

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
WESTERN-PACIFIC REGION
SAN FRANCISCO AIRPORTS DISTRICT OFFICE

FINDING OF NO SIGNIFICANT IMPACT

**MONTEREY REGIONAL AIRPORT
PROPOSED AIRFIELD SAFETY ENHANCEMENT PROJECT FOR
TAXIWAY "A" RELOCATION AND ASSOCIATED DEMOLITION AND
RELOCATION OF GENERAL AVIATION FACILITIES, PASSENGER
TERMINAL AND OTHER FACILITIES**

Monterey Peninsula Airport District
Monterey, California



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GENERAL INFORMATION ABOUT THIS DOCUMENT

WHAT'S IN THIS DOCUMENT? This document is the Federal Aviation Administration's (FAA) Finding of No Significant Impact for the Monterey Peninsula Airport District's (MPAD or District) proposed Taxiway "A" relocation, and associated demolition and relocation of general aviation facilities, passenger terminal and other facilities at Monterey Regional Airport (MRY), Monterey, California. This document includes the agency determinations and approvals for those proposed Federal actions described in the Final Environmental Assessment (EA) dated June 2020. This document summarizes the alternatives considered by FAA in reaching its decision, summarizes the analysis used to evaluate the alternatives, and briefly summarizes the potential environmental consequences of the Proposed Action and the No Action alternatives, which are evaluated in detail in the Final EA attached to this Finding of No Significant Impact

BACKGROUND. On March 6, 2020, the MPAD released the Draft EA for the *Proposed Taxiway "A" Relocation, and Associated Demolition and Relocation of General Aviation Facilities, Passenger Terminal and Other Facilities* at MRY for public review. The MPAD is proposing the construction of a multi-phased safety enhancement project at the Airport to increase the centerline to centerline separation distance between Runway 10R-28L and the adjacent parallel Taxiway "A" to a uniform separation distance of 327.5 feet for the entire length of Taxiway "A." The runway safety area (RSA) for Runway 10R-28L is 500 feet wide, centered on the runway. Currently, Taxiway "A" is 275 feet from the runway centerline between Taxiways "F" and "K." Therefore, any aircraft taxiing on Taxiway "A" with a wingspan greater than 50 feet (25 feet to each side) encroaches into the RSA. To accomplish the proposed safety enhancement, an approximately 1,850-linear-foot (lf) portion of Taxiway "A" will be relocated south by 52.5 feet. The demolition and relocation of several buildings, including the existing passenger terminal, aircraft rescue and firefighting (ARFF) building, and several general aviation hangars, is necessary to relocate Taxiway "A". The project is proposed to be implemented in four phases to occur over approximately nine years.

The Draft EA was available for public and agency review from March 6, 2020 until May 1, 2020. A Notice of Availability (NOA) was advertised in *The Monterey Herald* on March 6, 2020 to inform the public and other interested parties with information on how to view the Draft EA on the project EA website. The NOA was also mailed to agencies and the public. The Draft EA was prepared in accordance with the requirements of the National Environmental Policy Act (NEPA) [Public Law 91-190, 42 United States Code §§4321-4347], the implementing regulations of the Council on Environmental Quality (CEQ) [40 Code of Federal Regulations Parts 1500-1508], and FAA Orders 1050.1F, *Environmental Impacts: Policies and Procedures* and 5050.4B, *National Environmental Policy Act (NEPA), Implementing Instructions for Airport Actions*. An NOA for this FONSI and the Final EA have been issued and are also available at www.montereyea.airportstudy.com.

WHAT SHOULD YOU DO? Read this Finding of No Significant Impact and the Final EA to understand the actions that FAA intends to take relative to the Proposed Taxiway "A" Relocation, and Associated Demolition and Relocation of General Aviation Facilities, Passenger Terminal and Other Facilities project.

WHAT HAPPENS AFTER THIS? The MPAD, the owner and operator of MRY, may proceed with the actions necessary to implement the Proposed Taxiway "A" Relocation, and Associated Demolition and Relocation of General Aviation Facilities, Passenger Terminal and Other Facilities project.

**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
FINDING OF NO SIGNIFICANT IMPACT**

**MONTEREY REGIONAL AIRPORT
PROPOSED TAXIWAY “A” RELOCATION,
AND ASSOCIATED DEMOLITION AND RELOCATION OF
GENERAL AVIATION FACILITIES,
PASSENGER TERMINAL AND OTHER FACILITIES**

**MONTEREY PENINSULA AIRPORT DISTRICT
MONTEREY, MONTEREY COUNTY, CALIFORNIA**

1. Introduction

This document is a Finding of No Significant Impact (FONSI) on the environment as a result of the proposed development and operation of a multi-phased safety enhancement project to relocate a portion of Taxiway “A” at the Monterey Regional Airport (MRY or Airport). In order to accomplish the relocation of Taxiway “A”, demolition and relocation of general aviation facilities, the existing passenger terminal and other facilities must occur (collectively referred to as the Proposed Action). The Federal Aviation Administration (FAA) must comply with the National Environmental Policy Act of 1969 (NEPA) before being able to take the Federal action of unconditional approval of the MRY Airport Layout Plan (ALP) for the Proposed Action. The Monterey Peninsula Airport District (MPAD or District), as the airport sponsor, issued the Draft Environmental Assessment (EA) on March 6, 2020 for a 30-day review. Pursuant to a request from the Cities of Monterey and Del Rey Oaks and to provide additional time for the public to comment on the Proposed Action during the COVID-19 public health emergency, MPAD extended the 30-day public comment period to a 56-day public comment period until May 1, 2020. MPAD prepared the Final EA to document the results of its environmental analysis. The Final EA is attached to this FONSI.

2. Project Purpose and Need

MRY is owned and operated by the MPAD and is part of the Federal National Plan of Integrated Airport Systems. MRY is a commercial service airport that accommodates both air carrier aircraft as well as general aviation (GA). The MPAD applies for and accepts Federal Airport Improvement Program (AIP) grant funding to construct and maintain airport facilities, which obligates MPAD to maintain, operate, and improve their facilities in compliance with associated FAA airport grant assurances.

Chapter 1 of the Final EA identifies that the purpose of the Proposed Action is to enhance the operational safety of the Runway 10R-28L taxiway system. Approximately 1,850 linear feet (lf) of parallel Taxiway “A” is located 275 feet from the centerline of the 7,175 lf Runway 10R-28L, while the remaining 5,325 lf of Taxiway “A” is located 327.5 lf from the centerline of Runway 10R-28L. A risk assessment (EA Appendix A) of the Runway 10R-28L runway and parallel taxiway system found that if the portion of Taxiway “A” located only 275 lf from the center line of Runway 10R-28L was relocated so the entire Taxiway “A” was at least 327.5 lf from the centerline of the runway, the risk of an accident would be reduced to less than one (1) accident per 10,000,000 landings, as recommended in the risk assessment.

Chapter 1 also identified that relocating connector taxiway hold lines, creating airport apron islands, and eliminating direct runway access from the aircraft parking apron associated with the relocated passenger terminal would also enhance safety.

The FAA's statutory mission is to ensure the safe and efficient use of navigable airspace in the U.S. as set forth under 49 United States Code (U.S.C.) § 47101 (a)(1). The FAA must ensure that the Proposed Action does not derogate the safety of aircraft and airport operations at MRY. Additionally, the FAA is responsible for approval of the MPAD's ALP update showing the Proposed Action. Pursuant to 49 U.S.C. § 47107 (a)(16), the FAA Administrator (under authority delegated from the Secretary of Transportation) must approve any revision or modification to an ALP regarding the safety, utility, and efficiency of an airport before the revision or modification takes effect. The Administrator's approval reflects a determination that the Proposed Action at the Airport, reflected in the ALP revision or modification, does not adversely affect the safety, utility, or efficiency of the Airport.

3. Proposed Action and Federal Actions

As described in the Final EA Section 1.3, the Proposed Action includes a series of tasks that will occur over a nine year period and consist of four phases to provide sufficient space for a southerly shift of 1,850 lf of Taxiway "A" by 52.5 feet to increase the Runway 10R-28L/taxiway centerline to centerline separation to a consistent 327.5 feet throughout the length of the taxiway. The runway safety area (RSA) for Runway 10R-28L is 500 feet wide, centered on the runway. Currently, Taxiway "A" is 275 feet from the runway centerline between Taxiways "F" and "K." Therefore, any aircraft taxiing on Taxiway "A" with a wingspan greater than 50 feet (25 feet to each side) encroaches into the RSA. The phases are:

- Phase 1 (Years 1-3): Construct the necessary pavement and infrastructure to relocate approximately 44 GA tenants, including approximately 205,000 square feet (sf) of new apron/taxilane pavement, 90,500 sf of T-hangar, box hangar, and executive hangar space, and buildable hangar pads that could accommodate an additional 35,500 sf of hangar space for a total replacement of 126,000 sf of hangar space from the southeast part of the Airport to north of the airfield. Approximately 41,500 sf of pavement would also be provided for vehicular access and parking with a net increase of seven parking spaces. Concurrent with the site preparation for the north side GA area, build improvements on an approximately 24-foot-wide, 1,600-foot-long airport vehicle service road (northeast service road improvement) from the existing east vehicle service road to the terminus of Airport Road at the north GA apron to provide a construction haul route for the Proposed Action and a service road to the north GA area from both sides of the Airport.
- Phase 2 (Years 4-7): Construct a permanent aircraft rescue and firefighting (ARFF) building in the general location of the existing Navy Flying Club buildings. Construct an approximately 12-foot-wide, 630-foot-long (on airfield) ARFF service road from the edge of the GA apron to Runway 10R-28L to provide acceptable response times from the ARFF building to the mid-point of the runway. Demolish or relocate the southeast GA facilities. Demolish the existing ARFF building and long-term parking area. Construct a new passenger terminal complex (including apron, terminal entrance loop road and roundabout, and vehicular parking lots). Close Taxiway "K" between Runway 10R-28L and Taxiway "A."

- Phase 3 (Year 8): Remark 1,850 ft 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 9): Construct a surface parking lot in the general location of the current existing terminal building along with a minor realignment of Fred Kane Drive to replace automobile parking removed by the terminal relocation and provide additional automobile parking.

FAA Federal actions that are to be requested in association with the Proposed Action are:

- Unconditional approval of that portion of the ALP that depicts the Proposed Action pursuant to 49 U.S.C. §§40103(b), 44718(a), and 47107(a)(16).
- Determinations under 49 U.S.C. §§47106 and 47107 that are associated with the eligibility of the Proposed Action for federal funding under the Airport Improvement Program and under 49 U.S.C. §40117, as implemented by 14 C.F.R. §158.25, to use passenger facility charges collected at the Airport for the Proposed Action to assist with the construction of potentially eligible development items from the ALP.

In accordance with FAA Order 1050.1F, Paragraph -1 (d)(2), if a Proposed Action of an airport sponsor is to be implemented in stages or requires successive FAA approvals, a written reevaluation of the continued adequacy, accuracy, and validity of the EA must be made at each major stage or approval point that occurs more than three years after approval of the Final EA.

4. Reasonable Alternatives Considered

Evaluation and Screening of Alternatives

As described in the attached Final EA Section 2.2, the FAA completed a thorough and objective review of a range of reasonable alternatives in accordance with CEQ regulations (40 C.F.R. § 1502.14). The alternatives evaluation included a two-step screening process. The first step addressed whether the alternatives met the purpose and need for the Proposed Action and were therefore considered “Reasonable.” The “Reasonable” criteria included the following:

- To enhance the operational safety of the Runway 10R-28L taxiway system;
- To relocate the existing passenger terminal to enhance airfield safety, improve terminal efficiency, and to provide for increases in the number of passengers using the terminal; and
- To enhance airport safety by relocating the existing terminal aircraft apron.

Alternatives considered under the Step 1 Criteria “Reasonable” included:

- No Action Alternative:

Under the No Action alternative, the Airport would continue to operate under its approved FAA waiver of the runway/taxiway separation standards for Taxiway "A." The existing hold lines on Taxiways "G," "J," and "K" would remain within the Runway 10R-28L RSA. No changes to the south side of the Airport would occur, including the relocation of the passenger terminal and apron, the ARFF building, and GA tenants located on the southeast ramp. Additional vehicular parking would not be provided. Both the existing passenger terminal building and the existing ARFF building would continue to have an adverse effect on navigable airspace around the runway (14 C.F.R. part 77) (Part 77 obstructions). Under the No Action alternative, the Airport would continue to use its existing passenger terminal.

- Relocate Hold Lines to 250 feet without Shifting Taxiway "A" Alternative:

Under this alternative MRY would relocate the hold lines on Taxiways "G" through "K" (at Taxiway "A") to meet FAA design standards of 250 feet from the runway centerline without first relocating the passenger terminal and shifting Taxiway "A" away from the runway. This alternative would cause significant operational issues for the Airport since it would effectively shut down Taxiway "A" when aircraft are holding. Thus, this alternative would not enhance the operational safety of the Runway 10R-28L taxiway system. This alternative would also not enhance safety by relocating the existing passenger terminal and other buildings to eliminate existing obstructions as defined by the 14 C.F.R. part 77 regulations, would not expand the passenger terminal to improve terminal efficiency as identified as necessary and supported by the MPAD 2018 final Monterey Regional Airport Master Plan, which included FAA-approved aviation forecasts..

- Shift Taxiway "A" to 400 Feet from Runway 10R-28L

This alternative would relocate Taxiway "A" the full FAA standard distance of 400 feet, centerline to centerline, from Runway 10R-28L along the entire taxiway length. As a result, it would provide taxiway/runway separation between Taxiway "A" and Runway 10R-28L that meets FAA Airport Design Group (ADG) III design standards to fully resolve the existing 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. Due to the existing topography and built environment of the Airport, several penetrations of the taxiway OFA would occur. The taxiway OFA would be penetrated by approximately 150 feet of an existing hillside and by the apron areas in front of the Del Monte Aviation hangar, Hangar No. 124 on the southwest apron, and the existing passenger terminal. This alternative's impact on airport operations would be substantial and would not enhance the operational safety of the Runway 10R-28L taxiway system. Essentially, all the south side apron area would be unusable, including the apron in front of the passenger terminal and the fixed base operator (FBO) apron, because of OFA requirements.

- Replace Existing Passenger Terminal and Shift 1,850 Linear Feet of Taxiway "A" (between Taxiways "F" and "K") 52.5 Feet South Alternative (Proposed Action).

This alternative involves a southerly shift of approximately 1,850 lf of parallel Taxiway "A" (between Taxiways "F" and "K") 52.5 feet from its current location. This would provide a consistent 327.5-foot separation between the Taxiway "A" and Runway 10R-28L centerlines the entire length of Taxiway "A" to enhance the operational safety of the Runway 10R-28L taxiway

system. It would ensure that ADG III aircraft (wingspans less than 118 feet) could taxi the full length of Taxiway “A” without any wingtip penetrations of the RSA. It would also allow the relocation of hold lines on connector taxiways to meet the standard of 250 feet separation distance from the RSA. Correcting the RSA issue by relocating a portion of Taxiway “A” would, however, limit the apron space available for parking and maneuvering of commercial aircraft in front of the existing passenger terminal building to only 107.5 feet. Therefore, relocation of the existing passenger terminal building, ARFF building, and GA facilities are included within this alternative.

The Proposed Action met the “Reasonable” screening criteria as described in Section 2.4 and Table 2A in the Final EA. The Relocate Hold Lines to 250 feet without Shifting Taxiway “A” alternative and the Shift Taxiway “A” to 400 feet from Runway 10R-28L alternative did not meet the “Reasonable” screening criteria identified in the Final EA and were eliminated from further consideration. The No Action alternative also did not meet the “Reasonable” screening criteria, but was retained as required per the NEPA regulations at 40 Code of Federal Regulations (C.F.R.) §1502.14(c) to provide a reference point upon which the impacts of the Proposed Action can be compared.

The second step determined if the “Reasonable” alternatives were also “Feasible.” The feasibility of an alternative was established by analyzing other important factors, such as logistical, technical, and economic considerations. These “Feasible” criteria were:

- Have a substantial adverse impact on airport operations when compared to other alternatives?
- Require substantial amounts of earthwork, or other increased construction impacts, when compared to other alternatives?
- Have substantially higher costs when compared to other alternatives?
- Be inconsistent with federal statutory requirements including 49 U.S.C. §47106(a)(1), which requires FAA-approved projects be consistent with the land use plans of public agencies authorized by the State to plan for development of the area surrounding the Airport?

As described in Section 2.5 and Table 2B of the Final EA, the “Feasible” screening criteria for screening variations on the Proposed Action to shift Taxiway “A” to a uniform separation distance of 327.5 lf from the centerline of Runway 10R-28L included consideration of the following items:

- GA Relocation
- North Side Access Road location
- ARFF Relocation
- Passenger Terminal Complex Relocation

Sections 2.5.1, 2.5.2, 2.5.3, and 2.5.4 and Table 2B describe the results of the application of the “Feasible” screening criteria, which are summarized as follows:

- Alternatives to Relocating General Aviation from the Southeast Ramp: As described in Section 2.5.1 of the Final EA, transferring the southeast GA tenants to the north side of the Airport would provide room on the south side to relocate the remaining landside development, including the

passenger terminal building and apron. The proposed north side GA relocation area would require minimal grading and contains only ruderal vegetation. This alternative would also enhance safety by relocating the existing passenger terminal and other buildings to eliminate existing obstructions as defined by the 14 C.F.R. Part 77 regulations, and would expand the passenger terminal to improve terminal efficiency. This alternative is considered feasible and has been retained for further analysis in this EA as a part of the Proposed Action.

As described in Section 2.5.1 of the Final EA, relocating the GA tenants to another location on the south side of the Airport was considered, but was found to be infeasible. The south side of the Airport is currently developed with FBO and GA hangars, terminals, ramp space, vehicular parking lots, and a rental car lot to the west of the existing passenger terminal. East or south of the existing passenger terminal are the terminal and employee parking areas, and the current southeast GA area that must be relocated for the new passenger terminal. There is only one undeveloped parcel left on the south side of the Airport. This is a 3.6-acre parcel located just west of the airport property line north of Highway 68. It is separated from the Air Operations Area (AOA) by an approximately 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 costly and would also impact existing biological resources. Therefore, relocating the existing GA area to this location was not considered feasible and was not retained for consideration in the Final EA.

- Alternatives to Access the North General Aviation Area: As described in Section 2.5.2 of the Final EA, the only road route to access the north side of the Airport and the relocated GA area that met the feasibility screening criteria was Airport Road. Airport Road is the existing access to the north side of the Airport. As part of the project, the MPAD would reduce the amount of airport related traffic on this road by ending the month-to-month rental agreements with several landscaping storage operations that currently operate at the Airport. Also, to maintain consistency with City of Monterey General Plan and Neighborhood Plan policies described in Section 4.3.7 of the Final EA, the Airport's ARFF station will only serve the Airport once it is relocated to the north side of the airport. Therefore, there will not be fire engine traffic departing the Airport on Airport Road to respond to off-airport emergencies. Also, no feasible routes to connect the new GA area on the north side of the Airport through the City of Del Rey Oaks were identified because those routes could not be implemented without an amendment to the City of Del Rey Oaks General Plan. A new road connecting the relocated GA Area on the north side of the Airport to public roads via a tunnel underneath the Airport's runways and connecting to Olmsted Road was also considered infeasible due to its high cost, amount of earthwork, and related construction costs. Under the Proposed Action an internal service road would be improved for construction access from within the Airport to the north side of the Airport.
- Alternatives for a New Aircraft Rescue and Firefighting Facility (ARFF): As described in Section 2.5.3 of the Final EA, the only feasible location to relocate the ARFF station, which must be relocated to accommodate the relocated terminal, is on the north side of the Airport. As described in Section 2.5 and Table 2B of the Final EA, ARFF locations on the south side of the Airport are infeasible for cost and logistical reasons. As described in Section 4.3.7 Land Use and Mitigation measures LU-1, in order for land use under the Proposed Action to remain consistent with the City of Monterey General Plan, once the ARFF building is relocated to the north side of

the Airport, it shall no longer be used as a joint-use facility that provides off-airport emergency services.

- Alternatives to the Passenger Terminal Apron and Terminal Building Complex: As discussed in Section 2.5.4 of the Final EA, relocating the passenger terminal complex to the current southeast GA ramp area was identified as the only feasible area to relocate these facilities. Costs are moderate compared to other alternatives, GA aircraft traffic is separated from commercial air carrier activities, and airfield obstructions are eliminated.

Alternatives Carried Forward For Detailed Consideration In The Final Environmental Assessment

The result of the alternatives screening process was that two alternatives - the Proposed Action alternative and the No Action alternative – were carried forward for detailed evaluation in the Final EA.

5. Assessment

The potential environmental impacts and possible adverse effects were identified and evaluated in the Environmental Consequences Chapter, Chapter 4 of the Final EA. The Final EA was reviewed by the FAA and found to be adequate for the purpose of the proposed Federal action. The FAA determined that the Final EA adequately describes the potential impacts of the Proposed Action and No Action alternatives.

During public review, the City of Monterey identified that it considered the use of Airport Road as a driving route for fire engines to provide off-airport emergency services as regular occurring access is inconsistent with the City of Monterey General Plan Policies. This inconsistency was addressed by adding mitigation measure LU-1 to Section 4.3.7 of the Final EA so that once the ARFF station is relocated to the north side of the Airport, it shall no longer be used as a joint-use facility to provide off-airport emergency response services. No other new issues associated with the Proposed Action surfaced as part of the public review process.

Final EA, Chapter 3 – Affected Environment, Section 3.1.1 identified that the environmental resource categories, Coastal Resources, Farmlands, Floodplains, Wetlands, and Wild and Scenic Rivers, are not located in the defined direct project study area shown in Exhibit 3A.

Final EA, Chapter 4 – Environmental Consequences and Mitigation, examined the following environmental impact categories in detail: Air Quality; Biological Resources; Climate; Department of Transportation Act, Section 4(f) resources; Hazardous Materials, Solid Waste, and Pollution Prevention; Historical, Architectural, Archaeological, and Cultural Resources; Land Use; Natural Resources and Energy Supply; Noise and Compatible Land Use; Socioeconomic Impacts, Environmental Justice, and Children’s Environmental Health and Safety Risks; Visual Effects; Water Resources (Surface Waters and Groundwater).

Air Quality: The Airport is in the North Central Coast Air Basin (NCCAB), which is the study area for air quality. The NCCAB is currently in attainment for all the National Ambient Air Quality Standards (NAAQS). Because the NCCAB is currently in attainment for all NAAQS, there are no current State Implementation Plans (SIPs) for the area, and no evaluation under the General or Transportation Conformity Rules of the Clean Air Act (CAA) is required for NAAQS criteria pollutants. However, for the

purposes of disclosure, Final EA Section 4.3.1 includes inventories of construction-related emission and vehicular emission inventories associated with the Proposed Action.

The Proposed Action would not result in increases in air pollutant emissions associated with aircraft operations since implementation of the Proposed Action would not change the number of airport operations at the Airport or the types of aircraft used. Surface vehicular emissions would increase only during construction but would be below typical *de minimis* thresholds under the CAA. Therefore, the Proposed Action would not result in air pollutant concentrations that would exceed one or more NAAQS and, therefore, would not result in a significant impact on air quality. Implementation of the No Action alternative would not change airport operations or aircraft and vehicle traffic patterns. Over time, aviation activity, and associated air quality emissions, are forecasted to increase whether or not the Proposed Action or the No Action alternatives are implemented.

As the Proposed Action would not result in a significant impact on air quality, no mitigation measures are required to reduce air emissions to a not significant level. However, in Section 4.3.1 of the Final EA, the MPAD has identified and intends to implement measures to avoid and minimize air emissions associated with the Proposed Action. In the short term, no construction emissions would occur under the No Action alternative.

Biological Resources: As discussed in Section 4.3.2 of the Final EA, the federally-threatened Monterey spineflower (*Chorizanthe pungens*), will be adversely affected by the Proposed Action. The Proposed Action could impact approximately 366 Monterey spineflower individuals, as well as the seed bank in the area where the Monterey spineflower were located. These direct effects would occur on the north side of the Airport during Phases 1 and 2 of the Proposed Action as shown in Final EA Exhibit 4A. The direct effects would include the removal of Monterey spineflower individuals, loss of soil seed bank from removing topsoil, and the conversion of available habitat to developed areas.

The Proposed Action could also impact the federally-endangered Yadon's piperia (*Piperia yadonii*). Based on collective survey data, 53 individuals occur in the Southside Terminal action area, three individuals occur in the Parking and Circulation action area, and one individual occurs in the Drainage Improvements action area. Construction activity in these areas would occur in Phases 2 and 4 of the Proposed Action. As designed, the Proposed Action would directly remove 57 Yadon's piperia from these areas and permanently remove approximately 0.17 acres of occupied Yadon's piperia habitat. The impacts would include the physical removal of individuals, loss of soil seed bank from removing topsoil, and the conversion of occupied habitat to developed areas. The Proposed Action has been designed to avoid the occurrences that are adjacent to the Parking and Circulation and Southside Terminal and Taxiway "A" Shift action areas. Overall, approximately 1,215 individuals are known to occur on the Airport, many of which are outside the project boundary of the Proposed Action.

Based on the site surveys and a thorough evaluation of the Proposed Action and federally-listed species, the FAA determined that the Proposed Action would have an adverse effect on the Monterey spineflower and Yadon's piperia and submitted a Biological Assessment for the project to the U.S. Fish and Wildlife Service (USFWS) to initiate interagency consultation under Section 7 of the Endangered Species Act. This consultation was completed on December 23, 2019, when the USFWS issued its Biological Opinion (Final EA, Appendix C) for the Proposed Action. The Biological Opinion concluded that with implementation of the Proposed Action and protective measures for the Monterey spineflower and Yadon's piperia described in the Biological Opinion and the *Mitigation, Avoidance, and Minimization*

Measures section for biological resources in this EA, the Proposed Action would not jeopardize the continued existence of these plant species. Therefore, with implementation of the mitigation measures as described in the Biological Opinion and the Final EA, the Proposed Action would not have a significant impact on biological resources.

In addition, the MPAD intends to further reduce potential impacts to migratory birds by implementing the mitigation, avoidance and minimization measures identified in Section 4.3.2.

Climate: As discussed in Section 4.3.3 of the Final EA, Greenhouse Gas (GHG) emissions would temporarily increase during construction of the Proposed Action and these construction GHG emission estimates are disclosed in Table 4B of the Final EA. The FAA has not identified any significance thresholds for aviation GHG emissions, and there are currently no accepted methods of determining significance applicable to aviation projects given the small percentage of emissions they contribute. No changes to the airfield or terminal (gate) capacity are proposed under the Proposed Action. Therefore, no changes to aircraft operational GHG emissions would occur that are attributable to this project. The Proposed Action would contribute increased GHGs temporarily during construction only. As the FAA has not identified specific thresholds or factors to consider in making a significance determination for GHG emissions, no mitigation measures are required to mitigate the potential temporary increase in GHG emissions attributed to the Proposed Action's construction phases. However, the MPAD has identified, and intends to implement, the Avoidance and Minimization measures listed in the Final EA to avoid and minimize the production of GHGs associated with implementation of the Proposed Action. Under the No Action alternative, no GHG emissions would be generated from construction of the Proposed Project. Aviation activity, and associated increases in GHG emissions associated with the use of aircraft, are forecasted to increase regardless of whether the Proposed Action or No Action alternative is implemented.

Department of Transportation Act, Section 4(f): As discussed in Section 4.3.4 of the Final EA, Department of Transportation Act, Section 4(f) resources include public parks, recreation areas, wildlife refuges, and historic sites of national, state, or local interest. The closest Section 4(f) resources to the Proposed Action construction activities are Tarpy's Roadhouse Restaurant, which is eligible for the National Register of Historic Places based on its historic architecture and design, and Work Memorial Park, which is a public park. No use or substantial impairment of Section 4(f) resources would occur due to construction activities for the Proposed Action. Both Tarpy's Roadhouse Restaurant and Work Memorial Park are separated from the proposed construction activities by 150 feet or more, topographical differences, and by mature trees and other vegetation. No construction, operation, or indirect use or substantial impairment of Section 4(f) resources would occur due to the Proposed Action or the No Action alternative. Therefore, implementation of the Proposed Action or the No Action alternative would not result in a significant impact on Section 4(f) resources.

Hazardous Materials, Solid Waste, and Pollution Prevention: As discussed in Section 4.3.5 of the Final EA, the Proposed Action would result in a variety of demolition, relocation, and construction activities that would involve the use, storage, and handling of hazardous materials as well as the generation of hazardous waste. The Airport maintains a spill prevention, control, and countermeasure plan, as well as a hazardous materials business response plan. Compliance with these, and other rigorous state and local regulatory requirements, would ensure that impacts related to hazardous materials and waste products during project construction activities, including the demolition of older buildings, would be not be significant.

Along with expansion of GA activity on the north side of the Airport, the Proposed Action would provide an additional fuel farm on the north side of the Airport. An existing aboveground 8,000-gallon aviation gasoline (AvGas) tank is proposed to be relocated from the southeast GA area to the north side. The existing 12,000 AvGas 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 Fixed Base Operator (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. Thus, the Proposed Action 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 the two existing aboveground fuel tanks would be addressed using the procedures described in the Airport's hazardous materials business response plan, as well as the existing Airport Spill Prevention Control and Countermeasures (SPCC) plan. 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 are not significant.

Indirect impacts could involve the future use, transport, or disposal of hazardous materials due to the actions of future tenants of the relocated and new hangars. Although specific details regarding future use of hazardous materials, if any, are not known at this time, any future 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.

Implementation of the Proposed Action would not result in a significant impact on the environment associated with the use, transport, or disposal of hazardous materials due to the following:

- Worker exposure to asbestos and lead paint during demolition of the existing passenger terminal and ARFF buildings (and older hangars) would be limited to levels in accordance with regulatory requirements.
- Relocated north side GA 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.
- The proposed relocation of the existing fuel tanks would be subject to the Airport's procedures and plans in place that are applied to all fuel storage at the Airport.

No impacts related to the use, transport, or disposal of hazardous materials resources would occur due to the No Action alternative as no changes to the existing airport environment and operating procedures would occur.

As the impacts of the Proposed Action on Hazardous Materials are not significant, there are no mitigation measures required to reduce the impacts to a not significant level. However, the Airport proposes to implement the additional avoidance and minimization measures identified in the Final EA to further reduce the environmental impacts of the Proposed Action.

The Final EA evaluated the construction impacts and operation impacts of the proposed project on Solid Waste. The State of California *Integrated Waste Management Act of 1989* requires that each

municipality in California divert at least 50 percent of its solid waste from landfill disposal through source reduction, recycling, and composting. In addition, it requires all California counties to provide at least 15 years of ongoing landfill capacity. Short-term, construction-related solid waste would result from the generation of debris from the demolition of buildings and the removal of existing pavement and infrastructure. All construction waste not reused or recycled would be hauled to the Monterey Peninsula Landfill (MPL), except for construction waste deemed hazardous. The MPL has a projected capacity of 5,000,000 tons per year through the Year 2115. MPL currently receives approximately 490,000 tons per year (Monterey Regional Waste Management District [MRWMD] 2016). The Proposed Action is estimated to generate an average of two truck trips for solid waste disposal per day for landfill disposal during the peak construction phase (Phase 2) of the Proposed Action. This is not a significant impact to solid waste disposal capacity of the MPL, or a significant contribution to local traffic, even for those days experiencing above average truck activity. Airport tenants are currently responsible for their own solid waste disposal, and tenants would remain responsible for their own solid waste disposal with implementation of the Proposed Action. Therefore, no significant impacts to solid waste disposal or the MPL would occur due to implementation of the Proposed Action.

As described in Section 4.3.5 of the Final EA, various federal, state, and local regulatory requirements regarding hazardous materials and solid wastes will continue to apply to the Airport under the Proposed Action. Therefore, implementation of the Proposed Action with regard to pollution prevention would not result in a significant impact to the Airport's ability to implement plans and procedures to prevent pollution.

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

Historic, Architectural, Archaeological, and Cultural Resources: The Area of Potential Effect (APE) for evaluation of Historic, Architectural, Archaeological and Cultural Resources (cultural resources) is shown on Exhibit 4C. As described in Section 4.3.6 of the Final EA, the APE is within the boundaries of prior cultural resources evaluations in 2014, 2017, and 2018. Implementation of the Proposed Action would result in the demolition (or relocation) of the buildings identified in Table 4E. As none of the buildings to be demolished are on or eligible for the NRHP, demolition or relocation of the buildings identified would not result in a significant impact on historic properties. Tarp's Roadhouse Restaurant is the only structure on airport property that is on or eligible for the NRHP. This historic structure would not be physically altered by the Proposed Action nor would its architecture be modified. A project haul road is located approximately 150 feet west of Tarp's Roadhouse Restaurant. Some noise from construction traffic may be audible at the structure, but it is not a noise-sensitive historic property and would not be affected by the Proposed Action.

The undeveloped areas that would be developed under the Proposed Action had limited visibility for conducting cultural resources pedestrian surveys. Approximately 50 percent of the undeveloped areas had ground visibility of less than 25 percent, while the other 50 percent of the undeveloped area had visibility between 25 percent and 75 percent. Therefore, there is the potential that unknown archaeological resources could become visible after vegetation is removed from the construction areas. In order to ensure that undiscovered archaeological sites eligible for the NRHP are not inadvertently damaged before data could be recovered from them, the Airport will implement an Archaeological Monitoring Plan to identify any unknown archeological sites that become visible after vegetation removal, which is discussed as an avoidance and minimization measure in Section 4.3.6 of the Final EA.

FAA determined no historic properties would be affected by the Proposed Action. By letter of February 19, 2020 (Final EA Appendix E), the FAA initiated a NHPA, Section 106 consultation with the California State Historic Preservation Office (SHPO). By letter of April 8, 2020 (Final EA Appendix E), the California SHPO concurred with the FAA determination that no historic properties would be affected by the Proposed Action, completing the NHPA, Section 106 consultation process. Therefore, the Proposed Action would not have a significant impact on historical, architectural, archaeological, or cultural resources.

There are no federally-recognized Native American tribes for the Monterey region and, therefore, FAA has not conducted any government-to-government consultation with such tribes. However, in November 2019, the FAA contacted those tribes identified by the California Native American Heritage Commission (NAHC) as potentially having interest in the proposed project as part of their traditional homeland area. Two tribes, the Ohlone/Costanoan-Esselen Nation (OCEN) and the Salinan Tribe of Monterey and San Luis Obispo Counties, responded to the FAA inquiry. Both tribes have expressed interest in being retained as tribal monitors to work with the professional consultant archaeologist during construction on the project as both tribes anticipate archaeological resources may become visible during construction when dense vegetation is removed or ground-disturbing activities occur.

The MPAD has agreed to retain both the OCEN and Salinan Tribe of Monterey and San Luis Obispo Counties as tribal monitors to work with the professional archaeologist to monitor for historic or prehistoric archaeological resources during construction when dense vegetation is removed or ground-disturbing activities occur. If any archaeological resources, Traditional Cultural Properties, or Native American Sacred Sites are located during construction, these sites will be evaluated in accordance with the NHPA, Section 106, the *Native American Religious Freedom Act*, and any other applicable federal laws, Executive Orders, and DOT and FAA policies. In addition, the MPAD will implement the avoidance and minimization measures for Cultural Resources identified in Section 4.3.6 of the Final EA.

Land Use: The potential for land use impacts were assessed in the Section 4.3.7 of Final EA by evaluating proposed changes in land use within the project study area. Impacts to adjacent land uses due to the proposed project have also been assessed. In terms of adjacent land use impacts on airport operations, as described in Section 3.3.7.2 of the Final EA, the Airport provided a Land Assurance letter dated February 9, 2018 (Final EA Appendix D) specifying that appropriate action has been or will be taken, to the extent reasonable, to restrict the use of land next to or near the Airport to uses that are compatible with normal airport operations pursuant to Title 49 United States Code (U.S.C.) §47107(a)(10).

Construction impacts could have short-term effects on several existing uses at the Airport as construction would occur in phases within several areas of the Airport. For example, existing land uses would be temporarily disrupted as the various stages of relocation occur. Affected land uses would include: southeast ramp - GA hangars would be demolished and tenants would be relocated to the northeast ramp; northeast ramp - the Navy Flying Club and six Port-a-Port T-hangars would be relocated adjacent to proposed hangar and taxilane 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 passenger terminal building, which would remain operational until the proposed relocated passenger terminal complex is completed). The amount of GA apron for parking aircraft at the northeast GA ramp would be reduced by approximately 1,000 square yards (sy), and three tie-down positions would be eliminated where existing apron pavement is converted to a taxilane. However, based on recent MPAD facilities analyses,

the Airport currently has an excess of local apron tie-down positions. Also, based on MPAD facility requirements analysis the trend in general aviation and at the Airport 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. This land use impact would not be significant as both the northeast and southeast GA ramps are currently under-utilized.

Temporary construction impacts to both on-airport users and off-airport nearby residents or occupants could include dust, construction noise, and congestion for several years as the construction for the Proposed Action moves through its various phases. These types of construction impacts are addressed more specifically in Final EA Sections 4.3.1 Air Quality, 4.3.9 Noise and Compatible Land Use, and 4.3.10 Socioeconomic Impacts as they relate to dust, noise, and traffic, respectively.

The Proposed Action would not introduce new land uses 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. On the south side of the Airport, the closest off-airport land uses are primarily 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. The relocated passenger terminal complex would not result in land use incompatibilities with these existing land uses. On the north side of the Airport, the proposed GA and ARFF buildings would be more than 650 feet from the closest off-airport land uses (i.e., residences within the City of Del Rey Oaks).

Although the Airport is located within the MPAD special airport district and is not generally subject to the policies and land use plans of the surrounding local jurisdictions, the Airport is adjacent to the cities of Del Rey Oaks and Monterey. The Airport Development Grant Program (see 49 U.S.C. §47101 *et seq.*) requires that a federal Airport Improvement Program grant may not be approved unless the Secretary of Transportation is satisfied that the project is consistent with plans (existing at the time a project is approved) of public agencies for development of the area in which the airport is located (49 U.S.C. §47106(a)(1)). Because of the proximity of the Airport to the City of Del Rey Oaks and City of Monterey, evaluation of the Proposed Action's consistency with applicable goals and policies of each city's general plan was completed and included in Appendix D, Tables D-1 through D3, of the Final EA.

The Final EA concluded that the Proposed Action would be consistent with all applicable land use goals and policies of the City of Del Rey Oaks. The Final EA concluded that, Policy L-5 of the City of Del Rey Oaks Land Use Element stating, "The Airport shall not expand its present aviation operation" is not applicable to the MPAD as this policy is not consistent with 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." As documented in the Final EA, Appendix F - Notice of Availability and Draft Environmental Comments - the City of Del Rey Oaks, and many individual residents of that City, commented on the Draft EA that they supported the continued use of Airport Road through the City of Monterey to access the north side of the Airport. The City of Del Rey Oaks and many of its residents also commented that they opposed a new access road from the Airport to connect to State Highway 218 through the City of Del Rey Oaks. While such a route was considered during the initial public scoping for this project, it was not included in the Proposed Action.

The Final EA evaluated the consistency of the Proposed Action with the applicable land use policies of the City of Monterey. As discussed in Appendix F of the Final EA, the City of Monterey commented that the continued use of Airport Road through the City of Monterey for off-airport emergency services for regularly occurring emergency access after the ARFF building was relocated to the north side of the Airport would be inconsistent with City Circulation Element Policies c.8, i.6 and i.7, and inconsistent with Casanova-Oak Knoll Neighborhood Plan Policies 16, 29, and 34.

Therefore, the MPAD added Mitigation, Avoidance, and Minimization Measures LU-1 to the Final EA, which states that once the ARFF building is relocated to the north side of the Airport, it will no longer be used for off-airport emergencies. With the implementation of that mitigation, inconsistencies with applicable City of Monterey general plan policies including the Casanova Oak Knoll Neighborhood Plan policies will not occur. As described in more detail in the Section 4.3.7 and Section 4.3.10 of the Final EA, removal of some existing tenants from the north side of the Airport under the Proposed Action alternative will reduce the number of vehicle trips on Airport Road below levels under the No Action alternative. With implementation of these mitigation, avoidance, and minimization measures, land use impacts of the Proposed Action are not significant.

The No Action alternative would avoid land use impacts associated with proposed construction activities, as well as the proposed loss of GA apron and tie-downs. However, the No Action alternative would be inconsistent with the City of Monterey goals and policies to increase transit and other non-vehicular opportunities within the region (Monterey General Plan Circulation Element Goals h and i and related policies) and to increase the safety of the Airport (Monterey General Plan Safety Element Goals e and related policies; Noise Element Goal a and Policy b.1) as no enhancements to the existing passenger terminal complex or airfield safety would occur. The No Action alternative would also be inconsistent with Monterey General Plan Circulation Element Policy c.8 as it would continue to allow truck traffic from existing landscaping storage operations located on the north side of the Airport. Appendix D, Tables D2 and D3 identify these items.

Natural Resources and Energy Supply: Natural resources and energy supply are discussed in Section 4.3.8 of the Final EA. Estimated fuel consumption of construction equipment is provided in Table 4G of the Final EA. The Airport would complete the construction of each phase in the most efficient way possible to reduce unnecessary energy consumption, including minimizing construction vehicle idling, using fuel efficient (California Air Resources Board Tier 3) engines when available, and using “clean air” alternative fuel vehicles when available. Table 4H of the Final EA shows the estimated net operational change in annual energy consumption due to the Proposed Action. Overall, an annual net increase in approximately 630,000 kWh of electricity and a net decrease in approximately 500 therms of natural gas could occur. However, this calculated energy demand does not include the anticipated savings in energy usage due to the proposed LEED certification of the new passenger terminal and ARFF building (i.e., approximately 25 percent less than the stated estimates). However, the estimated temporary anticipated fuel use during construction, and increase in electrical use due to the Proposed Action would not exceed available or future energy supplies. Therefore, the Proposed Action would not have a significant impact on Energy Supply. No changes to existing energy supplies would occur under the No Action alternative.

Implementation of the Proposed Action would require natural resources such as aggregate building materials. There are several aggregate materials sources in Monterey County with 0.5 to 3.0 million tons of material available. Therefore, implementation of the Proposed Action would not have a

significant impact on mineral resources due to the plentiful supply of available aggregate sources for building materials within the region. No impacts on mineral resources would result from the No Action alternative.

Available water supply and demand was evaluated in Section 4.3.8 and listed in Table 4J of the Final EA. Development associated with the Proposed Action would not exceed the Airport's existing remaining water allocation of 5.20 acre feet per month from the Airport's water supplier and would not have a significant impact on its existing water entitlements. Impacts to the Airport's water supply during construction are also considered not significant as the Airport has an available source of non-potable water available for construction activities. No impacts related to water supply and demand would result from the No Action alternative.

Noise and Compatible Land Use: Potential impacts of the Proposed Action on noise and compatible land use are discussed in Section 4.3.9 of the Final EA. The FAA considers that a significant noise increase occurs when a Proposed Action would increase noise measured by the Community Noise Equivalent Level (CNEL) by 1.5 decibel (dB) or more for a noise-sensitive area (such as residents, schools, hospitals, and places of worship) that would result in exposure to noise at or above the CNEL 65 dB noise exposure level, or that will be exposed at or above the CNEL 65 dB level due to a 1.5 dB or greater increase, when compared to the No Action alternative for the same timeframe. As the Proposed Action does not involve a change in aircraft operations, no operational analysis for aircraft noise is required or completed.

Construction activities would result in temporary increases in ambient noise. Construction for the Proposed Action 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. The Airport allows nighttime construction on areas within the runway and taxiway system and their associated safety zones to avoid the need to close the runway during more active daytime hours. Construction noise would occur on an intermittent basis only and would not exceed the FAA noise threshold of a CNEL 1.5 dB increase in noise within or above the CNEL 65 dB for noise-sensitive land uses. As discussed in Section 4.3.9, operational noise associated with vehicular traffic or future buildings would not create noise that would exceed the FAA-noise significance criteria. Therefore, no significant noise impacts would result from the Proposed Action. However, the MPAD will implement the avoidance and minimization measures described in the Final EA to further reduce noise associated with implementing the Proposed Action. As no changes to the existing airport environment and operating procedures would occur under the No Action alternative, no impacts related to noise levels for noise-sensitive land uses would result from the No Action alternative.

Socioeconomic Impacts: As discussed in detail in Section 4.3.10 of the Final EA, , the Proposed Action would not induce substantial economic growth, disrupt, or divide the physical arrangement of an established community, displace housing or businesses, or produce a substantial change in the community tax base. The project could generate additional traffic during the construction stages of the project. However, in the long term, the Proposed Action would result in a decrease of average daily traffic both on the south and north sides of the Airport and the surrounding roadway system. Therefore, the Proposed Action would not have a significant impact on Socioeconomics.

Section 4.3.10 of the Final EA evaluated whether the Proposed Action had a potential to have a disproportionately high and adverse effect on a minority or low-income population in the vicinity of the Airport. The evaluation found that there are no predominately minority or low-income populations in the vicinity of the Airport, and therefore there is no potential that such populations could experience disproportionate environmental impacts as a result of implementation of the Proposed Action.

Section 4.3.10 of the Final EA evaluated whether implementation of the Proposed Action would result in disproportionately high environmental health or safety risks to children. The evaluation concluded that the only children with any potential to be affected by environmental impacts of the Proposed Action are those who reside within 0.25 mile of Proposed Action construction activities. However, any such potential impacts will be minimized by elevation differences, vegetative screening, established on-airport buffers, linear distances between proposed activity areas and the nearest off-airport land uses and the mitigation, avoidance, and minimization measures in Sections 4.3.1, 4.3.5, and 4.3.9 of the Final EA, that the MPAD will implement as part of implementing the Proposed Action.

The No Action alternative has no potential to have a significant impact on Socioeconomics, and no potential to disproportionately impact minority or low-income populations, or children.

Visual Effects: As discussed in Section 4.3.11 of the Final EA, no light or glare-sensitive uses are immediately adjacent to the Airport that would be affected directly or indirectly by the Proposed Action. Due to the distance, vegetation, and topography between existing residents and the Proposed Action, potential impacts related to project sources of light or glare would not be significant. Any development that has the potential to generate glint, glare, or affect the line-of-sight of the Airport Traffic Control Tower (ATCT) would require a glint, glare, or line-of-sight study before FAA approval of such a project. The Airport would be required to implement a design that would preclude glint, glare, or line-of-sight impacts to the ATCT.

Given the industrial character of the Airport, the lack of public views of the construction areas, and the presence of existing screening vegetation on both sides of the Airport, construction activities would not substantially degrade the visual character or resources in the general area. Therefore, construction activities would not result in a significant impact on visual resources.

Overall, the Proposed Action would be consistent with the visual character of the Airport, 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 short- or long-range views would be exposed to these visual changes. Since most of the proposed development 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). Therefore, implementation of the Proposed Action would not result in a significant impact on visual resources.

