BIT - biennial inspection of terminals
BOMA - Building Owners and Management Association
BMP - best management practices
BRSR - Biological Resources Survey Report
B.S. - Bachelor of Science

C - Celsius
CAA - *Clean Air Act*
CAAQS - California Ambient Air Quality Standards
CAL FIRE - California Department of Forestry and Fire Protection
CalAm - California American Water
CalARP - California Accidental Release Prevention Program
CalEEMod - California Emissions Estimator Model
CalGreen - California Green Building Standards Code
Cal/OSHA - California Division of Occupational Safety and Health
Caltrans - California Department of Transportation
CAP - Climate Action Plan
CAPCOA - California Air Pollution Control Officers Association
CARB - California Air Resources Board
CASP - *California Aviation System Plan*
CBSC - California Building Standards Code
CCAA - *California Clean Air Act*
CCD - Census County Division
CCR - California Code of Regulations
CDC - California Department of Conservation

CDFW - California Department of Fish and Wildlife
 CEC - California Energy Commission
 CEQ - President’s Council on Environmental Quality
 CEQA - *California Environmental Quality Act*
 CERCLA - *Comprehensive Environmental Response, Compensation, Liability Act*
 CERS - California Environmental Reporting System
 CESA - *California Endangered Species Act*
 CFC - chlorofluorocarbon
 CFGC - California Fish and Game Code
 CFR - Code of Federal Regulations
 cfs - cubic feet per second
 CH₄ - methane
 CHOMP - Community Hospital of the Monterey Peninsula
 CHP - California Highway Patrol
 CHRIS - California Historical Resources Information System
 CHSC - California Health and Safety Code
 CLUP - comprehensive land use plan
 CM – Certified Member (American Association of Airport Executives)
 CNDDB - *California Natural Diversity Data Base*
 CNRA - California Natural Resources Agency
 CNEL - Community Noise Equivalent Level
 CNG - compressed natural gas
 CNPS - California Native Plant Society
 CO - carbon monoxide
 CO₂ - carbon dioxide
 CO_{2e} - carbon dioxide equivalent
 COG - council of governments
 C/OS - Conservation/Open Space
 CONA - Casanova Oak Knoll Neighborhood Association
 CONA Neighborhood Plan - *Casanova-Oak Knoll Neighborhood Plan*
 county - County of Monterey or Monterey County
 CPUC – California Public Utilities Commission
 CRF - California red-legged frog
 CRHR - California Register of Historical Resources
 CSLB - Contractors State License Board
 CSPP - construction safety and phasing plan
 CTC - California Transportation Commission
 CTS - California tiger salamander
 CUL - Cultural Resources
 CUPA - California Unified Program Administration
 CWA - *Clean Water Act*
 cy - cubic yard(s)

dB - decibel

dBA - A-weighted decibels

DLIFLC - Defense Language Institute Foreign Language Center

DNL - day-night average sound level (also referred to as L_{dn})

DOT - Department of Transportation

DPIC - Design Professional Insurance Company

DPM - diesel particulate matter

DTSC - Department of Toxic Substances Control

DTW - depth to water

DWR - Department of Water Resources

EA - environmental assessment

EAP - *Energy Action Plan*

EB - eastbound

ECHED - energy-efficient induction

EER - Experience Exchange Report

EIR - Environmental Impact Report

EIR Traffic Study - *Traffic Impact Analysis Report for the Monterey Regional Airport's Proposed Master Plan and Associated Development Projects, Monterey County, California*

EISA - *Energy Independence and Security Act of 2007*

E.I.T – Engineer in Training Certification

EJSCREEN - U.S. EPA's Environmental Justice Screening

EMAS - engineered arresting materials system

ENV SP – Envision Sustainability Professional

EO - Executive Order

EPA - Environmental Protection Agency

EPCA - *Energy Policy and Conservation Act of 1975*

EPACT92 - *National Energy Policy Act of 1992*

EV - electric vehicle

FAA - Federal Aviation Administration

FAST - *Fixing America's Surface Transportation Act*

FBO - fixed base operator

F.D.E.S. - Festo do Divino Espírito Santo Portuguese Hall

FEMA - Federal Emergency Management Agency

FESA - *Federal Endangered Species Act*

FHWA - Federal Highway Administration

FICON - Federal Interagency Committee on Noise

FMMP - Farmland Mapping and Monitoring Program

FNMOCC - U.S. Navy's Fleet Numerical Meteorology and Oceanography Center

FOD - foreign object debris

FPPA - *Farmland Protection Policy Act*

FR - *Federal Register*

FTA - Federal Transit Administration

GA - general aviation
gal - gallon
GAO - U.S. Government Accountability Office
G.E. – Geotechnical Engineer
GEM - Global Executive - Jet Maintenance
GEO - Geology and Soils
ghg - greenhouse gas
GHG - Greenhouse Gas Emissions
Gigatonne - million metric tons (also see MMT)
GIS - Geospatial Information System or Geographic Information System
gpd - gallons per day
gpf - gallons per flush
gpm - gallons per minute
GPS - Global Positioning System
GSA - groundwater sustainability agency
GSP - groundwater sustainability plan
GSE - ground support equipment
GWP - global warming potential