Water Resources (Surface and Groundwater): As discussed in Section 4.3.12 of the Final EA, during and immediately after construction activities, erosion and sedimentation can cause a degradation of water quality due to stormwater runoff. A National Pollutant Discharge Elimination System General Construction Permit will be required for all construction project components that would disturb greater than one acre of land. Acquisition of a General Construction Permit is dependent on the preparation of

a Stormwater Pollution Prevention Plan (SWPPP) that contains specific Best Management Practices (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.

As discussed in Section 4.3.12 and Table 4Q of the Final EA, the Proposed Action would result in an approximate six percent increase (649,468 sf) of impervious surfaces over the approximately 11,432,594 sf of impervious surface currently present on the Airport under the No Action alternative.

The associated additional stormwater flows to the southwest and northeast points of confluence would be so slight that no modifications of the existing stormwater system or detention basins are required. On the south side of the Airport, landside areas south of the proposed terminal relocation would drain from the Airport into drainage systems within the right-of-way of Highway 68. In this case, the detention basins would be required to meet FAA mandates for detention ponds to keep the ponds from becoming wildlife attractants. As shown in Table 4R and Exhibit 4H additional stormwater detention ponds would be constructed and sized to hold runoff from the existing 10-year flows [pre-construction] to the future 100-year [post-construction] flows.

As discussed in Section 3.3.5.3 of the Final EA, the Airport's stormwater discharges have not exceeded the California State Water Board's, Industrial General Permit, Numeric Action Levels, which is an indicator that the Airport's SWPPP and BMPs are effective at preventing pollutants from discharging into stormwater. Based on the demonstrated effectiveness of the Airport's BMPs and SWPPP for previous projects, and the construction of additional detention ponds to accommodate the increase in stormwater discharges, potential impacts of construction and operation of the Proposed Action on surface water resources are not significant. No impacts related to surface water quantities or quality at the Airport would occur under the No Action alternative. As the Airport does not serve as an effective ground water recharge area, implementation of the Proposed Action or the No Action Alternative would not result in a significant impact on groundwater quality or quantity.

Cumulative Impacts: Section 4.4 of the Final EA presents the Cumulative Impact analysis; past, present, and reasonably foreseeable future actions are identified in Section 3.4. The analysis concluded that the Proposed Action, when combined with other past, present, and reasonably foreseeable future actions would not result in significant cumulative impacts to Air Quality; Biological Resources; Climate; Department of Transportation Section 4(f) resources; Hazardous Materials, Soil Waste, and Pollution Prevention; Historical, Architectural, Archaeological, and Cultural Resources; Land Use; Natural Resources and Energy Supply; Noise and Compatible Land Use; Socioeconomic Impacts; Visual Effects; and Water Resources (Surface Waters and Groundwater).

- 6. Public Participation:** As discussed in Section 5.3 of the Final EA, the public was encouraged to review and comment on the Draft EA. The MPAD published a Notice of Availability (NOA) of the Draft EA for public review and comment on March 6, 2020 in the *Monterey Herald* and on the EA website, with the public comment period scheduled to extend to April 6, 2020. An NOA with a link to the Draft EA on the EA website was also sent to agencies and stakeholders notified during the initial public scoping period for the EA discussed in Section 5.1 of the Final EA. However, on March 19, 2020, the Governor of California issued Executive Order N-33-20, a statewide stay-at-home order for California's residents, in response to the COVID-19 public health emergency in order to preserve public health and safety and the

City of Monterey and the City of Del Rey Oaks requested the comment period be extended. The MPAD subsequently published a notice in the *Monterey Herald* on March 26, 2020 to extend the public comment period until April 20, 2020. The MPAD on April 6, 2020, further extended the public comment period until May 1, 2020.

The MPAD NOAs and public comments received, and the responses to public comments are included in Appendix F of the Final EA. Public comment letters were received from the Salinan Tribe of Monterey and San Luis Obispo Counties, Transportation Agency of Monterey County, Monterey Peninsula Water District, the U.S. Department of the Navy – Naval Support Activity Monterey, the Highway 68 Coalition, the Mayor of the City of Monterey (which included an additional 36 comments from residents of the City of Monterey – 34 of whom identified themselves as Casanova Oak Knoll neighborhood residents), 4 additional Monterey residents (2 of whom identified themselves as Casanova Oak Knoll neighborhood residents), the Mayor of the City of Del Rey Oaks, and 16 letters from residents of the City of Del Rey Oaks.

Most public comments addressed issues that had already been identified in the Draft EA. Comments from the Mayor of Monterey and residents of the Monterey Casanova Oak Knoll neighborhood generally opposed providing access to the relocated GA area from Airport Road, and supported access to the relocated GA area through the City of Del Rey Oaks. Comments from the Mayor of Del Rey Oaks and residents of Del Rey Oaks generally opposed providing access to the relocated GA area through the City of Del Rey Oaks and supported providing access to the relocated GA area from the existing Airport Road access through the City of Monterey.

The City of Monterey letter also stated that the City considered the use Airport Road to provide regularly occurring emergency access (*i.e.*, a joint-use ARFF and fire station that would provide off-airport emergency services) to be inconsistent with the City of Monterey’s General Plan and the City of Monterey Casanova Oak Knoll Neighborhood plan. As discussed in Section 4.3.7 of the Final EA and this FONSI, the MPAD has added Mitigation, Avoidance, and Minimization Measures LU-1 to the Final EA, which states that once the ARFF building is relocated to the north side of the Airport, it will no longer be used for off-airport emergencies.

All public comments are addressed in the responses to comments in Appendix F of the Final EA.

7. Inter-Agency Coordination

In accordance with 49 USC § 47101(h), FAA has determined that no further coordination with the U.S. Department of Interior or the U.S. Environmental Protection Agency is necessary because the Proposed Action does not involve construction of a new airport, new runway, or major runway extension that has a significant impact on natural resources including fish and wildlife; natural scenic and recreational assets; water and air quality; or another factor affecting the environment.

8. Reasons for the Determination that the Proposed Project will have No Significant Impacts

The attached Final EA examines each of the environmental resource categories that were deemed present at the project location or had the potential to be impacted by the Proposed Action. The proposal to implement the Proposed Taxiway “A” Relocation, and Associated Demolition and Relocation of General Aviation Facilities, Passenger Terminal and Other Facilities would not result in any

environmental impacts that would exceed the thresholds of significance as defined in FAA Orders 1050.1F and 5050.4B.

Based on the information contained in this FONSI and supported by detailed discussion in the Final EA, the FAA has selected the Proposed Action, described in Chapter 1, Section 1.3, as the FAA's Preferred Alternative. The FAA has decided to unconditionally approve the proposed development with the Airport's ALP as described in Section 3 of this FONSI.

9. Finding of No Significant Impact

I have carefully and thoroughly considered the facts contained in the attached Final EA. Based on that information, I find that the proposed Federal actions are consistent with existing national environmental policies and objectives of Section 101(a) of the National Environmental Policy Act of 1969 (NEPA) and other applicable environmental requirements. I also find the proposed Federal actions will not significantly affect the quality of the human environment or include any condition requiring any consultation pursuant to section 102(2)(C) of NEPA. As a result, FAA will not prepare an Environmental Impact Statement for this action.

Approved:

6/8/2020

X Laurie J. Suttmeier

Laurie J. Suttmeier
Manager, SFO ADO - SFO 600
Signed by: LAURIE J SUTTMEIER
June 8, 2020

Laurie J. Suttmeier
Manager, San Francisco Airports District Office, SFO-600

Disapproved:

X

Laurie J. Suttmeier
Manager, SFO ADO - SFO 600
June 8, 2020

Laurie J. Suttmeier
Manager, San Francisco Airports District Office, SFO-600

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FINAL ENVIRONMENTAL ASSESSMENT

PROPOSED AIRFIELD SAFETY ENHANCEMENT PROJECT FOR TAXIWAY "A" RELOCATION AND ASSOCIATED DEMOLITION AND RELOCATION OF GENERAL AVIATION FACILITIES, PASSENGER TERMINAL, AND OTHER FACILITIES

MONTEREY REGIONAL AIRPORT
Monterey County, California

Prepared for:

MONTEREY PENINSULA AIRPORT DISTRICT
200 Fred Kane Drive, Suite 200
Monterey, CA 93040

**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

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

Prepared by:

Coffman Associates, Inc.
Scottsdale, Arizona

JUNE 2020

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

**DOUGLAS
POMEROY**

Digitally signed by DOUGLAS
POMEROY
Date: 2020.06.08 11:46:47 -07'00'

Responsible FAA Official

Date

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**FINAL
ENVIRONMENTAL ASSESSMENT**

**Proposed Airfield Safety Enhancement Project
For Taxiway “A” Relocation
And Associated Demolition and Relocation of
General Aviation Facilities, Passenger Terminal,
and Other Facilities**

**For
MONTEREY REGIONAL AIRPORT
Monterey County, California**

**Prepared for
Monterey Peninsula Airport District**

**U.S. Department of Transportation
Federal Aviation Administration**

By



JUNE 2020

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**Appendix F – NOTICE OF AVAILABILITY AND DRAFT ENVIRONMENTAL ASSESSMENT
COMMENTS AND RESPONSES**

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Chapter One

PURPOSE AND NEED

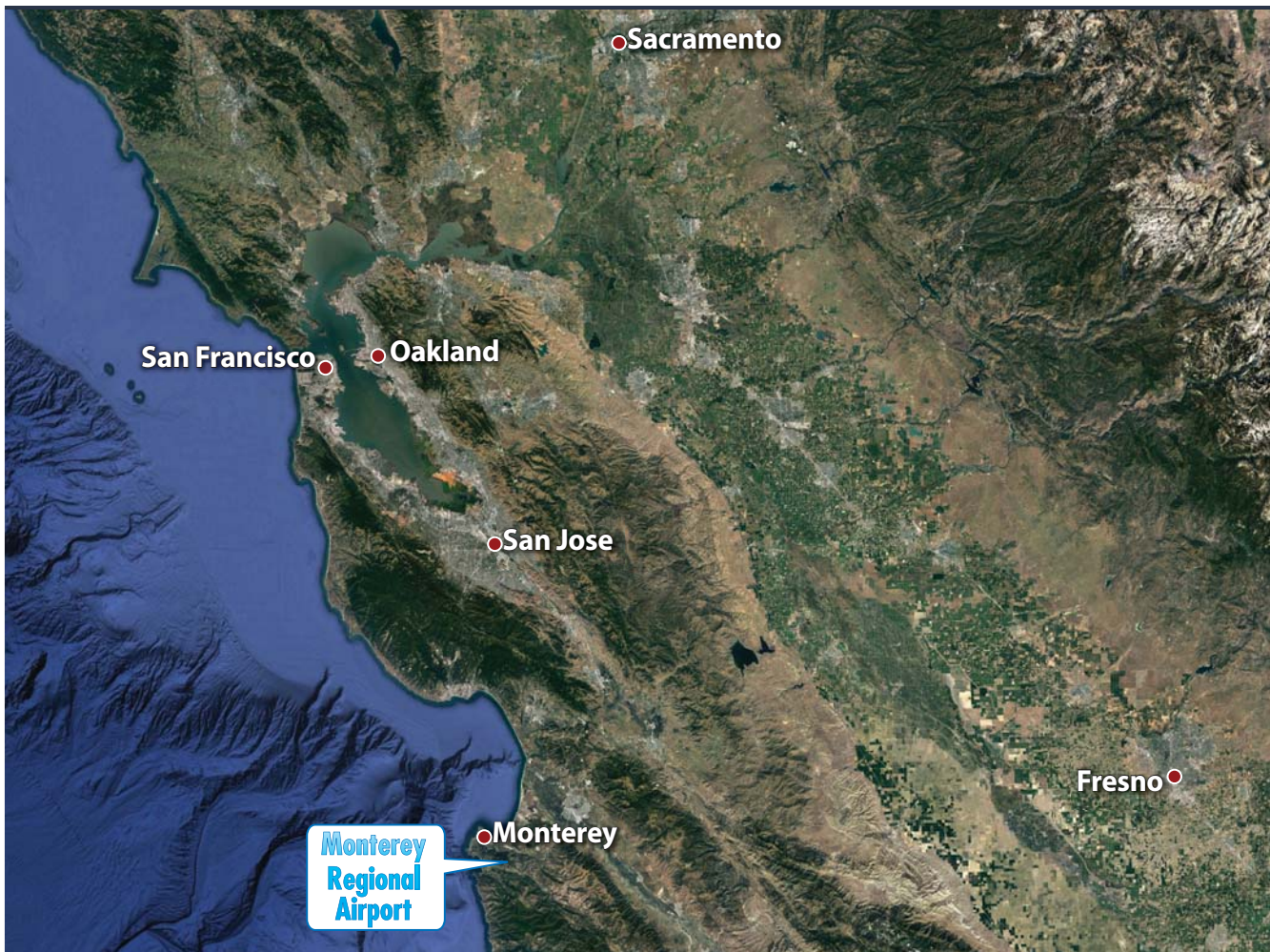
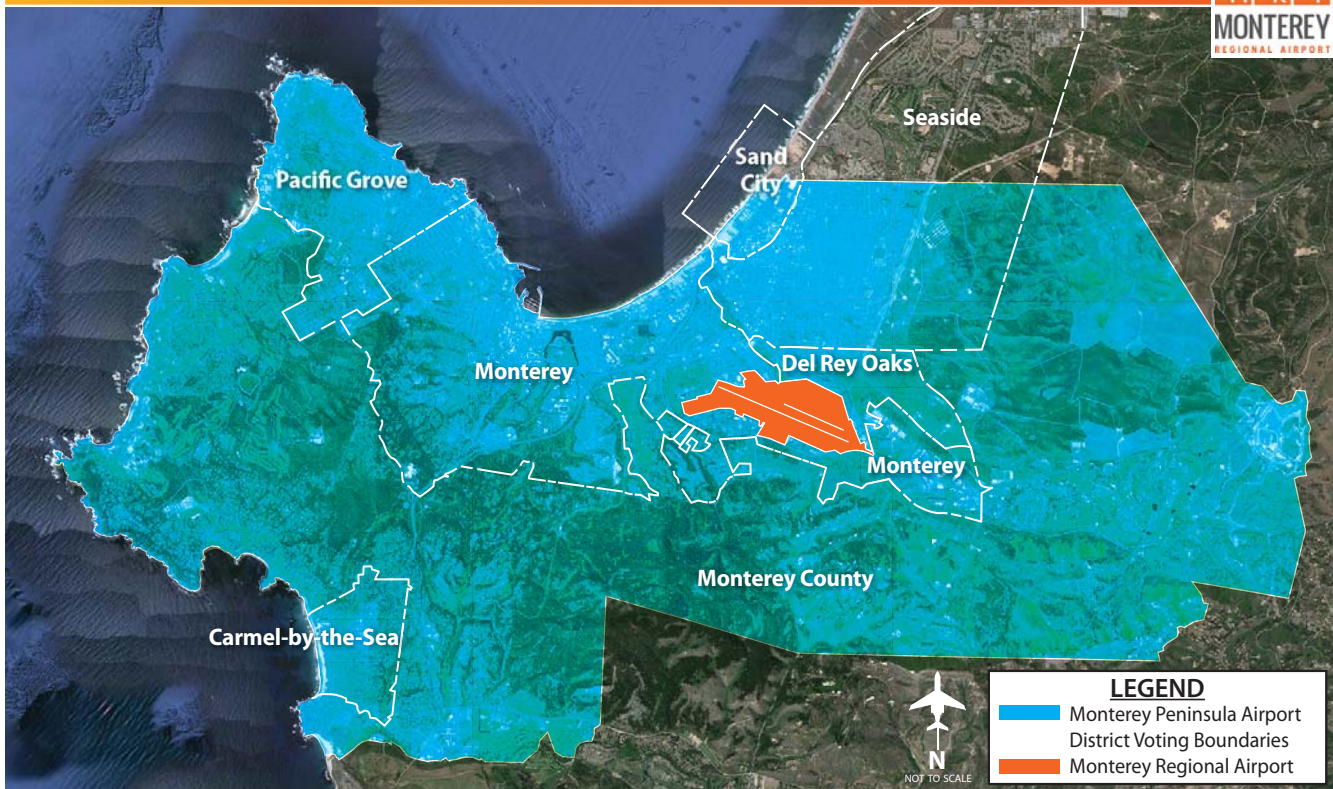
1.1 INTRODUCTION

Monterey Regional Airport (MRY or Airport) is in the northwest portion of Monterey County, California (County) 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 (**Exhibit 1A**). The United States (U.S.) Navy owns several parcels near the Airport, including the Monterey Pines Golf Course immediately west of the Airport. The Airport is situated approximately one mile to the southeast of the City of Monterey's central business district and one mile to the south of Monterey Bay. The Airport is located on 498 acres of property and is owned and operated by the Monterey Peninsula Airport District (MPAD or District).

The District is proposing the construction of a multi-phased safety enhancement project, collectively referred to as the "Proposed Action," at the Airport over a nine-year period including:

1. Increase the centerline to centerline separation distance between Runway 10R-28L and the adjacent parallel Taxiway "A" to a uniform separation distance of 327.5 feet for the entire length of Taxiway "A" by relocating an approximately 1,850-linear-foot (lf) portion of Taxiway "A" south by 52.5 feet. Currently, that 1,850 lf portion of Taxiway "A" is only 275 feet from the centerline of Runway 10R-28L.
2. Provide apron islands for Taxiways "G" and "J" at their connections with Taxiway "A" to prevent direct access from the adjacent apron to Runway 10L-28R.
3. Relocate existing "hold lines"¹ on Taxiway "A" at Taxiways "G" and "J" 50 feet farther from the centerline of Runway 10R-28L so that hold lines that are currently 200 feet from the centerline of Runway 10R-28L will then be 250 feet from the centerline of Runway 10R-28L.
4. Demolish the existing approximately 70,000-square-foot (sf) passenger terminal building, constructed in 1950 and which includes five boarding gates, the 5.6-acre terminal aircraft parking apron located south of Taxiway "A" between Taxiway "G" and Taxiway "J," and an associated 576 automobile parking spaces (located east of Olmsted Road and north of Fred Kane Drive). Replace these facilities with an approximately 100,000-sf terminal building, located south of Taxiway "A" between Taxiway "J" and Taxiway "K," and an approximately 13.1-acre terminal aircraft parking apron. Construct new vehicle parking lots south and west of the new passenger terminal and apron (787 public and employee automobile parking spaces and 110 spaces for a rental car ready/return lot). This work is necessary to accommodate the relocation of Taxiway "A" and to provide additional automobile parking.
5. Close Taxiway "K" so that there will be no direct access via Taxiway "K" from the relocated terminal aircraft parking apron to Runway 10R-28L.
6. Remove the existing three-acre southeast general aviation (GA) apron and hangar area, including approximately 126,000 sf of hangar space, and relocate approximately 44 GA tenants to the north side of the

¹ Hold lines are used to indicate the position beyond which aircraft/vehicles require Airport Traffic Control Tower (ATCT) authorization before proceeding on or across a runway.



Airport. Replace the existing southeast GA apron and hangar area with the new passenger terminal complex and aircraft parking apron.

7. Construct approximately 205,000 sf of additional apron/taxilane pavement in the GA hangar area located north of Runway 10L-28R to allow the relocation of 44 GA tenants from the southeast side of the Airport. Of these 44 tenants, 42 are in T-hangars, one is in a box hangar, and one is in an executive hangar. The hangar space removed on the southeast GA apron would be replaced with approximately 90,500 sf of T-hangar, box hangar, and executive hangar space, as well as buildable hangar pads that could accommodate an additional 35,500 sf of hangar space, and associated infrastructure for a total replacement of the 126,000 sf of GA facilities. Approximately 27 vehicular parking spaces would be provided in this area with a net increase in vehicular parking of seven spaces. The new apron would support GA activities by providing pavement, utilities, taxilanes, hangars and parking, fueling facilities, and a wash rack.
8. Concurrent with the site preparation for the north side GA area, build improvements on approximately 1,600 lf of airport vehicle service road (northeast service road improvement) from the existing east vehicle service road to the terminus of Airport Road at the north GA apron to provide a construction haul route for the Proposed Action and a service road to the north GA area from both sides of the Airport.
9. Demolish the existing aircraft rescue and firefighting (ARFF) building, which is located where the new passenger terminal apron will be constructed. Construct a new ARFF building on north GA apron and an on-airport ARFF service road to Runway 10R-28L.
10. Provide areas on the north side of the Airport for stockpiling or depositing excess cut material created by the Proposed Action.

This Environmental Assessment (EA) discloses the analysis and findings of the potential impacts of the Proposed Action and the No Action alternatives and discusses whether there are other reasonable and feasible and prudent alternatives (Chapter Two). This EA has been prepared pursuant to the requirements of the *National Environmental Policy Act* (NEPA) Section 102(2)(c), the Council on Environmental Quality (CEQ) Regulations implementing NEPA (Title 40 of the Code of Federal Regulations [C.F.R.] §§1500-1508), and Section 509(b)(5) of the *Airport and Airway Improvement Act of 1982*, as amended.

The Federal Aviation Administration (FAA) is the lead federal agency responsible for ensuring compliance with NEPA for airport development actions. This EA will aid the FAA and the District in complying with various federal environmental laws and regulations that are applicable to the Proposed Action and its alternatives. This EA has been prepared in accordance with FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures* (FAA 2015b) and FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions* (FAA 2006). As required by Paragraph 9-1 of FAA Order 1050.1F, since the Proposed Action is to be implemented in stages, the FAA will conduct written reevaluations of the continued adequacy, accuracy, and validity of the EA and any associated issued Finding of No Significant Impact and/or Record of Decision (FONSI/ROD), at each major stage or approval point that occurs more than three years after the issuance of a FONSI/ROD. A new or revised EA and/or FONSI/ROD will be prepared if the conditions have changed to such an extent that conclusions in the prior EA or FONSI/ROD must be reevaluated as they are potentially no longer accurate or valid.

This chapter contains background information on the Airport, describes the Proposed Action, including its purpose and need, lists requested federal actions, and outlines the EA's format.

1.2 AIRPORT BACKGROUND

The District was created in 1941 to manage and operate the Airport and airport lands. The District is a stand-alone public entity governed by five publicly elected members to the Board of Directors. The mission of the District is to: provide the Monterey region with convenient commercial and general aviation access to the national air transportation system; operate the Airport in a safe, efficient, sustainable, and fiscally responsible manner; and develop the Airport to meet future needs, opportunities, and challenges. The District’s 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 Sand City and Seaside. Unincorporated communities, including Pebble Beach, the west end of Carmel Valley, Hidden Hills, Monterra, Laguna Seca, Pasadera, and Monterey-Salinas Highway to Laureles Grade, are also included within the District voting boundaries (**Exhibit 1A**).

1.2.1 Description of Existing Airport

The Airport is currently served by two parallel runways (**Exhibit 1B**). Runway 10R-28L is the primary runway and to its north is Runway 10L-28R, the shorter runway. The runways are separated by 500 feet, centerline to centerline. The taxiway system at the Airport consists of parallel, connecting, access, and entrance/exit taxiways. **Table 1A** presents a summary of the airfield characteristics. Airport facilities also include a passenger terminal, cargo facilities, GA facilities, fixed base operators (FBOs), and support facilities, such as fuel storage, automobile parking, roadway access, and an ARFF building.

The Airport is classified as a non-hub primary commercial service airport in the *National Plan of Integrated Airport Systems (2017-2021)* (NPIAS) (FAA 2018c). An airport must be listed in the NPIAS to be eligible for federal funding.

TABLE 1A Airside Facility Data Monterey Regional Airport				
Field Elevation: 257 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	None	
Runway Lighting	High Intensity		Medium Intensity	
Arresting Gear/System	EMAS	EMAS	None	none
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	PAPI-2 REIL	PAPI-2 REIL
Instrument Approach Aids	ILS RNAV (GPS)	RNAV (RNP) RNAV (GPS) LOC/DME	RNAV (GPS)	GPS



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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TABLE 1A (Continued) Airside Facility Data Monterey Regional Airport	
Weather and Navigational Aids	Automated Surface Observing System Lighted Wind Cone Airport Beacon Automatic Terminal Information System Airport Traffic Control Tower
Source: FAA 2020. Chart Supplement Southwest U.S. (30 JAN 2020 to 26 MAR 2020); Airport records. MSL = mean sea level EMAS - Engineered Materials Arresting System N/A - not applicable PAPI - Precision Approach Path Indicator - four-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	

1.2.2 Aviation Forecasts

FAA was responsible for reviewing and approving aviation forecasts developed in conjunction with the adopted Airport Master Plan (AMP) (MPAD 2018b). The forecasts in the AMP were approved by FAA and used as a basis for airport planning and development. Chapter Two and Appendix C of the AMP contain its forecast analysis and FAA forecast approval. **Table 1B** summarizes airport activity from 2015 through 2018, as well as the key forecast milestones of the AMP in terms of enplanements, overall operations, and based aircraft, that could occur during implementation of the Proposed Action.

As can be seen in **Table 1B**, enplanements (the number of aircraft passengers) in 2018 were 188,046; they are forecast to grow throughout implementation of the Proposed Action. However, the airfield capacity at the Airport has been constant in recent years and, thus, growth in enplanements, if it occurs, will be due to regional and national growth in commercial aviation demand over time. Interim fluctuations in demand between now and the time the Proposed Action is completed are expected. Similarly, estimated changes in overall airport operations, which include use of the Airport for commercial flights and GA activity, are forecast to grow. This projected growth anticipates interim fluctuations in airport use and the market. The number of based aircraft at the Airport is anticipated to increase from 130 based aircraft in 2018 to 175 by the time the Proposed Action is completed (MPAD 2018b).

TABLE 1B Airport Activity and Projected Annual Activity Levels Monterey Regional Airport						
	2015	2016 (see note below)	2017 (see note below)	2018	PLANNING HORIZONS ¹	
					Short Term (Years 1-5)	Intermediate Term (Years 6-10)
Enplaned Passengers ²	180,605	192,136	197,099	188,046	223,000	245,000
Commercial Operations³						
Air Carrier/Air Taxi ⁴	13,901	14,905	23,188	15,122	16,700	19,000
General Aviation Operations³						
Itinerant ⁵	28,387	27,280	29,806	30,242	28,100	31,300
Local ⁶	20,763	46,281	42,009	19,049	11,800	12,800
<i>Total</i>	49,150	73,561	71,815	49,291	39,900	44,100

TABLE 1B (Continued)
Airport Activity and Projected Annual Activity Levels
Monterey Regional Airport

	2015	2016 (see note below)	2017 (see note below)	2018	PLANNING HORIZONS ¹	
					Short Term (Years 1-5)	Intermediate Term (Years 6-10)
Military Operations³						
Itinerant ⁵	955	1,619	2,547	1,897	900	900
Local ⁶	3,286	5,397	5,664	3,010	600	600
Total	4,241	7,016	8,211	4,907	1,500	1,500
Total Operations³	67,292	95,482	103,214	69,320	58,100	64,600
Based Aircraft⁷	91	114	112	130	160	175

Sources:

¹ MPAD 2018b. *Final Airport Master Plan* (FAA-approved forecasts).

² FAA website 2019. Passenger Boarding (Enplanement) and All-Cargo Data for U.S. Airports. Available at: https://www.faa.gov/airports/planning_capacity/passenger_allcargo_stats/passenger/, accessed August. Enplaned passengers are defined as revenue (paying) passengers on an air carrier or air taxi flight.

³ FAA 2019. ATADS: Airport Operations: Standard Report - Monterey Regional Airport.

⁴ Includes commercial passenger aircraft and chartered aircraft.

⁵ Itinerant operations are all operations other than local operations. Operations are defined as one takeoff or landing.

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 (14 C.F.R. §170.3 - Definitions).

⁷ Monterey Regional Airport records 2015, 2016. Email from D. Johanson, MRY Project Manager, to J. Krauss, Coffman Associates, September 5, 2019; GCR, Inc. 2018, 2019. Airport Master Record, Form 5010-1 - Monterey Regional Airport.

NOTE: During 2016 and 2017, the Airport experienced an unusually high amount of activity. These anomalies do not affect the viability of the forecasts.

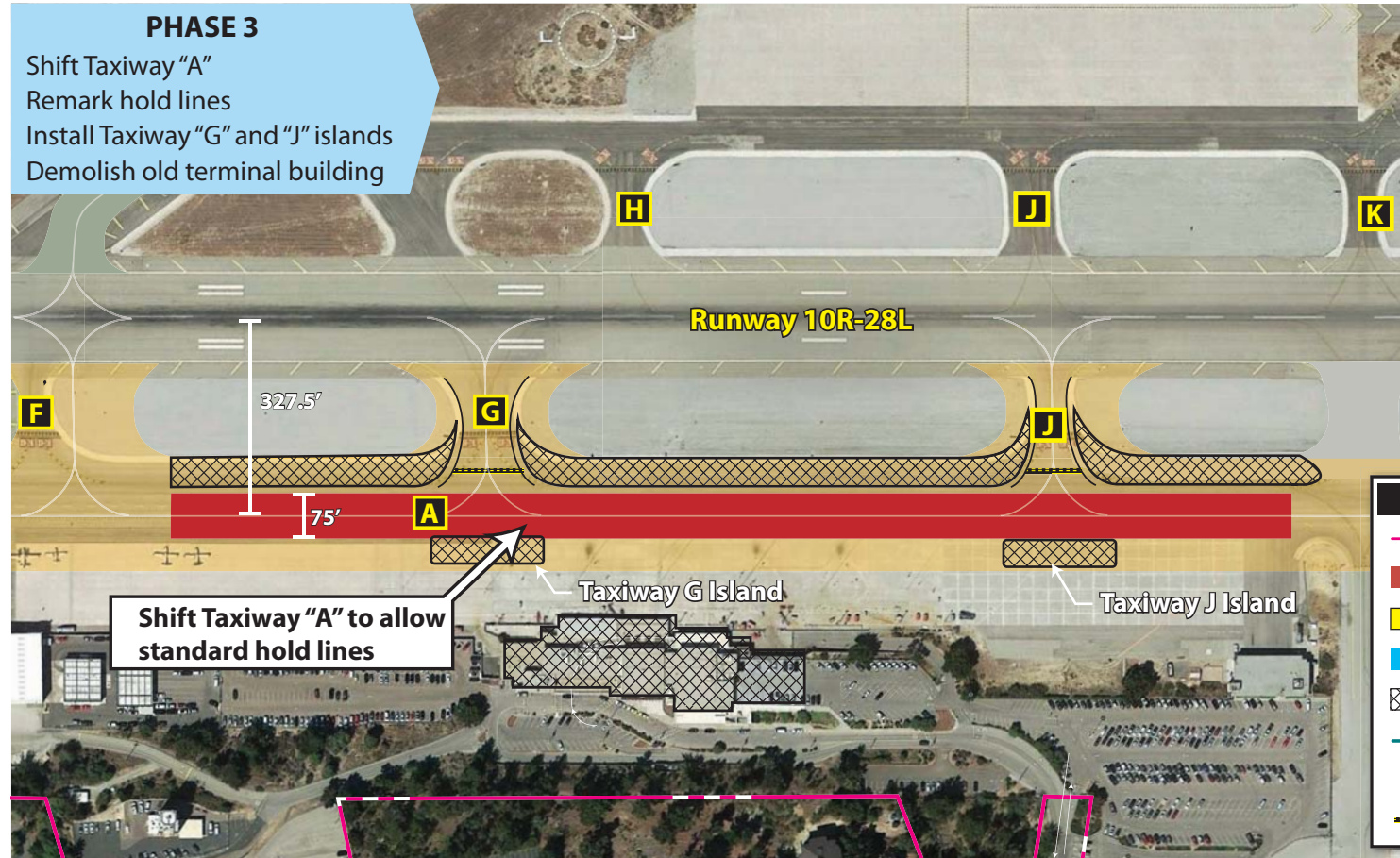
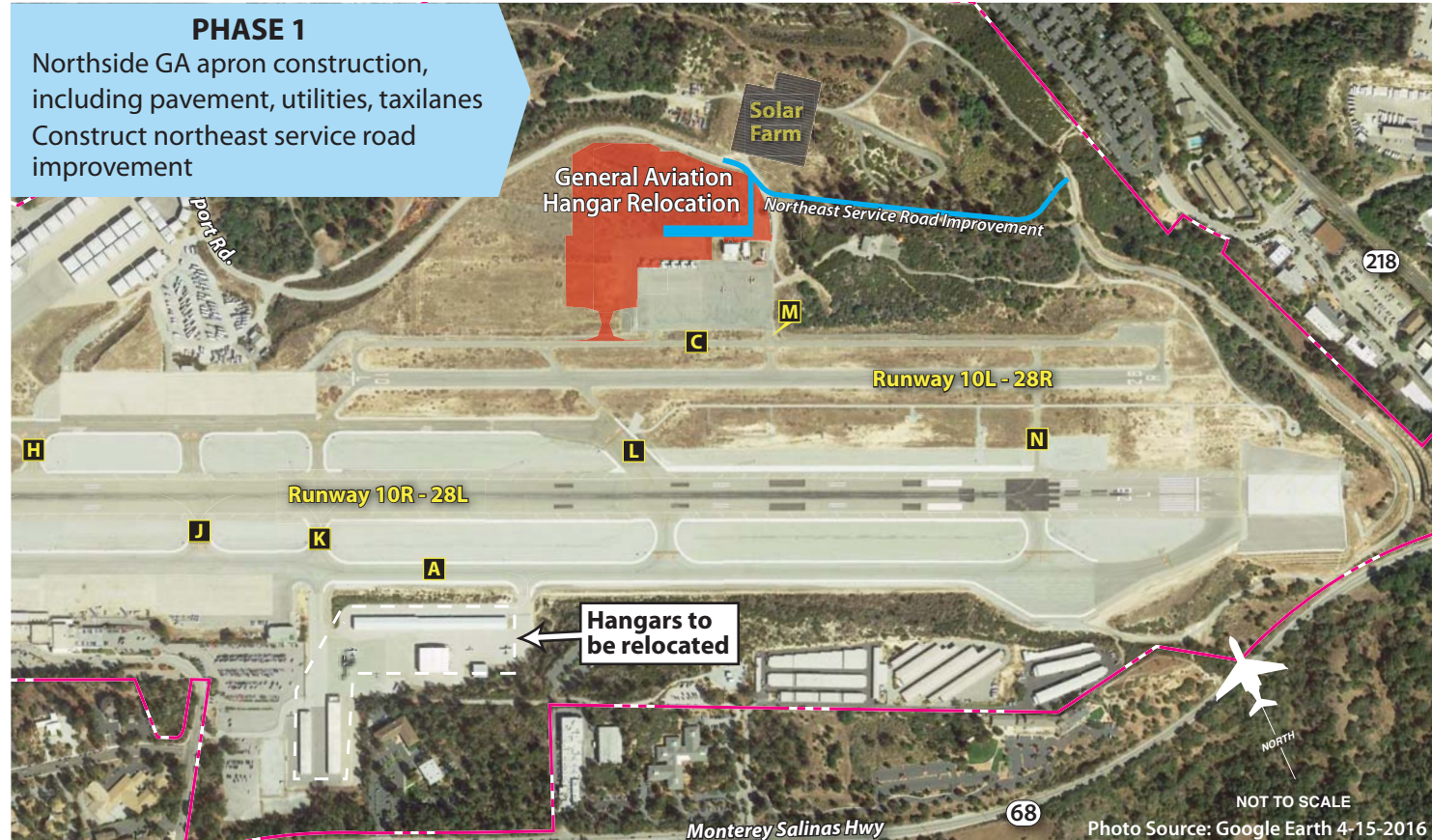
1.3 DESCRIPTION OF THE PROPOSED ACTION

The Proposed Action includes a series of tasks that will occur over several phases to ultimately provide sufficient space for a southerly shift of 1,850 lf of Taxiway “A” by 52.5 feet to increase the Runway 10R-28L/taxiway centerline to centerline separation to a consistent 327.5 feet throughout the length of the taxiway. The runway safety area (RSA)² for Runway 10R-28L is 500 feet wide, centered on the runway (FAA Advisory Circular [AC] 150/5300-13A, as amended). Currently, Taxiway “A” is 275 feet from the runway centerline between Taxiways “F” and “K.” Therefore, any aircraft taxiing on Taxiway “A” with a wingspan greater than 50 feet (25 feet to each side) encroaches into the RSA. (See Section 1.4.1.1 for more information.)

The demolition and relocation of several buildings is necessary to relocate Taxiway “A.” The project components are proposed to occur over approximately nine years in the order listed below (**Exhibit 1C**):

- Phase 1 (Years 1-3): Construct the necessary pavement and infrastructure to relocate approximately 44 GA tenants, including approximately 205,000 sf of new apron/taxilane pavement, 90,500 sf of T-hangar, box hangar, and executive hangar space, and buildable hangar pads that could accommodate an additional 35,500 sf of hangar space for a total replacement of 126,000 sf of hangar space from the southeast part of the Airport to north of the airfield. Approximately 41,500 sf of pavement would also be provided for vehicular access and parking with a net increase of seven parking spaces. Concurrent with the site preparation for the north side GA area, build improvements on an approximately 24-foot-wide, 1,600-foot-long airport vehi-

² The RSA is defined in AC 150/5300-13A as a “surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of undershoot, overshoot, or excursion from the runway.” The RSA is centered on the runway and based on the approach speed of the critical design aircraft using the runway. The FAA requires the RSA to be cleared and graded, drained by grading or storm sewers, capable of accommodating the design aircraft and ARFF vehicles, and free of obstacles not fixed by navigational purpose (such as runway edge lights or approach lights).



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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cle service road (northeast service road improvement) from the existing east vehicle service road to the terminus of Airport Road at the north GA apron to provide a construction haul route for the Proposed Action and a service road to the north GA area from both sides of the Airport.

- Phase 2 (Years 4-7): Construct a permanent ARFF building in the general location of the existing Navy Flying Club buildings. Construct an approximately 12-foot-wide, 630-foot-long (on airfield) ARFF service road from the edge of the GA apron to Runway 10R-28L to provide acceptable response times from the ARFF building to the mid-point of the runway. Demolish or relocate the southeast GA facilities. Demolish the existing ARFF building and long-term parking area. Construct a new passenger terminal complex (including apron, terminal entrance loop road and roundabout, and vehicular parking lots). Close Taxiway “K” between Runway 10R-28L and Taxiway “A.”
- Phase 3 (Year 8): 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.” Demolish the existing terminal building.
- Phase 4 (Year 9): Construct a surface parking lot in the general location of the current existing terminal building along with a minor realignment of Fred Kane Drive to replace automobile parking removed by the terminal relocation and provide additional automobile parking.

Each phase of the Proposed Action is discussed in more detail in the following subsections. A conceptual design criteria report for the airside and northern GA area improvements has been prepared to provide preliminary engineering details and grading estimates for this environmental analysis (Kimley-Horn and Associates, Inc. [KHA] 2017, 2018). Preliminary engineering and grading estimates for proposed southern landside improvements have been conducted as well (Neill Engineering Corp. [Neill Engineers] 2017a, 2018). Preliminary building layouts and construction information have been provided by DWL Architects + Planners, Inc. (DWL Architects 2017). The following discussions are based, in part, on information from these efforts.

1.3.1 Relocate General Aviation to North Side (Phase 1)

The Airport’s southeast existing GA ramp has one conventional hangar, one box hangar, and 42 T-hangars (**Exhibit 1B**) representing approximately 126,000 sf of hangar space and a total of 44 hangars. All 42 T-hangars are currently occupied and, since 2014, a flight school has operated from the area. An 8,000-gallon self-serve aviation gasoline (AvGas) fuel tank is also located in the southeast GA area. The Proposed Action also includes pavement improvements to the Airport’s existing north side GA area (approximately 205,000 sf of new apron/taxilane pavement) to allow the relocation of tenants from the southeast side of the Airport before the proposed passenger terminal relocation begins (Phase 2). The north side GA area currently contains six Port-a-Port T-hangars and the Monterey Navy Flying Club, as well as a 12,000-gallon aboveground fuel tank for AvGas and approximately 170,500 sf of existing apron, which will remain.

Preliminary design shows pavement and infrastructure for one row of 25 T-hangars, two rows of 18 (50-foot by 50-foot) box hangars, and two executive hangars proposed to be installed to increase the number of hangars (including the relocated southeast hangars) by 45 hangars on the north side GA (**Exhibit 1D**). In addition, buildable hangar pads that could accommodate six additional hangars would be included for a total of 51 future hangars. This will provide approximately 90,500 sf of T-hangar, box hangar, and executive hangar space and buildable hangar pads that could accommodate an additional 35,500 sf of hangar space for a total replacement of the 126,000 sf of GA facilities. The buildable pads are proposed to allow not only the relocation of the buildings currently on the north side ramp, but for ancillary structures (i.e., office space, a wash rack, or maintenance bay). A new fuel farm would be constructed to accommodate the relocation of an existing north side AvGas tank and the

relocation of an AvGas tank from the southeast GA area. The existing Port-a-Port hangars on the north side will be moved to the western edge of the proposed new pavement. Navy Flying Club facilities may be moved to make room for a new ARFF building (Section 1.3.3).

Site preparation of the north side GA area is proposed to consist of new pavement, utilities, fencing, interior access roads, and vehicular parking. The additional pavement would accommodate new taxi-lanes, access to the new fuel farm, and an additional taxiway connector to Taxiway "C." The Taxiway Design Group (TDG) for the north side GA area is Group 1A.³ The new taxiway connector is proposed to be 25 feet wide with 10-foot-wide shoulders. Pavement for the new taxiway, taxilanes, and fuel farm would comply with applicable FAA design standards for pavement grades and pavement sections for the category of airplanes weighing less than 12,500 pounds (lbs). The amount of GA apron for parking aircraft would be reduced by approximately 1,000 sy since three tie-down positions would be eliminated where existing apron pavement is converted to a taxilane. The existing vehicular entrance to the north GA area is proposed to be slightly modified for access to the new facilities from the northeast service road improvement (Section 1.3.2) as well as existing Airport Road.

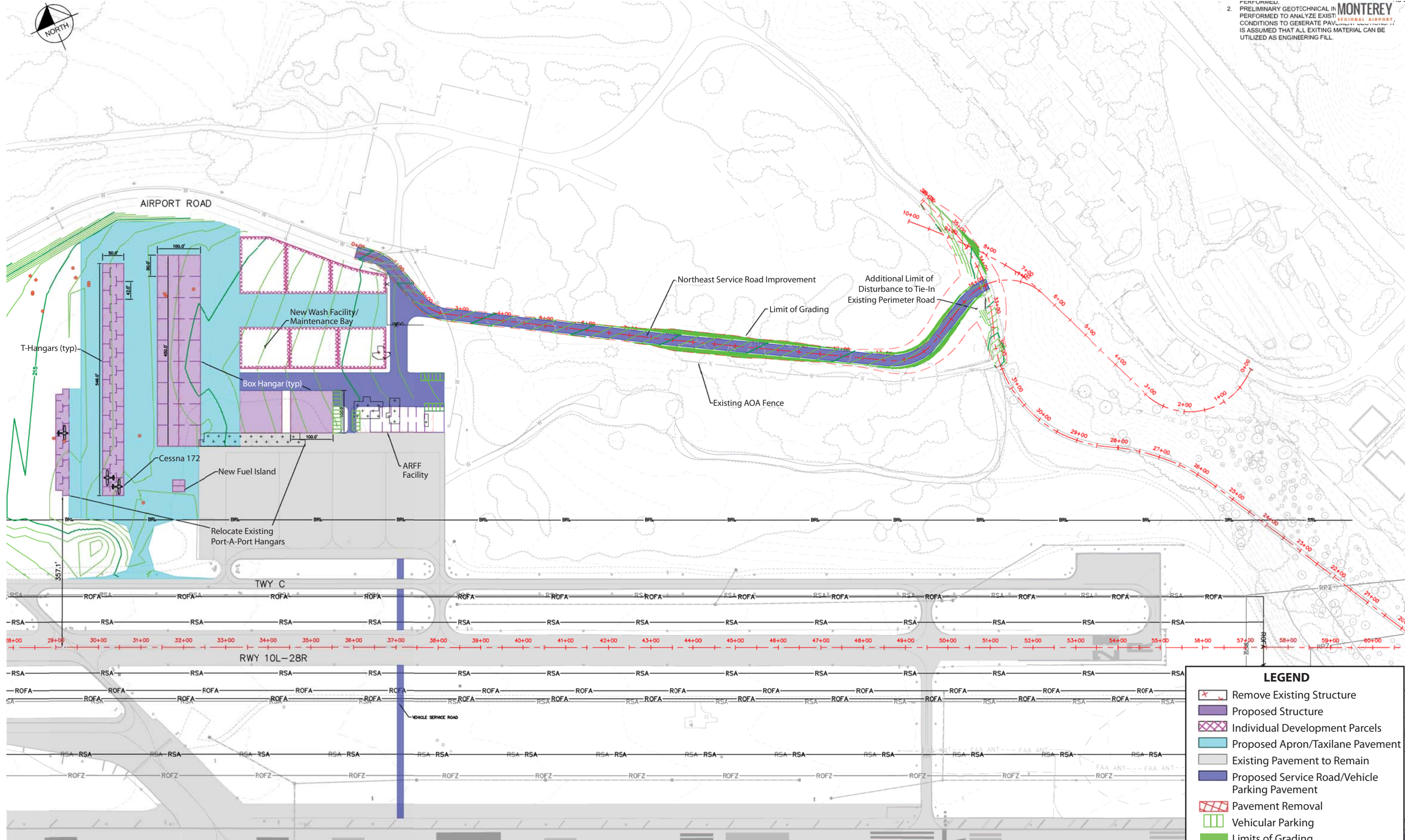
The existing north side GA area does not have drainage structures but drains by sheet flow to the north towards Airport Road or to the west. An existing storm drain system north of Taxiway "C," which flows into a detention basin that leads to Canyon Del Rey Creek, captures the runoff. The proposed north side GA improvements would utilize trench drains and catch basins to capture runoff 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 drainpipe that outfalls to the detention basin north of Airport Road. New 18-inch- and 24-inch-diameter pipe are proposed at various locations in the north side GA area. The existing storm drain inverts and sizes would be field verified at a later design stage before finalizing any storm drainage design.

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, an on-airport solar farm capable of generating 1.5 kilowatt hours (kWh) of solar energy annually, 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 (Pacific Gas and Electric Company [PG&E] and California American Water [CalAm], respectively). The District owns a group of electric meters that are connected to the PG&E power grid. The solar farm is expected to supply 95 percent of the primary power needed to operate all buildings on the District-owned meters. The new GA facilities (and ARFF) would be able to connect to these meters in addition to the existing PG&E power grid. The Airport also has an existing eight-inch-diameter sewer line that terminates in Airport Road north of the GA area. At the west end, the line connects to a line owned by the City of Monterey. The new GA facilities and/or ARFF are proposed to be connected to this existing airport-owned line.

Grading for the proposed GA improvements would require up to 10 feet of fill material since the existing ground surface falls off to the north towards the Air Operations Area⁴ (AOA) fence and Airport Road. Approximately 23,000 cubic yards (cy) of fill material would be needed to level the area for taxilane and hangar construction. However, the northeast service road improvement (Section 1.3.2) would generate approximately 10,000 cy of excess material, which can be used for the taxilane and hangar construction (KHA 2019b). The remainder of the fill needed will be taken from an area immediately west of the GA apron (Section 1.3.8).

³ Taxiway geometry is dictated by FAA 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 Taxiway Design Group (TDG)-1A aircraft is a Cessna 172.

⁴ The Air Operations Area (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."



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1.3.2 Construct On-Airport Northeast Service Road Improvement/Construction Haul Route (Phase 1)

Concurrent with the site preparation for the north side GA area, an on-airport northeast vehicle service road improvement would be constructed from the Airport's east vehicle service road to the terminus of Airport Road at the north GA apron (**Exhibit 1D**). The purpose of this road is to provide a construction haul route for the Proposed Action and an improved service road to the north GA area from the existing east vehicle service road. The road improvement would be 24 feet wide, approximately 1,600 feet long, and would include three-foot-wide gutters and three-foot-side shoulders. Stormwater runoff from the road would be captured and conveyed west to the Airport's existing stormwater system as described in Section 1.3.1. As previously discussed, preliminary grading estimates for the road indicate that the grading would generate approximately 10,000 cy of material, which would be used for the GA apron area (Section 1.3.8).

1.3.3 Construct New ARFF and ARFF Service Road (Phase 2)

Preliminary site layouts for a new permanent ARFF building that serves the Airport at the north GA area consists of 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). The facility would be provided per FAA requirements. However, its use as a joint facility with the City of Monterey to provide structural fire support for the surrounding community would be terminated when the Airport's current joint agreement with the city expires (2024) as a result of mitigation measure LU-1 of this EA (Section 4.3.7). Since the new ARFF would no longer be used for off-airport emergencies, the overall building footprint could be reduced to approximately 10,000 sf or less (i.e., approximately 25 percent decrease). Based on the City of Monterey's calendar year 2019 Fire Station 16 incident reports, approximately 85 percent of the calls responded to by the existing ARFF were off-airport emergencies.

The new ARFF would be located where the existing Navy Flying Club hangars and office sit on the north edge of the GA apron. The new ARFF would be constructed using Leadership in Energy and Environmental Design (LEED) certification practices⁵ consistent with the AMP's Sustainability Plan (AMP, Appendix D). The Navy Flying Club facilities would be relocated as discussed above in Section 1.3.1 (**Exhibit 1D**). An estimated 3,700 cy of material would need to be removed from the site (assuming 10 feet of over-excavation and a building footprint of 175 feet by 60 feet) and would be deposited as described in Section 1.3.8.

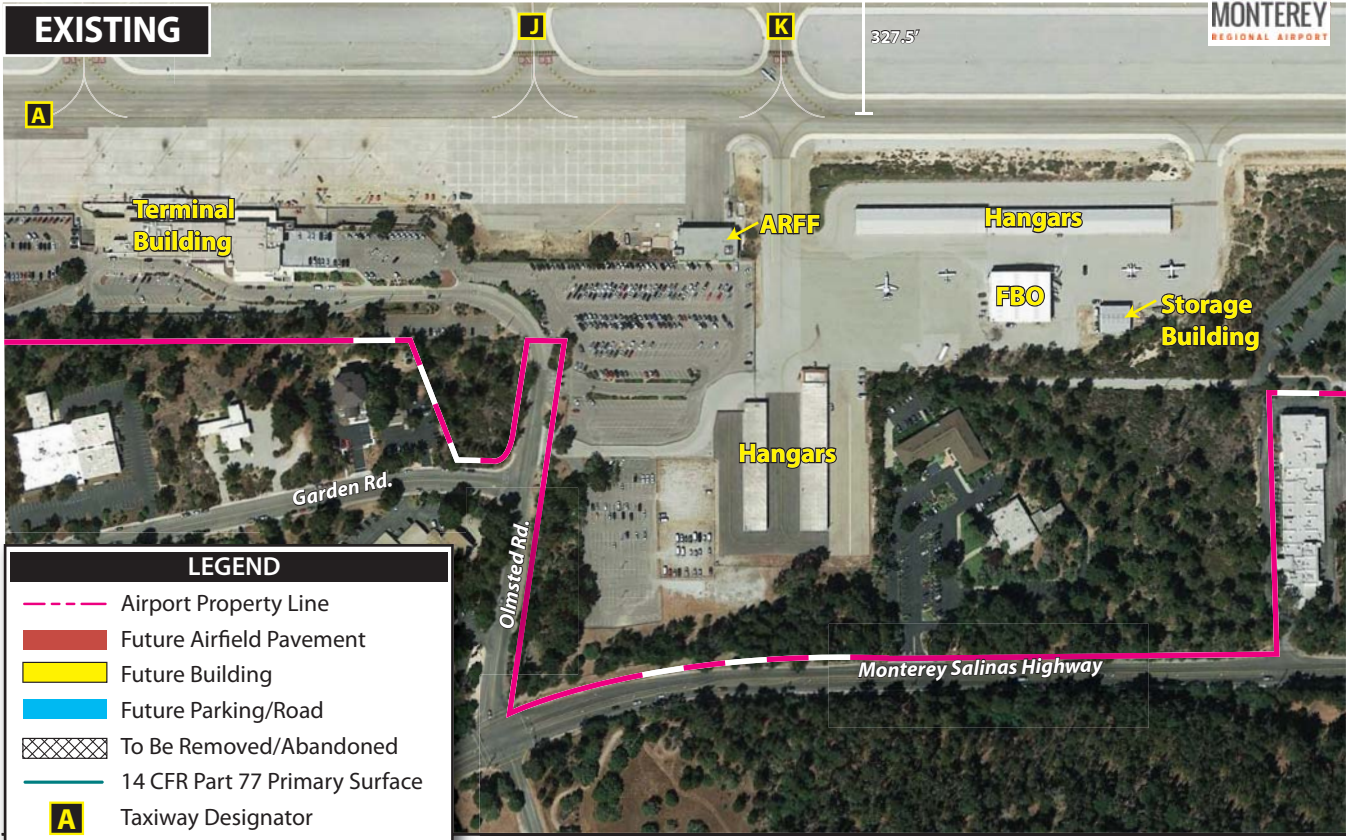
An approximately 12-foot-wide, 630-foot-long (on airfield) ARFF service road would be constructed from the edge of the GA apron to Runway 10R-28L to provide acceptable response times from the building to the mid-point of the runway. Minimal grading would be required for this service road, which would involve the laying of asphalt over the existing infield grades.

1.3.4 Demolish ARFF, Long-term Vehicle Parking, and Southeast GA Hangars (Phase 2)

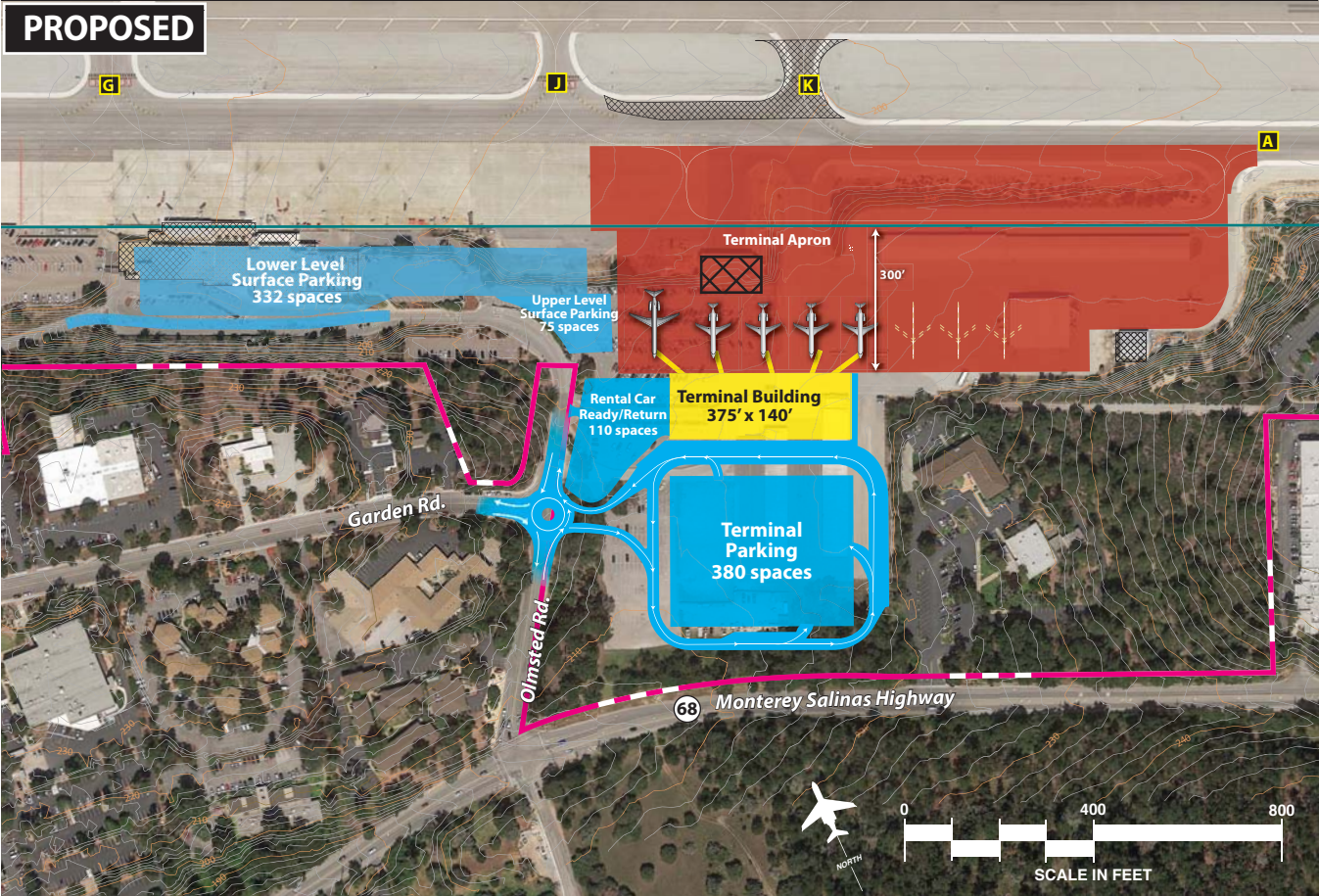
The existing ARFF building and long-term vehicle parking are located to the east of the existing passenger terminal and would be demolished to make room for the new passenger terminal apron, passenger terminal, and associated road and parking (**Exhibit 1E**). Hangars located on the southeast ramp would also be demolished. The existing fuel tank would be relocated to the north side GA fuel farm shown on **Exhibit 1D**.

⁵ LEED is a widely used rating and certification system for a building's "green" (i.e., resource-efficient or sustainable, features).

EXISTING



PROPOSED



1.3.5 Construct New Terminal Apron and Passenger Terminal Building Complex (Phase 2)

1.3.5.1 Landside Improvements

The Proposed Action would construct a new passenger terminal as shown on **Exhibit 1E**. The proposed layout incorporates a two-story, linear building with approximately 100,000 sf of physical space. For purposes of comparison, the existing terminal building is approximately 70,000 sf in size and operates at 92 percent capacity with several functional areas over capacity (Section 1.4.1.2). 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 when compared to FAA guidance (FAA AC 150/5360-13A, *Airport Terminal Planning* [2018a]). 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 Proposed Action provides for the sizing of the new terminal to improve the functionality of the passenger terminal, as well as to meet future forecasted passenger levels. The relocated passenger terminal would be constructed to LEED certification standards consistent with the AMP's Sustainability Plan (AMP, Appendix D).

The proposed building would provide for passenger loading bridges (up to five gate positions, which is the number of gate positions currently provided in the existing terminal) with the landside entrance to the south stepped up a level from the apron elevation. This configuration would adapt to the existing topography to minimize the amount of earthwork (**Exhibit 1F**). Retaining walls would be 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. It is estimated that a retaining wall west of the new terminal would be 10 to 12 feet tall, while the retaining wall east of the terminal would taper down in height to three feet tall.

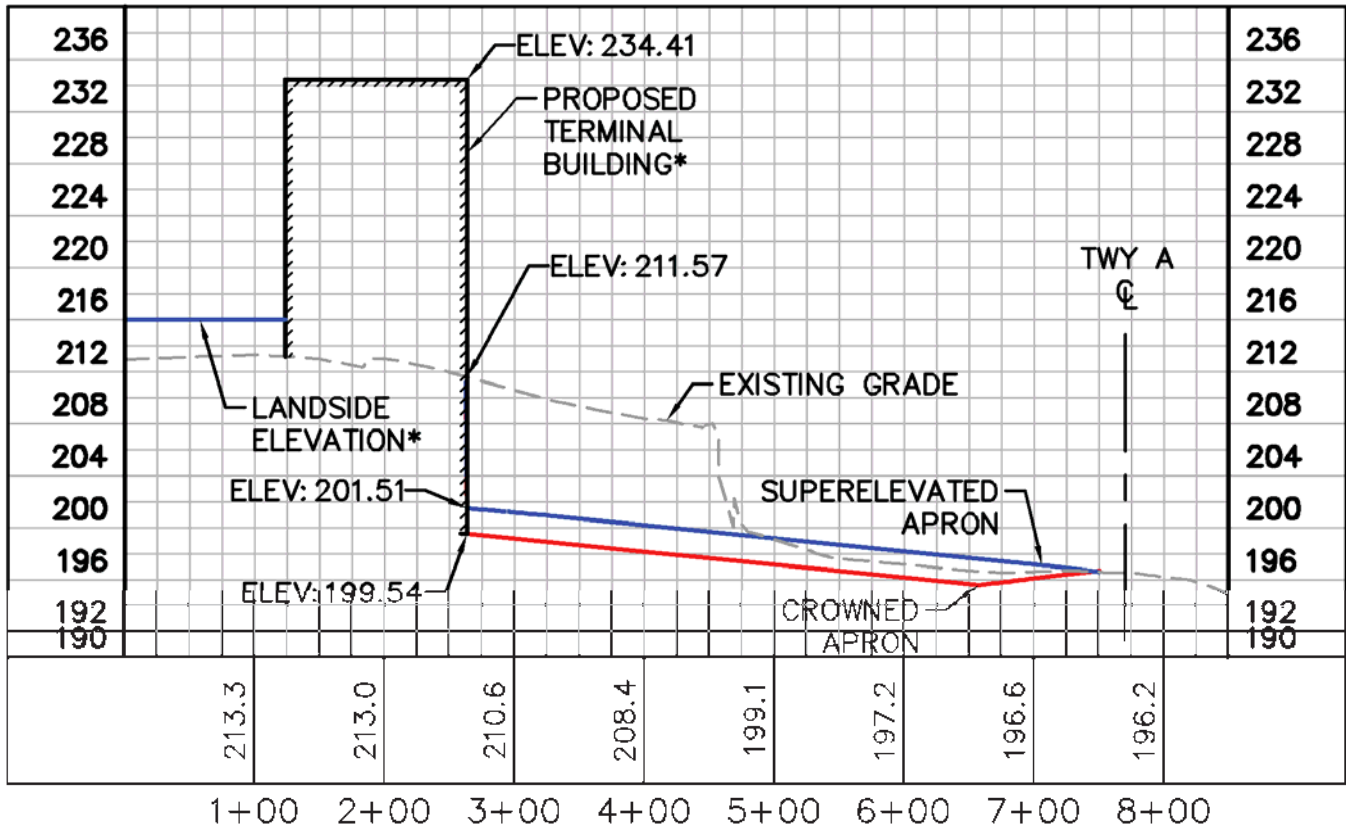
A surface parking lot (380 spaces) within a terminal loop road would be constructed which would replace 457 parking spaces to be removed due to construction of the new terminal, as well as add an approximately 110-space ready return/rental car lot positioned adjacent to the west end of the terminal building off Olmsted Road. Rental car employees would shuttle returned rental cars to the rental car lot west of the existing terminal building for maintenance, pick-up, and long-term storage.

The terminal loop road would be 24 feet wide to accommodate two lanes of one-way traffic. Additional 10-foot-wide curbside parking lanes would include a taxicab and transportation network companies (TNC) waiting area (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 would 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 new terminal and reconnect back to the roundabout intersection.

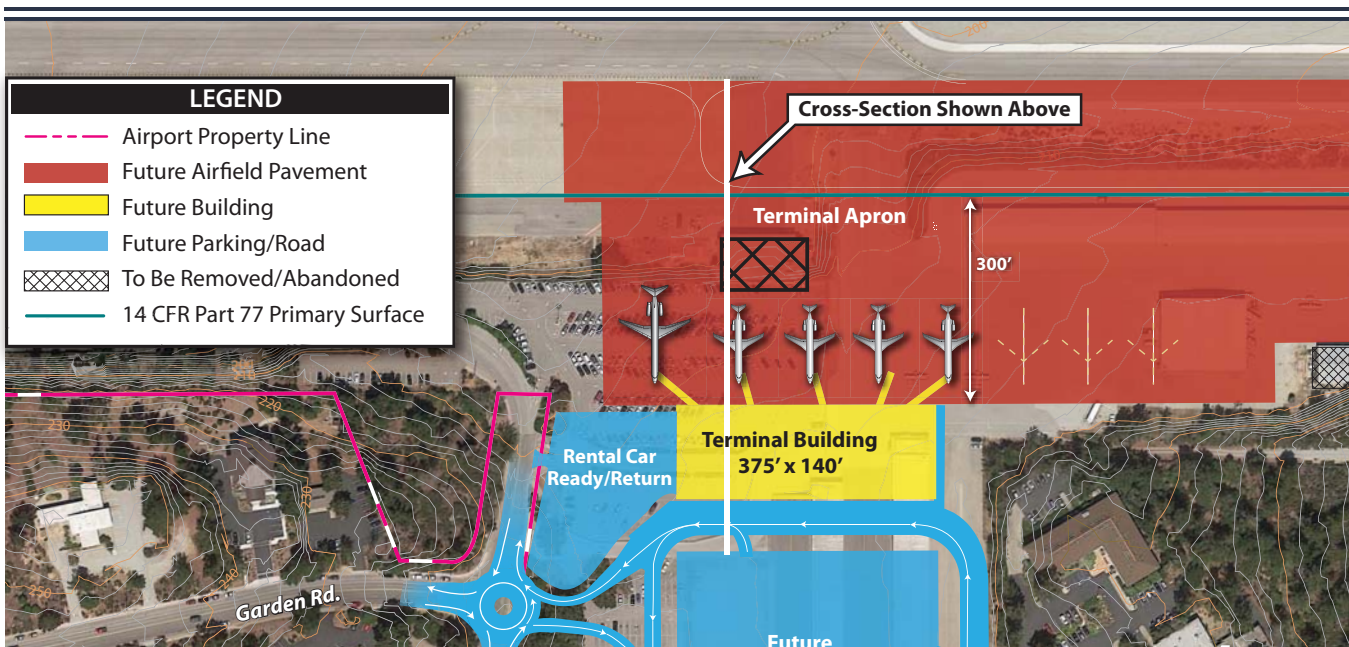
Estimated excavation quantities for the Olmsted/Garden roundabout, the terminal loop road, and surface parking lot areas are approximately 12,000 cy; estimated excavation quantities for the new terminal building, assuming 10 to 20 feet of over-excavation for foundations and utility infrastructure, is 39,000 cy. This material would be deposited on the north side of the Airport or hauled off-airport by the contractor as described in Section 1.3.8. Existing gas, electric, and water service lines within the southeast hangar areas are proposed to be demolished and new service lines extended from existing gas, electric, and water mains located within Olmsted Road.

1.3.5.2 Airside Improvements

The Proposed Action would include the construction of a new commercial apron north of the new terminal building (**Exhibit 1E**). Approximately five acres of Portland concrete cement (PCC) would be constructed immediately in front of the new passenger terminal with another approximately eight acres of ramp between the concrete



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



Source: Kimley Horn, April 2017

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). The pavement sections would be designed in accordance with FAA AC 150/5320-6F, *Airport Pavement Design and Evaluation* (2016), for the category of airplanes weighing greater than 100,000 lbs.

The new commercial apron would abut parallel Taxiway “A” for a length of 1,429 feet to provide enough apron depth for the aircraft expected to use the terminal apron to maneuver easily to the optimum gate positions. This portion of Taxiway “A” is already located 327.5 feet, centerline to centerline, from Runway 10R-28L and would not be moved from its existing position. To meet FAA design standards restricting direct access from aprons to a runway, existing Taxiway “K” would be removed or remarked with an island.

The southern half of the Taxiway “A” pavement located adjacent to the new apron would be reconfigured from the existing centerline south to the new apron. 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, requiring 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 1F**). A Taxiway “A” crown apron was analyzed in this EA since it would require the most earthwork (approximately 134,000 cy of excess material). Including over-excavation of the existing pavement, the total amount of excess material is estimated at 170,000 cy. This soil would be deposited on the north side of the Airport (see Section 1.3.8).

The existing southeast hangar catchment area is comprised of trench drains and catch basins that collect runoff and connect into the airfield’s main storm drain system. The runoff from the southeast hangars travels north via underground pipe under Taxiway “A” and connects to the main line in the infield between Taxiway “A” and Runway 10R-28L. The runoff then travels to the west and then southwest along Taxiway “E” until it reaches the outfall (off-site).

The proposed apron grading would direct runoff flow to the north away from the terminal building. Trench drains and catch basins are proposed to ultimately direct the flow into the existing storm drain line in the infield between Taxiway “A” and Runway 10R-28L. As part of the preliminary engineering for the proposed new terminal apron, a stormwater runoff model was used to develop a preliminary evaluation of required stormwater system modifications that may be necessary (KHA 2018).⁶

Existing FAA electrical conduit that runs from the ATCT across the southeast hangar area to the radar site would be relocated prior to construction of a new terminal apron. In addition, taxiway lighting, electrical systems, and signage would be relocated, as necessary.

1.3.6 Remark Taxiway “A” and Demolish Old Terminal Building (Phase 3)

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; the FAA standard for parallel taxiway-runway separation (centerline to centerline) is 400 feet for airports with design aircraft and visibility minimums similar to MRY. The Airport has been operating under a conditional waiver of this

⁶ The storm drain modeling is preliminary and subject to change; only a portion of the system has been surveyed for inverts and pipe slopes. The rest of the system was built using schematic data and assumptions about pipe inverts and depths. Variability in the pipe slopes and inverts can affect the capacity of the system and change the recommendations of the pipe sizes. As the design advances, most of the storm drain system elevations and slopes will need to be field investigated to verify the inverts and slopes of the pipes to validate the storm modeling.

standard from FAA (granted on August 4, 1976, and reaffirmed on June 19, 1978), which stipulates that a large aircraft (B-737 or larger) may not use Taxiway “A” when another large aircraft is operating on the runway.

The most recently FAA-approved airport layout plan (ALP) (FAA 2017b) shows the proposed taxiway relocation as the long-term solution to address this situation. Therefore, once the terminal building has been relocated, the remaining portions of Taxiway “A” located only 275 feet (centerline to centerline) from Runway 10R-28L (approximately 1,850 lf) would be shifted to 327.5 feet to provide a uniform separation for the entire length of Taxiway “A” (**Exhibit 1G**). Since Taxiway “A” is already abutted by pavement on its south side (the existing terminal apron), the taxiway shift would 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 Runway 10R-28L at Taxiways “G” and “J,” and the relocation of the Taxiway “G” and “J” hold lines to 250 feet from the runway centerline.

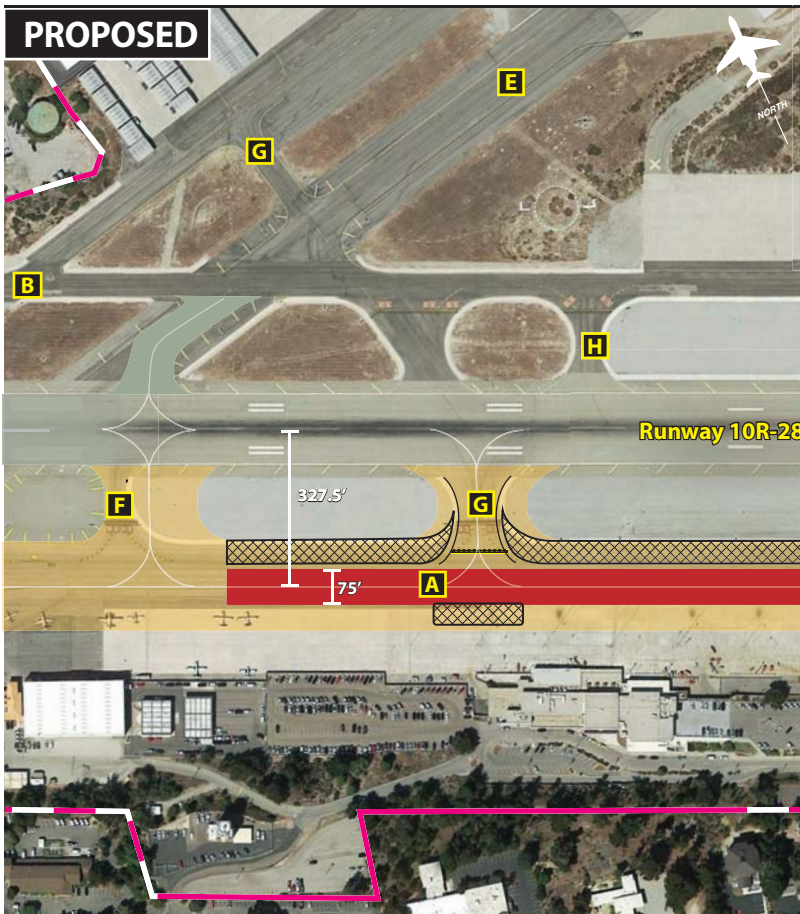
The existing passenger terminal building penetrates the 14 C.F.R. part 77 (Part 77 obstruction) transitional surface for the Airport, which is an imaginary airspace surface emanating from the edge of the primary surface at a 7:1 ratio.⁷ This is an existing airfield non-standard condition. Once a new terminal building has been constructed and is operational, the existing terminal building would be demolished, and this non-standard penetration of the transitional surface would be eliminated.

1.3.7 Construct Surface Vehicular Parking (Phase 4)

Although construction of the new passenger terminal would provide 380 public parking spaces (and a 110-space rental car ready/return lot), 457 public parking spaces would be lost as a result of construction of the new passenger terminal. To address this loss of parking spaces, as well as accommodate the forecasted increase in the number of passengers over time, a surface parking lot of 407 spaces north of Fred Kane Drive is proposed in the general location of the current terminal building (**Exhibit 1E**). As shown in **Table 1C**, there are currently 602 parking spaces associated with the passenger terminal complex area, and this would increase to 923 parking spaces at completion of the project. Approximately 36,500 cy of dirt would be removed as described in Section 1.3.8. A minor realignment of Fred Kane Drive is also proposed in connection with the new surface parking lot.

Parking Area	Existing	Proposed Action
East of Olmsted Road	457 spaces	490 spaces
Northwest of Olmsted Road/Garden Road Intersection	26 spaces	26 spaces
North of Fred Kane Drive	119 spaces	407 spaces
TOTAL	602 spaces	923 spaces

⁷ The primary surface at an airport is typically 1,000 feet wide (centered on the runway); thus, the Part 77 transitional surface begins at 500 feet from the runway centerline. The Part 77 surface is used to identify natural or manmade obstructions that could adversely affect navigable airspace around the runway. Since the existing terminal building is located 500 feet from the Runway 10R-28L centerline, the terminal penetrates the transitional surface from its base up, and there is currently obstruction lighting in place.



LEGEND

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

Photo Source: Google Earth 8-25-2013

Shift Taxiway "A" to allow standard hold lines



1.3.8 Staging Areas, Stockpile/Disposal Sites, and Haul Routes

Separate staging areas are proposed for the south and north side improvements. On the north side, existing disturbed areas that would later be used for stockpiling excess soil from the passenger terminal complex, especially the new terminal apron, would be used as staging areas for the Phase 1 GA relocation, ARFF construction, and northeast service road improvement. A former staging area used for the Airport’s RSA Improvement Project (RSA Project) is also available.

On the south side, existing paved areas would be used for staging. For example, the southern end of the existing long-term parking lot has been used in the past as a staging area for construction projects at the Airport. Staging on the south side would be in different areas of the overall project area as different phases of the project occur.

Exhibit 1H shows on-airport locations where excess dirt from proposed grading could be stockpiled or deposited:

- An existing recreational vehicle (RV) storage area⁸
- The location of proposed and future phases of GA development
- Existing disturbed/excavated areas north of Airport Road⁹
- An existing berm located approximately 55 to 160 feet from the northern airport property line.

Stockpiles in areas currently leased month-to-month for landscaping storage operations would result in a reduction in “north side” vehicular trips. Based on traffic counts taken for these uses, the existing operations result in approximately 122 average daily trips (ADT) each weekday (i.e., Monday through Friday) with additional trips on the weekends and over 20 percent of the trips comprised of heavy-duty, multi-axle trucks (KHA 2019). This existing traffic would be eliminated once the landscaping storage operations cease so the areas can be used for dirt stockpiles.

Soil deposited at the RV storage and north side GA area would be used to backfill and grade the sites to a one percent slope. Disturbed areas north of existing Airport Road would be used as stockpile sites. The stockpiles would be no higher than 25 feet and would be stabilized with a side slope no steeper than 3:1. Soil deposited on the existing berm would be compacted and is proposed to enlarge it to act as an additional visual barrier between airport activity and homes to the north. The berm would be widened to a horizontal footprint of approximately 30 feet and would be vertically raised approximately six feet. Due to the existing lower elevations of the proposed stockpile sites, the piles would not be higher than the top of the enlarged berm. **Table 1D** shows the total quantity of material that would be stockpiled or deposited on the north side of the Airport.

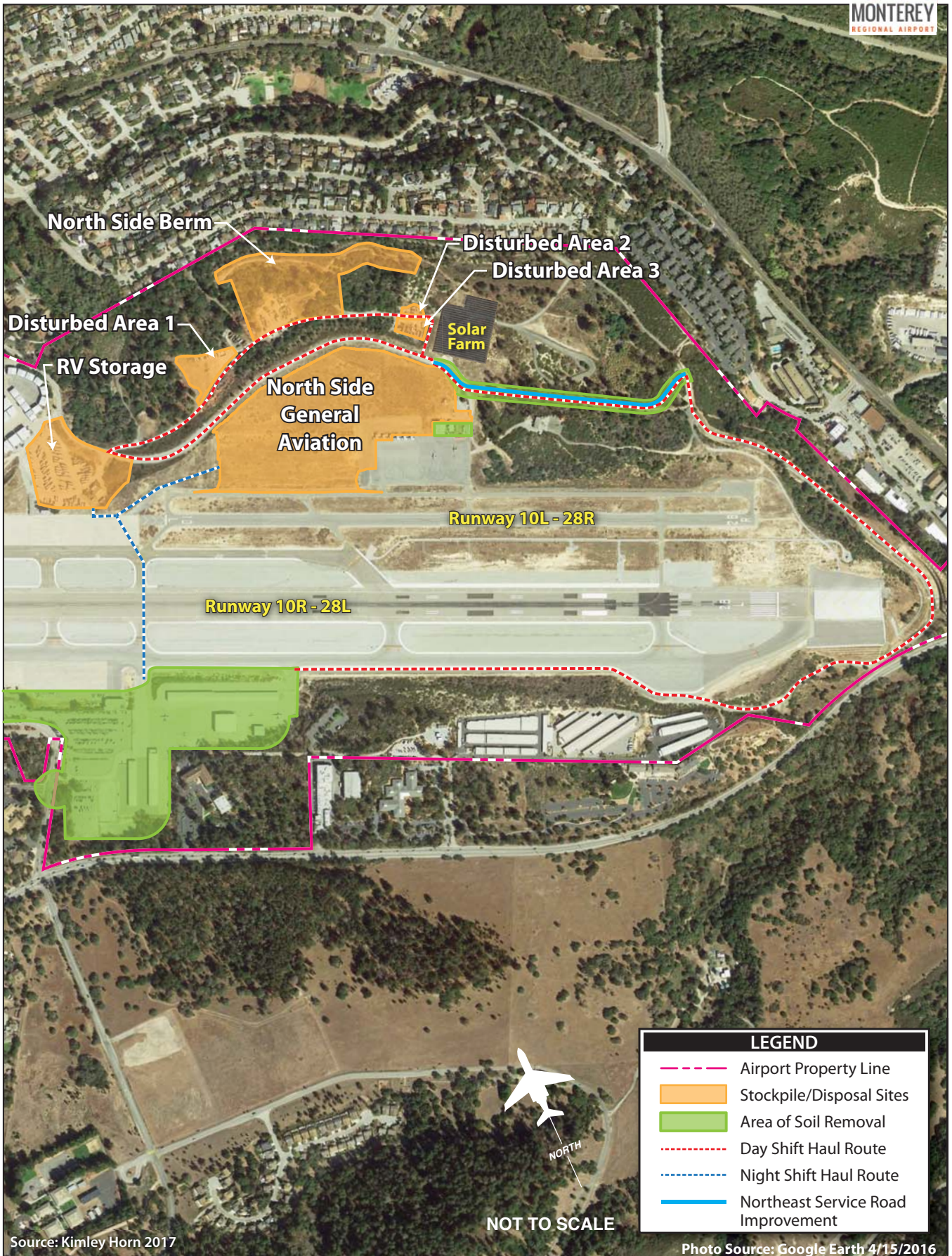
Disposal Area	Quantity of Material (cubic yards)
RV Storage Area	39,000
GA Area and adjacent area to west	66,000
Disturbed Areas north of Airport Road	18,000
Berm	125,800
TOTAL	248,800

Source: KHA 2018

Table 1E shows estimated quantities of cut material (soil only) that would be removed during various phases of the Proposed Action. As can be seen by comparing the estimates of cut material from **Table 1E** (271,200 cy) to

⁸ The RVs currently stored in this area are on month-to-month leases.

⁹ These areas are currently leased on a month-to-month basis for landscaping storage operations.



the amount of area available to stockpile the excess dirt at the Airport (**Table 1D**) (248,800 cy), all but 22,400 cy of excess material from the Proposed Action can be stored on the Airport.

Proposed Action Activity	Amount of Cut Material (cy)	Amount to Remain on Airport (cy)	Amount to be Removed from Airport (cy)
Northeast Service Road Improvement/Construction Haul Road (Phase 1)	10,000		
<i>SUBTOTAL - Phase 1</i>	<i>10,000</i>	<i>10,000</i>	<i>0</i>
ARFF Building (assumes 10 feet for over-excavation) (Phase 2)	3,700	--	--
Terminal Building (assumes 10-20 feet for over-excavation) (Phase 2)	39,000	--	--
Terminal Apron (Phase 2) (Crown design)	170,000	--	--
Terminal Complex Parking Lots/Roads (Phase 2)	12,000	--	--
<i>SUBTOTAL - Phase 2</i>	<i>224,700</i>	<i>224,700</i>	<i>0</i>
Surface Parking along Fred Kane Drive (Phase 4)	36,500	14,100	22,400
<i>SUBTOTAL - Phase 4</i>	<i>36,500</i>	<i>14,100</i>	<i>22,400</i>
TOTAL	271,200	248,800	22,400
Sources: KHA 2018; Neill Engineers 2017a, 2018 cy = cubic yard(s); ARFF = aircraft rescue and firefighting			

During Phase 2, up to 224,700 cy of material could be removed to prepare for construction of the commercial apron and passenger terminal building, as well as the terminal parking lots, terminal loop road, and roundabout. The Airport proposes to deposit all this material on the north side of the Airport using on-airport haul routes.

Phase 3 would involve remarking Taxiway "A" pavement, relocating taxiway lights and signage, creating islands for connecting Taxiways "G" and "J," and demolishing the existing terminal building. These activities would not create material that could be redeposited on the north side of the Airport.

During Phase 4, grading would occur to convert the area to a vehicular surface parking lot in the general location of the current terminal building. Fred Kane Road would be shifted slightly to the south to maximize the area provided for parking. Approximately 36,500 cy of excess dirt would be generated. Of this amount, approximately 14,100 cy can be stockpiled or used on the north side of the Airport; the remainder of the dirt (22,400 cy) would be hauled off the Airport by the contractor.

Material produced from the south side for stockpile or deposit on the north side of the Airport is proposed to be hauled to the north side using one, or a combination of two methods: 1) use of the east vehicle service road to the northeast service road improvement; or 2) nightly closures of the runway to haul material across the movement area pavements.¹⁰

1.4 PURPOSE AND NEED FOR THE PROPOSED ACTION

1.4.1 Sponsor Purpose and Need

The purpose and need for the Proposed Action are discussed further in the following subsections:

1. Enhance the operational safety of the Runway 10R-28L taxiway system. The Airport has a need to increase the centerline to centerline separation between Taxiway "A" and Runway 10R-28L to enhance airfield safety and to allow the relocation of hold lines on connecting taxiways to a standard 250 feet from the

¹⁰ With this haul route, all construction activity would occur during late nighttime hours to minimize runway closure; commercial flights are not scheduled during the late nighttime hours, therefore, creating less impact to airport operations.

runway centerline (Grant Assurance 19).¹¹ There is also a need to remove existing structures that currently have an adverse effect on navigable airspace around the runway (Part 77 obstruction) (see previous Footnote 11), and to reduce the crossover airport traffic.

2. Although the existing passenger terminal and terminal aircraft parking apron must be replaced to increase the centerline-to-centerline separation between Taxiway "A" and Runway 10R-28L to enhance safety, replacing the passenger terminal has an additional benefit. As the current 70,000-sf terminal building built in 1950 is too small to accommodate all current terminal requirements, a new larger terminal building (100,000 sf) that provides enough space to improve the functionality of the existing building is proposed. The current passenger terminal building operates at 92 percent of its gross existing capacity with several aspects of the building at or over capacity (MPAD 2018b). In addition to the shortfalls in the functional areas of the existing passenger 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. A new building would also utilize energy and water efficient technology and design and can accommodate future projected operations and enplanements while meeting security requirements.
3. In addition, the existing commercial apron is long (over 1,400 feet long) and narrow (160 feet wide), which necessitates parallel aircraft parking for the larger aircraft using the Airport (i.e., the MD-80 series, design aircraft) and operating restrictions on Taxiway "A." With relocation of the passenger terminal and commercial apron, this aircraft parking configuration can be converted to a modern parking design with the front of the aircraft oriented toward the terminal and which eliminates operating restrictions on Taxiway "A."

1.4.1.1 Enhance the Operational Safety of the Runway 10R-28L Taxiway System

Currently at the Airport, any aircraft with a wingspan greater than 50 feet (25 feet to each side) that is taxiing on Taxiway "A" between Taxiways "F" and "K" encroaches into the Runway 10R-28L RSA. This includes the Airport's critical design aircraft,¹² which have wingspans up to 118 feet, and thus penetrate the RSA by up to 34 feet. In addition, the hold lines for Taxiways "G," "J," and "K" are 200 feet from the runway, which places holding aircraft within the RSA.

The FAA design standard for runway-taxiway centerline separation is intended to promote safety at an airport and is based upon the critical design aircraft and the instrument approach visibility minimums. The separation standard for Runway Design Code (RDC)¹³ D-III aircraft with ½-mile visibility minimums is 400 feet from the runway

¹¹ Grant assurances are specific conditions required by FAA to be submitted as part of a project application by sponsors requesting funds under the provisions of Title 49, United States Code (U.S.C.), 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 twenty (20) years from the date of acceptance of a grant offer of federal funds for the project (FAA 2014b). Grant Assurance 19 states, in part, that an airport shall be operated at all times in accordance with the minimum standards required by applicable federal agencies.

¹² An airport's critical design aircraft is used to define the design parameters for an airport and is based on the most demanding category of aircraft, or family of aircraft, which conducts at least 500 itinerant operations per year at an airport (FAA AC 150/5000-17, *Critical Aircraft and Regular Use Determination* [2017a]). Both the existing and future (2033) design aircraft at the Airport is represented by the Boeing MD88 aircraft.

¹³ Runway Design Code is a code designating the applicable design standards for a runway system and is based on operational characteristics of the runway (e.g., aircraft approach speed), aircraft physical characteristics (e.g., wingspan or tail height), and visibility minimums (FAA AC 150/5300-13A, section 105c).

centerline to the parallel taxiway centerline. Taxiway “A” is separated by 327 feet on the west end, 327.5 feet on the east end, and by 275 feet in the area nearest the terminal area (i.e., between Taxiways “F” and “K”). Addressing this lack of separation distance is part of the Proposed Action’s purpose and need to improve operational safety of the Runway 10R-28L taxiway system. (As previously noted, the separation distance at Taxiway “F” is being addressed in a separate project, which is being constructed prior to this Proposed Action and has independent utility.)

The Proposed Action would meet the first stated purpose and need considerations by providing a consistent 327.5-foot, centerline to centerline, separation between the primary runway at the Airport (Runway 10R-28L) and the parallel taxiway on its south side (Taxiway “A”). The Proposed Action would relocate a portion of Taxiway “A” to provide a uniform runway-taxiway separation of 327.5 feet for the entire length of the taxiway. Hold lines on the Taxiway “G” and “J” connections to Taxiway “A” would then be moved to a standard 250 feet from the Runway 10R-28L centerline allowing aircraft to hold at the relocated “Hold” line while still providing a standard RSA without obstructions that could cause damage to an aircraft that might veer off of that runway into the RSA. Taxiway “K” at its intersection with Taxiway “A” is proposed to be closed and its hold lines removed. A Risk Assessment completed for the FAA during the AMP evaluation process indicates that airport safety would be enhanced by providing a uniform 327.5-foot separation along the entire length of Taxiway “A” (**Appendix A**).

The following additional operational safety considerations of the Runway 10R-28L taxiway system are applicable to some of the individual project components:

- Enhance airport safety by reducing crossover aircraft traffic through the consolidation of GA services on the north side of the Airport. Once the GA area is relocated, the new GA area will have access from the GA hangars and parking areas to the shorter “GA” runway (Runway 10L-28R), without GA aircraft having to cross the primary Runway 10R-28L used by commercial flights.
- Enhance airport safety by eliminating existing structures that currently have an adverse effect on navigable airspace around the runway (14 C.F.R. part 77) (see previous Footnote 11) through relocation of the existing ARFF facility. The existing ARFF building is only 550 feet from the centerline of Runway 10R-28L. It is also outdated and does not meet FAA design standards (FAA AC 150/5210-15A, *Aircraft Rescue and Firefighting Station Building Design* [2008]). The proposed location of the ARFF on the north side of the airfield would eliminate all Part 77 obstructions associated with the existing ARFF and will meet FAA ARFF building design standards.
- Enhance airport safety by eliminating existing structures that currently have an adverse effect on navigable airspace around the runway (14 C.F.R. part 77) (see previous Footnote 11) through relocation of the existing passenger terminal building. The existing building is less than 500 feet from the centerline of Runway 10R-28L. As part of the Proposed Action, a new passenger terminal complex including terminal aircraft parking apron would be constructed to allow the existing terminal to be demolished to make room for the taxiway shift.

1.4.1.2 Relocate the Existing Passenger Terminal to Enhance Airfield Safety, Improve Its Efficiency, and to Provide for Future Anticipated Growth

As discussed in Section 1.2.2, FAA has reviewed and approved the aviation forecasts developed in conjunction with the AMP. Based on the FAA-approved aviation activity forecasts (**Table 1A**) and the aviation facility

requirements analyzed in Chapter Four of the AMP, several areas and functions of the Airport are already undersized or will be under one of the AMP planning forecasts.¹⁴

The existing terminal building operates at 92 percent of capacity, indicating little room for additional operational growth. Portions of the existing terminal are over 60 years old and additions to the original structure have created inefficiencies, especially on the secure side of the building in areas reached after passenger screening has occurred. Numerous functional areas of the existing terminal are operating near or over capacity. For example, in the secure concourse area, the circulation areas are undersized by almost 70 percent. In the baggage claim area, both the floor area and the circulation area are undersized, especially when multiple aircraft are deplaning. The following functional areas, including those used by the U.S. Transportation Security Administration (TSA), are at or approaching capacity:

Ticketing:		Security Stations:	
▪ Kiosk Positions	100%	▪ Number	100%
▪ Queuing Area	92%	▪ Queuing Area	81%
▪ TSA Baggage Check	116%	▪ Station Area	95%
▪ Public Circulation	82%	▪ TSA Administration	81%
Arrivals Processing:		Concourse Facilities:	
▪ Baggage Claim Frontage	96%	▪ Holdroom Area	89%
▪ Claim Lobby	196%	▪ Circulation Area	311%

Source: MPAD 2018b, Exhibit 3D

Enplanement numbers for 2018 provided by the airlines to the Airport were approximately 188,046, which is an approximately 2,000 annual average enplanement increase since 2015. As the construction of a new 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 a construction schedule timeframe of 2024, along with the current trend of increasing passenger demand (FAA 2018a). By 2024, the minimum size requirements for the passenger terminal will be greater than 70,000 sf. To allow the passenger terminal to accommodate growth for the next 10 years and beyond 2024, the passenger terminal building should be constructed to a size of approximately 100,000 sf.

1.4.1.3 Enhance Airport Safety by Relocating the Existing Terminal Aircraft Apron

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, the existing aircraft parking areas are 330 feet from the runway centerline. The new commercial apron includes enough depth to provide sufficient separation between the runway and the aircraft parking areas to meet the design standard and provides room for additional “remain overnight” (RON) parking.

¹⁴ 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), *Recommended Security Guidelines for Airport Planning, Design and Construction* (U.S. TSA 2011), International Air Transport Association’s (IATA) *Airport Development Reference Manual* (Level of Service Standards) 9th Edition (2004), and Airport Cooperative Research Program (ACRP) *Report 25: Airport Passenger Terminal Planning and Design*, Volumes 1 and 2 (2007).

1.4.2 FAA Purpose and Need

The FAA's statutory mission is to ensure the safe and efficient use of navigable airspace in the U.S. as set forth under 49 United States Code (U.S.C.) §47101 (a)(1). The FAA must ensure that the Proposed Action does not derogate the safety of aircraft and airport operations at Monterey Regional Airport. Additionally, the FAA is responsible for approval of the District's ALP update showing the Proposed Action. Pursuant to 49 U.S.C. §47107 (a)(16), the FAA Administrator (under authority delegated from the Secretary of Transportation) must approve any revision or modification to an ALP regarding the safety, utility, and efficiency of an airport before the revision or modification takes effect. The Administrator's approval reflects a determination that the Proposed Action, reflected in the ALP update, does not adversely affect the safety, utility, or efficiency of the Airport. This project achieves the FAA's needs because the proposed action provides additional separation between the Taxiway "A" and Runway 10R-28L centerlines as recommended in the Taxiway "A" Relocation Risk Assessment (**Appendix A**). The District conducted this Risk Assessment in support of its adopted Airport Master Plan (MPAD 2018b) and found that increasing the runway centerline to taxiway centerline distance from 275 to 327.5 feet would reduce the risk of an aircraft accident to less than one accident per 10,000,000 landings. This metric is used by the FAA to establish most of the airfield design standards (FAA 2010). According to FAA AC 150/5300-13A, *Airport Design*, as amended (FAA 2014a), the standard runway centerline to parallel taxiway centerline separation for an airport with an aircraft fleet mix like MRY is 400 feet. However, as detailed in Section 2.3.3, during the evaluation of alternatives for the AMP, it was determined that a 400-foot separation is not feasible nor prudent due to various engineering and environmental issues. Thus, the AMP identifies a taxiway relocation that provides a 327.5-foot separation as the most feasible and prudent long-term solution to address this non-standard condition. Establishing a uniform 327.5-foot Taxiway "A" to Runway 10R-28L centerline separation distance provides enough room on the south side of the runway to allow the hold lines on connecting taxiways "G" and "J" to be moved from 200 feet to 250 feet from the runway centerline, which meets the FAA runway/hold line separation standard.