H₂O - water vapor
HAP - hazardous air pollutant
HAZ - Hazardous and Hazardous Materials
HCA - habitat conservation area
HCEP - habitat conservation and enhancement plan
HCM - Highway Capacity Manual
HCP - habitat conservation plan
HFCs - hydrofluorocarbons
HI - hazard index
HMP - habitat management plan
HP - horsepower
HRA - health risk assessment
HRS - Hazard Ranking System
HUD - U.S. Department of Housing and Urban Development
HVAC - heating, ventilation, and air conditioning
HWCL - California Hazardous Waste Control Law
HYD - Hydrology and Water Quality

IATA - International Air Transport Association
IADZ - Inner Approach/Departure Zone
ICAO - International Civil Aviation Organization
IEPR - Integrated Energy Policy Report
IGP - Industrial General Permit
ILS - Instrument Landing System
Inc. - incorporated

INCE (Bd. Cert.) – Institute of Noise Control Engineering Certification (Board Certified)
IPaC - USFWS Information, Planning, and Conservation System
I-R-130-D2 - Industrial, Administration, Research District – 130,000 sf minimum – Development Control Overlay District
IRWM - California Integrated Regional Water Management
ITE - Institute of Transportation Engineers
ITZ - Inner Turning Zone

Jet A - jet fuel
JPA - Joint Powers Authority

k-12 - kindergarten through grade twelve
kBTU - British thermal units
KHA - Kimley-Horn Associates, Inc.
kV - kilovolt(s)
KVA - kilovolt-ampere
kW - kilowatt
kWh - kilowatt hour

LCP - local coastal planning
LDA - Landing Distance Available
LED - light-emitting diode
LEED - Leadership in Energy and Environmental Design
LEED AP - Leadership in Energy and Environmental Design Accredited Professional
LEED AP BC+D - Leadership in Energy and Environmental Design Accredited Professional (Building Design + Construction)
 L_{eq} - equivalent sound level or time-average sound level
lf - linear foot (feet)
 L_{max} - The highest value measured by the sound level meter over a given period of time
LOC/DME -localizer/distance measuring equipment
LOS - level of service
LSAT - land surface air temperature
LSE - load serving entities
LU - Land Use and Planning

M.A. - Master of Arts
MALSR - medium intensity approach lighting system with runway alignment indicator lights
MAP-21 - *Moving Ahead for Progress in the 21st Century Act*
MBARD - Monterey Bay Air Resources Board
MBTA - *Migratory Bird Treaty Act*
MBUAPCD - Monterey Bay Unified Air Pollution Control District
mgd - million gallons per day
 μm – micrometers
MLD - Most Likely Descendant

mm - mitigation measure
MMRP - mitigation, monitoring and reporting program
MMT - million metric tons (also see gigatonne)
MOU - Memorandum of Understanding
M1W - Monterey One Water
MPAD - Monterey Peninsula Airport District
mpg - miles per gallon
mph - miles per hour
MPL - Monterey Peninsula Landfill
MPO - metropolitan planning organization
MPWMD - Monterey Peninsula Water Management District
MRWMD - Monterey Regional Waste Management District
MRWPCA - Monterey Regional Water Pollution Control Agency
M.S. - Master of Science
MSL - mean sea level
MS4 - municipal separate storm sewer system
MST - Monterey-Salinas Transit
MT - metric tons
MTP/SCS - metropolitan transportation plan/sustainable communities strategy

N/A - not applicable
NAAQS - National Ambient Air Quality Standards
NAHC - Native American Heritage Commission
NALs - numeric action levels
NAS -National Airspace System
NBAA - National Business Aviation Association
NCCAB - North Central Coast Air Basin
NCCPs - natural community conservation plans
NEPA - *National Environmental Policy Act*
NESHAP - National Emission Standards for Hazardous Air Pollutants
NFPA - National Fire Protection Association
NHPA - *National Historic Preservation Act*
NIMS - National Incident Management System
N/I - no information available
No. - number
NO - nitric oxide
NOI - Noise
N₂O - nitrous oxides
NO_x - oxides of nitrogen
NO₂ - nitrogen dioxide
NOP - Notice of Preparation
NPDES - National Pollutant Discharge Elimination System
NPIAS - *National Plan of Integrated Airport Systems*
NPPA - *California Native Plant Protection Act of 1977*