1.5 REQUESTED FEDERAL ACTIONS

The specific federal actions that are requested include:

- Unconditional approval of that portion of the ALP that depicts the Proposed Action pursuant to 49 U.S.C. §§40103(b), 44718(a), and 47107(a)(16).
- Determinations under 49 U.S.C. §§47106 and 47107 that are associated with the eligibility of the Proposed Action for federal funding under the Airport Improvement Program and under 49 U.S.C. §40117, as implemented by 14 C.F.R. §158.25, to use passenger facility charges collected at the Airport for the Proposed Action to assist with the construction of potentially eligible development items from the ALP.

1.6 DOCUMENT ORGANIZATION

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

- *Chapter One – Purpose and Need*: describes the Proposed Action and outlines the purpose and need for the project, as well as identifies future aviation forecasts;
- *Chapter Two – Alternatives*: identifies alternatives to the Proposed Action and applies screening criteria to determine which alternatives should be carried forward for further environmental review;

- *Chapter Three – Affected Environment:* provides a discussion of existing land uses and environmental conditions and resources related to the Airport, and more specifically, the project site;
- *Chapter Four – Environmental Consequences and Mitigation:* analyzes potential environmental impacts of the Proposed Action (and selected alternatives) and identifies any mitigation measures;
- *Chapter Five – Coordination and Public Involvement:* summarizes the scoping, agency coordination, and public participation for the Proposed Action. (The EA’s scoping and agency coordination materials are in **Appendix B**);
- *Chapter Six – List of Preparers:* contains a list of EA preparers;
- *Chapter Seven – References:* provides the names of persons consulted, references, and websites used; and
- *Chapter Eight – Acronyms and Abbreviations:* provides a list of acronyms and abbreviations used.

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Chapter Two

ALTERNATIVES

2.1 INTRODUCTION

This chapter identifies reasonable alternatives for evaluation in this Environmental Assessment (EA) based on the purpose and need for the project identified in Chapter One. The Council on Environmental Quality (CEQ) regulations (Title 40 of the Code of Federal Regulations [C.F.R.] §1502.14) for implementing the procedural provisions of the *National Environmental Policy Act* (NEPA) require that federal agencies perform the following tasks:

- Rigorously explore and objectively evaluate all reasonable alternatives and, for alternatives which were eliminated from detailed study, briefly discuss the reasons for having been eliminated;
- Devote substantial treatment to each alternative considered in detail, including the Proposed Action, so that reviewers may evaluate their comparative merits;
- Include reasonable alternatives not within the jurisdiction of the lead agency; and
- Include the alternative of No Action.

As stated in Federal Aviation Administration (FAA) Order 1050.1F, *Environmental Impacts: Policies and Procedures*, an alternative can be eliminated from further consideration when the alternative does not “meet the basic criteria of any alternative: it must be reasonable, feasible, and achieve the project’s purpose” (Sections 6-2.1.d and 7-1.1.e). 40 C.F.R. §1502.14(c) requires the evaluation of the No Action alternative regardless of whether it meets the purpose and need for the action or is reasonable to implement.

2.2 ALTERNATIVES SCREENING CRITERIA

The alternatives evaluation provided below involves a two-step screening process. The first step addresses whether the alternatives meet the purpose and need for the Proposed Action as identified in Section 1.4 and are therefore “reasonable.” The second step is to determine if the “reasonable” alternatives are also “feasible.” The feasibility of an alternative is established by analyzing other important factors, such as logistical, technical, and economic considerations.

2.2.1 Step 1 Criteria: Reasonable

For an alternative to be considered “reasonable,” it must meet the basic purpose and need for the Proposed Action. As identified in Section 1.4.1, the purpose and need for the Proposed Action is three-fold:

1. To enhance the operational safety of the Runway 10R-28L taxiway system;
2. To relocate the existing passenger terminal to enhance airfield safety, improve terminal efficiency, and to provide for increases in the number of passengers using the terminal; and
3. To enhance airport safety by relocating the existing terminal aircraft apron.

2.2.2 Step 2 Criteria: Feasible

The second phase of this evaluation focuses on which reasonable project alternatives are also considered feasible based on the following logistical, technical, and economic factors and statutory requirements. This second step of the alternative analysis ranks various project alternatives as having Low, Moderate, or High potential to result in a “YES” answer to the following questions.

Would the alternative:

1. Have a substantial adverse impact on airport operations when compared to other alternatives?
2. Require substantial amounts of earthwork, or other increased construction impacts, when compared to other alternatives?
3. Have substantially higher costs when compared to other alternatives?
4. Be inconsistent with federal statutory requirements including 49 U.S.C. §47106(a)(1), which requires FAA-approved projects be consistent with the land use plans of public agencies authorized by the State to plan for development of the area surrounding the Airport?

Those alternatives with a High potential to result in a “YES” answer to any of the questions below are not considered feasible, and will not be carried forth for further analysis in this EA. A graphical overview of the alternatives screening process is provided in Exhibit 2A.

2.3 ALTERNATIVES

2.3.1 No Action Alternative

Under the No Action alternative, the Airport would continue to operate under its approved FAA waiver of the runway/taxiway separation standards for Taxiway “A.” This waiver specifically indicates that when a Boeing 737 or larger aircraft is operating on/to the runway, another similarly large aircraft cannot operate on Taxiway “A” between Taxiways “F” and “K.” Eventually, FAA may require formal Airport Traffic Control Tower (ATCT) operating procedures, which would require a Letter of Agreement between the Airport and the ATCT. The existing hold lines on Taxiways “G,” “J,” and “K” would remain within the Runway 10R-28L runway safety area (RSA).

No changes to the south side of the Airport would occur, including the relocation of the passenger terminal and apron, the aircraft rescue and firefighting (ARFF) building, and general aviation (GA) tenants located on the south-east ramp. Additional vehicular parking would not be provided. Both the existing passenger terminal building and the existing ARFF building would continue to have an adverse effect on navigable airspace around the runway (14 C.F.R. part 77) (Part 77 obstructions).

Under the No Action alternative, the Airport would continue to use its existing passenger terminal. Over time, this terminal would become more crowded as aviation activity increases at the Airport as forecasted in the Terminal Area Forecast. The shortfalls of the existing passenger terminal, built in the 1950s, would continue. For example, in the secure concourse area, the circulation areas are undersized by almost 70 percent (FAA 2018a). 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. In addition, future anticipated

Alternative Screening Criteria

Is the alternative “Reasonable”? Could the alternative meet the basic purpose and need for the Proposed Action?

STEP 1

Would the alternative:

Enhance the operational safety of the Runway 10R-28L taxiway system?

Relocate the existing passenger terminal to enhance airfield safety, improve terminal efficiency, and to provide for increases in the number of passengers using the terminal?

Enhance airport safety by relocating the existing terminal aircraft apron?

If Yes to all, continue to Step 2

Is the alternative “Feasible” based on the following logistical, technical, and economic factors and statutory requirements?

STEP 2

Would the alternative:

Have a substantial adverse impact on airport operations when compared to other alternatives?

Require substantial amounts of earthwork, or other increased construction impacts, when compared to other alternatives?

Have substantially higher costs when compared to other alternatives?

Be inconsistent with federal statutory requirements including 49 U.S.C §47106 (a) (1), which requires FAA-approved projects be consistent with the land use plans of public agencies authorized by the State to plan for development of the area surrounding the Airport?

If No to all

Retain Alternative for detailed analysis in the Environmental Assessment

needs for additional terminal space, as well as passenger expectations for a modern facility and the adopted Airport Master Plan's (AMP) Sustainability Plan (AMP, Appendix D), would not be met.

Since no changes would occur on the north side of the Airport, GA uses at the Airport would continue to exist on both sides of the airfield, requiring that some aircraft using the smaller runway (Runway 10L-28R) would need to cross over the primary runway to access the southeast hangars and ramp.

In summary, the No Action alternative would not enhance the operational safety of the Runway 10R-28L taxiway system, would not enhance safety by relocating the existing passenger terminal and other buildings to eliminate existing obstructions as defined by the 14 C.F.R. part 77 regulations, would not expand the passenger terminal to improve terminal efficiency for the recent volume of passengers using the terminal prior to the reduction in passenger volume associated with the COVID-19 public health emergency, and would not provide for increases in the number of passengers using the terminal in the future. Although the No Action alternative does not meet the purpose and need considerations for the project, it is retained per 40 C.F.R. §1502.14(c) to provide a reference point upon which the impacts of the Proposed Action can be compared.

2.3.2 Relocate Hold Lines to 250 feet without Shifting Taxiway "A" Alternative

This alternative would relocate the hold lines on Taxiways "G" through "K" (at Taxiway "A") to meet FAA design standards of 250 feet from the runway centerline without first relocating the passenger terminal and shifting Taxiway "A" away from the runway. This alternative would cause significant operational issues for the Airport since it would effectively shut down Taxiway "A" when aircraft are holding. The hold lines would be relocated onto the Taxiway "A" pavement since the centerline of Taxiway "A" is only 275 feet from the runway centerline in this area of the taxiway. Aircraft stopped behind the hold lines would block Taxiway "A" traffic completely. Thus, this alternative would not enhance the operational safety of the Runway 10R-28L taxiway system.

This alternative would also not enhance safety by relocating the existing passenger terminal and other buildings to eliminate existing obstructions as defined by the 14 C.F.R. part 77 regulations, would not expand the passenger terminal to improve terminal efficiency for the recent volume of passengers using the terminal prior to the reduction in passenger volume associated with the COVID-19 public health emergency, and would not provide for increases in the number of passengers using the terminal in the future. Since this alternative does not meet the purpose and need considerations for the project, it is not considered reasonable and is not retained for further consideration in this EA.

2.3.3 Shift Taxiway "A" to 400 Feet from Runway 10R-28L Alternative

This alternative would relocate Taxiway "A" the full FAA standard distance of 400 feet, centerline to centerline, from Runway 10R-28L along the entire taxiway length (**Exhibit 2B**). As a result, it would provide taxiway/runway separation between Taxiway "A" and Runway 10R-28L that met FAA Airport Design Group (ADG) III design standards to fully resolve the existing RSA penetrations and hold line safety issues. However, by shifting Taxiway "A" south 400 feet, the taxiway object free area (OFA)¹ would also be shifted. Due to the existing topography and built environment of the Airport, several penetrations of the taxiway OFA would occur. The taxiway OFA would

¹ The taxiway and taxilane OFA clearing standards in FAA Advisory Circular (AC) 150/5300-13A, *Airport Design*, as amended 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.



LEGEND

- Airport Property Line
- Taxiway Object Free Area (TOFA)
- Future Airfield Pavement
- Flightway Self-Storage Habitat Restoration (HR) Area
- DPIC Parking Lot Habitat Restoration Area
- Vehicle Service Road

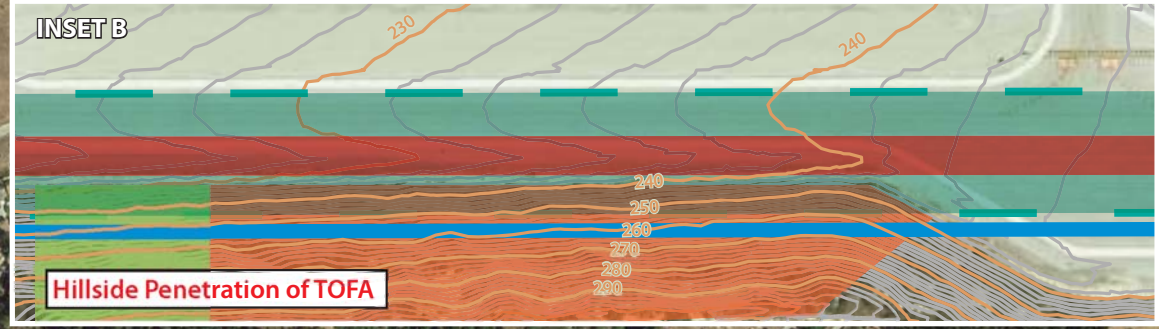
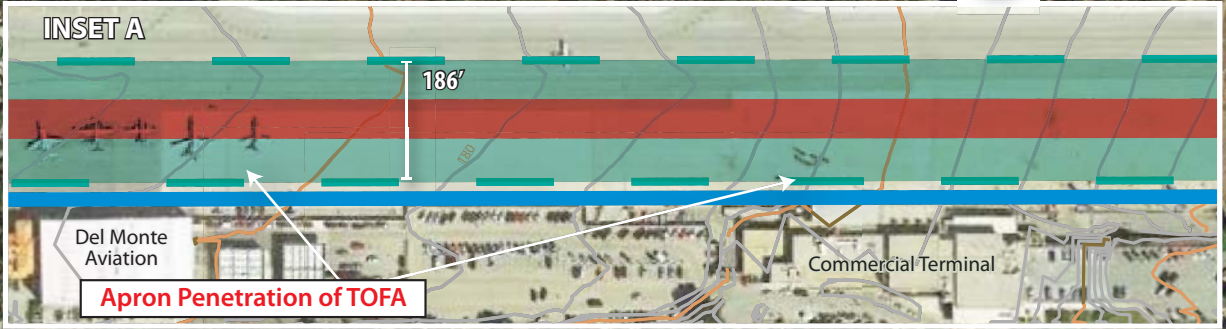


Photo Source: Google Earth 10-20-16

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be penetrated by approximately 150 feet of an existing hillside and by the apron areas in front of the Del Monte Aviation hangar, Hangar No. 124 on the southwest apron, and the existing passenger terminal.

This alternative's impact on airport operations would be substantial and would not enhance the operational safety of the Runway 10R-28L taxiway system. Essentially, all the south side apron area would be unusable, including the apron in front of the passenger terminal and the fixed base operator (FBO) apron, because of OFA requirements. If the part of the hillside that would penetrate the new taxiway OFA was removed, this would also have impacts on sensitive habitat that is currently protected by the Airport. These areas are part of environmental mitigation for previous airport projects (i.e., the Design Professional Insurance Company [DPIC] Parking Lot Habitat Restoration Area and the Flightway Self-Storage Habitat Restoration Area) (**Exhibit 2B**).

The existing passenger terminal apron would be reduced to approximately 35 feet in width. Thus, this alternative would still require the removal of the terminal, as well as the restructuring of the FBO areas to provide for apron areas outside of the Taxiway "A" OFA. An existing vehicle service road located south of Taxiway "A" would also need to be shifted south, causing even more disruption to the south side FBO areas. However, much less room would be available to relocate the passenger terminal on the southeast ramp. Thus, this alternative would not expand the passenger terminal to improve terminal efficiency for the recent volume of passengers using the terminal prior to the reduction in passenger volume associated with the COVID-19 public health emergency and would not provide for increases in the number of passengers using the terminal in the future.

Since this alternative does not meet the purpose and need considerations for the project, it is not considered reasonable and is not retained for further consideration in this EA.

2.3.4 Replace Existing Passenger Terminal and Shift 1,850 Linear Feet of Taxiway "A" (between Taxiways "F" and "K") 52.5 Feet South Alternative (Proposed Action)

This alternative involves a southerly shift of approximately 1,850 linear feet (lf) of parallel Taxiway "A" (between Taxiways "F" and "K") 52.5 feet from its current location (Section 1.3.6, Exhibit 1G). This would provide a consistent 327.5-foot separation between the Taxiway "A" and Runway 10R-28L centerlines the entire length of Taxiway "A" to enhance the operational safety of the Runway 10R-28L taxiway system. It would ensure that ADG III aircraft (wingspans less than 118 feet) could taxi the full length of Taxiway "A" without any wingtip penetrations of the RSA. It would also allow the relocation of hold lines on connector taxiways to meet the standard of 250 feet separation distance from the RSA. Correcting the RSA issue by relocating a portion of Taxiway "A" would, however, limit the apron space available for parking and maneuvering of commercial aircraft in front of the existing passenger terminal building to only 107.5 feet. Therefore, relocation of the existing passenger terminal building (and other necessary building relocations as described in Section 1.3) is included within this alternative. This alternative does not fully meet design standards and would require a Modification of Airfield Separation Standards from FAA. The Monterey Peninsula Airport District submitted a Risk Assessment to the FAA during the AMP evaluation process which concluded that airport safety would be enhanced significantly by providing a uniform 327.5-foot separation along the entire length of Taxiway "A" (**Appendix A**). Based on the Risk Assessment results, increasing the separation distance under the Proposed Action reduces the risk of an accident during the airborne (approach) phase to less than one accident in 10,000,000 landings, which is used by FAA to establish most of the airfield design standards (FAA 2010).

This alternative would also enhance safety by relocating the existing passenger terminal and other buildings to eliminate existing obstructions as defined by the 14 C.F.R. part 77 regulations, would expand the passenger terminal to improve terminal efficiency for the recent volume of passengers using the terminal prior to the reduction in passenger volume associated with the COVID-19 public health emergency, and would provide for increases in the number of passengers using the terminal in the future.

Since this alternative meets the purpose and need considerations for the project, it is considered reasonable and is retained for further consideration in this EA.

2.4 APPLICATION OF STEP 1 “REASONABLENESS” SCREENING CRITERIA

As described above and summarized in **Table 2A**, the Replace Existing Passenger Terminal and Shift 1,850 Linear Feet of Taxiway “A” (between Taxiways “F” and “K”) 52.5 Feet South alternative (i.e., Shift Taxiway “A” to 327.5-Foot Separation alternative) is the only development alternative that is considered a reasonable alternative under the screening criteria.

EVALUATION CRITERIA	ALTERNATIVES			
	NO ACTION	RELOCATE HOLD LINES ONLY	SHIFT TAXIWAY “A” TO 400-FEET SEPARATION	SHIFT TAXIWAY “A” TO 327.5-FEET SEPARATION
Enhance the operational safety of the Runway 10R-28L taxiway system by increasing the runway to taxiway separation between the runway and Taxiway “A?”	No	No - RSA penetrations would remain.	No - penetrations to taxiway OFA would occur.	Yes
Relocate the existing passenger terminal to enhance airfield safety, improve terminal efficiency, and to provide for higher passenger volume in the terminal?	No - passenger terminal would not be relocated.	Yes - the existing terminal could still be relocated.	No - room for a new terminal would no longer exist.	Yes
Enhance airport safety by relocating the existing terminal apron?	No - commercial apron would not be relocated.	Yes - the existing terminal apron could still be relocated.	No - room for a new commercial apron would no longer exist.	Yes
If the answer to all three questions is “YES,” continue to Step 2 (see Table 2B).	NO*	NO	NO	YES

RSA = runway safety area; OFA = object free area
 * Per 40 C.F.R. §1502.14(c), the No Action alternative is required to be analyzed regardless of whether it meets the purpose and need for the action or is reasonable to implement.

As the Shift Taxiway “A” to 327.5-Foot Separation alternative meets all stated project purposes and needs (Section 2.2.1) and is, therefore, a reasonable alternative, it is subsequently evaluated under Step 2 of the alternatives screening to determine whether it is also feasible. Since the relocation of some facilities associated with the Shift Taxiway “A” to 327.5-Foot Separation alternative can be accomplished in more than one way, and that alternative includes multiple phases and connected actions, the feasibility discussion includes a discussion of which phases and connected actions to implement the Shift Taxiway “A” to 327.5-Foot Separation alternative are feasible.

2.5 APPLICATION OF STEP 2 “FEASIBLE” SCREENING CRITERIA

The application of the feasibility criteria for screening the variations on the Shift Taxiway “A” to 327.5-Foot Separation alternative is summarized in **Table 2B** and described in detail in the following sections. For the “feasible” screening criteria, any YES answers result in the alternative in question being considered infeasible, and those alternatives are not considered further in this EA.

TABLE 2B
Alternative Evaluation Summary - Step 2 Criteria (Feasibility)¹
Monterey Regional Airport

EVALUATION CRITERIA	PROPOSED ACTION (P.A.) COMPONENTS																	
	GA RELOCATION		NORTH SIDE ACCESS ²								ARFF RELOCATION				TERMINAL COMPLEX RELOCATION			
WOULD THE PROJECT COMPONENT:	South Side	North Side (P.A.)	A (P.A.)	B	C	D	E	F	G	H	South Side - Existing Terminal	South Side - City of Monterey Suggestions	South Side - 5.5-acre Parcel	North Side (P.A.)	Expansion of Existing Building	South of Existing Building	North Side of Airfield	South east Ramp (P.A.)
Have substantial impact on airport operations when compared to other alternatives?	Low	Low	Low	High	Low	Low	Low	Low	Low	High	High	High	High	Low	High	High	High	Moderate
Require substantial amounts of earthwork, or other increased construction impacts, when compared to other alternatives?	High	Low	Low	High	High	Moderate	High	Low	Low	High	Low	Moderate/High	Moderate	Low	Low	High	High	Moderate
Have substantially higher costs when compared to other alternatives? ³	High	Low	Low	High	High	Moderate	Moderate	Moderate	Low	High	High	Moderate/High	Moderate	Low	Low	Moderate	High	Moderate
Be inconsistent with federal statutory requirements including 49 U.S.C. §47106(a)(1), which requires FAA-approved projects be consistent with the land use plans of public agencies authorized by the State to plan for development of the area surrounding the airport.	N/A	N/A	Low (with mitigation)	High	High	High	High	High	High	Low	Low	Low	Low	Low (with mitigation)	N/A	N/A	N/A	N/A
Carry Forward for Further Evaluation	NO	YES	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	YES

¹ Each alternative is ranked as having a Low, Moderate, or High potential to result in a “YES” to the stated question. Those with any High rankings are considered Infeasible and have been removed from further consideration.

² North side public access alternatives: A = Proposed Action (Access north side of Airport using existing Airport Road); B = Connection via Highway 68; C = Connection via Ryan Ranch Road; D = Connection to Del Rey Gardens Drive; E = Connection via General Jim Moore Road; F = Connection via Rosita Road; G = Connection via Casanova Avenue; H = Connection via Olmsted Road (Tunnel);

³ Based on preliminary costs developed in the AMP (Exhibit 6B).

GA = general aviation; ARFF = aircraft rescue and firefighting; U.S.C. = United States Code; N/A – Not Applicable

2.5.1 Alternatives to Relocating General Aviation from the Southeast Ramp (Phase 1)

South Side GA Relocation. The south side of the Airport is currently developed with FBO and GA hangars, terminals, ramp space, vehicular parking lots, and a rental car lot to the west of the existing passenger terminal. East or south of the existing passenger terminal are the terminal and employee parking areas, the southeast GA area, and potentially sensitive biological resources (based on 2017 surveys). There is only one undeveloped parcel left on the south side of the Airport. This is a 3.6-acre parcel located just west of the airport property line north of Highway 68. It is separated from the Air Operations Area (AOA) by an approximately 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 costly and would impact existing biological resources. Therefore, this alternative is not considered feasible and has not been retained for consideration within this EA.

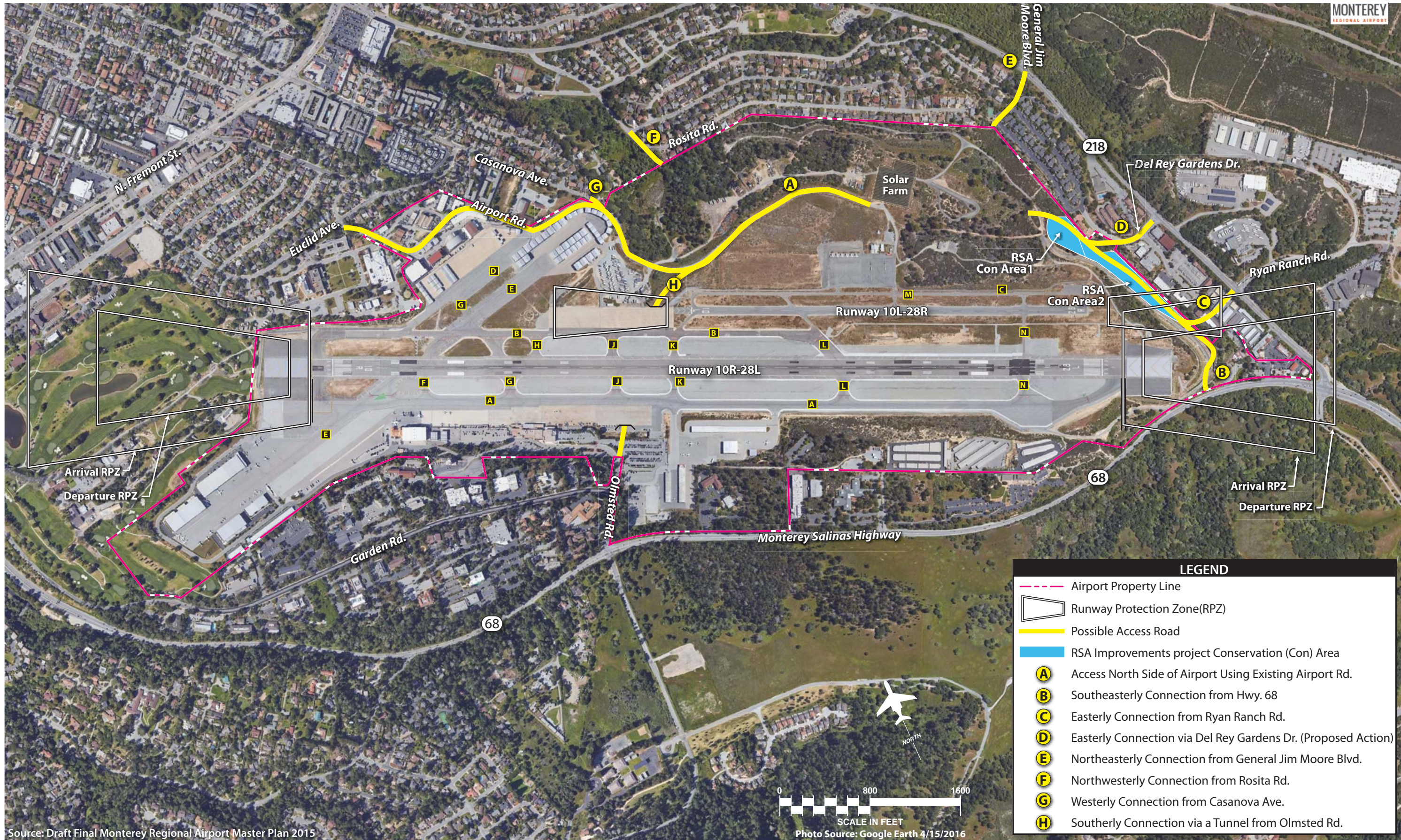
North Side GA Relocation (Proposed Action). The north side of the airfield is relatively undeveloped. Out of approximately 111 acres of land, there is an approximately 6.5-acre area located near the Navy Flying Club that contains the Navy Flying Club box hangar and small office building, a 19,300-square-yard (sy) GA aircraft apron with 31 tie-downs, an above ground fuel tank for aviation gasoline (AvGas), and six Port-a-Port T-hangars. The AMP identified three potential alternatives to relocate the southeast GA hangars to the north side. Only Option C, which utilizes the area encompassed by Airport Road adjacent to the existing GA ramp, is still available. The other options involved extending a taxiway to the north of Airport Road to make the area northeast of the existing GA area available for hangar and aviation parcel development. This area has been recently developed by the Airport as a solar farm.

Transferring the southeast GA tenants to the north side of the Airport would provide room on the south side to relocate the remaining landside development, including the passenger terminal building and apron. The proposed north side GA relocation area would require minimal grading and contains only ruderal vegetation. This alternative would also enhance safety by relocating the existing passenger terminal and other buildings to eliminate existing obstructions as defined by the 14 C.F.R. part 77 regulations, would expand the passenger terminal to improve terminal efficiency for the recent volume of passengers using the terminal prior to the reduction in passenger volume associated with the COVID-19 public health emergency, and would provide for increases in the number of passengers using the terminal in the future. This alternative is considered feasible and has been retained for further analysis in this EA as a part of the Proposed Action.

2.5.2 Alternatives to Access the North General Aviation Area (Phase 1)

Currently, access to the north side of the Airport is available via Airport Road from the west through the Casanova Oak Knoll residential neighborhood and from the south via on-airport service roads around the east and west ends of the airfield. If the No Action alternative is implemented, traffic levels through the Casanova Oak Knoll neighborhood would continue to occur at current levels.

The Proposed Action would also use the existing Airport Road for public access to the north side of the Airport. This road route is labeled Alternative A on **Exhibit 2C**. If a new public road is constructed as identified under one of the other build alternatives discussed below, traffic occurring within the Casanova Oak Knoll neighborhood from the Navy Flying Club activities and use of the six existing portable hangars would be diverted to the new road.



Source: Draft Final Monterey Regional Airport Master Plan 2015



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Alternatives that were considered for a new public road in the AMP are shown on **Exhibit 2C** and include: Alternative B) creating an access point from Highway 68 at the eastern end of the Airport near Tarp’s Roadhouse Restaurant; Alternative C) connecting the Airport to an existing signalized intersection at Highway 218 and Ryan Ranch Road; Alternative D) connecting the Airport to Del Rey Gardens Drive ; Alternative E) connecting the Airport to an existing signalized intersection at Highway 218 and General Jim Moore Boulevard; Alternative F) extending Rosita Road through a residential area north of the Airport; Alternative G) extending Casanova Avenue approximately 50 feet from the Casanova Oak Knoll neighborhood west of the Airport; or Alternative H) tunneling under the airfield and connecting to Olmsted Road on the south side of the Airport. These alternatives are described in more detail below.

Access North Side of Airport Using Existing Airport Road (Alternative A) (Proposed Action). Under Alternative A, the Proposed Action, public access to the north side development (i.e., the relocation of the GA hangars to the north side) and the ARFF facility would continue to use the existing airport access from Airport Road. This alternative would avoid the grading and biological impacts associated with other public road alternatives. Under the Proposed Action, vehicular trips on Airport Road associated with the use of the north side of the Airport would be reduced as several of the proposed stockpile areas are currently used for off-airport landscaping storage operations. These existing landscaping storage operations (which currently occur via a month-to-month lease) would cease, which would offset the new vehicular trips associated with relocating 44 GA hangars and the ARFF building and development of up to seven additional hangars to the north GA area.² Construction-related traffic would use the improved vehicle service/haul road and would not need to go through the Casanova Oak Knoll neighborhood. With mitigation to ensure consistency with City of Monterey general plan and neighborhood plan policies (LU-1, Section 4.3.7), this alternative is considered feasible for all four feasibility criteria (i.e., low impacts when compared to other alternatives related to adverse impacts on airport operations, amount of earthwork and other construction impacts, costs, and consistency with federal statutory requirements, including land use plans of public agencies with jurisdiction over areas surrounding the Airport [49 U.S.C. §47106(a)(1)]).

Southeasterly Connection from Highway 68 (Alternative B). This alternative considers a new public road that would begin at Highway 68 within the City of Del Rey Oaks, in proximity to the Runway 28L end, and extend around the east end of the airfield to the north side. In the past, additional traffic on Highway 68 related to such a road has been a concern.³ Also, the existing east vehicle service road is narrow (10 feet wide) and has a steep grade. It would have to be widened to serve as a public road to the north side, which may not be feasible due to its current design and would adversely affect existing airport operations during construction when the road would not be available to provide access around the eastern end of the Airport. Areas adjacent to the east vehicle service road are part of Habitat Conservation Areas established for the Airport’s RSA Improvement Project (RSA Project) and contain sensitive biological resources.

This road alignment alternative is not consistent with the plans of the City of Del Rey Oaks, the public agency authorized by the State of California to plan for development of the road route within the City limits, since City of Del Rey Oaks General Plan Circulation Policy C-17 *Airport Plan* states: “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

² Preliminary design shows pavement and infrastructure for one row of 25 T-hangars, two rows of 18 (50-foot by 50-foot) box hangars, and two executive hangars proposed to be installed to increase the number of hangars (including the relocated southeast hangars) by 45 hangars on the north side GA (Exhibit 1D). In addition, buildable hangar pads that could accommodate six additional hangars would be included for a total of 51 future hangars.

³ During the design of the recent RSA Project, an emergency/service access road was considered in this general location. 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 does not connect to Highway 68.

Oaks.” (City of Del Rey Oaks 1997). Therefore, the FAA, in accordance with 49 U.S.C. §47106(a)(1), could not approve this road alignment alternative until the City of Del Rey Oaks changes its General Plan Policy C-17 so as not to object to such a road alignment.

In addition, this alternative would locate a public road within the runway protection zones (RPZ) for both runways. FAA discourages the introduction of new public roadways in RPZs in its *Interim Guidance on Land Uses Within a Runway Protection Zone* (FAA 2012) and requires a thorough alternatives analysis. 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 that the Sponsor 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.*”

This alternative is considered infeasible and has not been retained for consideration within this EA. It would result in high impacts when compared to other alternatives related to adverse impacts on airport operations, amount of earthwork and other construction impacts, costs, and consistency with federal statutory requirements, including land use plans of public agencies with jurisdiction over areas surrounding the Airport (49 U.S.C. §47106(a)(1)).

Easterly Connection from Ryan Ranch Road (Alternative C). This alternative considers a public 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. As discussed under Road Alternative B, a road alignment through the City of Del Rey Oaks would require a change to Del Rey Oaks General Plan Policy C-17.

This alternative would impact a significant amount of the Habitat Conservation Areas that were established as mitigation for the RSA Project. These conservation areas 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 also require extensive design to cross both a floodway and a 100-year floodplain located on the east side of Highway 218.

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 of the RPZ. As discussed previously, pursuing a new public roadway in the Airport’s RPZ could also be viewed by FAA as a Grant Assurance violation.

This alternative is considered infeasible and has not been retained for consideration within this EA. It would result in high impacts when compared to other alternatives related to adverse impacts on airport operations, amount of earthwork and other construction impacts, costs, and consistency with federal statutory requirements, including land use plans of public agencies with jurisdiction over areas surrounding the Airport (49 U.S.C. §47106(a)(1)).

Easterly Connection via Del Rey Gardens Drive (Alternative D). This alternative would provide a new public road via Del Rey Gardens Drive to Highway 218. Although the steep terrain would require a significant level of design and engineering, this alternative would require less earth movement than either of the other two east side alternatives (Alternatives B or E), but more than Alternative A. No building relocations would be necessary and the

connection with Del Rey Gardens Drive goes through a light industrial area instead of residential neighborhoods (which would occur with the west side alternatives discussed below). Preliminary engineering estimates indicate that a series of four retaining walls would be necessary on specific sections of the road, and approximately 47,000 additional cubic yards (cy) of material would need to be removed and reused at the north side GA area or stock-piled. As discussed under Road Alternative B, a road alignment through the City of Del Rey Oaks would require a change to Del Rey Oaks General Plan Policy C-17.

This alternative is considered infeasible at this time and has not been retained for consideration within this EA. It would result in moderate to high impacts when compared to other alternatives related to adverse impacts on airport operations, amount of earthwork and other construction impacts, costs, and consistency with federal statutory requirements, including land use plans of public agencies with jurisdiction over areas surrounding the Airport (49 U.S.C. §47106(a)(1)).

Northeasterly Connection from General Jim Moore Boulevard (Alternative E). This alternative considers utilizing the signalized three-way intersection at Highway 218 and General Jim Moore Boulevard. A 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 steep with nearly 120 feet of elevation change over 600 feet and is heavily vegetated. As discussed under Road Alternative B, a road alignment through the City of Del Rey Oaks would require a change to Del Rey Oaks General Plan Policy C-17. The amount of earthwork and related engineering design that would be required to construct a public road in this area are greater than other alternatives discussed in this EA.

This alternative is considered infeasible and has not been retained for consideration within this EA. It would result in moderate to high impacts when compared to other alternatives related to adverse impacts on airport operations, amount of earthwork and other construction impacts, costs, and consistency with federal statutory requirements, including land use plans of public agencies with jurisdiction over areas surrounding the Airport (49 U.S.C. §47106(a)(1)).

Northwesterly Connection from Rosita Road (Alternative F). This alternative considers utilizing the existing Rosita Road that extends from an intersection with Highway 218 north of the Airport. A 200-foot extension of this public road would be needed to reach airport property. A stormwater detention pond is in the path of such an alignment and would need to be reengineered. This alternative would introduce new traffic (and related impacts) to a residential neighborhood. As discussed under Road Alternative B, a road alignment through the City of Del Rey Oaks would require a change to Del Rey Oaks General Plan Policy C-17.

This alternative is considered infeasible and has not been retained for consideration within this EA. It would result in moderate to high impacts when compared to other alternatives related to the amount of earthwork and other construction impacts, costs, and consistency with federal statutory requirements, including land use plans of public agencies with jurisdiction over areas surrounding the Airport (49 U.S.C. §47106(a)(1)).

Westerly Connection from Casanova Avenue (Alternative G). 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 vehicle traffic desiring to access the Airport onto Casanova Avenue, rather than Euclid Avenue. This alternative would require the approval of the City of Monterey for the new road connection and may be found to be inconsistent with City of Monterey general plan and neighborhood plan policies regarding limiting traffic within the residential neighborhood. This alternative is similar to the Proposed Action using the existing Airport Road but would have slightly increased construction impacts and would be more costly due to the proposed road connection.

This alternative is considered infeasible and has not been retained for consideration within this EA. It would result in high impacts when compared to other alternatives related to consistency with federal statutory requirements, including land use plans of public agencies with jurisdiction over areas surrounding the Airport (49 U.S.C. §47106(a)(1)).

Southerly Connection via a Tunnel from Olmsted Road (Alternative H). This alternative considers public north side access via a tunnel under the airfield from Olmsted Road to the south. Challenges to this alternative would be the additional construction impacts associated with large amounts of 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 nighttime hours to minimize runway closure. As commercial flights are not scheduled during the late nighttime hours, this would result in less impact to operations. However, this would add to both project cost and duration of construction.

The amount of earthwork, related construction impacts, and engineering costs make this alternative infeasible given that there are other alternatives with fewer impacts. Therefore, this alternative has not been retained for consideration within this EA. It would result in high impacts when compared to other alternatives related to adverse impacts on airport operations, amount of earthwork and other construction impacts, and costs.

2.5.3 Alternatives for a New Aircraft Rescue and Firefighting Facility (ARFF) (Phase 2)

Preliminary site layouts for a new permanent ARFF building 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). A building footprint of approximately 175 feet by 60 feet is proposed. The new ARFF would be constructed using Leadership in Energy and Environmental Design (LEED) certification practices consistent with the AMP's Sustainability Plan (AMP, Appendix D). The following alternative locations were considered for the building.

Existing Passenger Terminal South Side Location. This alternative was considered in the AMP and would build a new ARFF building on the south side of the airfield in the location of the existing passenger terminal building. This alternative would require that the new ARFF building be constructed after the new proposed terminal building is operational and the existing terminal building is demolished. This ARFF location presents potential for a Part 77 obstruction. Also, this location would necessitate the use of a temporary ARFF building (for a period of approximately six years) since the existing ARFF building would need to be removed prior to construction of the new terminal apron.

The location of the temporary ARFF building would be on the north GA apron adjacent to the existing Navy Flying Club hangars and would require the relocation of the existing T-hangars. An approximately 12-foot-wide, 630-foot-long (on airfield) ARFF service road would be constructed from the edge of the GA apron to Runway 10R-28L to provide acceptable response times from the building to the mid-point of the runway. Off-airport access would be provided via one of the road alternatives described above. This alternative has the potential to be a safety hazard (i.e., Part 77 obstruction) and would be much more costly than the Proposed Action alternative due to the need to construct a temporary ARFF building prior to the construction of a permanent ARFF building. Therefore, this alternative ARFF location is not considered to be a feasible alternative. It would result in high impacts when compared to other alternatives related to adverse impacts on airport operations and costs.

City of Monterey Suggested South Side Locations. The City of Monterey has suggested two other locations on the south side for a joint use ARFF facility. These locations are identified in their comment letter (Comment #15, **Appendix F**) and include a location on the south side of the intersection of Henderson Way and Skypark Drive and a location within the rental car lot west of the existing passenger terminal building. Both locations would have substantial adverse impacts on airport operations when compared to other alternatives. An ARFF building located

on Henderson Way would not have access to the airfield. Construction of a new emergency access road to the airfield would require substantial amounts of earthwork, have other construction impacts, and have substantially higher costs compared to the Proposed Action alternative. Therefore, this alternative ARFF location is not considered to be a feasible alternative.

An ARFF building located within the rental car lot west of the existing passenger terminal would continue the congestion on the south side of the airfield and would impact rental car operations. The location also has difficult access issues due to the steep terrain immediately south of the car rental lot, which would make it infeasible for ARFF trucks to leave the area on the landside of the new ARFF building. Rather, ARFF trucks would be required to leave the new ARFF building from the airside and travel across the ramp to access Olmsted Road east of the existing terminal. Adding emergency ARFF traffic to the vehicular and aircraft traffic associated with the new passenger terminal and apron would have a substantial adverse impact on airport operations when compared to the Proposed Action alternative and is not considered to be a feasible alternative.

New 5.5-Acre Airport Property Acquired off Highway 68. An ARFF building located on a 5.5-acre parcel recently acquired by the Airport north of Highway 68 would not have access to the airfield. To access the airfield, an ARFF vehicle service road would need to cross the proposed terminal apron. Adding emergency ARFF traffic to the aircraft traffic associated with the new passenger terminal and apron would have a substantial adverse impact on airport operations when compared to the Proposed Action alternative. In addition, this site currently is developed with commercial buildings that could be impacted. Development of the site with an ARFF facility could have other construction impacts and potentially higher costs compared to the Proposed Action alternative. Therefore, this alternative ARFF location is not considered to be a feasible alternative.

North Side Relocation (Proposed Action). This alternative would locate a new permanent ARFF building at the north GA area where the existing Navy Flying Club hangars and office sit on the north edge of the GA apron. The Navy Flying Club facilities would be relocated on the improved GA ramp. An approximately 12-foot-wide, 630-foot-long (on airfield) ARFF service road would be constructed from the edge of the GA apron to Runway 10R-28L to provide acceptable response times from the building to the mid-point of the runway. Off-airport access would be provided by using the existing Airport Road.

It is 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 congested area between the passenger terminal and FBO areas on the south side of the airfield. The north side location would eliminate any concerns related to an ARFF being a Part 77 obstruction, and would require less earthwork, will have fewer construction impacts and costs, and can mitigate potential land use policy inconsistencies (LU-1, Section 4.3.7). This alternative has been retained for further analysis in this EA as a part of the Proposed Action.

2.5.4 Alternatives to the Passenger Terminal Apron and Terminal Building Complex (Phase 2)

The AMP evaluated a variety of passenger terminal locations from a planning perspective. Included were five configurations of a general layout that would move the new terminal complex to the east and south of the existing terminal parking lot (i.e., the Proposed Action). These configurations of the terminal complex discussed in the AMP represent minor variations on the Proposed Action, and for purposes of environmental evaluation are similar to the Proposed Action and do not warrant further discussion as separate alternatives in this EA. The AMP discussion of those variations is incorporated into this EA by reference (AMP, Chapters Five and Six). The AMP also evaluated expanding the existing passenger terminal to the west or east, relocating the existing terminal building immediately south of the existing building, or relocating the terminal complex on the north side of the airfield. Those alternatives are discussed below.

Existing Passenger Terminal Expansion (West or East). These alternatives consider expanding the existing terminal building to the west or east (**Exhibit 2D**). If the existing terminal building was expanded to the west, the rental car ready/return lot and cleaning and maintenance facility would need to be relocated. An adjacent FBO lease would also be adversely affected to provide room for additional commercial apron. Another significant constraining factor would be the lack of available apron depth from Taxiway “A” to the new concourse. Although an apron depth of approximately 230 feet would meet OFA standards, aircraft being pushed back from the concourse could still block Taxiway “A” until the aircraft proceeds onto the taxiway. The parked aircraft and new concourse would still be Part 77 obstructions, as would the existing passenger terminal building. If the existing passenger terminal was expanded to the east, an approximately 800-foot corridor would connect the existing building to the new concourse (**Exhibit 2D**). The parked aircraft and new concourse would still be Part 77 obstructions, as would the existing passenger terminal building.

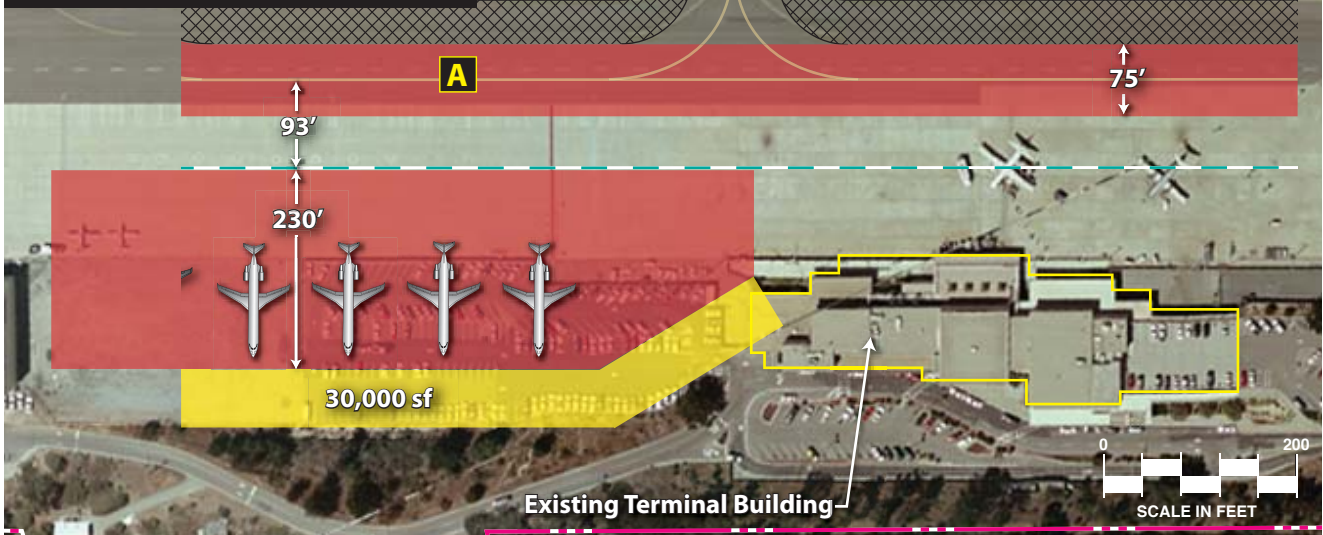
Either of these alternatives would keep the existing terminal building and apron, which would not meet two of the stated purposes and needs for the project. Due to the shift of Taxiway “A” to 327.5 feet from the runway centerline, the apron ramp in front of the existing building would be too narrow to use for most aircraft. (Small commercial aircraft that are less than 79.5 feet in length could potentially use the ramp for parking.) Thus, the existing building would need to be repurposed for uses that do not involve the actual boarding gates. Therefore, neither of these alternatives are reasonable as they do not meet the purpose and need for the project and they have not been retained for consideration within this EA.

Relocation of Existing Passenger Terminal to the South. This alternative considers expanding the existing terminal building to the south of its existing location (**Exhibit 2D**). The existing building would have to be demolished and all commercial operations would have to be temporarily relocated. There are no existing facilities at the Airport that could accommodate continued commercial passenger activity, even on a temporary basis. In addition, moving the passenger terminal south of its existing location would require construction into the adjacent hillside. This would present engineering challenges including significant cuts, retaining walls, and impacts to sensitive biological resources. Therefore, this alternative terminal location is not considered to be a feasible alternative. It would result in high impacts when compared to other alternatives related to adverse impacts on airport operations, increased earthwork and other construction impacts, and costs.

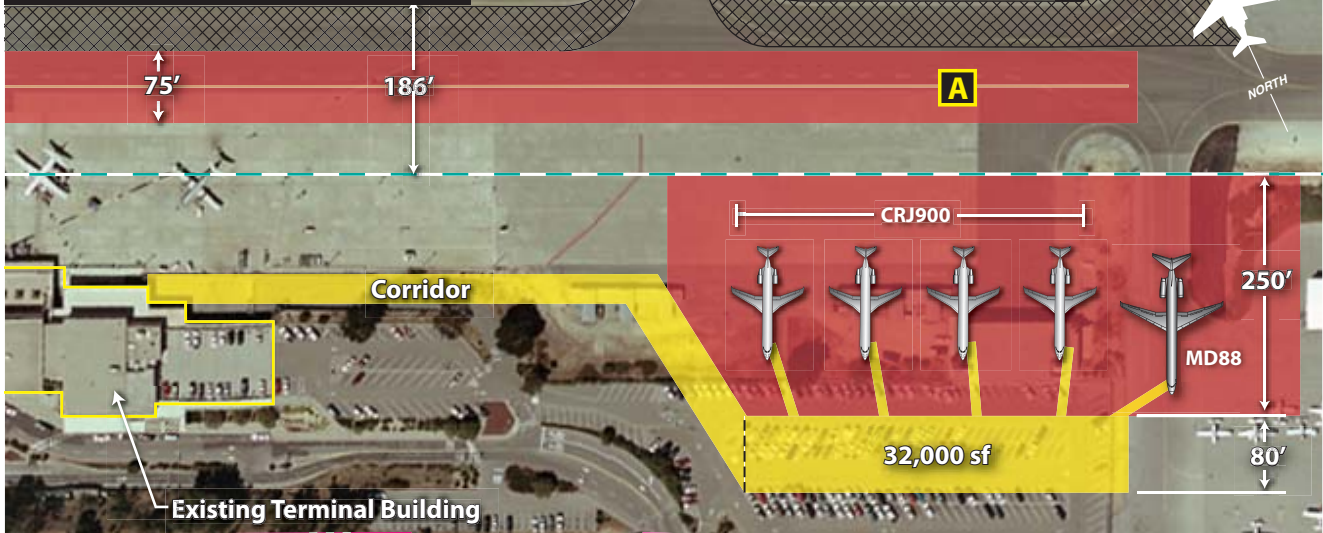
Relocation of the Passenger Terminal to the North. An alternative that would relocate the existing terminal to the north side of the airfield was also evaluated. Shifting the commercial passenger activity to the north side of the airfield would mean a substantial increase in crossings of both runways as there is not a full parallel taxiway on the north side. In addition, the existing north side taxiway infrastructure is not designed to handle frequent movements by heavier commercial service aircraft. Extensive grading and associated biological impacts would need to occur to provide enough buildable area to accommodate a new passenger terminal, apron, and vehicular parking. Therefore, this alternative terminal location is not considered to be a feasible alternative. It would result in high impacts when compared to other alternatives related to adverse impacts on airport operations, amount of earthwork and other construction impacts, and costs.

Relocation of the Passenger Terminal to the Southeast GA Ramp (Proposed Action). This alternative layout for the passenger terminal complex provides for an approximately 100,000-sf, two-level terminal building on the southeast GA ramp (Section 1.3.5, Exhibit 1E). A surface parking lot would be constructed south of the terminal within a terminal loop road. A ready-return lot for rental cars and a surface parking lot in the general location of the current existing terminal building and parking lots are also included. The new apron would abut Taxiway “A”

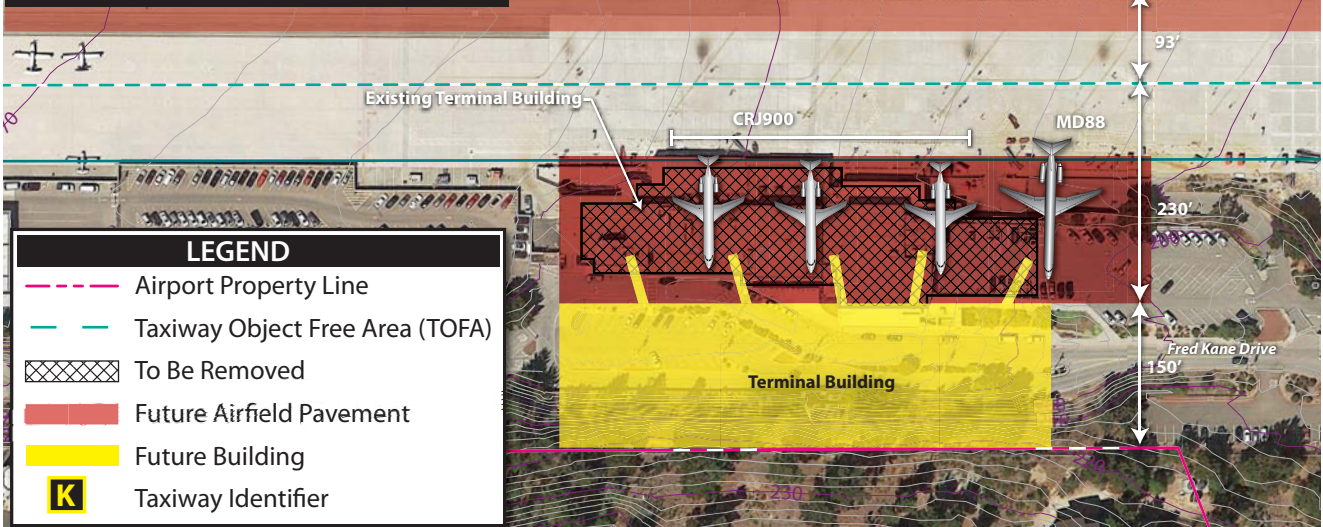
TERMINAL EXPANSION WEST



TERMINAL EXPANSION EAST



SOUTH TERMINAL RELOCATION



LEGEND

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

directly, which provides enough room for the aircraft to park perpendicular to the terminal and allows more flexibility for parking “remain overnight” (RON) operations.⁴ To avoid direct access from the apron to the runway, Taxiway “K” would be removed south of Runway 10R-28L or remarked with an island.

This alternative is preferred for several reasons. While costs and impacts are moderate when compared to the other alternatives considered, this alternative has the added benefit of consolidating the GA on the north side of the airfield. In addition, the Proposed Action would relocate the ARFF out of the Part 77 obstruction area for Runway 10R-28L and away from the congested activity on the south side of the airfield. This alternative has been retained for further analysis in this EA as a part of the Proposed Action.

2.6 ALTERNATIVES ELIMINATED FROM FURTHER CONSIDERATION

Based on the information in Section 2.4, the following alternatives have been eliminated from further consideration. The details of that evaluation are also summarized in **Table 2A**:

1. Relocating the hold lines on Taxiways “G” through “K” to the required standard of 250 feet without an accompanying Taxiway “A” shift; and
2. Shifting Taxiway “A” to 400 feet from Runway 10R-28L, centerline to centerline, along the entire taxiway length.

These alternatives would create additional operational and safety issues for the Airport by blocking the use of Taxiway “A” when aircraft are holding, or by creating penetrations of the taxiway OFA and adversely affecting the existing south FBO areas, respectively. They also would not improve terminal efficiency for the recent volume of passengers using the terminal prior to the reduction in passenger volume associated with the COVID-19 public health emergency or provide for increases in the number of passengers using the terminal in the future. Since these alternatives do not meet the stated purpose and need for the project, they are not considered reasonable alternatives.

Some alternatives to specific project components of the Proposed Action (i.e., shifting part of Taxiway “A” 327.5 feet) have also been eliminated from further consideration, as detailed in Section 2.5 and **Table 2B**. The following project components have a High potential to result in a “YES” to at least one of the “feasibility” criterion questions and are therefore not considered feasible alternatives:

- Relocating the southeast GA tenants to an undeveloped 3.6-acre parcel located south of the airfield
- New northeasterly or southeasterly connections for a “north side” road
- New westerly connections for a “north side” road
- Southerly connection for a “north side” road
- South side locations for the ARFF building relocations
- Passenger terminal expansion to the east or west
- Passenger terminal relocation to the south
- Passenger terminal relocation north of the airfield

⁴ Preliminary engineering for the commercial apron indicated that changes to the originally proposed commercial apron were needed to allow aircraft to access the new terminal (KHA 2018). The original AMP concept resulted in an apron that was not deep enough for large commercial aircraft to taxi from Taxiway “A” via the stub taxiways and park perpendicular to the terminal gates.

2.7 ALTERNATIVES CARRIED FORWARD FOR FURTHER ANALYSIS

In contrast to the alternatives identified in Section 2.5, the following alternative is being carried forward for further analysis within this EA:

- Proposed Action Alternative - Shift 1,850 Linear Feet of Taxiway “A” (between Taxiways “F” and “K”) 52.5 Feet South and Replace Existing Passenger Terminal Alternative. This alternative would allow the relocation of hold lines on connector taxiways to the required standard of 250 feet and would provide enough taxiway-runway separation to ensure that the larger aircraft using Taxiway “A” do not penetrate the RSA with their wings. This alternative encompasses the following additional project components: construction of additional apron/taxilane pavement at the north GA ramp; relocation of GA tenants from the southeast ramp to the north side; construction of an on-airport northeast service road improvement to connect the north and south sides of the Airport for service vehicles; construction of a new ARFF building and on airfield ARFF service road; construction of a passenger terminal with a commercial apron that abuts Taxiway “A”; construction of associated terminal access roads, vehicular parking lots, and a roundabout at the intersection of Olmsted and Garden roads; and demolition of the existing ARFF and passenger terminal buildings. The relocated GA area and ARFF building would be accessed by the existing Airport Road on the northwest side of the Airport for all public access. This alternative is evaluated in detail.
- No Action Alternative. Although the No Action alternative does not meet the purpose and need considerations for the project, it is retained per 40 C.F.R. §1502.14(c) to provide a reference point upon which the impacts of the Proposed Action can be compared.

2.8 AIRPORT SPONSOR’S PREFERRED ALTERNATIVE

The Sponsor’s preferred alternative is the Proposed Action. As previously described in Section 1.3, it includes a series of tasks intended to carry out an airport safety enhancement project consisting of a southerly shift of 1,850 lf of Taxiway “A” a distance of 52.5 feet to increase the runway/taxiway centerline to centerline separation. Several building demolitions and relocations are necessary to accomplish the taxiway shift. The project components would occur over approximately nine years in the order listed below (Section 1.3, Exhibit 1C):

- Phase 1 (Years 1-3): Construct the necessary pavement and infrastructure to relocate approximately 44 GA tenants, including approximately 205,000 sf of new apron/taxilane pavement, 90,500 sf of T-hangar, box hangar, and executive hangar space, and buildable hangar pads that could accommodate an additional 35,500 sf of hangar space for a total replacement of 126,000 sf of hangar space from the southeast part of the Airport to north of the airfield. Approximately 41,500 sf of pavement would also be provided for vehicular access and parking with a net increase of seven parking spaces. Concurrent with the site preparation for the north side GA area, build improvements on an approximately 24-foot-wide, 1,600-foot-long airport vehicle service road from the existing east vehicle service road to the terminus of Airport Road at the north GA apron to provide a construction haul route for the Proposed Action and a service road to the north GA area from both sides of the Airport.
- Phase 2 (Years 4-7): Construct a permanent ARFF building in the general location of the existing Navy Flying Club buildings. Construct an approximately 12-foot-wide, 630-foot-long (on airfield) ARFF service road from the edge of the GA apron to Runway 10R-28L to provide acceptable response times from the ARFF building to the mid-point of the runway. Demolish or relocate the southeast GA facilities. Demolish ARFF building and long-term parking area. Construct new passenger terminal complex (including apron, terminal entrance loop road and roundabout, and vehicular parking lots). Close Taxiway “K” between Runway 10R-28L and Taxiway “A.”

- Phase 3 (Year 8): 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.” Demolish the existing terminal building.
- Phase 4 (Year 9): Construct a surface parking lot in the general location of the current existing terminal building along with a minor realignment of Fred Kane Drive to replace automobile parking removed by the terminal relocation and provide additional parking.

2.9 PERMITS REQUIRED

The following permits and evaluations will be required to implement the Proposed Action:

- A General Construction permit under the National Pollutant Discharge Elimination Program (NPDES) will be required per the *Clean Water Act* (CWA). For California, this program is administered by the State Water Resources Control Board (SWRCB). Additionally, compliance with the Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region will be required by the SWRCB.
- City of Monterey approval of construction for areas within its land use control (for example, public roadway improvements).
- A County of Monterey Health Department permit for relocation of a fuel storage tank.
- California Department of Transportation (Caltrans) approval of a construction and safety plan for the use of Highway 68 during construction.
- Monterey Peninsula Water Management District approval of water credit applications and/or transfers.
- Permits for utility hook-ups and/or upgrades from utility providers.
- Federal *Endangered Species Act*, Section 7, consultation for impacts of the project on federally listed threatened and endangered species, and United States Fish and Wildlife Service and/or California Department of Fish and Wildlife permits for take or other impacts to protected biological resources.

2.10 FEDERAL LAWS AND REGULATIONS CONSIDERED

Table 2C includes a list of federal statutes, executive orders, regulations, FAA and federal Department of Transportation (DOT) orders, and FAA advisory circulars considered in the development of the alternative evaluation and the preparation of this EA.

TABLE 2C

**List of Applicable Federal Laws and Regulations
Monterey Regional Airport**

Federal Laws and Statutes

<i>Airport and Airway Improvement Act of 1982, as amended (P.L. 97-248; 43 C.F.R. §2640)</i>
<i>Airport and Airway Revenue Act of 1987 (P.L. 100-223, Title IV)</i>
<i>Archaeological and Historic Data Preservation Act of 1974 (P.L. 93-291, 16 U.S.C. §469)</i>
<i>Aviation Safety and Capacity Expansion Act of 1990 (P.L. 101-508, as amended)</i>
<i>Aviation Safety and Noise Abatement Act of 1979 (P.L. 96-193; 49 U.S.C. App. 2101)</i>
<i>Bald and Golden Eagle Protection Act, (16 U.S.C. §668 et seq.)</i>
<i>Clean Air Act of 1977 (as amended) (42 U.S.C. §§7409 et seq.)</i>
<i>Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. §9601; P.L. 96-510)</i>
<i>Endangered Species Act of 1973 (P.L. 85-624; 16 U.S.C. §§661, 664 note, 1008 note)</i>
<i>FAA Modernization and Reform Act of 2012 (P.L. 112-95)</i>
<i>Farmland Protection Policy Act (P.L. 97-98; 7 C.F.R. Part 658)</i>
<i>Federal Water Pollution Control Act Amendments for 1972, Section 404 (33 U.S.C. §1344; P.L. 92-500), as amended by the Clean Water Act of 1977 (33 U.S.C. §1251; P.L. 95-217)</i>
<i>Hazardous Material Transportation Act (49 U.S.C. §§5101-5128)</i>
<i>Migratory Bird Treaty Act (16 U.S.C. §703 et seq.)</i>
<i>National Environmental Policy Act of 1969 (NEPA) (P.L. 91-190; 42 U.S.C. §§4321 et seq.)</i>
<i>National Historic Preservation Act of 1966, Section 106, (16 U.S.C. §470[f]; P.L. 89-665)</i>
<i>Noise Control Act of 1972 (P.L. 92-574; 42 U.S.C. §4901)</i>
<i>Pollution Prevention Act (42 U.S.C. §§13101-13109)</i>
<i>Resource Conservation and Recovery Act of 1976 (42 U.S.C. §§6901, et seq.; P.L. 94-580, as amended by the Solid Waste Disposal Act of 1980 [P.L. 96-482]; and the 1984 Hazardous and Solid Waste Amendments [P.L. 98-616]</i>
<i>Subtitle VII, Title 49, U.S.C. – “Aviation Programs” (§§40101 et seq.) recodified from, and formerly known as, the “Federal Aviation Act of 1958” as amended (P.L. 85-726)</i>
<i>Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. §§2000d-2000d-7)</i>
<i>Toxic Substances Control Act (15 U.S.C. §§2601-2697)</i>
<i>Transportation, Treasury, Housing and Urban Development, The Judiciary, The District of Columbia, and Independent Agencies Appropriations Act of 2006 (P.L. 109-115)</i>
<i>U.S. Department of Transportation Act of 1966 – Section 4(f) (as amended by 49 U.S.C. §303, Policy on lands, wildlife and waterfowl refuges, and historic sites [P.L. 97-449])</i>
<i>7 C.F.R. part 657 (43 FR 4030, January 31, 1978), Prime and Unique Farmlands</i>
<i>14 C.F.R. part 150, Airport Noise Compatibility Planning</i>
<i>14 C.F.R. part 151, Federal Aid to Airport</i>
<i>14 C.F.R. part 152, Airport Aid Program</i>
<i>28 C.F.R. §§42.401 et seq., Coordination of Enforcement of Non-discrimination in Federally Assisted Programs</i>
<i>36 C.F.R. part 800 (39 FR 3365, January 25, 1974, and 51 FR 31115, September 2, 1986), Protection of Historic Properties</i>
<i>40 C.F.R. parts 6, 9, 50-53, 60, 61, 63, 66, 67, 81, 82, and 93</i>
<i>40 C.F.R. parts 240-299</i>
<i>40 C.F.R. parts 300, 311, 355, 370, and 373</i>
<i>40 C.F.R. parts 745, 761, and 763</i>
<i>40 C.F.R. parts 1500-1508, CEQ implementation of NEPA procedural provisions, establishes uniform procedures, terminology, and standards for implementing the procedural requirements of NEPA’s section 102(2)</i>
<i>49 C.F.R. part 24 (March 2, 1989), Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally Assisted Programs</i>
<i>49 C.F.R. parts 100-185</i>
<i>50 C.F.R. part 17, Endangered and Threatened Wildlife and Plants</i>
<i>50 C.F.R. part 21, Migratory Bird Permits</i>
<i>50 C.F.R. part 22, Eagle Permits</i>
<i>50 C.F.R. part 402, Interagency Cooperation - Endangered Species Act of 1973, as amended</i>

TABLE 2C (Continued) List of Applicable Federal Laws and Regulations Monterey Regional Airport
Executive Orders
Executive Order 11514, <i>Protection and Enhancement of Environmental Quality</i> (dated March 4, 1970)
Executive Order 11593, <i>Protection and Enhancement of the Cultural Environment</i> (dated May 13, 1971)
Executive Order 12088, <i>Federal Compliance with Pollution Control Standards</i> (43 FR 47707) (October 13, 1978)
Executive Order 12898, <i>Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations</i>
Executive Order 13045, <i>Protection of Children from Environmental Health Risks and Safety Risks</i> (62 FR 19883)
Executive Order 13112, <i>Invasive Species</i>
Executive Order 13175, <i>Consultation and Coordination with Indian Tribal Governments</i> (65 FR 67249) (November 9, 2000)
Executive Order 13186, <i>Responsibilities of Federal Agencies to Protect Migratory Birds</i> (66 FR 3853) (January 17, 2001)
Executive Order 13423, <i>Strengthening Federal Environmental, Energy, and Transportation Management</i> (72 FR 3919) (January 24, 2007)
DOT and FAA Orders
DOT Order 5301.1, <i>Department of Transportation Programs, Policies, and Procedures Affecting American Indians, Alaskan Natives, and Tribes</i> (November 16, 1999)
DOT Order 5610.2A, <i>Environmental Justice</i> (77 FR 27534)
DOT Order 5650.1, <i>Protection and Enhancement of the Cultural Environment</i> (November 20, 1972)
FAA Order 1050.1F, <i>Environmental Impacts: Policies and Procedures</i>
FAA Order 1210.20, <i>American Indian and Alaskan Native Tribal Consultation Policy and Procedures</i> (January 28, 2004)
FAA Order 5050.4B, <i>National Environmental Policy Act Implementing Instructions for Airport Actions</i>
FAA Order 5100.38D, <i>Airport Improvement Program (AIP) Handbook</i>
FAA Advisory Circulars
AC 150/5020-1, <i>Noise Control and Compatibility Planning for Airports</i>
AC 150/5210-15A, <i>Aircraft Rescue and Firefighting Station Building Design</i>
AC 150/5300-13A, <i>Airport Design</i>
AC 150/5320-6F, <i>Airport Pavement Design and Evaluation</i>
AC 150/5370-10H, <i>Standards for Specifying Construction of Airports</i>
AC - Advisory Circular CEQ - Council on Environmental Quality C.F.R. - Code of Federal Regulations DOT - U.S. Department of Transportation FAA - Federal Aviation Administration FR - <i>Federal Register</i> NEPA - <i>National Environmental Policy Act</i> P.L. - Public Law U.S.C. - United States Code

Chapter Three

AFFECTED ENVIRONMENT

3.1 INTRODUCTION

The purpose of this chapter is to describe the existing environment at Monterey Regional Airport (MRY or Airport) and its environs as it relates to the Proposed Action. Per Federal Aviation Administration (FAA) Order 1050.1F, paragraph 6-2.1e and FAA Order 5050.4B, paragraph 706 (e), this chapter will be “no longer than is necessary to understand the impacts of the alternatives; data and analyses should be presented in detail commensurate with the importance of the impact.”

3.1.1 Environmental Resource Categories Not Affected

The following environmental resources are not located in areas that will be affected by the Proposed Action:

- **Coastal Resources:** The California Coastal Zone is more than 0.5 mile to the north and west of the project area (west of the intersection of Fremont Street and Highway 218) (City of Monterey website 2018). The Coastal Zone ranges from less than 0.25 mile to approximately 1.0 mile from the shoreline in the City of Monterey and is approximately 0.35 mile from the Airport at its closest point (northwest corner in the vicinity of Aviation Lane). Monterey Bay is approximately one mile from the Airport, with a dedicated National Marine Sanctuary – Monterey Bay National Marine Sanctuary located 1.2 miles to the west of the Airport.
- **Farmlands:** No portion of the Airport or adjacent lands are used for agricultural purposes. According to the United States (U.S.) Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS), the Airport is primarily comprised of Baywood sand and Dune land, both of which are classified as “Not prime farmland” (USDA-NRCS 2017). A small section of Arnold loamy sand, which is classified as “Farmland of statewide importance,” is in the vicinity of Taxiway “A” and connector Taxiway “J.” However, the Airport is located within a U.S. Census Urban Area (U.S. Department of Commerce, Census Bureau 2017). As defined in Title 7 Code of Federal Regulations (C.F.R.) §658.2, urbanized areas as designated on U.S. Census Bureau maps do not meet the definition of farmland.
- **Floodplains:** The majority of the Airport, including the study area for the Proposed Action and alternatives is outside of the 100-year floodplain (Federal Emergency Management Agency [FEMA], Flood Insurance Rate Map Number 06053C0329G, effective date April 2, 2009). The only area of the Airport that is located within a mapped 100-year floodplain (Zone AO, Special Flood Hazard Areas Subject to Inundation by the 1% Annual Chance Flood) is the extreme southeastern corner of the Airport at the junction of Highways 68 and 218. This area is outside of the area where the Proposed Action or alternatives to the Proposed Action would be implemented.
- **Wetlands:** Based on biological resources research and surveys conducted in 2016, 2017, and 2018 as part of the adopted Airport Master Plan, there are no natural wetlands on the Airport that meet the U.S. Corps of Engineers 3-parameter test: hydric soils; wetland hydrology; and wetland vegetation (SWCA 2018b). For a discussion of man-made drainage features, see Section 3.3.12.1.

- **Wild and Scenic Rivers:** There are no Wild and Scenic Rivers on the Airport or in the watersheds surrounding the Airport. The nearest Wild and Scenic River is the Big Sur River, which is approximately 23 miles south of the Airport and flows into the Pacific Ocean.

3.2 PROJECT STUDY AREAS

The study area for direct project impacts (i.e., the project study area) encompasses areas within and outside the Air Operations Area (AOA) of the Airport on both the north and south sides of the airfield. It also includes stockpile/disposal sites proposed on the north side of the Airport and the east vehicle service road and other on-airport dirt roads that may be used to transfer material from the south side of the Airport to the north (**Exhibit 3A**).

The study area for indirect impacts is different for each of the various impact categories. For example, for indirect impacts such as vehicular traffic, the study area includes the immediately adjacent off-airport street system, while construction dust could affect existing off-airport properties along Garden Road, Rosita Road, and Del Rey Gardens Drive that abut airport property. These neighboring land uses are identified on **Exhibit 3A** as well. Other indirect impacts could be more widespread, such as regional air quality impacts, which are discussed in the context of the North Central Coast Air Basin (NCCAB).

The study areas used to assess potential cumulative impacts are dependent on the resource category under evaluation and are the same areas as are defined for the direct and indirect study areas. This chapter describes the affected environment where the Proposed Action would occur if implemented.

3.3 ENVIRONMENTAL RESOURCE CATEGORIES

3.3.1 Air Quality

Under the *Clean Air Act*, the U.S. Environmental Protection Agency (U.S. EPA) has established National Ambient Air Quality Standards (NAAQS) based on health risks for six pollutants: carbon monoxide (CO); nitrogen dioxide (NO₂); sulfur dioxide (SO₂); lead (Pb); ozone (O₃); and two sizes of particulate matter (PM), coarse dust particles greater than 2.5 micrometers and less than 10 micrometers in diameter (PM₁₀) and 2.5 micrometers or less in diameter (PM_{2.5}) (**Exhibit 3B**). An area with ambient air concentrations exceeding the NAAQS for a criteria pollutant is said to be a nonattainment area for the pollutant's NAAQS, while an area where ambient concentrations are below the NAAQS is considered an attainment area. The U.S. EPA requires that areas designated as nonattainment demonstrate how they will attain the NAAQS by an established deadline. According to U.S. EPA's *Green Book*, as of the date of this EA, Monterey County (County) is in attainment for all NAAQS (U.S. EPA 2018a).

In addition to the NAAQS, the California Air Resources Board (CARB) has promulgated ambient air quality standards that are more stringent than the NAAQS (**Exhibit 3B**). The Airport is in the NCCAB, which is currently designated as nonattainment-transitional for the State of California's (state) O₃ standard and nonattainment for the state's PM₁₀ standard (CARB 2017). The Monterey Bay Air Resources District (MBARD) 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 Airport does not currently operate under any MBARD permits. However, MBARD Rule 200 requires any business or person to obtain an Authority to Construct and Permit to Operate before installing or operating new equipment or processes that release or control air pollutants to ensure that all MBARD rules and regulations are considered.

There are three air pollutant monitoring stations in Monterey County. Their locations relative to the project study area and a tabulation of pertinent recent monitoring data are provided in **Table 3A**.



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Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards ¹		National Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Ozone (O ₃) ⁸	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)		
Respirable Particulate Matter (PM ₁₀) ⁹	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³		—		
Fine Particulate Matter (PM _{2.5}) ⁹	24 Hour	—	—	35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12.0 µg/m ³	15 µg/m ³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m ³)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m ³)		9 ppm (10 mg/m ³)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		—	—	
Nitrogen Dioxide (NO ₂) ¹⁰	1 Hour	0.18 ppm (339 µg/m ³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m ³)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		0.053 ppm (100 µg/m ³)	Same as Primary Standard	
Sulfur Dioxide (SO ₂) ¹¹	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 µg/m ³)	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m ³)	
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas) ¹¹	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) ¹¹	—	
Lead ^{12,13}	30 Day Average	1.5 µg/m ³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m ³ (for certain areas) ¹²	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m ³		
Visibility Reducing Particles ¹⁴	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m ³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence			
Vinyl Chloride ¹²	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography			

Source: California Air Resources Board 2016

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM_{2.5} primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour PM_{2.5} standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM₁₀ standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
 Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

For more information please call ARB-PIO at (916) 322-2990

California Air Resources Board (5/4/16)

TABLE 3A
Local Monitoring Station Data

Monitoring Station Name	Monitoring Station Number	Location	Distance from Project Study Area	Pollutant Standard	Arithmetic Mean		
					2016	2017	2018
Carmel Valley	6-53-2	35 Ford Road Carmel Valley Village, CA	10 miles southeast	PM _{2.5} (µg/m ³)	6.76	5.23	5.75
				O ₃ (ppm)	0.03	0.04	0.03
King City	6-53-8	415 Pearl Street King City, CA	47 miles southeast	PM _{2.5} (µg/m ³)	5.28	6.46	7.19
				PM ₁₀ (µg/m ³)	25.67	29.06	28.7
				O ₃ (ppm)	0.04	0.04	0.04
Salinas	6-53-1003	867 E. Laurel Dr. Salinas, CA	14.6 miles northeast	PM _{2.5} (µg/m ³)	5.38	5.09	4.06
				O ₃ (ppm)	0.03	0.03	0.03
				NO _x (ppb)	6.05	5.70	5.49

Source: U.S. EPA 2016, 2017, 2018. Air Data: Air Quality Data Collected at Outdoor Monitors Across the U.S. - Annual Summary Data. Available at: https://aqs.epa.gov/aqsweb/airdata/download_files.html#Annual, accessed August 2019.
µg/m³ = micrograms/cubic meter; ppm = parts per million; NO_x = oxides of nitrogen; ppb = parts per billion

Topography and Meteorology

The NCCAB encompasses the central California coastal counties of Monterey, Santa Cruz, and San Benito, and is bounded by the Santa Cruz Mountains to the northwest, the Gabilan Mountains to the west, and the Diablo Mountains to the northeast. Average temperatures in the Monterey area range from approximately 43 to 71 degrees Fahrenheit with maxima occurring in August and September. Precipitation is concentrated during the winter and spring months and can total as much as four inches per month, while summer months typically experience much less rainfall. Overall, the area receives approximately 20 inches of rain on average per year.

Summertime atmospheric circulation is controlled by the Pacific high-pressure system in the eastern Pacific Ocean, which typically causes a temperature inversion in the NCCAB that restricts vertical air mixing and draws onshore air currents into the area from the west and northwest. The nearby mountain ranges also intensify the onshore currents both by channeling air flow and creating low pressure systems in the afternoon and evening as landmasses cool. Onshore air movement is dampened in the fall. Instead, the area experiences more frequent stationary air masses and occasional offshore currents, which facilitate air pollutant transport from the San Francisco Bay and Central Valley to the north and east. The influence of the Pacific High increases the persistence of these air pollutants at ground level during the fall until the pressure system migrates southward during the winter and spring, allowing for fewer temperature inversions to restrict air circulation, as well as a reduction in ambient pollutant concentrations in the NCCAB.

3.3.2 Biological Resources

The Airport contains several species of sensitive plants and plant communities, including maritime chaparral, coast live oak woodland, and Monterey pine forest. Topography on the Airport is nearly flat in areas directly adjacent to the runway but slopes steeply at the western and eastern ends creating a plateau. On the north side of the airfield, topography is more varied with several hills and drainages.

In support of this EA, numerous biological field surveys were conducted during a variety of seasons to account for the various blooming seasons of rare plants with potential to occur within the project study area. **Exhibit 3C** shows the mapped existing habitat within an approximate 160-acre biological study area (BSA), which also includes the "Action area" for purposes of the *Endangered Species Act*, Section 7, consultation. Prior to conducting a site visit, a literature review was performed to identify target species. Following the field surveys, a *Biological Assessment*

for the Monterey Regional Airport Safety Enhancement Project for Taxiway “A” Relocation and Associated Building Relocations, Monterey County, California (Biological Assessment) (SWCA 2018a), which includes the literature and survey methodology and results, was then prepared. FAA and United States Fish and Wildlife Service (USFWS) correspondence regarding the Biological Assessment (and resultant Biological Opinion) is included in **Appendix C** of this EA. There is no federally designated critical habitat within the BSA nor is any present anywhere on the Airport.

Habitats occurring within the BSA include the following:

- **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 (*Chorizanthe pungens*), 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.”
- **Monterey Pine Forest (*Pinus radiata* forest).** Monterey pine forest includes Monterey pine (*Pinus radiata*) trees 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 areas along the southern airport property boundary. It includes coast live oak (*Quercus agrifolia*) and a few landscape trees as subdominants in the tree canopy, creating a *Pinus radiata/Quercus agrifolia* association in parts of the Airport. The shrub layer varies from landscape and ruderal species near the existing passenger terminal and vehicular parking, to nonnative grassland adjacent to Highway 68, to dense maritime chaparral in and near an adjacent 5.5-acre off-airport parcel. Numerous occurrences of Yadon’s piperia (*Piperia yadonii*) are in the Monterey pine forest on the south side of the Airport.
- **Sandmat Manzanita Chaparral (*Arctostaphylos pumila* shrubland).** 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 the City of Monterey and Fort Ord. On the Airport, this community includes mixed stands with woollyleaf manzanita (*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, woollyleaf manzanita, and bristly twig manzanita (*A. t. ssp. 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*).
- **Coast Live Oak Woodland (*Quercus agrifolia* woodland).** Coast live oak woodlands feature coast live oak 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 northern, eastern, and southern portions of the property.



- Biological Study Area
- Airport Property Line
- Habitats**
- Arctostaphylos Pumila Shrubland
- Baccharis Pilularis Shrubland
- Pinus Radiata Forest
- Pinus radiata / Quercus agrifolia
- Quercus agrifolia / Toxicodendron diversilobum
- Salix Lasiolepis Shrubland
- Ruderal
- Ruderal with Remnant Native Shrubs/Trees

0 250 500 1,000 Feet



1:5,200

Source: SWCA updated 2020

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This community intergrades with the Monterey pine forest, sandmat manzanita chaparral, and other communities. The community on the Airport has a shrub layer that includes poison oak (*Toxicodendron diversilobum*), California blackberry (*Rubus ursinus*), woollyleaf manzanita, Monterey ceanothus (*Ceanothus cuneatus* var. *rigidus*), Toro manzanita (*Arctostaphylos montereyensis*), 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*).

- Coyote Brush Scrub (*Baccharis pilularis* shrubland). 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 BSA. The surrounding habitats include sandmat manzanita chaparral and ruderal areas. Based on the surroundings, the area supporting coyote brush shrubland was likely subject to past clearing and probably supported chaparral or coastal scrub associates prior to the disturbance. Other native plants found in the coyote brush shrubland include mock heather, California sage, and sand scrub ceanothus (*Ceanothus dentatus*).
- Arroyo Willow Thickets (*Salix lasiolepis* shrubland). 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 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 northern 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.

Special-status plant and animal species evaluated for potential occurrence are listed in Tables 1 and 2 of the Biological Assessment; a listing of all plant and wildlife species observed during the field surveys are also included (Tables C-1 and C-2). Two plant species listed under the federal *Endangered Species Act* (ESA) are present within the BSA. No federally listed wildlife species are present within the BSA. The two plant species present within the BSA are the Monterey spineflower, which is listed as federally threatened, and Yadon's piperia, which is listed as federally endangered.

- Monterey Spineflower. Monterey spineflower is an annual herb that occurs at elevations ranging from 3 to 450 meters in openings among chaparral, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland on sandy soils. The openings in the Monterey pine forest and maritime chaparral in the BSA provide good habitat for this species, and numerous occurrences of Monterey spineflower were observed.
- Yadon's piperia. Yadon's piperia is a perennial herb that primarily occurs at elevations ranging from 10 to 510 meters in Monterey pine forests with sparse understories, or maritime chaparral with sandstone substrates and Hooker's manzanita (*Arctostaphylos hookeri*) (USFWS 1998). The California Native Plant Society (CNPS) also reports some occurrences in coastal bluff scrub. Numerous Yadon's piperia are located on the southern portion of the Airport. Yadon's piperia occurrences observed in the BSA are largely concentrated in the Monterey pine forest, which includes maritime chaparral associates and nonnative vegetation.

The distribution of Monterey spineflower and Yadon's piperia within the BSA is shown on **Exhibit 3D**.

The Airport also provides suitable habitat for nesting birds protected by the *Migratory Bird Treaty Act*. A variety of bird species may use the trees and shrubs within the BSA for nesting or 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 BSA.

3.3.3 Climate

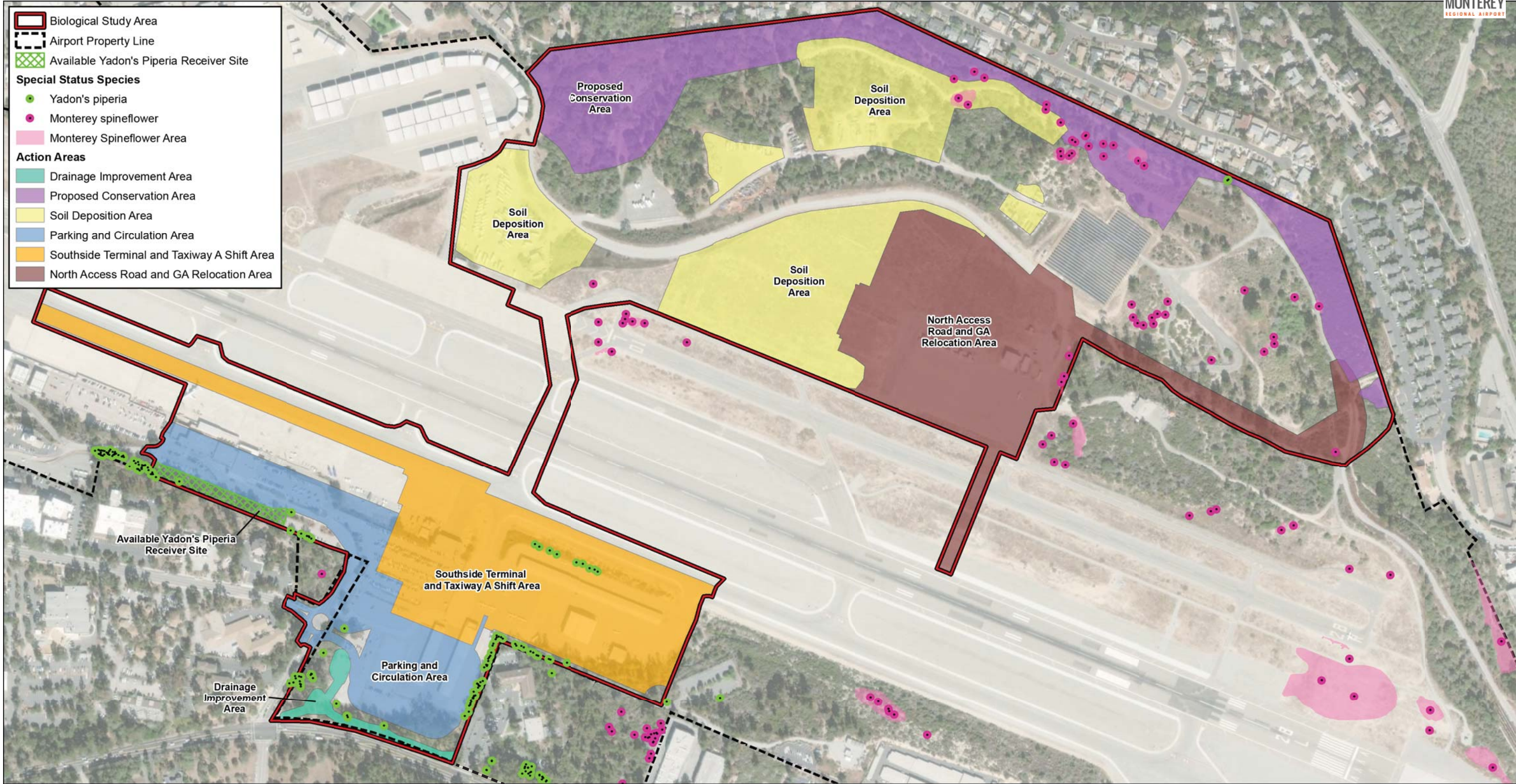
The affected environmental study area for Climate for this project is the North Central Coast Air Basin, which is described in Section 3.3.1, Air Quality. Scientific measurements show that Earth's climate is warming, with concurrent impacts, including warmer air temperatures, increased sea level rise, increased storm activity, and an increased intensity in precipitation events. Increasing concentrations of greenhouse gases (GHGs) in the atmosphere affect global climate (International Panel on Climate Change [IPCC] 2014; U.S. Global Change Research Program 2009); this climate change due to GHG emissions, while a global phenomenon, can also have local impacts.¹

Research has also shown that there is a direct correlation between fuel combustion and GHG emissions. GHGs from anthropogenic (man-made) sources include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). CO₂ is the most important anthropogenic GHG because it is a long-lived gas that remains in the atmosphere for up to 100 years.

The IPCC estimates that aviation accounts for 4.1 percent of global transportation GHG emissions. U.S. EPA data indicates that commercial aviation contributed 6.6 percent of total U.S. CO₂ emissions in 2013, compared with other sources, including the remainder of the transportation sector (20.7 percent), industry (28.2 percent), commercial (16.9 percent), residential (16.9 percent), agricultural (9.7 percent), and U.S. territories (0.05 percent) (U.S. EPA 2015). Scientific research is ongoing to better understand climate change, including any incremental atmospheric impacts that may be caused by aviation.

The *National Environmental Policy Act* (NEPA) requires federal agencies to consider the environmental impacts of proposed major federal actions significantly affecting the quality of the human environment. On March 28, 2017, President Trump issued Executive Order (E.O.) 13783, "Promoting Energy Independence and Economic Growth," which directed the Council on Environmental Quality (CEQ) to rescind the final guidance issued August 5, 2016, titled "Final Guidance for Federal Departments and Agencies on Consideration of [GHG] Emissions and the Effects of Climate Change in [NEPA] Reviews." CEQ withdrew this guidance on April 5, 2017 for further consideration and on June 26, 2019, issued its draft guidance for public comment, titled "Draft National Environmental Policy Act Guidance on Consideration of GHG Emissions" (84 Federal Register [FR] 30097). The relevant portion of that new Draft Guidance states, "Analyses under NEPA should include a description of the affected environment to provide a basis for comparing the current and the reasonably foreseeable future state of the environment as affected by the proposed action and its reasonable alternatives. When relevant, agencies should consider whether the proposed action would be affected by foreseeable changes to the affected environment under a reasonable scenario. In accordance with NEPA's rule of reason and standards for obtaining information regarding reasonably foreseeable effects on the human environment, agencies need not undertake new research or analysis of potential changes to the affected environment in the proposed action area and may summarize and incorporate by reference appropriate scientific literature. (40 C.F.R. 1502.21 and 1502.24).

¹ As explained by the U.S. EPA, "greenhouse gases, once emitted, become well mixed in the atmosphere, meaning U.S. emissions can affect not only the U.S. population and environment but other regions of the world as well; likewise, emissions in other countries can affect the United States." U.S. EPA, Climate Change Division, Office of Atmospheric Programs, 2009.



0 250 500 1,000 Feet

1:5,200

Basemap by ESRI, 2018.

Monterey Spineflower and Yadon's Piperia Occurrences Map

Source: SWCA updated 2020

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3.3.4 Department of Transportation Act, Section 4(f)

Department of Transportation Act, Section 4(f) resources include public parks, recreation areas, wildlife refuges, and historic sites of national, state, or local interest. There are no known Section 4(f) resources located within the project study area; however, two Section 4(f) resources are in proximity (within 150 to 500 feet) to the closest project component (**Exhibit 3A**):

- Tarpý's Roadhouse Restaurant is eligible for the National Register of Historic Places (NRHP)² and is in the southeast corner of the Airport, approximately 150 feet from the east vehicle service road, which could be used as a haul road.
- Work Memorial Park is primarily unimproved and is adjacent to the Airport to the northwest within the City of Del Rey Oaks, approximately 500 feet from the closest proposed dirt stockpile/disposal sites. (There are tennis courts located approximately 0.3 mile from the closest proposed dirt stockpile/disposal sites.)

Other Section 4(f) resources (i.e., public parks/recreational facilities or nature preserves) are located within 0.5 mile of the project study area, but outside the project study area, and are listed below:

- Del Rey Park is outside of airport property and includes a baseball diamond, basketball court, and playground equipment. Del Rey Park is approximately 0.15 mile north of an on-airport berm, which is a proposed dirt disposal site.
- The Frog Pond Wetland Preserve is outside of airport property and includes hiking trails within an approximately 17-acre parcel. The Frog Pond Preserve is approximately 0.25 mile to the northeast of the on-airport berm.
- The Monterey Pines Golf Course is a public/military 18-hole regulation length golf course outside of the airport managed by the Navy. The Monterey Pines Golf Course is approximately 0.3 mile west of the closest portion of Taxiway "A" proposed to be remarked to shift its location 52.5 feet south.
- Casanova Oak Knoll Park is outside the airport boundary and approximately 0.4 mile west of the closest proposed dirt stockpile/disposal sites. Casanova Oak Knoll Park features open grass and playground equipment.

There are no lands conveyed to the Airport per the *Land and Water Conservation Fund Act of 1965*, Section 6(f), which provided funds for buying or developing public-use recreation lands.

²Tarpý's Roadhouse, formerly known as Rancho Saucito/Ryan House, was constructed between 1919 and 1925 on the southeastern portion of the airport property (prior to the development of the Airport). In 1994, Tarpý's Roadhouse was found eligible for the National Register of Historic Places at the local level of significance; in 1996, the California State Office of Historic Preservation stated its concurrence with this finding (Widell 1996). See Section 3.3.6 for more information.

3.3.5 Hazardous Materials, Solid Waste, and Pollution Prevention

3.3.5.1 Hazardous Materials

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, and is located more than five miles northeast of the Airport on the Fort Ord National Monument (U.S. EPA 2018b). In addition, the California Department of Toxic Substance Control (DTSC website 2018a [Cortese List]) does not list any sites at the Airport on the State of California environmental state's cleanup list.