NPS – National Park Service
NRCS - Natural Resources Conservation Service
NRHP - National Register of Historic Places
NSA - Naval Support Activity
NWIC - Northwest Information Center
NWS - Naval Weapons Station

O₃ - ozone
OADZ - Outer Approach/Departure Zone
OCEN - Ohlone/Costanoan-Esselen Nation
OE/AAA - Obstruction Evaluation/Airport Airspace Analysis
OEHHA - Office of Environmental Health Hazard Assessment
OFA - object free area
OPR - Office of Planning and Research
OSHA - Occupational Safety and Health Administration

PAC - planning advisory committee
PAFI - Piston Aviation Fuels Initiative
PAPI - precision approach path indicators
Part 77 - Code of Federal Regulations, Title 14, Part 77
Pb - lead
PCC - Portland concrete cement
PCE - passenger car equivalent
PCL - pilot-controlled lighting
P.E. – Professional Engineer
PFCs - perfluorocarbons
PG&E - Pacific Gas and Electric Company
pH - potential of hydrogen
PhD - Doctor of Philosophy
PI test - Plasticity index
PM - particulate matter
PMP – Project Management Professional
POC - point of confluence
POST - Peace Officers Standards and Training
POTW - publicly owned treatment works
PPV - peak particle velocity
PRC - Public Resources Code
PS - Public Services
psi - pounds per square inch
PTSF - percent time spent following
PUC - Public Utilities Code
PVC - polyvinyl chloride

Qar - Aromas sand
Qoa - Dissected older alluvium
Qos - Older stabilized dune and draft sand
QTA - Quick Turnaround Car Facility

RCNM - Roadway Construction Noise Model
RCRA - *Resource Conservation Recovery Act of 1976*
RDC - Runway Design Code
REIL - runway end identifier lights
RMA - Resource Management Agency
RNAV - Area Navigation
RNP - Required Navigation Performance
RON - remain overnight
RPA - Registered Professional Archaeologist
RPF - Registered Professional Forester
RPS - renewable portfolio standard
RPZ - runway protection zone
rr - regulatory requirement
RSA - runway safety area
RSA Project - Runway Safety Area Improvement project
RSIP - Residential Sound Insulation Program
RTDM - regional travel demand model
RTOR - right turns on red
RTP - regional transportation plan
RTPA - regional transportation planning agency
RV - recreational vehicle
RWMG - Regional Water Management Group
RWQCB - Regional Water Quality Control Board

SAF Plan - Safe Alternatives Fuel Plan
SB - Senate Bill
SCREEN3 - U.S. EPA screening model
SCH - State Clearinghouse
Scoping Plan - *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target*
SCS - sustainable communities strategy
SDWA - *Safe Drinking Water Act*
sf - square foot (feet)
SF₆ - sulfur hexafluoride
SGMA - *Sustainable Groundwater Management Act*
SHMA - Seismic Hazards Mapping Act of 1990
SHPO - State Office of Historic Preservation or State Historic Preservation Officer
SIPs - State Implementation Plans
SLOAPCD - San Luis Obispo Air Pollution Control District

SMART - Storm Water Multiple Application and Report

SO_x - oxides of sulfur

SO₂ - sulfur dioxide

SPCC - spill prevention, control and countermeasure

SPCD - safety plan compliance document

STLC - soluble threshold limit concentrations

SVP - Society of Vertebrate Paleontology

SWCA - SWCA Environmental Consultants, Inc.

SWRCB - State Water Resources Control Board

SWPPP - storm water pollution prevention plan

sy - square yard(s)

SZ - Sideline Zone

TAC - toxic air contaminant

TAF - Terminal Area Forecast

TAMC - Transportation Agency for Monterey County

TDG - Taxiway Design Group

TDM - transportation demand management

TDML - total maximum daily load

TE – Traffic Engineer

TIA - Traffic Impact Analysis

TIRE - Traffic Infusion on Residential Environment

TNC - transportation network company

TNM - Traffic Noise Model

TOD - transit-oriented development

TPZ - Traffic Pattern Zone

TR - Transportation/Traffic

TRIB - Tribal Cultural Resources

TSA - Transportation Security Administration

TSR - TSA Security Requirements

UCMP - University of California Museum of Paleontology

U.S. - United States

U.S. EPA - United States Environmental Protection Agency

USACE - United States Army Corps of Engineers

USC - United States Code

USDA - United States Department of Agriculture

USFWS - United States Fish and Wildlife Service

USGBC - United States Green Building Council

USGS - United States Geological Survey

UTIL - Utilities and Service Systems

VMT - vehicle miles traveled

VOCs - volatile organic compounds

WB - westbound
WDR - waste discharge restriction
WHA - wildlife hazard assessment
WHMP - wildlife hazard management plan
WOTUS - Waters of the United States

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