Existing Fuel and Maintenance Activity

Airport activities involving the use of hazardous materials are associated with fueling, maintenance, and repair of aircraft and airport-related vehicles. Fuel storage facilities and businesses that handle hazardous materials located at the Airport are required to comply with all applicable regulations. Within the project study area, there are two fuel tanks, a 12,000-gallon aboveground aviation gasoline (AvGas) tank near the Navy Flying Club on the north side of the Airport and an 8,000-gallon aboveground AvGas tank in the southeast general aviation (GA) area. See also Section 3.3.8.1. The Airport also has an aircraft rescue and firefighting (ARFF) facility, which stores and uses hazardous materials (i.e., vehicle oil).

The Airport's current spill prevention, containment, and countermeasure (SPCC) plan, dated November 2017 and prepared in compliance with 40 C.F.R. 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.

On-site Groundwater Wells

The Airport is a former military base and there are five formerly contaminated U.S. Army Corps of Engineer (USACE) wells in the northwestern corner of the Airport outside the project study area. These wells have been remediated and are being considered by the Airport as a viable source of non-potable water to serve the Airport and/or other users (Allterra 2015). In 2013, the Central Coast Regional Water Quality Control Board (RWQCB) reviewed the USACE report entitled, "Feasibility Study -Trichloroethene and Petroleum Plumes, Naval Auxiliary Air Station Monterey, Formerly Used Defense Site, Monterey, CA (DERP-FUDS No. J09CA15002)" (USACE 2013). A Central Coast RWQCB letter regarding the report's findings states, "The Airport will take over ownership and responsibility of several TCE source area extraction and monitoring wells. (The monitoring wells may be converted into extraction wells.) The Water Board has no objection to the Airport's taking over these wells as water from these wells meets drinking water standards. The Airport will also have the standard responsibility of proper wells security, maintenance, and, if necessary, destruction." (Central Coast RWQCB 2013). Water from these wells has been or is being used to provide limited non-potable water for areas within the project study area.

On-site Buildings

The Proposed Action requires the demolition (or relocation) of several on-site buildings as listed below (**Table 3B**).

TABLE 3B
List of Buildings to be Demolished or Relocated

Building Inventory #	Description of Building	Year Built
110	Maintenance Hangar	Circa 2000
120	Fixed Base Operator (FBO) Maintenance	Circa 1975
124	Hangar	Post-1981
130	Hangar	Circa 1965
140	Hangar	Circa 1965
150	Public Safety Building (ARFF)	1977
200	Passenger Terminal Building	1949/1950
1600	Navy Flying Club (portable)	1962
P1-P6	Six Port-a-Port hangars (portable)	Circa 1976

Buildings constructed during the older time periods represented often included materials that can represent health hazards during demolition of the buildings, or if damaged, disturbed, or deteriorated. For example, asbestos is a naturally occurring mineral fiber that was commonly used in numerous building materials for its strength and ability to resist heat and corrosion until its adverse health effects, i.e., it is a known human carcinogen, were discovered. The potential for an asbestos-containing product to release breathable fibers depends largely on its degree of friability (i.e., Can it be crumbled with hand pressure?) (U.S. Department of Labor, Occupational Safety and Health Administration [OSHA] website 2019). When tested in 2004, several building materials in the existing passenger terminal building contained asbestos. Asbestos abatement work was performed in several areas in 2007; however, asbestos-containing materials still exist throughout the building (Hazard Management Services, Inc. 2004, 2007).

Lead-based paint becomes a hazard when it is directly ingested or when it deteriorates to the point of producing lead-contaminated dust. Older buildings are a common source of lead poisoning, which occurs when deteriorated lead-based paint flakes or forms a powder and subsequently enters the body through the skin or from breathing, eating, or drinking (Mayo Clinic website 2019). The painted structural components of the passenger terminal building were visually inspected for damaged and/or deteriorating lead paint conditions. Recommended abatement for lead-containing paint included training for any worker that could encounter the material, as well as proper lead work practices (Hazard Management Services, Inc. 2004; 2007).

3.3.5.2 Solid Waste

The Airport implements a trash recycling program. Solid waste disposal for the Monterey area is managed by the Monterey Regional Waste Management District (MRWMD). MRWMD's facilities are located two miles north of the City of Marina. The property includes a 315-acre permitted sanitary landfill (Monterey Peninsula Landfill [MPL]), as well as a materials recovery facility (MRF) (MRWMD website 2018). For any construction and demolition load that exceeds 10 cubic yards (cy) of capacity, prior approval from the MRWMD's Engineering Department must be received. Accepted construction and demolition waste include asphalt, drywall, concrete, brick, rock, roofing tile, and clean/uncontaminated soil. Construction loads cannot be contaminated with garbage or debris.

The MPL currently receives approximately 490,000 tons per year (an average of 1,300 tons per day) of municipal solid waste for disposal, with peak daily volumes of 3,500 tons (approximately 2,000 vehicle trips). 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 (MRWMD 2016).

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.), the closest hazardous waste

disposal facility is the Kettleman Hills Hazardous Waste Facility in Kettleman City, CA, located approximately 110 miles southeast of the Airport. The Kettleman Hills Hazardous Waste Facility accepts virtually all solid, semi-solid, and liquid hazardous and extremely hazardous wastes (California DTSC website 2018b). It has a remaining permitted capacity of 4.9 million cy and a project remaining life of 30+ years (Waste Management website 2019).

3.3.5.3 Pollution Prevention

The Central Coast RWQCB is the governing board for the Airport’s stormwater discharges per the requirements of a National Pollutant Discharge Elimination System (NPDES) Industrial General Permit (IGP). The Airport operates under Industrial General Stormwater Permit No. CAS000001, which requires it to: (1) eliminate unauthorized non-stormwater discharge; (2) develop and implement a stormwater pollution prevention plan (SWPPP); and (3) monitor its stormwater discharge.

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)³ set forth by the state’s IGP, even for the highest sampled values (**Table 3C**). This indicates that the best management practices (BMPs) implemented through the Airport’s SWPPP are effective in managing the stormwater per the IGP.

TABLE 3C
Stormwater Monitoring - Years 2015 through 2017
Monterey Regional Airport

Parameter	Numeric Action Level	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; Monterey Regional Airport 2015-2017.
pH = potential of Hydrogen; mg/L = milligrams per liter

3.3.6 Historical, Architectural, Archaeological, and Cultural Resources

In support of this EA, a cultural resource records search (2015) and intensive pedestrian field surveys were conducted in April 2017 and March 2018 to determine the presence or lack of cultural resources within the project’s

³ NALs are provided by the state’s IGP so that permit holders can gauge whether their stormwater program is effective in preventing pollutants from discharging in stormwater. While an NAL exceedance indicates that the BMPs being implemented are not effective in reducing pollutants, an NAL exceedance is not a violation of the IGP. NALs are commonly calculated as an average of all sample results.

Area of Potential Effect (APE) (see APE map in **Appendix E**, page E-15). An approximately 120-acre APE was established for the Proposed Action, which is congruent with the direct project impact area.⁴

The 2018 field survey identified a concrete foundation and associated concrete debris in the northern portion of the APE, 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/California Register of Historic Resources [CRHR] criterion, respectively), the foundation is a typical example of construction type and materials (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.

There are two principal themes of historic 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. 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). While a number of properties on the Airport are over 45 years of age, only one of its properties was determined eligible for listing on the NRHP: 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).

According to a letter from Cherilyn Widell, State Historic Preservation Officer, to Fred J. Hempel, Division Administrator, Federal Highway Administration, Division Nine, California Division, dated January 19, 1996, the Rancho Saucito/Ryan House was eligible for NRHP inclusion at the local level under Criterion C⁵ (36 C.F.R. §60.4) because it has maintained its integrity of exterior design, materials, and workmanship associated with its historic period of significance and is an excellent example of its building type.

All other buildings located at the Airport greater than 45 years of age did not meet the criteria for listing on the NRHP and were, therefore, determined ineligible for listing on the NRHP. In addition, none of these structures qualified as an individual landmark or as an historic district. This includes the existing passenger terminal building.

⁴ Areas within the APE were surveyed as part of a larger 177-acre survey conducted for the Airport Master Plan EIR. This larger study began in 2014 when staff at the Northwest Information Center, Sonoma State University, Rohnert Park, California, conducted a California Historical Resources Information System (CHRIS) records search covering the entire Airport, as well as land within 0.25 mile of the Airport. A supplemental records search was completed on October 22, 2015. Qualified archaeologists conducted intensive-level pedestrian surveys of the 177-acre survey area on April 26-28, 2017 and March 17-18, 2018 (SWCA 2018c). 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.

⁵ 36 C.F.R. §60.4, National Register Criterion C states that the district, site, building, structure or object must possess integrity of location, design, setting, materials, workmanship, feeling, and association and embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic value, or represent a significant and distinguishable entity whose components may lack individual distinction.

This lack of eligibility is primarily due to significant alterations and additions to the structures that have occurred over time. For example, the original passenger terminal building was constructed in 1950 and exhibited the “text-book 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.

3.3.7 Land Use

3.3.7.1 Existing Land Use

The project study area is developed primarily with airside and landside facilities of the Airport. However, the north side of the airfield is undeveloped or contains non-aviation, revenue-support development, such as a recreational vehicle (RV) storage lot. A solar farm is also on the north side of the Airport. The Airport is in an urbanized area; therefore, most land surrounding the Airport is developed, generally in accordance with the adopted land use plans and policies of the relevant local jurisdictions. The Airport has provided a Land Assurance letter specifying that appropriate action has been or will be taken, to the extent reasonable, to restrict the use of land next to or near the Airport to uses that are compatible with normal airport operations pursuant to Title 49 United States Code (U.S.C.) §47107(a)(10) (**Appendix D**).

Land uses in proximity to the Airport have been previously shown on **Exhibit 3A** and include the Monterey Pines Golf Course and the Naval Support Activity Monterey annex and government research complex (including the Fleet Numerical Meteorology and Oceanography Center [FNMOC], Naval Research Laboratory [NRL], and National Weather Service) to the west. The study area for Land Use is the airport property and immediately adjacent land uses. Residential neighborhoods are located to the northwest, north, and northeast within the cities of Monterey (the Casanova Oak Knoll neighborhood) and Del Rey Oaks (single-family homes off Rosita Road and The Oaks condominiums). Mixed uses, including commercial and light industrial development, are present along Garden Road, Del Rey Gardens Drive, and Highways 68 and 218. To the south of Highway 68 are single-family residential neighborhoods and open space located within Monterey County.

Noise-sensitive land uses in the general area around the Airport include places of worship, schools, and residential areas. Historic resources can also be considered noise-sensitive and are described in Sections 3.3.4 and 3.3.6. There are three residences, which have been sound-insulated, and no other types of noise-sensitive land uses, within the Airport’s existing (2015) 65-70 decibel (dB) Community Noise Equivalent Level (CNEL)⁶ noise exposure contours (Section 3.3.9).

3.3.7.2 Planned Future Land Use

Since most of the airport property is located within a special airport district, there are no general plan land use designations or local zoning ordinances over those areas. However, airport property adjacent to the north side of

⁶ The Day-Night Average Sound Level (DNL) accounts for the increased sensitivity to noise at night (10:00 PM to 7:00 AM) and is the metric preferred by FAA, the U.S. EPA, and the U.S. Department of Housing and Urban Development (HUD) as an appropriate measure of cumulative noise exposure. In California, however, these agencies accept the use of CNEL which, in addition to nighttime sensitivities, also accounts for increased sensitivities during the evening hours (7:00 PM to 10:00 PM).

Highway 68 was purchased by the Monterey Airport Peninsula District (MPAD or District) after the California legislature established the Airport's boundaries. These areas remain under the land use control of the City of Monterey (**Exhibit 3E**). The part of the project study area under the City of Monterey's land use control is located on the northeast corner of the Highway 68/Olmsted Road intersection and is designated as Industrial on its General Plan Land Use map (City of Monterey website 2018), and zoned I-R-130-D2 (Industrial, Administration, Research District – 130,000 sf minimum – Development Control Overlay District) (City of Monterey 2017). Other City of Monterey lands adjacent to the project study area are also zoned I-R-130-D2. The *City of Monterey General Plan* was adopted in 2005 and last revised in March 2016.

The City of Del Rey Oaks is a neighboring entity and does not have jurisdiction over the Airport. Areas of the City of Del Rey Oaks adjacent to the project study area from southeast to northwest are zoned as: C-1, Neighborhood Commercial (along Del Rey Gardens Drive); D, Multiple Family Residential (The Oaks condominiums); R-1, Single Family Residential (along Rosita Road); and Public-Open Space/Habitat (Work Memorial Park) (**Exhibit 3F**). The *General Plan Update for the City of Del Rey Oaks* was completed in 1997. City of Del Rey Oaks' General Plan Circulation Goals and Policies, Policy C-17 states that the City of Del Rey Oaks will not support any potential north side access to the Airport from Highway 218 and Del Rey Gardens Drive or any airport access road through the City of Del Rey Oaks.

3.3.7.3 Airport Master Plan

The Airport District Board approved an updated Monterey Regional Airport Master Plan (Resolution No. 1731, dated November 26, 2018), which includes a 20-year development concept for the Airport, as refined through the state environmental review process. This 20-year plan (**Exhibit 3G**) includes a conceptual layout of the project study area that incorporates the Proposed Action considered in this EA.

3.3.8 Natural Resources and Energy Supply

3.3.8.1 Energy Supply

The Airport receives natural gas and electricity from the Pacific Gas and Electric Company (PG&E), as well as electricity from an on-airport solar farm. Many airport tenants operate as individual units that provide some or all their own utilities. However, within the project study area, 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.

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. Another aboveground electrical line runs from Highway 68 to the north, along the southeast GA ramp, prior to turning to the east and terminating at the radar site (Kimley-Horn and Associates [KHA] 2018). A gas main runs underground within the Olmsted Road right-of-way with two-inch-diameter service lines branching out to various structures, including the southeast GA hangar area.

A three-acre solar farm was constructed at the Airport in 2017, 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 and consists of a photovoltaic ground mount system comprised of the photovoltaic modules (solar panels), the controller, and energy storage. 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 meters⁷ (MPAD 2016). This system became operational in December 2017 to supplement the Airport’s energy use. The solar array is intended to provide an annual average production of approximately 1.4 million kilowatt hours (kWh) with an average monthly production of 118,000 kWh (OpTerra Energy Services 2018).

Table 3D illustrates annual energy utility use from 2015 to 2017 for 30 facilities/infrastructure at the Airport, including the passenger 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 used approximately 1.5 million kWh of electricity and approximately 37,500 therms of natural gas.

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.

Each fixed base operator (FBO) at the Airport has fuel storage and delivery capabilities, as discussed previously in Section 3.3.5.1. 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 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 GA apron. The Monterey Navy Flying Club, on the northeast side of the airfield, has a 12,000-gallon AvGas tank on the north GA 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. 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.

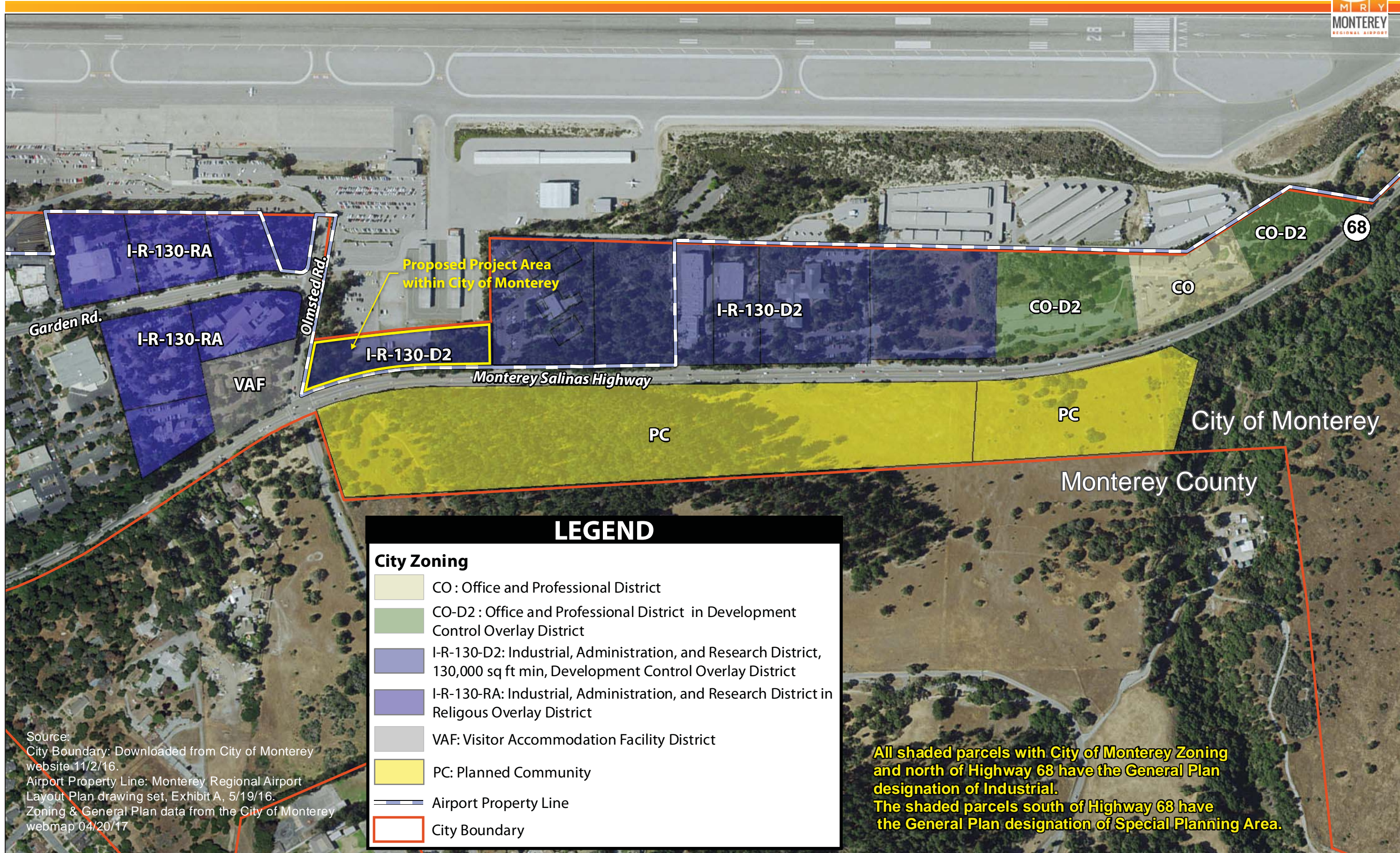
In addition, to encourage the use of alternative fuel vehicles, the Airport has three Level 2 electric vehicle (EV) charging stations which are in the customer parking lots. One of these charging stations is free of charge.

3.3.8.2 Mineral Resources

According to the California Geological Survey (2012), the Monterey Bay area has enough permitted aggregate mineral sources to last another 41-50 years (based on per capita projections).⁸ This assessment accounts for sand,

⁷ 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, the quick turnaround (QTA) rental 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 2018).

⁸ Over long enough periods, perhaps 20 to 30 years or more, the random impacts of major public construction projects and economic recessions tend to be smoothed and consumption trends become similar to historic per capita consumption rates. (California Geological Survey 2012:5).



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

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

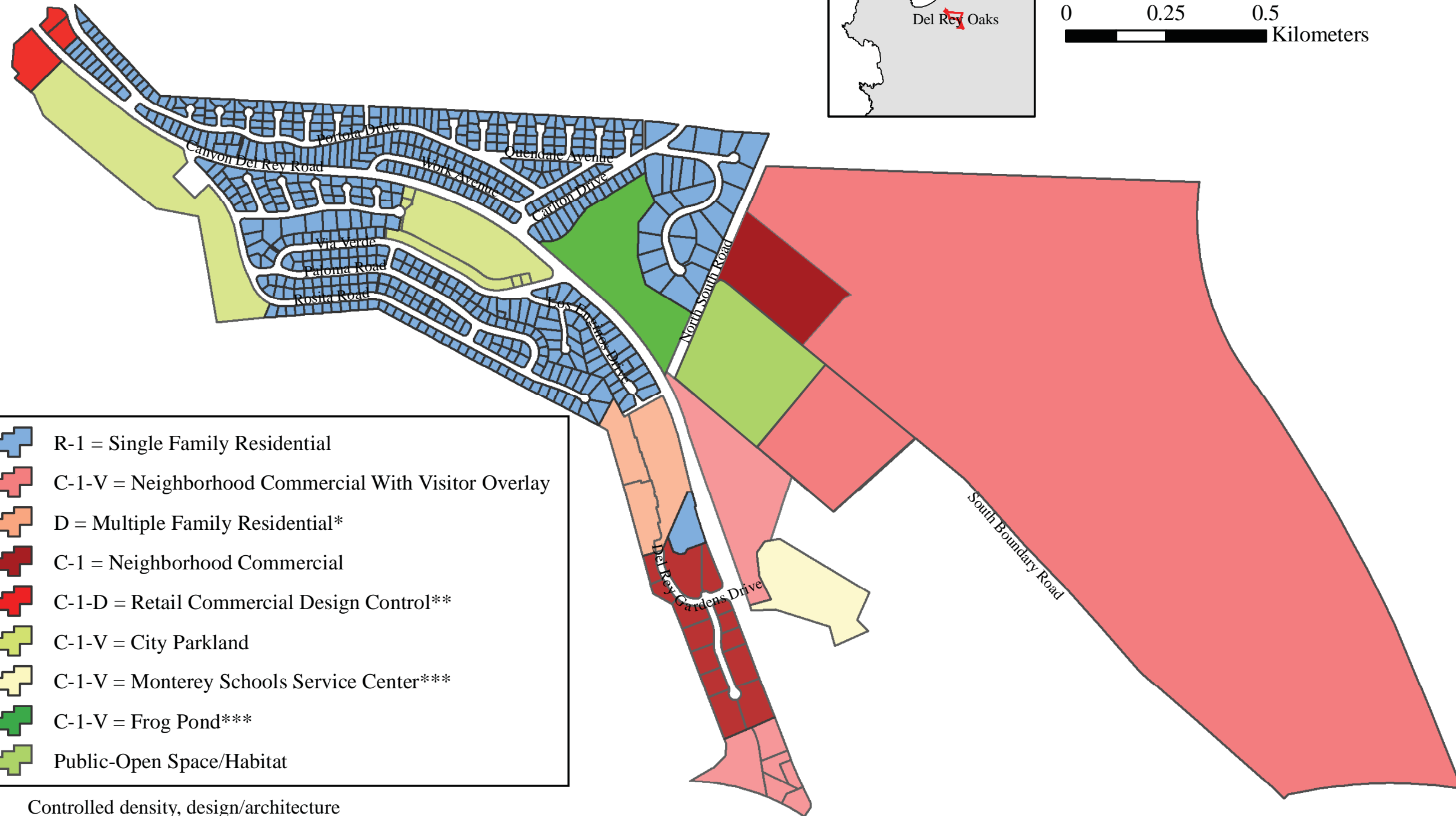
All shaded parcels with City of Monterey Zoning and north of Highway 68 have the General Plan designation of Industrial. The shaded parcels south of Highway 68 have the General Plan designation of Special Planning Area.

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0 0.25 0.5
Miles

0 0.25 0.5
Kilometers



-  R-1 = Single Family Residential
-  C-1-V = Neighborhood Commercial With Visitor Overlay
-  D = Multiple Family Residential*
-  C-1 = Neighborhood Commercial
-  C-1-D = Retail Commercial Design Control**
-  C-1-V = City Parkland
-  C-1-V = Monterey Schools Service Center***
-  C-1-V = Frog Pond***
-  Public-Open Space/Habitat

* Controlled density, design/architecture
 ** Portion of C-1-D used for restaurant would need a use permit or rezoning for commercial use. The County allowed restaurant on property was never rezoned.
 *** County issued a special permit to the School District and Del Rey Oaks did not rezone when parcel was annexed to City.
 **** Monterey County Regional Park, to remain in natural state.

Source: City of Del Rey Oaks website 2018

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gravel, and crushed stone, collectively referred to as aggregate. There are several permitted aggregate sources in Monterey County, including one with a capacity of 1.5 to 3 million tons and several with capacities of 0.5 to 1.5 million tons (California Geological Survey 2012).

3.3.8.3 Water

California American Water (CalAm) provides potable water service to most of the Airport, although a few tenants, including the Airport, own their wells. These wells provide a potential source of non-potable water. Monterey Peninsula Water Management District (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 (see also Section 3.3.12.4). Based on the water allocation established by MPWMD in June 1993, the Airport has 8.10 acre-feet⁹ (AF) per month of water available. 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. The Airport, therefore, has 5.20 AF per month remaining to offset new and expanded capacity (Monterey Regional Airport 2017 - records regarding water permits issued from 1993 - March 31, 2017).

3.3.9 Noise and Compatible Land Use

The most recent evaluation of aircraft noise conditions at the Airport were conducted for this EA using FAA's approved Aviation Environmental Design Tool (AEDT, Version 2c) and are provided in **Exhibit 3H**. The 65-75 CNEL contours were prepared based on aircraft operational levels at the Airport from calendar year 2015. Currently, portions of the 65 and 70 CNEL contours extend off the Airport. There are three single-family dwelling units (and no other noise-sensitive land uses) located within the 65 CNEL contour (**Table 3E**), as well as part of the adjacent golf course. The dwellings within the 65 CNEL contour were sound-insulated as part of a residential sound insulation program (RSIP) resulting from a previous FAA 14 C.F.R. part 150 (Part 150) airport noise compatibility study and are, therefore, considered compatible land uses.^{10, 11} The 65 CNEL contour also extends off the Airport to the east where several light industrial or commercial businesses are located along Calle Del Oaks. The 65 CNEL contour

⁹An 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.

¹⁰ 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 noise-sensitive land uses were located within the 65 CNEL contour. To mitigate these impacts, the Airport initiated a Residential Sound Insulation Program for noise-sensitive properties located within the 65 CNEL contour. The goal of sound insulation was to reduce the interior noise level to below 45 dBA (A-weighted decibels). 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.

¹¹ The City of Monterey and the City of Del Rey Oaks both have local noise and land use compatibility standards. The City of Monterey (General Plan Noise Element Policy b.5) requires acoustical studies for those new residential and other noise-sensitive development located within the CNEL 60-64 and sound insulation to achieve interior noise levels of CNEL 45 or below for those new residential and other noise-sensitive development located within the CNEL 65-69 and the CNEL 60-64, as necessary (City of Monterey 2016: Table 8). The City of Del Rey Oaks (General Plan Noise Goal 2) encourages a reduction in aircraft noise impact on the City of Del Rey Oaks to levels specified by state noise standards (65 dB) and requires adequate soundproofing in new constructions (City of Del Rey Oaks 1997). It should be noted that while this information is required to be disclosed in an EA, FAA does not use local standards to determine the significance of noise impacts.

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 contour also extends off the Airport along the highway.

TABLE 3E
Noise-Sensitive Land Uses within the Existing (2015) Noise Exposure Contours
Monterey Regional Airport

Noise-Sensitive Use	65-70 CNEL (21.5 acres off airport property)	70+ CNEL (0.8 acre off airport property)
Place of Worship	0	0
School	0	0
Hospital	0	0
Residence ¹	3	0
Historic	0	0

Source: Coffman Associates, Inc. analysis based on noise modeling using FAA’s Aviation Environmental Design Tool (AEDT), Version 2c.
 CNEL = Community Noise Equivalent Level
¹ Dwelling units within the 65 CNEL contour have been sound-insulated and are considered a compatible use.

3.3.10 Socioeconomic Impacts, Environmental Justice, and Children’s Environmental Health and Safety Risks

3.3.10.1 Socioeconomics

3.3.10.1.1 Economic Activity and Income, Employment, Population and Housing, and Public Service and Social Conditions

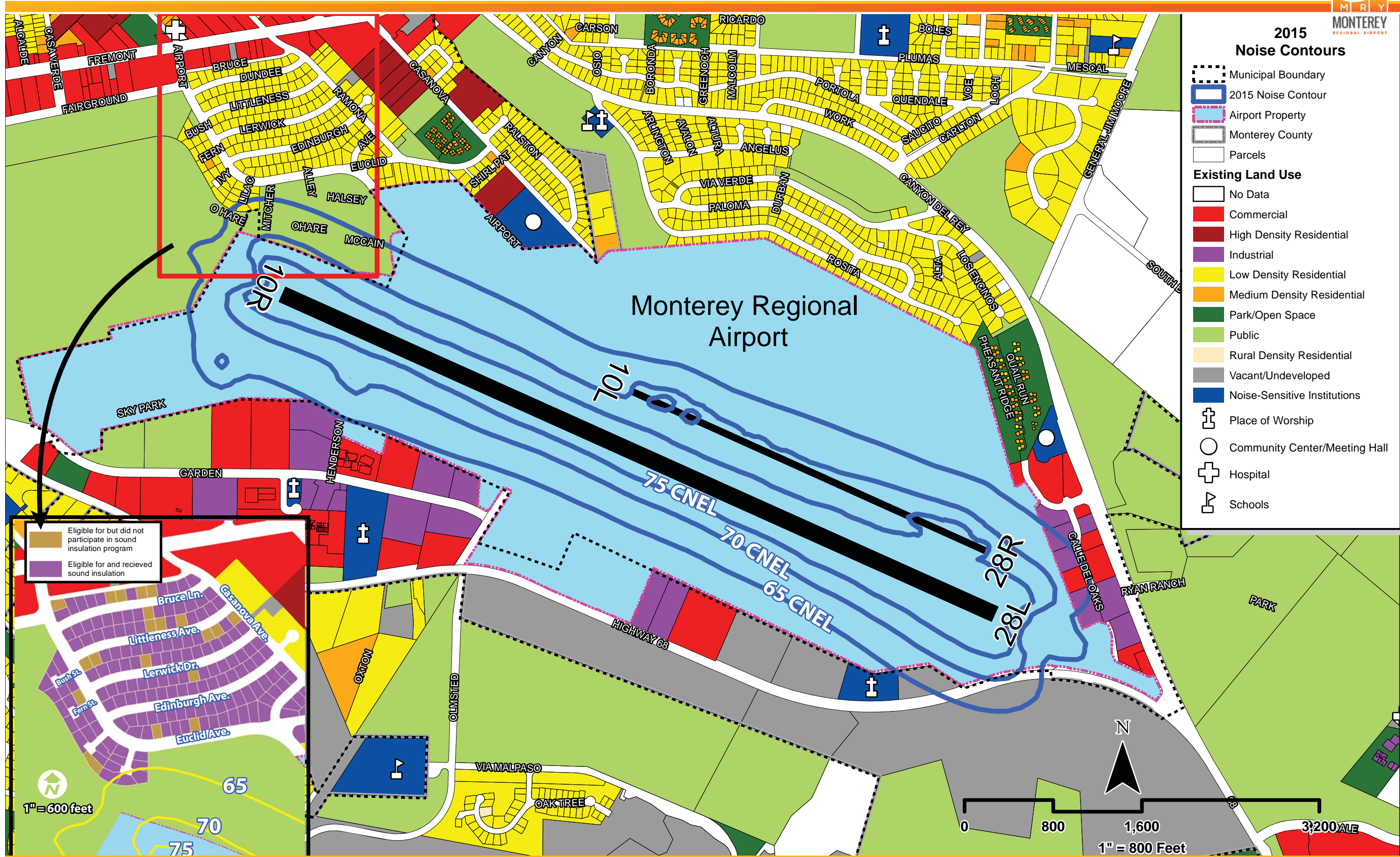
Population and ethnicity data for the Seaside-Monterey Census County Division (CCD) (**Exhibit 3I**), the County, and the state (as estimated by the U.S. Census Bureau’s American Community Survey [ACS]) is presented in **Table 3F**. Approximately 25.9 percent of the County’s population lives in the Seaside-Monterey CCD; total Seaside-Monterey CCD population estimates for 2017 were 112,165. Approximately 25.2 percent of the population in Seaside-Monterey CCD are from a minority race; the minority percentages in the County and the state overall are approximately 31.7 percent and 35.5 percent, respectively. Approximately 25.9 percent of the population in the Seaside-Monterey CCD consider themselves Hispanic or Latino compared to 57.9 percent countywide, and 38.8 percent in the state overall.

TABLE 3F
Population Characteristics (2017 ACS Estimates)
Cities of Del Rey Oaks and Monterey, Monterey County, and State of California

Characteristic	Seaside-Monterey CCD	Monterey County	State of California
Total Population¹	112,165	433,168	38,982,847
White	74.8%	68.3%	64.5%
Black or African American	7.4%	3.6%	7.0%
American Indian and Alaska Native	2.3%	1.7%	1.9%
Asian	13.9%	7.7%	16.2%
Hawaiian/Pacific Islander	2.5%	0.9%	0.8%
Other	7.8%	22.5%	14.8%
Hispanic or Latino (of any race)	25.9%	57.9%	38.8%

Source: U.S. Department of Commerce, U.S. Census Bureau 2019b
 ACS = American Community Survey; CCD - Census County Division
¹ The six percentages may add to more than 100 percent because individuals may report more than one race.

Table 3G summarizes economic characteristics from the American Community Survey’s 2017 estimates for the Seaside-Monterey CCD, as well as the County and the state overall. As can be seen in this table, the Seaside-Monterey CCD has a higher median household and per capita income and a lower percentage of families living



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

1" = 600 feet

0 800 1,600 3,200 FEET

1" = 800 Feet

Source: Noise contours determined by Coffman Associates, Inc. analysis based on noise modeling using FAA's Aviation Environmental Design Tool (AEDT), Version 2c; Base Map Source: Monterey County Assessor's Office 2014

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Source: ESRI Basemap Imagery, 2010 U.S. Census

below the poverty level, than do the County or state overall. The civilian unemployment rate is also lower in the Seaside-Monterey CCD.

TABLE 3G
Economic Characteristics (2017 ACS Estimates)
Cities of Del Rey Oaks and Monterey, Monterey County, and State of California

Characteristic	Seaside-Monterey CCD	Monterey County	State of California
Median Household Income	\$69,817	\$63,249	\$67,169
Per Capita Income	\$36,317	\$27,168	\$33,128
Families Below the Poverty Level	6.8%	11.1%	11.1%
Unemployment (Civilian labor force)	5.5%	6.0%	7.7%

Source: U.S. Department of Commerce, U.S. Census Bureau 2019a
 ACS = American Community Survey; CCD - Census County Division

The Association of Monterey Bay Area Governments (AMBAG) provides information on employment by major industry sector (AMBAG 2018b). The region is expected to have moderate growth between 2015 and 2035. Construction job losses were steep during the recession; the sector began to recover between 2010 and 2015, but future growth is expected to be slow. Transportation, warehousing, and utilities jobs were stable during the recession and have grown rapidly since then; the sector is expected to continue growing.

Exhibit 3J provides AMBAG employment forecasts up to 2040 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 2018b).

Housing, public services, and social conditions indicators are not relevant as the Proposed Action will be located entirely on airport property and will not change housing, public services, and social conditions in the surrounding communities.

3.3.10.1.2 Surface Transportation and Traffic

The Airport can be accessed from the north or south of the airfield.

- From the north: Airport Road via North (N.) Fremont Street and Euclid Avenue from Ramona or Casanova Avenue via N. Fremont Street
- From the south: Olmsted Road via Highway 68 (also known as the Monterey-Salinas Highway) and Garden Road via Fairground Road

Key highways in the general vicinity of the Airport provide regional access: Highway 1, Highway 218, and Highway 68. Existing intersection level of service (LOS) based on traffic counts are summarized in **Table 3H**.¹² All intersections described are located either on state highways, City of Monterey streets, or City of Del Rey Oaks streets as

¹² Weekday AM and PM peak period counts in November 2016 and December 2017 were conducted during typical commute periods (i.e., from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM). Weekend counts were scheduled to coincide with the Airport’s peak hours. Thus, the Saturday peak period counts were conducted between 10:00 AM and 12:00 PM, and the Sunday peak period counts were conducted between 9:00 AM and 12:00 PM. The counts included cars, trucks, buses, bicyclists, and pedestrians (Mott MacDonald 2019, Appendix E). Turning movement counts were also counted at other selected intersections around the Airport and were used to develop traffic reassignments under future project conditions.

Monterey County - Coastal	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

shown on **Exhibit 3K**. The California Department of Transportation (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 2016, Circulation Element program j.1.1). The City of Del Rey Oaks General Plan Policy C-2 states that the adopted County Congestion Management Program LOS standards should be met for Highway 218 intersections with Highway 68 and N. Fremont, while Policy C-3 states that “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.” (City of Del Rey Oaks 1997).

TABLE 3H
Existing Level of Service (LOS) Conditions at Study Intersections
Monterey Regional Airport

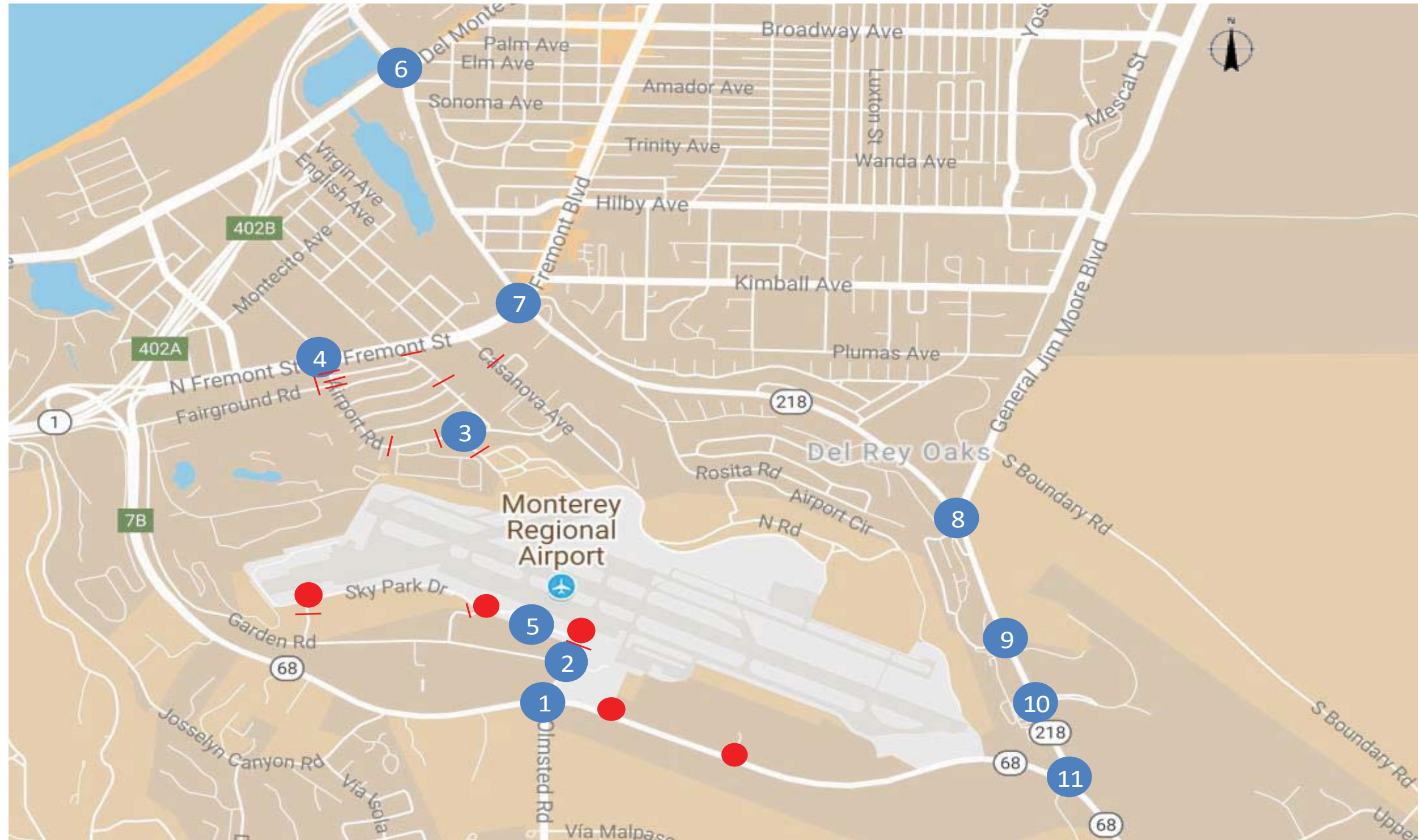
Study #	Intersection	Intersection Control	LOS Standard ¹	Peak Hour	Existing	
					Delay ²	LOS
1	Olmsted Road /Highway 68	Signal	C/D	AM	53.4	D
				PM	113.6	F
				Sat	13.7	B
				Sun	17.5	B
2	Olmsted Road /Garden Road	One-way Stop	D	AM	10.7	B
				PM	10.9	B
				Sat	9.8	A
				Sun	18.1	C
3	Airport Road/Euclid Avenue	Two-Way Stop	D	AM	9.9	A
				PM	10.1	B
				Sat	9.6	A
				Sun	9.1	A
4	Airport Road/N. Fremont Street	Signal	D	AM	14.2	B
				PM	16.1	B
				Sat	13.4	B
				Sun	12.4	B
5	Olmsted Road/Fred Kane Drive	All-Way Stop	D	AM	7.5	A
				PM	8.1	A
				Sat	8.1	A
				Sun	8.5	A
6	Del Monte Boulevard/Highway 218	Signal	C/D	AM	30.5	C
				PM	45.6	D
				Sat	31.4	C
				Sun	26.2	C
7	Highway 218/Fremont Boulevard	Signal	C/D	AM	48.3	D
				PM	45.2	D
				Sat	36.5	D
				Sun	33.8	C
8	Highway 218/Gen. Jim Moore Blvd.	Signal	C/D	AM	17.2	B
				PM	15.6	B
				Sat	8.5	A
				Sun	8.6	A
9	Highway 218/Del Rey Gardens Drive	One-Way Stop	C/D	AM	24.0	C
				PM	19.0	C
				Sat	11.8	B
				Sun	11.9	B
10	Highway 218/Ryan Ranch Road	Signal	C/D	AM	6.3	A
				PM	20.1	C
				Sat	5.2	A
				Sun	5.3	A
11	Highway 218/Highway 68	Signal	C/D	AM	22.8	C
				PM	29.4	C
				Sat	14.1	B
				Sun	14.6	B

Source: Mott MacDonald 2019 (Table 1). Analysis performed using 2010 Highway Capacity Manual (HCM) methodologies.

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.

NOTE: **Bolded** text indicates intersections operating below the indicated LOS standard.



LEGEND

- Study Intersection
- 24-Hour Machine Count Location Number
- Additional Intersection Count

Source: Mott MacDonald 2019

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The following intersections operate deficiently under existing traffic conditions:

1. Olmsted Road/Highway 68 (AM peak - LOS D; PM peak - LOS F)
6. Del Monte Boulevard/Highway 218 (PM peak - LOS D)
7. Highway 218/Fremont Boulevard (AM peak - LOS D; PM peak - LOS D; Saturday peak - LOS D)

Casanova Oak Knoll Neighborhood Existing Conditions

Due to concerns regarding airport-related traffic in adjacent neighborhoods, additional 24-hour machine tube counts were conducted at selected locations within the Casanova Oak Knoll neighborhood and along Garden Road in November 2016 and February, May, and June 2017. The 24-hour counts were conducted to identify various traffic characteristics within the neighborhood, including the degree of cut-through and commercial vehicle traffic, average vehicular speeds. A summary of the 24-hour traffic count data is included in a traffic impact analysis report completed by Mott MacDonald (2019). The 24-hour tube counts were used to determine the weekday (i.e., Tuesday, Wednesday, Thursday) average daily traffic (ADT) volumes. **Exhibit 3L** shows the ADT within the Casanova Oak Knoll neighborhood located west of the Airport based on the data collected.

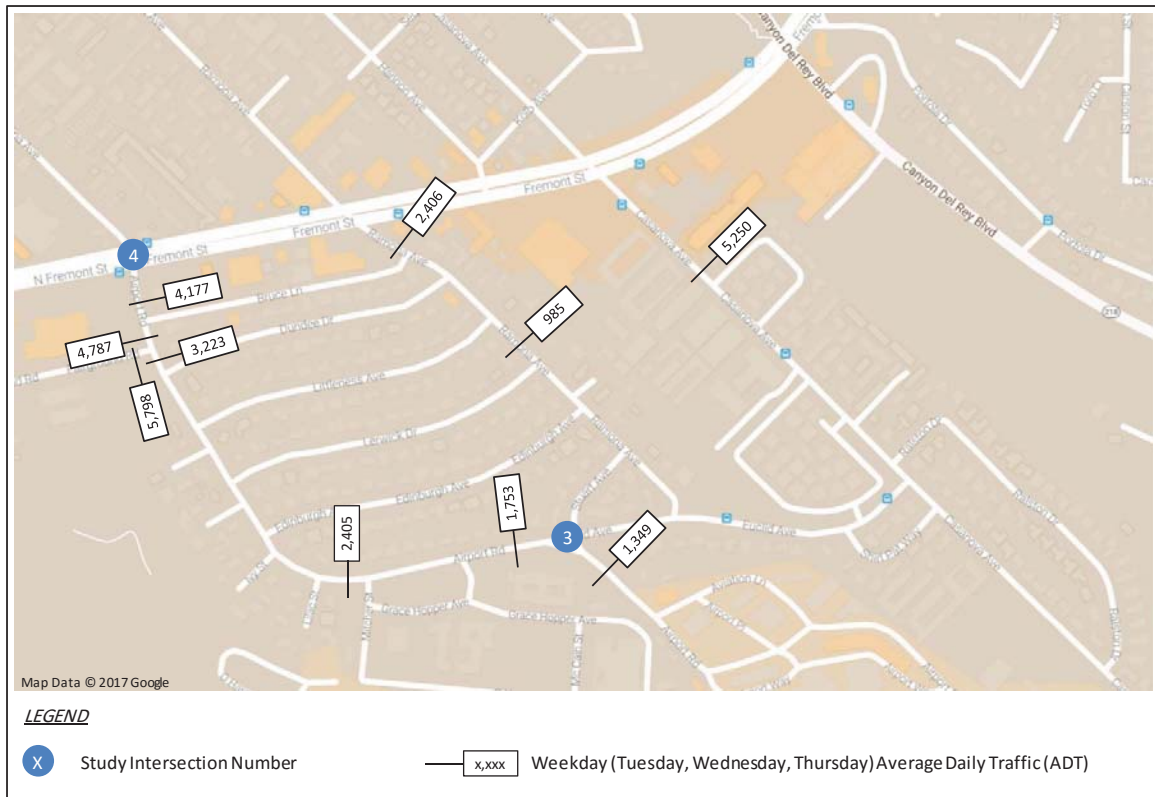
The airport property on Airport Road south of Euclid Avenue is occupied by non-aviation facilities that provide a revenue stream to the Airport. The businesses in this area include self-storage, U-Haul, and automotive services. The weekday ADT on Airport Road south of Euclid Avenue was 1,349 vehicles 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 Casanova Oak Knoll neighborhood is attributable to the businesses on the Airport. The ADTs at various locations within the Casanova Oak Knoll neighborhood and the relative percentage of traffic attributable to the Airport is summarized in **Table 3I**. 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 Airport Road north of Fairground Road and Bruce Lane (i.e., 16 percent and 18 percent, respectively) can be considered conservatively high.

Road Segment	Weekday ADT	Airport Weekday ADT	Percentage From Airport Property
Airport Road north of Fairground Road	4,787	750	16%
Airport Road south of Fairground Road	3,223	750	23%
Airport Road west of Mitcher Street	2,405	750	31%
Airport Road west of Euclid Avenue	1,753	750	43%
Ramona Avenue south of Littleless Avenue	985	205	21%
Casanova Avenue north of Melway Circle	5,250	394	8%
Airport Road north of Bruce Lane	4,177	750	18%
Average of All Segments			23%

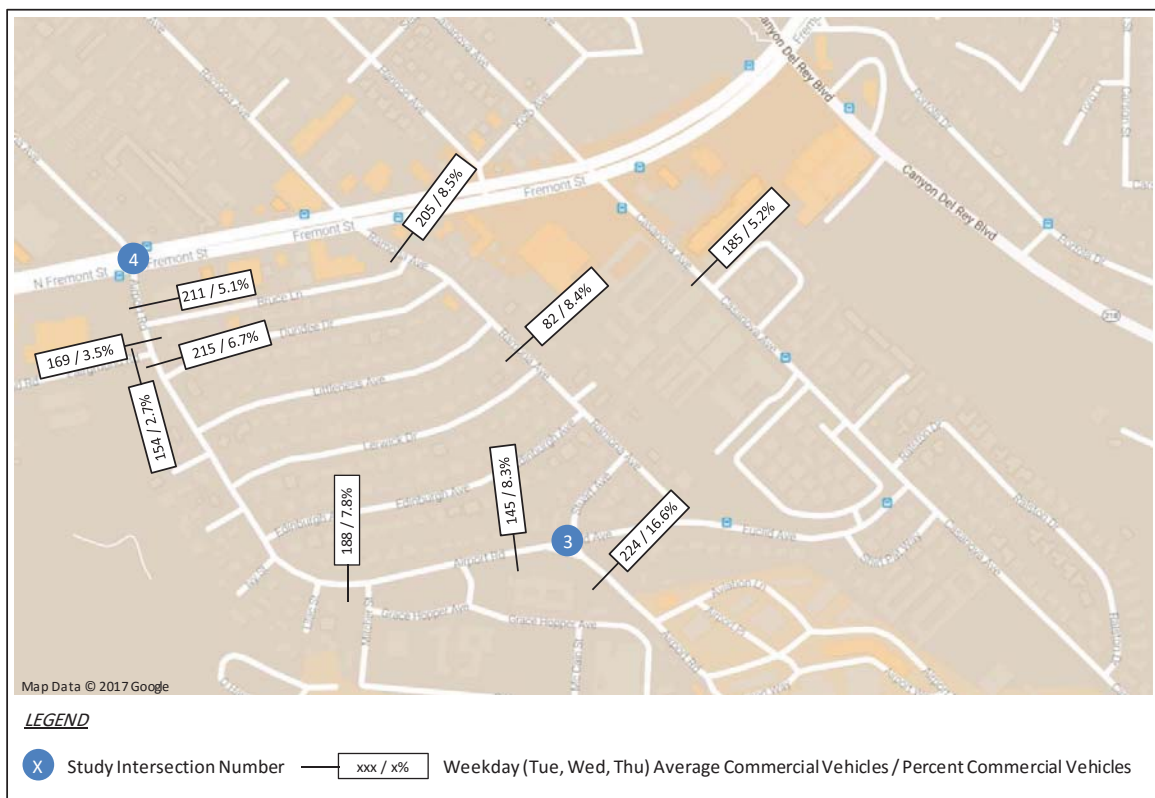
Source: Mott MacDonald 2019
ADT = average daily traffic

The traffic volume data collection also included vehicle classification counts. **Exhibit 3L** depicts the average weekday commercial vehicle ADT volumes in the Casanova Oak Knoll 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 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

Casanova Oak Knoll Neighborhood Weekday Average Daily Traffic (ADT) Volumes



Casanova Oak Knoll Neighborhood Weekday Average Daily Commercial Vehicle Traffic



Source: Mott MacDonald 2019

north of Melway Circle, and Ramona Avenue between Littleness Avenue and Lerwick Drive, approximately half of the commercial vehicles in the neighborhood are attributable to the Airport.

In September 2019, the Airport conducted additional traffic counts to better determine the sources of the airport-generated traffic identified in the 2016 and 2017 traffic counts within the project study area. The specific existing business identified for study was a month-to-month storage lease located north of Airport Road within some of the proposed dirt stockpile areas. During the days represented by the counts (September 21 through September 27), 712 vehicles were counted over the course of the week, with an average of 122 vehicles per weekday, 56 vehicles per weekend day, and 100 ADT from this existing land use (KHA 2019a).

3.3.10.2 Environmental Justice

E.O. 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, and the accompanying Presidential Memorandum, as well as U.S. Department of Transportation Order 5610.2, *Environmental Justice*, require FAA to provide for meaningful public involvement by minority and low-income populations, as well as address potential impacts on these populations that may be disproportionately high and adverse.

The 2010 U.S. census data provides information regarding socioeconomic conditions in the Monterey area at the census tract and, in some cases, the block group level. The percentage of persons living below the poverty level (by census tract) and the percentage of minority populations (by block group) that include, or are near, the Airport are shown on **Exhibit 3M**. The percentage of households in the same census tract as the Airport that was below the poverty rate in 2010 was 14.0 percent, while the minority populations in the block group that contained the Airport was 33.6 percent. (NOTE: Updates to census block group data are only available from the main decennial census.)

3.3.10.3 Children's Environmental Health and Safety Risks

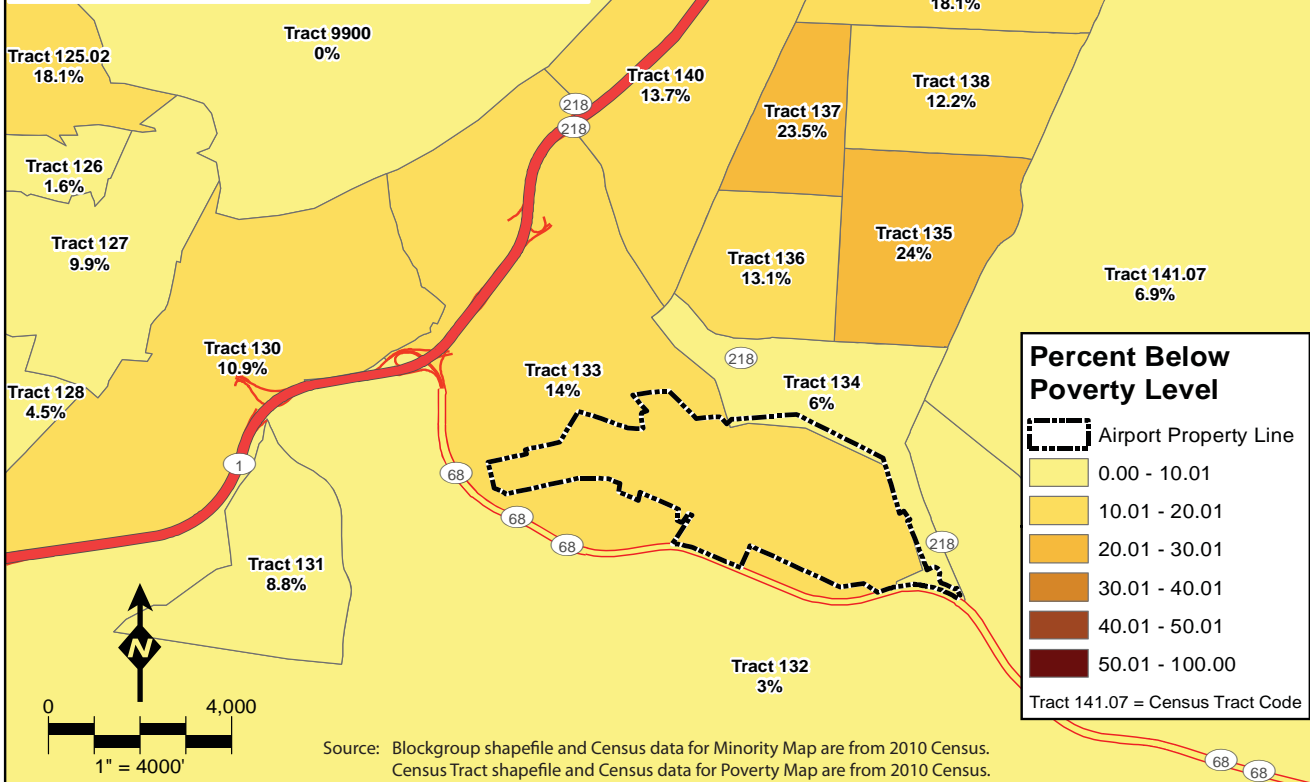
There are no children living within the project study area, i.e., within the airport property. Residential areas are in proximity to the Airport as well as other land uses that would provide opportunities for children to congregate. These non-residential areas where children could congregate outside the project study area include Work Memorial Park, Del Rey Park, Frog Pond Wetland Preserve, and Casanova Oak Knoll Park, which were previously described in Section 3.3.4 of this EA. In addition, children would congregate at the Del Rey Oaks Christian Preschool (841 Rosita Road, Del Rey Oaks), the edge of which is located 0.3 mile from the closest portion of the project study area. Children would also congregate at the Casanova Oak Knoll Park Center preschool (735 Ramona Avenue, Monterey), which is located 0.4 mile from the closest portion of the project study area.

3.3.11 Visual Effects

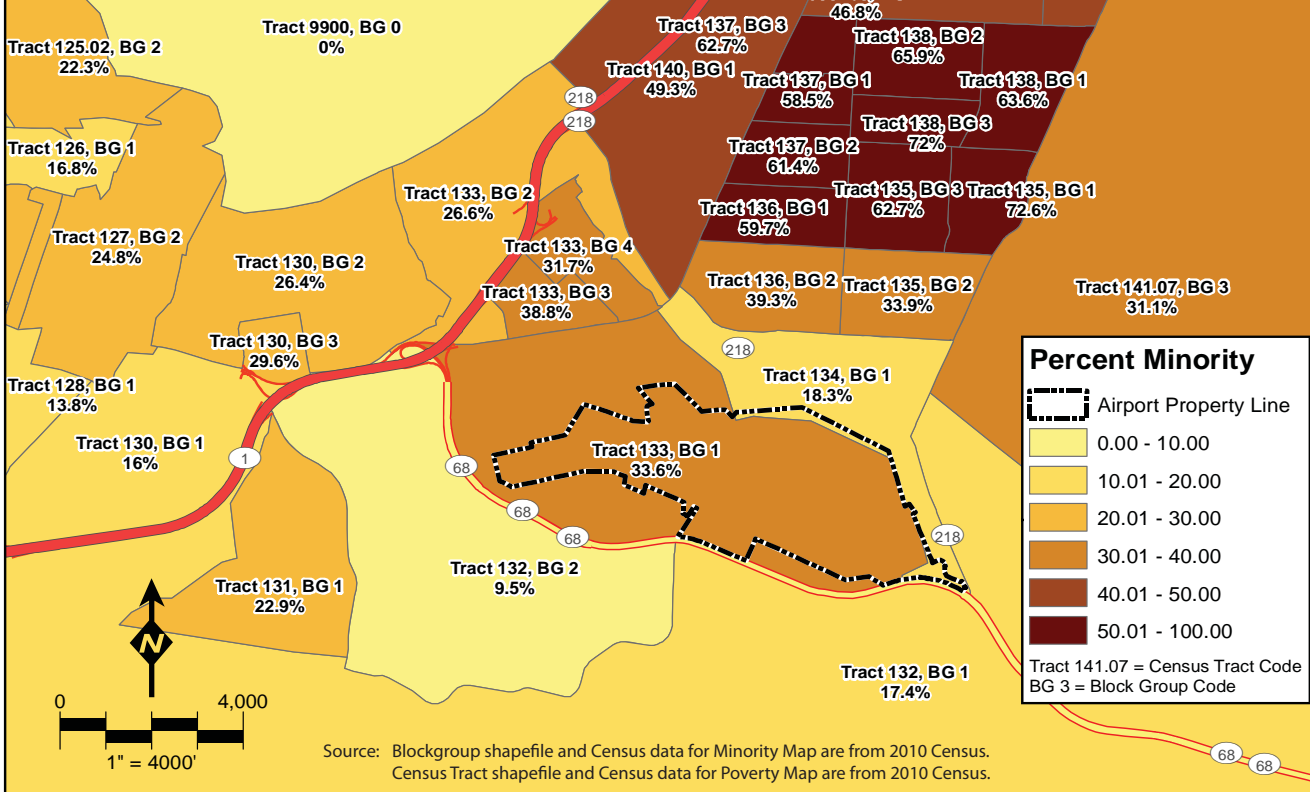
3.3.11.1 Light Emissions

The Airport has the following lighting sources associated with a commercial service airport: high intensity runway lighting (Runway 10R-28L), medium intensity runway lighting (Runway 10L-28R), medium intensity taxiway lighting, precision approach path indicators (PAPIs), runway end indicator lights (REILs), and a medium intensity approach lighting system with runway alignment indicator lights (MALSR) off the Runway 10R end (see Table 1A, Section 1.2.1). The project study area itself also contains building and security lighting associated with the existing passenger terminal building, existing GA apron and hangars, and vehicular parking lots and surface streets. As discussed in Section 3.3.11.2 below, there is a designated scenic highway located south of the Airport. Light emissions from the Airport do not spill off the Airport onto this highway or other adjacent land uses due to presence of topography and vegetation, including trees, that prevent lines-of-sight between the airfield and neighboring

PERCENT BELOW POVERTY LEVEL



PERCENT MINORITY



land uses. Similarly, there are no historic properties, parks, or traditional cultural properties affected by light emissions from the Airport. The Airport is located within an urban developed area of Monterey County. No light-sensitive biological species are adversely affected as species living within an urban ecosystem are generally already adapted to the existing lighting environment.

3.3.11.2 Visual Resources

Highway 68 is a designated scenic highway by the state and the County, primarily to protect scenic views from the highway of adjacent wooded hills. Portions of the Airport, primarily in the eastern end below the plateau, are visible from this highway. Once the state (i.e., Caltrans) determines that a proposed scenic highway satisfies the qualifications for a scenic designation, the local governing body, with citizen support, must adopt a program to protect the scenic corridor. In the case of Highway 68, both the County and the City of Monterey have established general plan policies to protect its scenic qualities.

In addition, the City of Del Rey Oaks is an adjacent jurisdiction. The following City of Del Rey Oaks general plan policy regarding scenic resources could be applicable to the proposed connection of the “north side” road (City of Del Rey Oaks 1997):

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; and,
- b. Utilize natural landforms and vegetation for screening structures, access roads, building foundations, and cut and fill slopes.

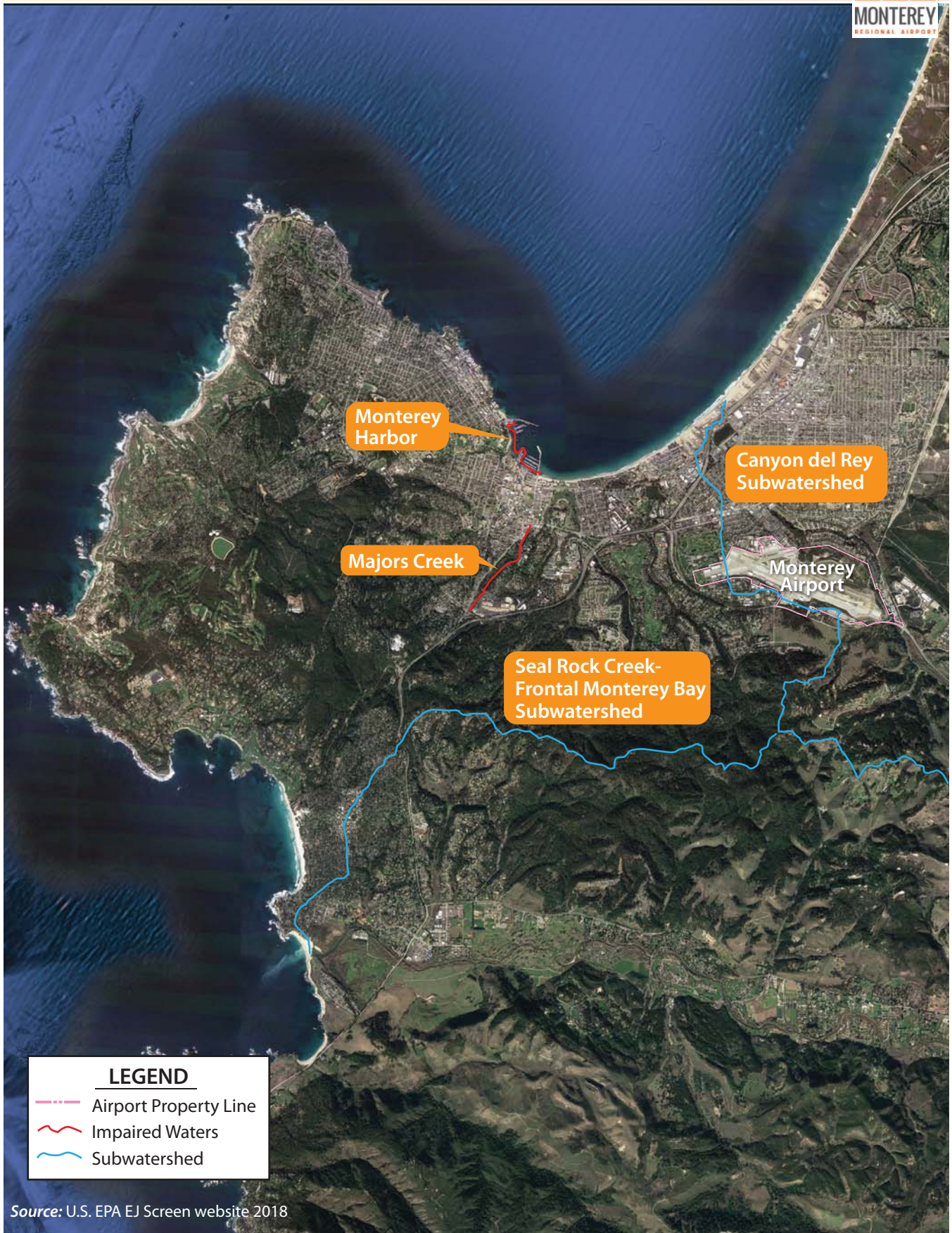
Overall, scenic vistas and views across the Airport are not available due to significant topography on the Airport and thick vegetation along its borders. Public views from adjacent streets, highways, or buildings, or from more long-range viewpoints, are highly restricted.

3.3.12 Water Resources

3.3.12.1 Surface Waters

The Airport is located within the Canyon del Rey and Seal Rock Creek-Frontal Monterey Bay subwatersheds of the Salinas watershed. There are no lakes and rivers, natural streams, or ponds on the Airport. However, the surface water study area is the entire geographic area with the potential to be either directly or indirectly impacted by the proposed project, not merely the area immediately adjacent to the action. According to the U.S. EPA’s My WATERS Mapper online tool, the closest water bodies listed on a *Clean Waters Act* (CWA) Section 303(d) list (Impaired Waters List) are Majors Creek and the Monterey Harbor, located approximately 1.75 miles west and north-west of the Airport, respectively. Airport stormwater does not drain into these compromised water bodies (**Exhibit 3N**).

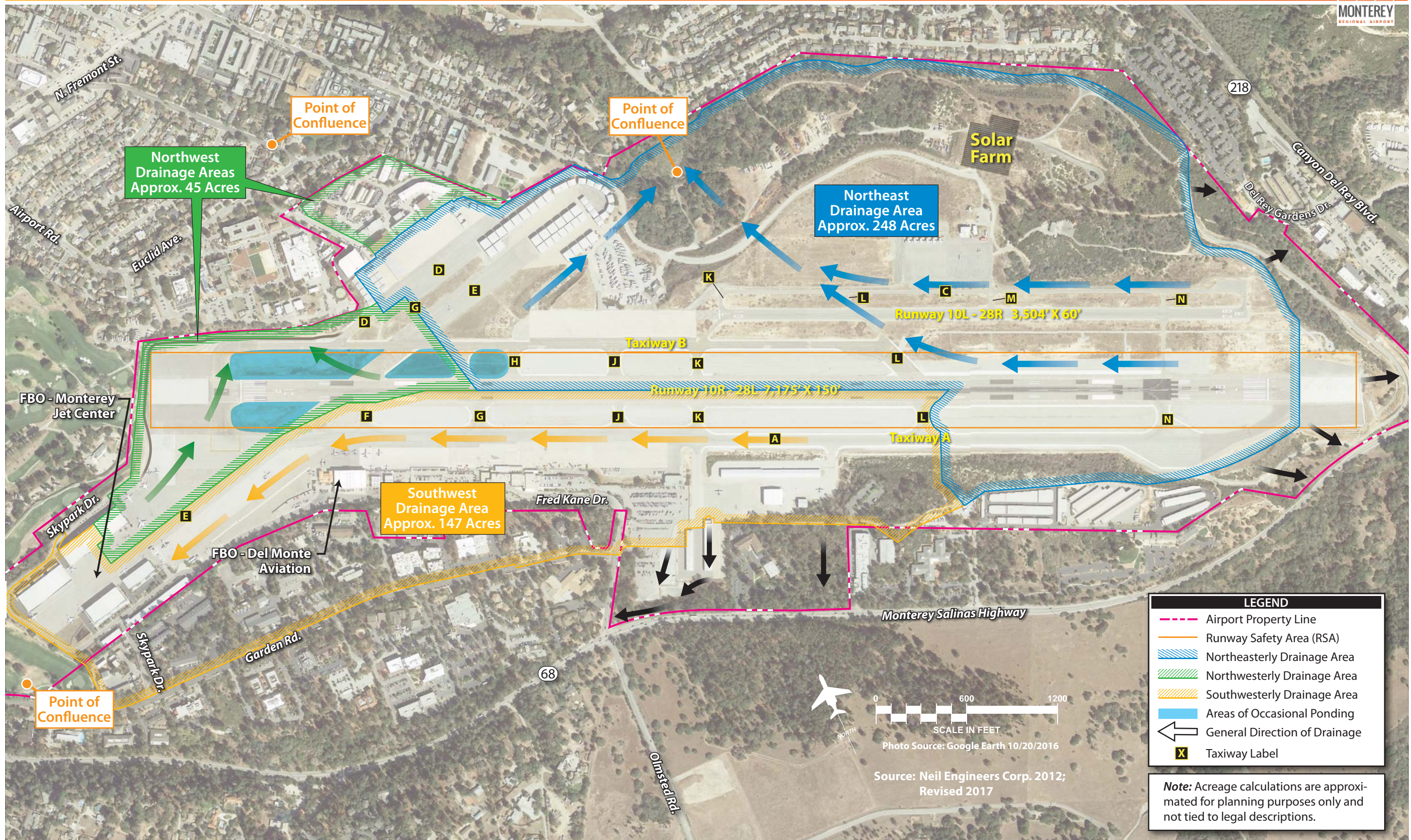
There are three primary on-airport drainage areas that collect and discharge stormwater runoff and any potential pollutants from the Airport’s developed areas (**Exhibit 3O**). These drainage areas convey stormwater into drainage facilities of adjacent municipalities as described below. **Table 3J** summarizes the drainage areas in the following terms: total area; impervious area; pervious area; percent impervious; and the runoff (Q) for a five-year, 24-



Source: U.S. EPA EJ Screen website 2018

LEGEND

- Airport Property Line
- Impaired Waters
- Subwatershed



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.

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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 FAA Advisory Circular (AC) 150/5320-5D, *Airport Drainage Design*, Section 2-2.4.2 (FAA 2013).

TABLE 3J
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)
Southwest (Outfall 1)	147	51	96	65%	137
Northwest (Outfall 2)	45	12	33	73%	62
Northeast (Outfall 3)	248	137	111	45%	158

Source: KHA 2018
cfs = cubic feet per second

- **Southwesterly Drainage Area (Outfall 1) (Exhibit 30).** 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 passenger terminal building area and parking lots, FBO areas, and all the areas to the south and southwest. 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) is 137 cubic feet per second (cfs).

Stormwater runoff is collected by a system of catch basins and storm drainpipes. 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 southwesterly direction through the Del Monte Aviation and Monterey Jet Center FBO sites, crosses Sky Park Drive through the Monterey Pines 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) (Exhibit 30).** 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 POC is 62 cfs.

The westerly end of this drainage area drains toward the Monterey Pines 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 storm events greater than the five-year storm (Exhibit 30).

- **Northeasterly Drainage Area (Outfall 3) (Exhibit 30).** 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 POC is 158 cfs.

Stormwater in this area is collected by a series of catch basins and storm drainpipes that discharge into a large detention pond located at the north side 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 2017b). 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.

In the northeast part of the Airport west of Del Rey Gardens Drive, stormwater runoff is not captured by a stormwater conveyance system (**Exhibit 30**). 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 Airport's Runway Safety Area Improvements Project (RSA Project) is not more than the pre-construction runoff quantities associated with the 10-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 groundwater basin. These ponds also help to ensure that stormwater entering the Caltrans storm drain system do not overload the facilities.

3.3.12.2 Groundwater

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 most 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 3.3.8.3. 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.

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 gallons per minute (gpm), which equates to approximately 34,318,080 gallons annually (approximately 8.75 AF per month) (Allterra 2015).

Although there are 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 does not serve as a groundwater recharge area. In addition, FAA AC 150/5200-33B, *Hazardous Wildlife Attractants On or Near Airports* (FAA 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 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, which are 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.

3.4 CUMULATIVE IMPACTS

The purpose of this section is to outline those projects which will need to be considered during the cumulative impact analysis in Chapter Four of this EA. The CEQ (40 C.F.R. §1508.7) defines cumulative impact as the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable, future actions, regardless of what agency (federal or non-federal) or person undertakes such actions. Past projects are defined as those which have been undertaken over the past five years within the vicinity of the Airport. Foreseeable future actions are defined as those which are likely to become a reality, such as projects that have been included within the five-year Airport Capital Improvement Program (ACIP). Other developments considered are those that are planned or currently under development within the vicinity of the Airport.

3.4.1 Past, Present, and Reasonably Foreseeable Future Actions

3.4.1.1 On-Airport Development

Table 3K identifies past, ongoing, and proposed improvements at the Airport (from 2015 - 2024) according to the Airport’s currently proposed ACIP and the previous airport records that could contribute to cumulative impacts.

Fiscal Year	Project Description
2014-15	Runway Safety Area Improvement Project
2017	Airfield Electrical Vault Replacement; Taxiway “A” runway and taxiway edge LED lighting installation
2017	Solar Farm Construction
2019	Runway 10L-28R Overlay and Improvements (PAPI, Taxiway “K,” Taxiway “L”)
2019	South Side Land Acquisition Part A (5.5 acres)
2019	Infield Improvements, Part A (including the removal of Taxiway “E” and the reconfiguration of Taxiway “F”)
2020-2024	No additional projects - All projects are proposed components of the Proposed Action

Sources: Monterey Regional Airport records; Monterey Regional Airport 2018, Proposed Airport Capital Improvement Plan (ACIP) (2019-2024) (draft).
AOA = Air Operations Area; ARFF = aircraft rescue and firefighting; LED = light-emitting diode; PAPI = precision approach path indicators

3.4.1.2 Off-Airport Development

Off-airport development within a one-mile radius of the Airport’s boundary could contribute to cumulative impacts in conjunction with the Proposed Action, specifically during construction activities. Both the City of Monterey and the County of Monterey have approved projects within a one-mile radius of the Airport. These past (within five years), present, or reasonably foreseeable future projects are listed in **Table 3L** and identified on **Exhibit 3P**. No major past (within five years), present, or reasonably foreseeable future development projects have occurred within a one-mile radius of the Airport in the cities of Seaside or Del Rey Oaks (City of Seaside website 2020; City of Del Rey Oaks website 2020).

TABLE 3L Off-Airport Cumulative Development Projects			
Project No.	Project/Location	Brief Description	Status¹
City of Monterey			
1	Monterey Motorsports Vehicle Storage Facility - 2969 Monterey Salinas Highway	88-unit commercial condominium vehicle storage facility (59,520 sf)	Constructed
2	2200 North Fremont Street	40 du, 6,000 sf - commercial	Approved
3	Garage Unlimited - 2 Upper Ragsdale Drive	108,000 sf - auto storage 9,800 sf - office	Constructed
4	Montage Health Medical Buildings A & C - 2 Upper Ragsdale Drive	66,173 sf - medical office (Bldg. A); 21,500 sf - medical office (Bldg. C)	Constructed (Bldg. A); Planning permits under review (Bldg. C)
5	Starbucks + Two Retail Spaces - 2020 Del Monte	Coffee retail; fitness studio	Constructed
Unincorporated County of Monterey			
6	Monterra Ranch - Monterra Ranch Road	151 DU	Approved
Sources: City of Monterey website 2020. Available at: https://monterey.org/Services/Planning/Development-Projects , accessed May; Monterra website 2020. Available at: https://www.mikejashinski.com/monterra-monterey.htm , accessed May. DU = dwelling unit; sf = square feet			

Caltrans in partnership with the Transportation Agency of Monterey County (TAMC) is proposing to improve intersection operations along Highway 68 by converting existing intersections to roundabouts at the intersections with Josselyn Canyon Road, Olmsted Road, Canyon del Rey Boulevard (Highway 218), and Ragsdale Road. Intersections improvements planned for the first phase of construction (Years 4-6) include the roundabouts at Olmsted Road and Highway 218 (TAMC 2017). The project has not yet completed environmental review or permitting (Caltrans website 2020). Similarly, a corridor study for improvement on Highway 218 within the cumulative project study area is ongoing.

OFF-AIRPORT CUMULATIVE DEVELOPMENT PROJECTS

Project No.	Project/Location
City of Monterey	
1	Monterey Motorsports Vehicle Storage Facility 2969 Monterey Salinas Highway
2	Mixed Use - 2200 North Fremont Street
3	Garage Unlimited - 2 Upper Ragsdale Drive
4	Montage Health Medical Buildings A & C - 2 Upper Ragsdale Drive
5	Starbucks + Two Retail Spaces - 2020 Del Monte Ave
Unincorporated County of Monterey	
6	Monterra Ranch - Monterra Ranch Road

LEGEND

- Airport Property Line
- Off-Airport Cumulative Project Area



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Chapter Four

ENVIRONMENTAL CONSEQUENCES AND MITIGATION

4.1 INTRODUCTION

Federal Aviation Administration (FAA) Orders 1050.1F, *Environmental Impacts: Policies and Procedures* (Order 1050.1F) and 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions* (Order 5050.4B) define the form and content of Environmental Assessments (EAs). Environmental impacts are determined by comparing anticipated local environmental conditions after implementation of the Proposed Action to anticipated conditions in the project study area if the No Action alternative were implemented. Data regarding the affected environment is provided within Chapter Three of this EA.

As discussed in Section 2.7 of this EA, the following alternatives are addressed within this chapter:

- Proposed Action – Shift 1,850 Linear Feet of Taxiway “A” (between Taxiways “F” and “K”) 52.5 Feet South and Replace Existing Passenger Terminal. This alternative would allow the relocation of hold lines on connector taxiways to the FAA design standard of 250 feet and would provide enough taxiway-runway separation to ensure that the larger aircraft using Taxiway “A” do not penetrate the runway safety area (RSA) with their wings. This alternative encompasses the following additional project components: construction of additional apron/taxilane pavement at the north general aviation (GA) ramp; relocation of GA tenants from the southeast ramp to the north side; construction of an on-airport northeast service road improvement to connect the north and south sides of the Airport for service vehicles; construction of a new aircraft rescue and firefighting (ARFF) building and on airfield ARFF service road; construction of a passenger terminal with a commercial apron that abuts Taxiway “A”; construction of an associated terminal access road, vehicular parking lots, and a roundabout at the intersection of Olmsted and Garden roads; and demolition of the existing ARFF and passenger terminal buildings. The relocated GA area and ARFF building would be accessed by the existing Airport Road on the northwest side of the Airport for all public access.
- No Action. Although the No Action alternative does not meet the purpose and need considerations for the project, it is retained per Title 40 Code of Federal Regulations (C.F.R.) §1502.14(c) to provide a reference point upon which the impacts of the Proposed Action can be compared.

The environmental consequences discussed under each impact category for the above alternatives include consideration of the following:

- **Direct effects** – Direct effects are defined as those which are caused by the Proposed Action and occur at the same time and place (40 C.F.R. §1508.8(a)).
- **Indirect effects** – Indirect effects are defined as those which are caused by the Proposed Action and are later in time or farther removed in distance but are still reasonably foreseeable (40 C.F.R. §1508.8(b)).
- **Cumulative effects** – Cumulative effects are defined as the impact on the environment which results from the incremental impact of the Proposed Action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes the other actions (40 C.F.R. §1508.7). Section 3.4 lists the past, present, and reasonably foreseeable future actions considered for

this EA's analysis; a cumulative impact analysis is then provided in Section 4.4. Resources which are not affected by the Proposed Action have not been evaluated for cumulative impacts unless a resource agency requested an evaluation (**Appendix B**).

Where necessary, mitigation, avoidance, or minimization measures are listed which will reduce or eliminate anticipated environmental impacts for each of the alternatives. Special purpose laws and local programs and policies that protect various environmental resources are also identified.

4.2 RESOURCES NOT IMPACTED BY PROJECT ALTERNATIVES

As outlined within paragraph 706.f of FAA Order 5050.4B, concise analysis was undertaken *only* for potential impacts that the alternatives under consideration may cause. The project study area is located within the Airport's boundaries and, as discussed in Chapter Three, the following resources are not located in the project study area or would not be impacted by the project alternatives:

- coastal resources;
- farmlands;
- wetlands;
- floodplains; and
- wild and scenic rivers.

Therefore, these FAA Order 1050.1F environmental impact categories are not addressed further in this EA.

4.3 RESOURCES POTENTIALLY IMPACTED BY PROJECT ALTERNATIVES

The following sections contain impact analyses for those categories defined within FAA Order 1050.1F that could potentially be affected by project alternatives. The No Action alternative provides an evaluation of future environmental impacts if the Proposed Action alternative is not undertaken. Where there is not a potential for a significant impact, the rationale for this conclusion is discussed.

Section 1506.2(b) of the NEPA implementing regulations [40 C.F.R. parts 1500 – 1508] also requires that EAs discuss any inconsistencies with approved state and/or local plans and laws. These are addressed in the Land Use section of this chapter.

4.3.1 Air Quality

Analysis Methodology and Significance Thresholds

Under the federal *Clean Air Act* (CAA), the United States (U.S.) Environmental Protection Agency (EPA) has established National Ambient Air Quality Standards (NAAQS) for six criteria pollutants, as described in Section 3.3.1. The federal CAA, as amended by the *Clean Air Act Amendments of 1990*, and FAA provide guidance for conducting air quality analyses for airport projects under NEPA. A significant air quality impact occurs under NEPA when a project or action exceeds one or more of the NAAQS.

Although the Proposed Action would result in temporary air emissions associated with construction that would not occur under the No Action alternative, it would not permanently change airport operations or aircraft traffic patterns. Therefore, the Proposed Action would not have reasonably foreseeable increases in air emissions related to the ongoing aviation activity at the Airport when compared to the No Action alternative. As the level of airport operations is not expected to change as a result of the project, per FAA Order 5050.4B and FAA's *Aviation*

Emissions and Air Quality Handbook, Version 3, Update 1 (FAA 2015a), no operational emissions inventory was prepared or is required under NEPA.

As discussed in Section 3.3.1, the Airport is in the North Central Coast Air Basin (NCCAB), which is the study area for air quality. The NCCAB is currently in attainment for all the NAAQS. Because the NCCAB is currently in attainment for all NAAQS, there are no current State Implementation Plans (SIPs) for the area, and no evaluation under the General or Transportation Conformity Rules of the CAA is required for NAAQS criteria pollutants.¹ However, for the purposes of disclosure, construction-related emission and vehicular emission inventories were prepared.

Air emissions occurring due to construction activity vary based on the project's duration and level of activity. Construction emissions occur mostly as exhaust products from the operation of construction equipment and vehicles but can also occur as fugitive dust emissions from land disturbance during materials staging, demolition, and movement. Evaporative emissions also result from asphalt paving operations. The type of construction equipment commonly used can be categorized as either off- or on-road equipment. Off-road equipment is normally used for earthwork, paving, demolition, and other on-site activities, while on-road equipment is typically used to transport and deliver supplies, materials, and employees.

To quantify air pollutant emissions from construction activity, a construction emissions inventory was prepared using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2. The CalEEMod software model, published by the California Air Pollution Control Officers Association (CAPCOA) 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 materials quantities are based on engineering estimates (where available) and the construction schedule discussed in Section 1.3. CalEEMod includes emissions factors that are adjusted to local climatic conditions in the area overseen by the Monterey Bay Air Resources District (MBARD), formerly the Monterey Bay Unified Air Pollution Control District (MPUAPCD).

Proposed Action Alternative

Construction Impacts. Implementation of the Proposed Action would generate air pollutant emissions related to construction activities for approximately nine years. Since construction-related air pollutant emissions vary based on the duration and level of activity, the corresponding level of emissions would vary each year based on improvements undertaken. **Table 4A** summarizes the estimated construction emissions in tons per year (per the NAAQS) for the Proposed Action. Implementation of the Proposed Action would not generate construction emissions above any *de minimis* thresholds (generally 100 tons/year for nonattainment or maintenance areas) applied during a CAA conformity determination and, therefore, would not result in exceedances of any NAAQS. Thus, the Proposed Action would not have a significant impact on air quality. Best management practices (BMPs), which were not incorporated into the analysis summarized in **Table 4A**, are proposed to further reduce particulate emissions. Refer to *Mitigation, Avoidance, and Minimization Measures for the Proposed Action*.

¹ If a conformity determination was required, the levels of project-related construction emissions presented in this section are well below the *de minimis* thresholds typically applied in SIPs. *De minimis* thresholds are defined as pollutant or pollutant precursor levels above which a project's emissions would be considered significant in terms of attaining the NAAQS in a timely manner and conforming to a SIP.

TABLE 4A
Construction Emissions Inventory per the NAAQS (Tons Per Year)
Proposed Action Alternative

Construction Year	Construction Emissions (tons per year) ¹					
	VOC ²	NO _x	CO	SO ₂	PM ₁₀ ³	PM _{2.5} ³
1	0.13	1.64	0.87	0.01	0.13	0.09
2	0.12	1.84	0.78	0.01	0.15	0.08
3	0.18	2.26	1.40	0.01	0.18	0.11
4	0.57	5.26	4.74	0.01	0.62	0.31
5	0.58	4.65	6.26	0.01	0.63	0.33
6	0.12	1.11	1.32	0.00	0.08	0.05
7	0.05	0.46	0.50	0.00	0.06	0.03
8	0.44	4.06	5.55	0.01	0.41	0.23
9	0.08	0.88	0.83	0.00	0.09	0.04

Source: CalEEMod analysis

¹ Includes emissions from on-road (worker and truck trips) and off-road (construction equipment) sources. Represents maximum emissions during the construction year.

² Volatile organic compounds (VOCs); also referred to as reactive organic gases (ROGs). VOC and NO_x (oxides of nitrogen) are precursors to ozone.

³ Includes fugitive particulates and exhaust particulates.

Aircraft Operational Emissions. As previously discussed, no changes to the airfield or terminal (gate) capacity are proposed under the Proposed Action. Therefore, no changes to aircraft operational emissions associated with the implementation of this alternative would occur. Aircraft operations at the Airport are forecasted to increase over time whether or not the Proposed Action is implemented.

Vehicular Operational Emissions. Implementation of the Proposed Action would result in a net decrease of 11 average daily trips (ADT) over the No Action alternative, beginning in approximately 2022 (based on information provided in Section 4.3.10.1 [see **Table 4N**]). Therefore, no increase in air quality emissions would occur in the long term.

Indirect Impacts. No adverse indirect impacts to air quality are expected as a result of the Proposed Action. However, potential beneficial impacts to air quality would occur since replacement buildings for the passenger terminal and ARFF facility would be constructed to Leadership in Energy and Environmental Design (LEED) certification standards. For example, a land use’s reduction in energy use and waste disposal and its commitment to renewable energy and other sustainable practices reduce indirect emissions. See also Section 4.3.3, Climate - *Indirect Impacts*.

Conclusion. The Proposed Action would not result in increases in air pollutant emissions associated with aircraft operations since implementation of the Proposed Action would not change the number of airport operations at the Airport or the types of aircraft used. Surface vehicular emissions would increase only during construction but would be below typical *de minimis* thresholds under the CAA. The Proposed Action would not result in air pollutant concentrations that would exceed one or more NAAQS and, therefore, would not result in a significant impact on air quality.

No Action Alternative

The No Action alternative would not change airport operations or aircraft and vehicle traffic patterns. Over time, aviation activity, and associated air quality emissions, are forecasted to increase whether or not the Proposed Action or the No Action alternatives are implemented. In the short term, no construction emissions would occur.

Mitigation, Avoidance, and Minimization Measures for the Proposed Action

As the Proposed Action would not result in a significant impact on air quality, no mitigation measures are required to reduce air emissions to a not significant level. However, the Airport has identified, and intends to implement, the following measures to avoid and minimize air emissions associated with the Proposed Action.

Avoidance and Minimization Measures

AQ-1: The Airport shall implement a dust control plan that includes the following, as stipulated in FAA Advisory Circular (AC) 150/5370-10H, *Standards for Specifying Construction of Airports*, Item C-102 (FAA 2018b) and MBARD's *CEQA Air Quality Guidelines* (MBUAPCD 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 materials to trucks.
8. Maintain at least two 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-2: In accordance with California Air Resources Board's (CARB) In-Use Off-Road Diesel-Fueled Fleets Regulation (2011), the following measures for construction vehicles and/or equipment shall be implemented:

1. Construction vehicles shall use CARB Tier 3 engines when available in the region;
2. Vehicle operators shall limit idling to no more than five minutes; and
3. All diesel equipment used for the project shall meet state diesel equipment requirements and be registered through the Statewide Portable Equipment Registration Program or the Diesel Off-Road Online Reporting System.

4.3.2 Biological Resources

Analysis Methodology and Significance Thresholds

Biotic resources are the various types of flora (plants) and fauna (animals) and the habitat supporting those species located in a particular area. FAA Order 1050.1F, Exhibit 4-1, states that a significant impact to federally listed threatened or endangered species occurs when the United States Fish and Wildlife Service (USFWS) determines the Proposed Action would be likely to jeopardize the continued existence of a federally listed threatened or endangered species or would result in the destruction or adverse modification of federally designated critical habitat. FAA has not established a significance threshold for non-listed species.

The following regulations are pertinent to this analysis:

- The federal *Endangered Species Act of 1973* (ESA) provides protection for species that are facing potential extinction. Impacts to listed species resulting from the implementation of a project require the responsible agency or individual to formally consult with the USFWS to determine the extent of impact to a particular species. If the USFWS determines that impacts to a species would likely occur, alternatives and measures to avoid or reduce impacts must be identified. USFWS also regulates activities conducted in federal critical habitat, which are geographic units designated as areas that support primary habitat constituent elements for listed species.
- The *Migratory Bird Treaty Act* (MBTA) prohibits private parties and federal agencies from intentionally taking a migratory bird, their eggs, or nests.
- State regulations include the California ESA, which ensures legal protection for plants listed as rare or endangered and species of wildlife formally listed as endangered or threatened. This state law also lists Species of Special Concern based on limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational values.

As discussed in Section 3.3.2, numerous biological field surveys were conducted during a variety of seasons to account for the various blooming seasons of rare plants with potential to occur within the project study area. The

biological study area (BSA) for this EA is approximately 160 acres² and includes both the 96-acre action areas associated with the Proposed Action and an additional 64 acres of adjacent areas to the action areas (**Exhibit 4A**). (For purposes of the study, the BSA was divided into six different “action” areas representing different components of the Proposed Action.) Prior to conducting the site visits, a literature review was performed to identify target species. A *Biological Assessment for the Monterey Regional Airport Safety Enhancement Project for Taxiway “A” Relocation and Associated Building Relocations, Monterey County, California* (Biological Assessment), which includes the literature and survey methodology and results, was prepared to document the findings of the study (SWCA Environmental Consultants, Inc. [SWCA] 2018a).

Proposed Action Alternative

Construction and Operation Impacts. Federally protected biological resources could be directly affected, first by construction grading activities that disturb the associated existing vegetative communities and then by the ongoing operation of the newly constructed facilities. Based on the Biological Assessment, two federally listed plant species may be affected, and are likely to be adversely affected, by the Proposed Action as discussed further below. FAA requested concurrence with these findings from USFWS on June 17, 2019 (**Appendix C**). The USFWS has issued a Biological Opinion (2019-F-0599) for the project dated December 23, 2019, which is also included in **Appendix C**.

- **Monterey spineflower (*Chorizanthe pungens*).** Monterey spineflower is a federally threatened species that is widespread on the Airport. The Monterey spineflower population on the Airport fluctuates seasonally making it difficult to predict the potential impacts to the species that could occur from future projects. Exhibit 3D in Chapter Three shows Monterey spineflower observations on the Airport based on field surveys dating as far back as 2009. During field surveys conducted for this EA, Monterey spineflower was observed in the vicinity of the proposed improvements to the northeast service road, GA apron, and soil deposition areas. At the time of the 2017 surveys, the areas around the proposed improvements to the northeast service road and GA apron supported approximately 141 Monterey spineflower individuals while the soil deposition areas supported approximately 225 Monterey spineflower individuals. Monterey spineflower is an annual species and the number of individuals in a location can fluctuate from season to season.

Based on the designs for the Proposed Action and the cumulative survey data, it is anticipated that the Proposed Action could impact approximately 366 individuals, as well as the seed bank at the occurrences. These direct effects would occur on the north side of the Airport during Phases 1 and 2 of the Proposed Action (**Exhibit 4A**). The direct effects would include the removal of individuals, loss of soil seed bank from removing topsoil, and the conversion of available habitat to developed areas.

- **Yadon’s piperia (*Piperia yadonii*).** Yadon’s piperia is a federally endangered species that has numerous occurrences on the southern portion of the Airport and sparse occurrences in the northern portion of the Airport. Seasonally timed botanical surveys for Yadon’s piperia were conducted in the action areas in 2016, 2017, and 2018; Yadon’s piperia emergences were sparse in 2016 and 2018 and prevalent in the 2017 season. Exhibit 3D in Chapter Three also shows the Yadon’s piperia observations in and adjacent to the BSA. Based on the collective survey data, 53 individuals occur in the Southside Terminal action area, three individuals occur in the Parking and Circulation action area, and one individual occurs in the Drainage Improvements action area. Construction activity in these areas would occur in Phases 2 and 4 of the Proposed Action. As designed, the Proposed Action would directly remove 57 Yadon’s piperia from

² The BSA is less than the overall project study area and the Area of Potential Effect area assumed for cultural resources since it does not include paved areas within the overall project study area.

these areas and permanently remove approximately 0.17 acres of occupied Yadon's piperia habitat. The impacts would include the physical removal of individuals, loss of soil seed bank from removing topsoil, and the conversion of occupied habitat to developed areas. The Proposed Action has been designed to avoid the occurrences that are adjacent to the Parking and Circulation and Southside Terminal and Taxiway "A" Shift action areas. Overall, approximately 1,215 individuals are known to occur on the Airport, many of which are not shown in Exhibit 3D because they are beyond the BSA boundaries.

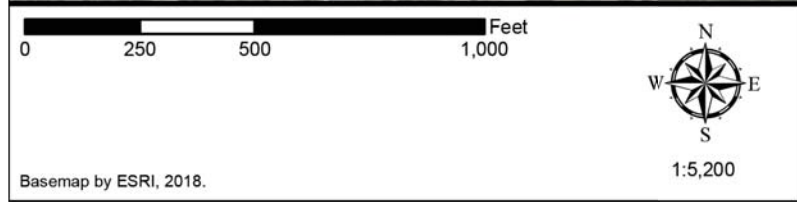
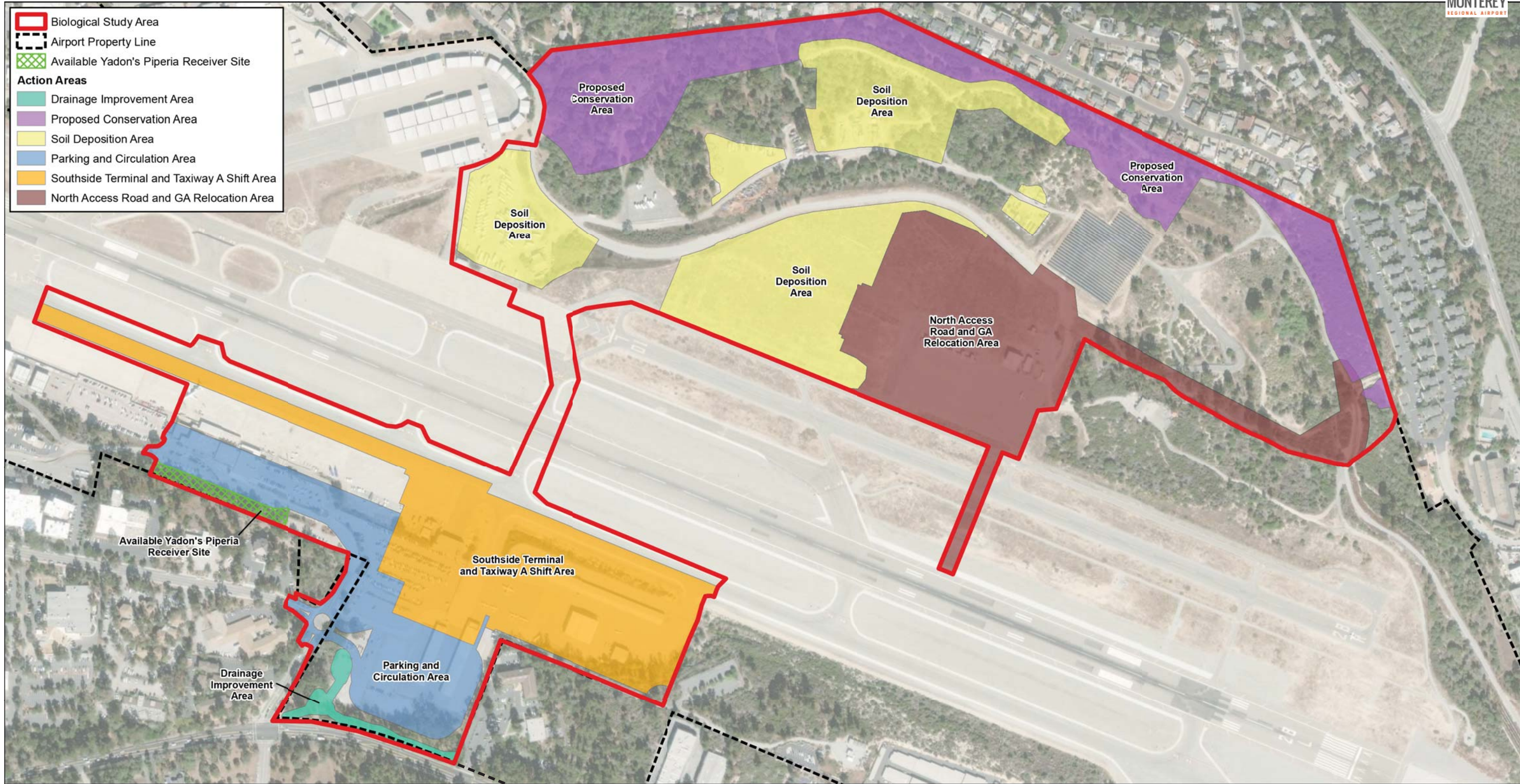
The BSA also provides suitable habitat for nesting bird species (including the California horned lark) that are protected under the MBTA. Common passerines may use the ruderal vegetation for nesting and/or foraging; raptors may use the area for foraging. Ground bird nesting habitat would be impacted by project activities, including grading and vegetation removal. If the project activities are conducted between March and September, birds may be nesting within or adjacent to the affected area and the individuals could be directly or indirectly impacted. Direct impacts may include loss of active nests during vegetation removal.

Indirect Impacts. It is anticipated that the activities in the proposed biological conservation areas will be carried out by the Airport and would include habitat restoration (BIO-1 and 2). These activities would focus on invasive species removal and rare plant introductions in areas that support Monterey spineflower and Yadon's piperia. In addition, Monterey spineflower and Yadon's piperia plant materials salvaged during implementation of the Proposed Action would be introduced in the selected conservation areas. Thus, indirect effects on Monterey spineflower and Yadon's piperia would also include habitat restoration activities being conducted in proposed conservation areas.

These temporary adverse, indirect effects would occur upon completion of Phase 1 of the Proposed Action for Monterey spineflower and would continue for seven years following the completion of Phase 1. Upon completion of the restoration activities, the temporary adverse effects would cease, and the completed habitat restoration efforts would result in beneficial effects to the resources. For Yadon's piperia, these temporary, adverse, indirect effects would commence during Phase 1 of the Proposed Action and would continue for five years following the completion of Phase 2. Upon completion of the restoration activities, the temporary adverse effects would cease, and the completed habitat restoration efforts would result in beneficial effects to the resources in the area.

Conclusion. An official species list issued by the USFWS Information for Planning and Consultation (IPaC) database (USFWS 2018a) included six plants, six birds, two amphibians, one fish, one insect, and one crustacean to consider for potential effects for the Proposed Action. As discussed above, Monterey spineflower and Yadon's piperia are the only listed species that the Proposed Action is likely to adversely affect. No effects are anticipated for the remaining listed species within the IPaC database. The BSA either does not support suitable habitat conditions or the potentially affected species was not observed in the BSA during surveys conducted in the appropriate season (SWCA 2018a). In addition, neither the Airport nor the Proposed Action areas are located within any federally designated critical habitat. Since the action areas are not located in federally designated critical habitat, the Proposed Action would not adversely modify federally designated critical habitat for any species.

Based on the site surveys and a thorough evaluation of the Proposed Action and federally listed species, FAA has determined that the Proposed Action would have an adverse effect on the Monterey spineflower and Yadon's piperia. The USFWS Biological Opinion (**Appendix C**) concluded that with implementation of the Proposed Action and protective measures for the Monterey spineflower and Yadon's piperia described in the Biological Opinion and the *Mitigation, Avoidance, and Minimization Measures* section for biological resources in this EA, the Proposed Action would not jeopardize the continued existence of these plant species. Therefore, with implementation of the mitigation measures as described in the Biological Opinion, the Proposed Action would not have a significant impact on biological resources.



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Biological Study Area and Action Areas Map

Basemap by ESRI, 2018.

Source: SWCA updated 2020

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No Action Alternative

No impacts related to biological resources would occur due to the No Action alternative. No changes to the existing airport environment and operating procedures would occur.

Mitigation, Avoidance, and Minimization Measures for federally threatened and endangered species identified in the Biological Opinion.

Mitigation Measures

The following mitigation measures are necessary to reduce the environmental impacts of the Proposed Action to a not significant level:

BIO-1: To minimize Monterey spineflower impacts and promote the continued existence of the species on the Airport, the following measures shall be implemented:

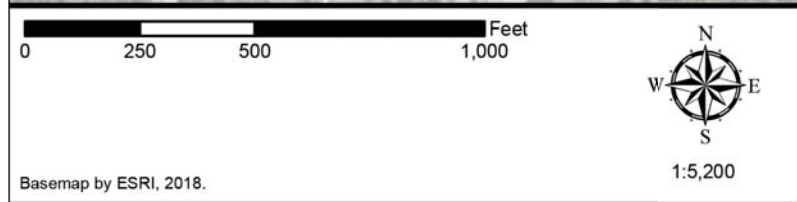
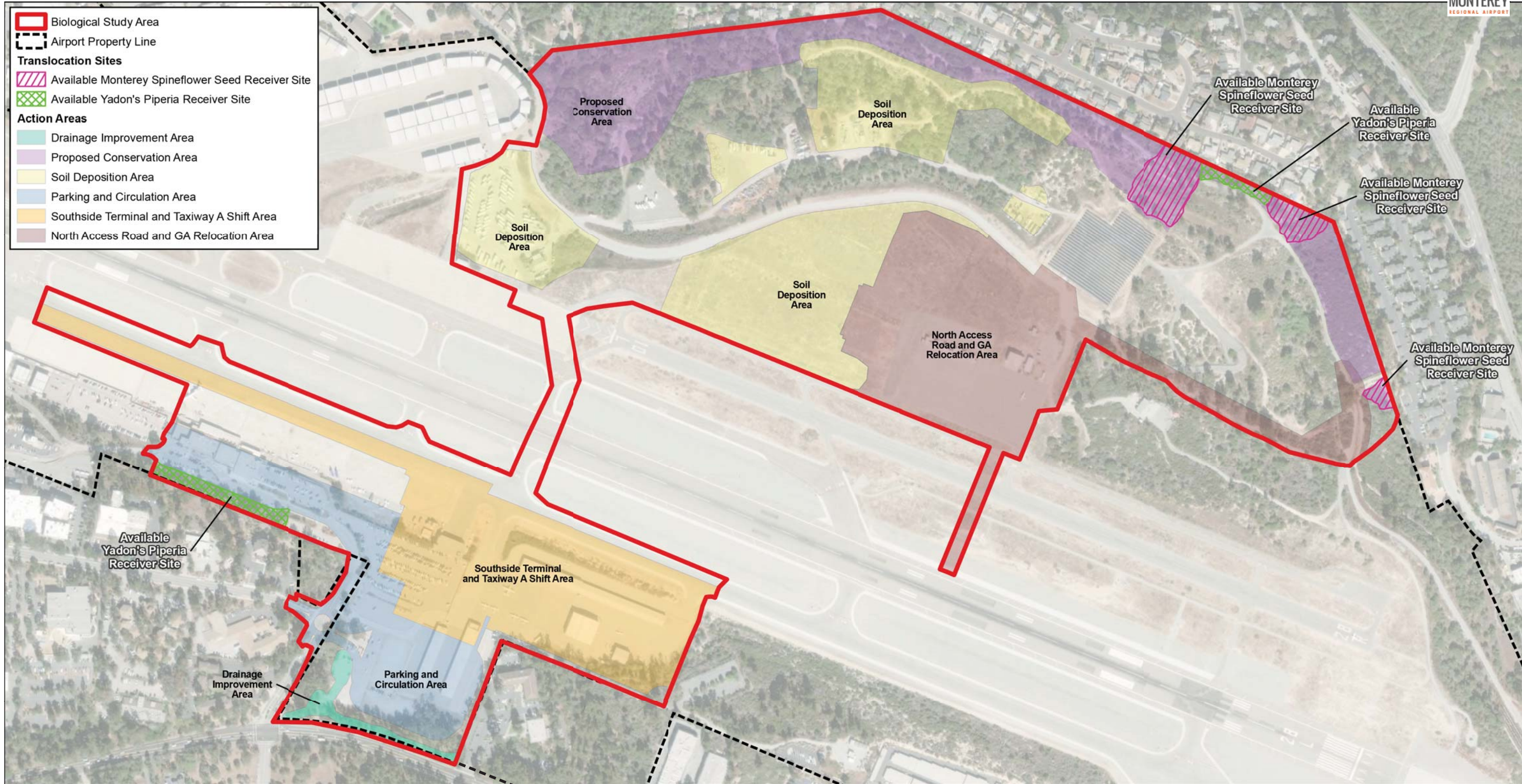
- 1. The Airport shall implement a soil and seed bank conservation program that shall include Monterey spineflower seed and topsoil collection and distribution.**
- 2. The Airport will broadcast seeds and relocate the soil seed bank in the temporarily impacted portions of the action areas and/or in an established conservation area to conserve Monterey spineflower. Three sites within the proposed conservation area on the east side of the Project site have been identified as potential Monterey spineflower seed and soil receptor sites (Exhibit 4B).**
- 3. Prior to the start of construction, an USFWS-approved biologist will collect seed from project areas to be impacted that currently support Monterey spineflower and broadcast them in conservation areas. This species flowers from April through June; therefore, seed collection will begin in August and continue through September, or when seed production ceases.**
- 4. The Airport will collect and distribute soil from project disturbance areas containing Monterey spineflower seed. The upper six inches of soil located within the vicinity of existing Monterey spineflower individuals will be collected and redistributed prior to grading activities. Soil collection will occur immediately following completion of seed collection and prior to the first rainfall. The collected soil will be immediately distributed in the receptor site(s). The collected seed will be broadcast over the relocated soil, and the receptor site will be lightly raked to cover the seed.**
- 5. The Airport will place fencing delineating project work area boundaries to prevent unintended parking on or grading of suitable habitat. The fencing will remain in place and functional throughout the duration of the project and no work activities will occur outside the delineated work area without the oversight of a monitoring biologist.**
- 6. The Monterey spineflower seed receiver sites are located outside of project disturbance areas in the proposed conservation areas, where compaction will be avoided. The largest of the three conservation areas may be subject to minor grading to remove invasive species. If minor grading is used to remove undesirable vegetation, the native soil will be preserved to ensure the activities do not result in excessive soil compaction.**

BIO-2: To minimize Yadon's piperia impacts and promote the continued existence of the species on the Airport, the following measures shall be implemented:

- 1. The proposed passenger terminal surface parking and surface parking road (Parking and Circulation action area) will be constructed on the existing asphalt to avoid impacts to Yadon's piperia that are located on the Airport/Fenton Keller property boundary (Exhibit 4B).**
- 2. Prior to ground disturbance, the Airport shall retain an environmental monitor trained by an USFWS-approved biologist to ensure compliance with the conservation measures. The monitor shall be responsible for:**
 - a. ensuring that procedures for verifying compliance with conservation measures are implemented;**
 - b. establishing lines of communication and reporting methods;**
 - c. conducting compliance reporting;**
 - d. conducting construction crew training regarding environmentally sensitive areas and protected species;**
 - e. maintaining authority to stop work; and**
 - f. outlining actions to be taken in the event of non-compliance.**

Monitoring will occur during initial ground disturbing in potential Yadon's piperia habitat at a frequency and duration determined by the Airport in consultation with the USFWS.

- 3. Prior to the commencement of site grading, an USFWS-approved or environmental monitor trained by an approved biologist shall conduct an environmental awareness training for all construction personnel. The environmental awareness training shall include discussions of the protected species that occur in and adjacent to the project areas. Topics of discussion shall include:**
 - a. descriptions of the species' habitats;**
 - b. general provisions and protections afforded by the ESA;**
 - c. measures implemented to protect listed species;**
 - d. review of the project boundaries and special conditions;**
 - e. the monitor's role in project activities;**
 - f. lines of communication; and**
 - g. procedures to be implemented in the event a special-status species is observed in the work area.**



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**Monterey Spineflower and Yadon's Piperia
Seed/Bulb Translocation Sites**

Source: SWCA updated 2020

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4. Prior to construction of the proposed passenger terminal surface parking and surface parking road (Parking and Circulation area), the construction plans shall clearly show the placement of construction exclusion fencing along the toe of slope at the Airport/Fenton Keller property boundary and the southern border of the Fred Kane Drive parking area. Similarly, prior to construction of the proposed drainage improvements, the construction plans shall clearly show the placement of construction exclusion fence along the western boundary of the drainage improvements. 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.
5. The Airport shall retain an USFWS-approved biologist to design and implement a five-year Yadon's piperia seed and bulb collection and translocation program. The program shall be developed within two years prior to construction of the new passenger terminal and associated aircraft ramp, the parking and circulation improvements, and the southside drainage improvements. The Yadon's piperia seed and bulb collection and translocation program shall include the following:
 - a. 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 disturbance area(s) shall be provided.
 - b. During the flowering/blooming period for Yadon's piperia (anticipated to be May through July) and in the year prior to project construction, a qualified biologist shall mark Yadon's piperia plants that would be impacted by the project construction with pin flags.
 - During the time that the marked Yadon's piperia are setting seed (anticipated to be between August and 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. Suitable habitat and existing occurrences are situated on a steep bank just south of Fred Kane Drive. The bank is protected from vehicular traffic by a large retaining wall and shall serve as the Yadon's piperia seed and bulb receiver site (Exhibit 4B).
 - Prior to distributing the collected seed in the receiver site, the receiver site shall be cleared of nonnative 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.
 - c. Prior to construction and when plants are dormant (anticipated to be October through December), the biologist shall excavate and relocate bulbs of the marked plants to the seed and bulb receiver site. The bulbs should be planted approximately six inches below the soil surface.
 - d. 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.

- e. Nonnative vegetation removal shall be conducted during the monitoring program. Nonnative vegetation removal may not utilize herbicides due to root to tuber/bulb transfer. The available Yadon's piperia receiver site is located outside of the project disturbance areas and will not be subject to any grading or soil compaction.

BIO-3: Best management practices for herbicide use shall be followed (as identified in the USFWS Biological Opinion) to avoid and minimize impacts to the above federally listed plants.

Avoidance and Minimization Measures

Additional measures to avoid or minimize the environmental impacts of the Proposed Action include the following measures to avoid or minimize potential impacts to migratory birds:

BIO-4: To the maximum extent possible, initial grading of the ruderal vegetation in the project area shall be conducted between October and February, which is outside the typical migratory bird breeding season for the area. Since October to February is typically the wet season, temporary BMPs shall be employed to control water pollution, soil erosion, and siltation. If the project schedule does not provide for late season initial grading in the ruderal vegetation, a nesting bird survey shall be conducted by a qualified biologist no more than one week prior to the grading to determine presence/absence of nesting birds within the vegetated area.

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

4.3.3 Climate

Analysis Methodology

FAA has not identified any significance thresholds for aviation greenhouse gas (GHG) emissions, and there are currently no accepted methods of determining significance applicable to aviation projects given the small percentage of emissions they contribute. In addition, in 2017 the Council of Environmental Quality (CEQ) withdrew its draft, and then its final, guidance on consideration of GHGs during federal agency NEPA reviews. See *Withdrawal of Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change on NEPA Reviews* (April 5, 2017).³ However, although there are no federal standards for aviation-related emissions, it is well-established that GHG emissions can affect climate (Intergovernmental Panel on Climate Change [IPCC] 2014; U.S. Global Change Research Program 2009).

³ <https://www.federalregister.gov/documents/2017/04/05/2017-06770/withdrawal-of-final-guidance-for-federal-departments-and-agencies-on-consideration-of-greenhouse-gas>

The following EA section discloses the potential incremental change in carbon dioxide (CO₂) emissions that would result from the Proposed Action compared to the No Action alternative for the same timeframe. It then discusses the context for interpreting and understanding the potential changes in accordance with FAA's 1050.1F Desk Reference for implementing Order 1050.1F, which states, "Where the proposed action or alternative(s) would result in an increase in GHG emissions, the emissions should be assessed either qualitatively or quantitatively ...". The study area for GHG emissions related to Climate for this document is the NCCAB.

The Proposed Action would not have reasonably foreseeable increases in GHG emissions related to the ongoing aviation activity at the Airport when compared to the No Action alternative since it would not permanently change airport operations or aircraft traffic patterns. In addition, no increase in GHG emissions would occur due to operational vehicular activity since the Proposed Action would not have a net increase in vehicular traffic (**Table 4N**, Section 4.3.10.1). An estimate of GHG emissions attributable to construction emissions due to the Proposed Action and No Action alternatives is provided. This estimate is provided for information only as the FAA has not identified specific factors to consider in making a significance determination for GHG emissions.

The methodology to disclose GHG emissions within this EA includes quantification of emissions with computer software. As described previously in Section 4.3.1, emissions from proposed construction activity were modeled using the CalEEMod Version 2016.3.2 (CAPCOA 2017). The inputs used to calculate the air pollutant emissions in Section 4.3.1 were also used to calculate GHG emissions.

Proposed Action Alternative

Construction Emissions. Implementation of the Proposed Action would generate GHG emissions related to construction activities for approximately nine years (**Table 4B**). Construction-related emissions vary based on the duration and level of activity. 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. **Table 4B** summarizes carbon dioxide equivalents (CO₂e) in metric ton (MT) per year for each construction year, based on engineering estimates for each phase of the proposed project components. As noted in the table, emissions of CO₂, methane (CH₄), and nitrous oxides (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, Fourth Assessment Report (IPCC 2007). Based on the CalEEMod results, the annual construction CO₂e emissions would range between 119 and 2,845 MT CO₂e for a period of nine years. This is an annual average of approximately 755 MT/year during the construction phase of the Proposed Action.

Aircraft Operational Emissions. No changes to the airfield or terminal (gate) capacity are proposed under the Proposed Action. Therefore, no changes to aircraft operational GHG emissions would occur that are attributable to this project. As described in the adopted Airport Master Plan (AMP), aviation activity at the Airport is anticipated to increase over time whether or not the Proposed Action is implemented (Monterey Peninsula Airport District [MPAD] 2018b). There would be some increase in GHG emissions associated with this change if the forecasts are realized.

Vehicular Operational Emissions. Increased GHG emissions associated with changes in vehicle activity would not occur since the Proposed Action would result in a net decrease of ADT over the No Action alternative (**Table 4N**, Section 4.3.10.1).

TABLE 4B
Construction GHG Emissions Inventory¹
Proposed Action Alternative

Construction Year	Construction Emissions (Metric Tons/Year)			
	CO ₂	CH ₄	N ₂ O	CO ₂ e ²
1	260.0	<0.1	0.0	260.9
2	444.8	<0.1	0.0	445.4
3	497.5	<0.1	0.0	498.6
4	2,835.8	0.4	0.0	2,845.7
5	1,198.1	0.2	0.0	1,203.7
6	227.8	<0.1	0.0	228.9
7	118.8	<0.1	0.0	119.4
8	906.9	0.2	0.0	912.0
9	281.7	<0.1	0.0	282.6
Total	6,771.4	0.8	0.0	6,797.2
Annual Average during Construction	752.4	0.1	0.0	755.2

Source: CalEEMod analysis

¹ Includes emissions from on-road (worker and truck trips) and off-road (construction equipment) sources. Represents maximum daily greenhouse gas (GHG) 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, Fourth Assessment Report (IPCC 2007).

NOTE: Numbers reflect rounding.

Indirect Impacts. Potential indirect beneficial impacts related to GHGs would occur due to the Proposed Action because replacement buildings for the passenger terminal and ARFF facility would be constructed to LEED certification standards. Since sustainability measures would be implemented, GHGs related to operation of the new passenger terminal and ARFF building would decrease when compared to the existing building operations. For example, in addition to discretionary credits received based on the selected sustainability measures, the LEED certification process includes the following prerequisite practices: construction activity pollution prevention; minimum energy performance; building-level energy metering; and refrigerant management, among others (United States Green Building Council [USGBC] website 2019).

Conclusion. The Proposed Action would contribute increased GHGs temporarily during construction only.

No Action Alternative

The No Action alternative would not change airport operations or aircraft and vehicle traffic patterns. Over time, aviation activity, and associated GHG emissions, are forecasted to increase whether or not the Proposed Action or the No Action alternatives are implemented. Since no construction would occur with the No Action alternative, no short-term GHGs would be generated.

Mitigation, Avoidance, and Minimization Measures for the Proposed Action

The FAA has not identified specific thresholds or factors to consider in making a significance determination for GHG emissions; therefore, no mitigation measures are required to mitigate the potential temporary increase in GHG emissions attributed to the Proposed Action's construction phases. However, for NEPA reviews of proposed FAA actions that would result in increased emissions of GHGs, consideration should be given to whether there are areas within the scope of a project where such emissions could be reduced.

Avoidance and Minimization Measures

The following measures focus on reduction of GHG emissions from construction, as well as the continuation of the Airport's existing GHG-reduction practices. The Airport has identified, and intends to implement, the following measures to avoid and minimize the production of GHGs associated with this project.

GHG-1: The following measures for construction vehicles and/or equipment shall be implemented:

1. Construction vehicles shall use CARB Tier 3 engines when available in the region;
2. Vehicle operators shall limit idling to no more than five minutes;
3. All diesel equipment used for the project shall meet state 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-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.

4.3.4 Department of Transportation Act, Section 4(f)

Analysis Methodology and Significance Thresholds

FAA Order 1050.1F, Exhibit 4-1 states that a significant impact would occur to a *Department of Transportation (DOT) Act, Section 4(f)* resource if the action involves more than a minimal physical use of a Section 4(f) resource or constitutes a "constructive use" based on an FAA determination that the aviation project would substantially impair the Section 4(f) resources. Substantial impairment occurs when the activities, features, or attributes of the resource that contributes to its significance or enjoyment are substantially diminished. The direct study area for DOT Section 4(f) resources is the area within the airport property; the indirect study area for DOT Section 4(f) resources encompasses potential Section 4(f) resources located adjacent to the Airport.

Proposed Action Alternative

Construction Impacts. No use or substantial impairment of Section 4(f) resources would occur due to construction activities for the Proposed Action. The closest Section 4(f) resources (Tarp's Roadhouse Restaurant and Work

Memorial Park, respectively) would be separated from the proposed construction activities by 150 feet or more, topographical differences, and by mature trees and other vegetation.

The Tarp's Roadhouse Restaurant is a Section 4(f) resource due to its eligibility for listing on the National Register of Historic Places (NRHP) based on Criterion C (refer to Section 3.3.6 for further information). The structure's historic architecture and design would not be physically impacted nor substantially impaired due to the Proposed Action. The only construction activity within proximity to the resource would be the possible use of the on-airport vehicle service road during construction of the proposed terminal apron. This road is located more than 150 feet from the Tarp's structure, and no physical changes to the structure or impairment of its Section 4(f) values would occur.

Work Memorial Park is primarily an unimproved, passive recreational space except for a set of tennis courts. The only construction activity in proximity to the park would be the disposal of dirt on the north side of the Airport. The closest proposed dirt stockpile/disposal site is approximately 0.3 mile from the tennis courts. No physical use or substantial impairment of the park or its tennis courts would occur.

Construction activities of the Proposed Action would not physically use or substantially impair or diminish the features or attributes of any Section 4(f) resource.

Operation Impacts. The Proposed Action would continue the current operation of the Airport. Proposed project components, such as a relocated passenger terminal complex (south side) and relocated GA and ARFF uses (north side), are located away from any potential Section 4(f) resources. The relocated passenger terminal and apron would be more than 0.75 mile from Tarp's Roadhouse Restaurant, and no physical use of the structure or substantial impairment of its Section 4(f) values would occur. The relocated ARFF and GA hangars on the north side would be more than 0.5 mile from the Work Memorial Park tennis courts, and no physical use of the structure or substantial impairment of its Section 4(f) values would occur.

Indirect Impacts. No indirect use or substantial impairment of nearby Section 4(f) resources would occur as a result of the Proposed Action. The adopted AMP contains a 100-foot-wide on-airport open space buffer along the Airport's northern boundary (Section 3.3.7.3, Exhibit 3G). This buffer, as well as a proposed conservation area included in this EA (**Exhibit 4B**), would protect off-airport Section 4(f) resources from indirect adverse impacts.

Conclusion. No construction, operation, or indirect use or substantial impairment of Section 4(f) resources would occur due to the Proposed Action. Therefore, implementation of the Proposed Action would not result in a significant impact on Section 4(f) resources.

No Action Alternative

No use or substantial impairment of Section 4(f) resources would occur due to the No Action alternative. The closest Section 4(f) resources to the project study area are Tarp's Roadhouse Restaurant and Work Memorial Park. These resources, as well as other potential Section 4(f) resources located farther from the Airport, would not be affected by the No Action alternative.

Mitigation, Avoidance, and Minimization Measures for the Proposed Action

As there would be no use or substantial impairment of Section 4(f) resources, impacts of the Proposed Action are not significant for this resource and there are no mitigation measures required to reduce impacts to a not significant level.

4.3.5 Hazardous Materials, Solid Waste, and Pollution Prevention

4.3.5.1 Hazardous Materials

Analysis Methodology and Significance Thresholds

The study area for hazardous materials, solid waste, and pollution prevention is the airport property. FAA has not established a significance threshold for this impact category. However, per FAA Order 1050.1F, Exhibit 4-1, consideration should be given to the Proposed Action's potential to:

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

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

The air toxin 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 include both asbestos and lead. These air toxin regulations specify work practices that must be followed during building demolition and renovations. Local regulators include MBARD, which maintains Rule 424 to enforce NESHAP (MBARD website 2018).

State hazardous materials regulations and programs include: the California Health and Safety Code (CHSC), California Fire Code, California Unified Program Administration, California *Hazardous Waste Control Law*, and various titles and sections within the California Code of Regulations (CCR). CCR Title 8 contains regulations related to asbestos and lead contaminated materials.

For preparation of this EA, federal and state online databases related to the presence and/or cleanup of hazardous materials, as well as available information on known airport hazardous or formerly hazardous conditions, have been accessed relative to the project study area. The potential for the proposed project to create or result in increased risk of exposing surrounding populations or the environment to hazardous materials was 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.

An inventory of the closest schools to the proposed fuel storage area was also conducted. Although there are two schools 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), neither school is within ¼ mile of the proposed fuel storage area, which would be located on the northeast GA apron.

Proposed Action Alternative

Construction Impacts. The Proposed Action would result in a variety of demolition, relocation, and construction activities that would involve the use, storage, and handling of hazardous materials as well as the generation of hazardous waste. Based on previous demolition projects at the Airport, there are potential hazardous materials releases that could result from the demolition of older buildings. For example, asbestos and lead-based paint are known hazardous materials that would be encountered during the demolition of the existing passenger terminal building. The ARFF building 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, therefore, be followed. Rule 424 contains the investigation and reporting requirements for asbestos. In addition, FAA AC 150/5370-10H, Item C-102 would be followed. This FAA Advisory Circular specifies temporary erosion and pollution control construction requirements, including the requirement for a plan for disposal of waste materials.

The Airport maintains a spill prevention, control, and countermeasure (SPCC) plan (MPAD 2017b), as well as a hazardous materials business response plan (MPAD 2017a) (see additional discussion below). Compliance with these, and other rigorous state and local regulatory requirements, would ensure that impacts related to hazardous materials and waste products during project construction activities, including the demolition of older buildings, would not be significant. See *Mitigation, Avoidance, and Minimization Measures for the Proposed Action*.

Operation Impacts. The Airport, as a Class I commercial service airport, is required to have an Airport Operating Certificate (AOC) per 14 C.F.R. part 139 (Part 139), in addition to meeting numerous federal regulations. These regulations include standards for the handling and storing of hazardous materials and safety inspection and reporting procedures. The Airport's SPCC plan is implemented by the fuel consortium of the two fixed base operators (FBOs) at the Airport (Monterey Jet Center and Del Monte Aviation). These FBOs are required to conduct SPCC plan training for their staff, and airport maintenance staff conducts routine SPCC plan inspections. The Airport's hazardous materials business response plan contains an emergency response/contingency plan module (per 14 C.F.R. 139.325) that addresses emergency procedures for all parts of the facility.

The proposed north side GA hangars would be used for the storage of aircraft and materials related to the maintenance of aircraft, which could include small quantities of hazardous materials. Commercial businesses with specific needs may also be located within the proposed GA hangars. 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 materials release to occur on the Airport, including, but not limited to, any release into soil, groundwater, sewage, or storm drainage system. Since the north side GA 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, impacts related to the handling, storage, or disposal of hazardous materials would not be significant.

Along with expansion of GA activity on the north side of the Airport, the Proposed Action would provide an additional fuel farm on the north side of the Airport. An existing aboveground 8,000-gallon aviation gasoline

(AvGas) tank is proposed to be relocated from the southeast GA area to the north side. The existing 12,000 AvGas 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. Thus, the Proposed Action 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 the two existing aboveground fuel tanks would be addressed using the procedures described in the Airport's hazardous materials business response plan, as well as the existing SPCC plan (Section 3.3.5.1). 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 are not significant.

No changes to the use or handling of hazardous waste at the Airport would occur due to the relocated ARFF and passenger terminal. The only hazardous waste generated from the ARFF is oil from the maintenance of the vehicles, which is disposed of by the City of Monterey with their other vehicle oil disposal. As previously discussed, fuel deliveries would continue to occur from the south side of the Airport via an FBO personnel escort, starting at one of the FBOs to the fuel tank at the north GA apron.

Indirect Impacts. Indirect impacts could involve the future use, transport, or disposal of hazardous materials due to the actions of future tenants of the relocated and new hangars. Although specific details regarding future use of hazardous materials, if any, are not known at this time, any future 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.

Conclusion. Implementation of the Proposed Action would not result in a significant impact on the environment associated with the use, transport, or disposal of hazardous materials due to the following:

- Worker exposure to asbestos and lead paint during demolition of the existing passenger terminal and ARFF buildings (and older hangars) would be limited to levels in accordance with regulatory requirements.
- Relocated north side GA 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.
- The proposed relocation of the existing fuel tanks would be subject to the Airport's procedures and plans in place that are applied to all fuel storage at the Airport.

Future north side 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.

No Action Alternative

No impacts related to the use, transport, or disposal of hazardous materials resources would occur due to the No Action alternative. No changes to the existing airport environment and operating procedures would occur.

Mitigation, Avoidance, and Minimization Measures for the Proposed Action

As the impacts of the Proposed Action are not significant for this resource, there are no mitigation measures required to reduce the impacts to a not significant level. However, the Airport proposes to implement the following measures to further avoid and minimize the environmental impacts of the Proposed Action.

Avoidance and Minimization Measures

HAZ-1: During construction, if previously unknown contaminants are discovered or a spill occurs, work shall be halted, and the National Response Center notified, where applicable. Per the Airport's hazardous materials business response plan, the Airport shall immediately report any release or threatened release of hazardous materials to the Monterey County (County) Health Department and the Officer of Emergency Services.

HAZ-2: Appropriate spill prevention and cleanup kits shall be readily available on-site and accidental spills shall be promptly cleaned up. The contractor shall follow standard hazardous materials containment procedures and other BMPs should an inadvertent spill occur.

HAZ-3: MBARD Rule 424 (NESHAP) shall be implemented during the demolition of the ARFF building and passenger terminal building, as well as some hangars, as applicable. Rule 424 contains the investigation and reporting requirements for asbestos.

HAZ-4: 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 for any necessary removal and disposal of such materials. This plan must include the following (CCR, Title 8, §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.

4.3.5.2 Solid Waste

Analysis Methodology and Significance Thresholds

FAA has not established a significance threshold for the Hazardous Materials, Solid Waste, and Pollution Prevention impact category. However, per FAA Order 1050.1F, Exhibit 4-1, consideration should be given to the Proposed Action's potential to:

- Violate applicable federal, state, tribal, or local laws or regulations regarding solid waste management; or
- Generate an appreciably different quantity or type of solid waste or use a different method of collection or disposal and/or would exceed local capacity.

The U.S. EPA is the lead agency that enforces federal regulations impacting public health as it relates to the environment. The U.S. EPA primarily regulates household, industrial, and manufacturing solid waste under 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.

California's Department of Resources Recycling and Recovery (CalRecycle) brings together the state's recycling and waste management 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. 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 GHG 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 Green Building Standards Code (CalGreen) (CCR, Title 24, part 11) includes mandatory measures for residential and nonresidential development in a variety of categories, one of which relates to materials 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 materials diverted from the landfill complies with CCR, Title 24, part 11, §5.408.1.2;
- 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 materials may be stockpiled on-site until the storage site is developed.

For construction solid waste generation, this EA analysis uses the number of truck trips hauling construction and demolition waste off-site 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 landfill. Construction truck trip estimates were provided by Kimley-Horn and Associates (KHA) (2017), Neill Engineering Corporation (Neill Engineers) (2017a), and DWL Architects + Planners, Inc. (DWL Architects) (2017).

For operational solid waste generation, the analysis 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 (CalRecycle website 2018). CalRecycle rates used for each proposed development component 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 square feet (sf)/day⁴
- ARFF building: Manufacturing/Warehouse at a rate of 1.42 lb/100 sf/day⁵
- Passenger terminal building: Commercial at a rate of 5 lb/1,000 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 Monterey Peninsula Landfill (MPL) to serve the proposed project. All mandatory waste diversion rates of the various state regulations would be incorporated.

Proposed Action Alternative

Construction Impacts. Short-term, construction-related solid waste would result from the generation of debris from the demolition of buildings and the removal of existing pavement and infrastructure. All construction waste not reused or recycled would be hauled to the MPL, except for construction waste deemed hazardous. The MPL has a projected capacity of 5,000,000 tons per year through the Year 2115.⁶ It currently receives approximately 490,000 tons per year (Monterey Regional Waste Management District [MRWMD] 2016).

For project construction activity, the solid waste impact was derived from the estimation of truck trips based on their hauling capacity (16 cy). **Table 4C** provides construction waste generation estimates for each phase of the proposed project. In addition to the construction debris listed in the table, there would be additional dumpsters on airport property for the duration of demolition projects. The peak number of trips (i.e., 629) for the proposed project would occur in Phase 2 during a construction period of approximately 298 days, based on engineer estimates. This represents an average of two trips per day (629 truck trips ÷ 298 working days = 2.11 average truck trips per day). Given the MPL’s current peak vehicle trips of 2,000 trips per day (Section 3.3.5.2), the generation of an average of two truck trips per day during the peak construction phase is not a significant impact to solid waste disposal capacity or local traffic, even for those days experiencing above average truck activity.

Construction Phase	Construction Debris Removal (off-Airport) ¹	
	Truck Trips	Solid Waste (cy)
Phase 1 (Years 1-3)	0	0
Phase 2 (Years 4-7)	629	10,064
Phase 3 (Year 8)	0	0
Phase 4 (Year 9)	120	1,920
TOTAL	749	11,984

Sources: KHA 2017; Neill Engineers 2017a; DWL Architects 2017.
 cy = cubic yard(s)
¹Based on a 16-cy capacity truck at full capacity.
 NOTE: Numbers reflect rounding.

Operation Impacts. For purposes of this analysis, it is assumed that the relocated GA hangars, ARFF, and passenger terminal would, at a minimum, continue to generate solid waste and recycle in a manner that currently occurs. However, to accomplish the minimum level of LEED certification for the passenger terminal and ARFF buildings, additional recycling and waste diversion would be required.

⁴ Although the GA hangars and ARFF building 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.

⁵ Ibid.

⁶ 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 2018).

A detailed breakdown of existing solid waste and recycled materials removed from the passenger terminal or ARFF buildings was not readily available. Therefore, an estimate of total waste generated at the terminal has been prepared for purposes of this analysis, which assumes that the solid waste and recycling receptacles are full for each pick-up by Waste Management, Inc. (occurs five times per week). This results in an estimated 20 cy of solid waste and 8 cy of recycled materials each week from the passenger terminal building. 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. Of the data available for the passenger terminal building, only common area trash and recycling (which includes rental car and the Transportation Security Administration [TSA]) are captured. The airlines and the restaurant have their own dumpsters and are responsible for their own costs and pickup. In addition, the ARFF building has a dumpster for other large waste that is emptied every three months. All tenants on the Airport are responsible for their own solid waste, including the GA hangars on the southeast ramp and the Navy Flying Club.

- Relocated Passenger Terminal Building. The increase in solid waste generation at the proposed replacement passenger terminal building when compared to the No Action alternative has been estimated based on the net increase in the overall building footprint (i.e., approximately 30,000 sf) since it is not known at this time how the additional space would be used. Using the CalRecycle 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). However, 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.
- Relocated ARFF Facility. The estimated increase in solid waste generation at the proposed replacement ARFF facility when compared to the No Action alternative, based on a net increase of approximately 5,000 sf of building, would be 71 pounds per day. (This estimate uses a generation rate comparable to a manufacturing/warehouse use [i.e., 1.42 pounds per day per 100 sf]; however, the estimate is likely to be high.) Like the proposed replacement passenger 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.
- Relocated and New Hangars. The estimated net increase in hangars at the Airport would be seven box hangars when compared to the No Action alternative, with a net increase in total hangar space of 70,000 sf. Using this net increase estimate and a generation rate comparable to a manufacturing/warehouse use, the increased hangar space could generate approximately 994 pounds of solid waste per day. However, this estimate is likely to be high.

Based on the above assumptions, total estimated operational solid waste generation for the Proposed Action would be a net increase of approximately 1,215 pounds per day when compared to the No Action alternative (**Table 4D**).

TABLE 4D Solid Waste Generation (Net Increase over No Action Alternative) Proposed Action Alternative			
Proposed Project Component	Project Size (sf)	Solid Waste Generation Factor	Solid Waste Generation (lb/day)
GA Hangars (7 new box hangars)	70,000 (net)	1.42 lb/100 sf/day	994
Relocated ARFF Facility	5,000 (net)	1.42 lb/100 sf/day	71
Relocated Passenger Terminal	30,000 (net)	5 lb/1,000 sf/day	150
Total Solid Waste Generation			1,215 lb/day
Source: CalRecycle website 2018. sf = square feet; lb = pound NOTE: Numbers reflect rounding.			

Indirect Impacts. No indirect impacts related to solid waste disposal as a result of the Proposed Action would occur. Not only does the State of California have strict regulations requiring the diversion of solid waste, but the replacement buildings for the passenger terminal and ARFF buildings would be constructed to LEED certification standards. For example, in addition to discretionary credits received based on the selected sustainability measures, the LEED certification process includes the following prerequisite practices: storage and collection of recyclables; and construction and demolition waste management planning (USGBC website 2019).

Conclusion. The Airport complies with all applicable federal, state, and local regulations 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. In addition, the proposed relocated passenger terminal and ARFF buildings would be constructed and operated to meet the minimum requirements for LEED certification. No significant impacts to solid waste disposal or the MPL would occur due to implementation of the Proposed Action.

No Action Alternative

No impacts related to the generation of solid waste would occur due to implementation of the No Action alternative. No changes to the existing airport environment and operating procedures would occur.

Mitigation, Avoidance, and Minimization Measures for the Proposed Action

As the impacts of the Proposed Action are not significant for this resource, there are no mitigation measures required to reduce the impacts to a not significant level.

4.3.5.3 Pollution Prevention

Analysis Methodology and Significance Thresholds

FAA has not established a significance threshold for this impact category. However, per FAA Order 1050.1F, Exhibit 4-1, consideration should be given to the Proposed Action’s potential to:

- Adversely affect human health and the environment.

Proposed Action Alternative

Construction Impacts. During construction under the Proposed Action, contractors would be held responsible for reporting any discharges of hazardous materials or other substances; BMPs would be used to minimize the

potential adverse effect to the public and environment. Applicable federal, state, and local regulatory requirements, as discussed in Section 4.3.5.1, would ensure that impacts related to the use of hazardous materials and/or accidental spills during construction would not adversely affect human health and the environment. See also the discussion in Section 4.3.5.1 regarding the Airport's hazardous materials business response and SPCC plans.

Operation Impacts. Applicable federal, state, and local regulatory requirements, as discussed in Section 4.3.5.1, would ensure that impacts related to the use of hazardous materials and/or accidental spills during operation of the Proposed Action would not adversely affect human health and the environment. For example, any fuel spill that could occur because of the proposed siting of relocated fuel tanks would be subject to the regulations and policies of the Airport's SPCC and hazardous materials business response plans. Since the Airport has procedures and plans in place that are applied to all development at the Airport, impacts related to pollution prevention, the operation of the Proposed Action would not adversely affect human health and the environment.

Indirect Impacts. No indirect impacts related to pollution prevention would occur. As discussed in the preceding sections, the Airport has procedures and plans in place that are applied to all development at the Airport.

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

No Action Alternative

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

Mitigation, Avoidance, and Minimization Measures for the Proposed Action

As the impacts of the Proposed Action are not significant for this resource, there are no mitigation measures required to reduce the impacts to a not significant level.

4.3.6 Historical, Architectural, Archaeological, and Cultural Resources

Analysis Methodology and Significance Thresholds

Determination of a Proposed Action's environmental impact to historic and cultural resources is made under guidance contained in the *National Historic Preservation Act of 1966* (NHPA), as amended, and the *Archaeological and Historic Preservation Act of 1974*. Section 106 of the NHPA requires federal agencies to consider the effects of their undertaking (or action) on properties listed on or eligible for listing on the National Register of Historic Places (NRHP). The FAA has not established a significance threshold for Historical, Architectural, Archaeological, and Cultural Resources. However, a factor to consider is if the Proposed Action would result in a finding of "adverse effect" through the Section 106 process. If human remains are discovered during construction, no further disturbance to the site shall occur, and the County Coroner must be notified (14 CCR §15064.5; California Public Resources Code [PRC] §5097.98) to identify the appropriate disposition of such remains.

An approximately 120-acre Area of Potential Effect (APE) was established for the Proposed Action, which is congruent with the direct project impact area (**Exhibit 4C**). The APE was surveyed as part of a larger survey effort for the adopted AMP in 2017 and 2018 (SWCA 2018c). 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 also completed in 2014 and 2017 (SWCA 2014; SWCA 2018c).

Proposed Action Alternative

Construction and Operation Impacts. Impletion of the Proposed Action would result in the demolition (or relocation) of the buildings identified in **Table 4E**. As none of the buildings to be demolished are on or eligible for the NRHP, demolition or relocation of the buildings identified would not result in a significant impact on historic properties.

Tarpy’s Roadhouse Restaurant is the only structure on airport property that is on or eligible for the NRHP. (It was determined eligible based on Criterion C - distinctive characteristics of type, period, or method of construction, i.e., architecture.) This historic structure would not be physically altered by the Proposed Action nor would its architecture be modified. A project haul road is located approximately 150 feet west of Tarpy’s Roadhouse Restaurant. Some noise from construction traffic may be audible at the structure, but it is not a noise-sensitive historic property and would not be affected by the Proposed Action.

Building Inventory #	Description of Building	Year Built	Year Modified	Original Square Feet	Modified Square Feet	Surveyed	DPR Form Prepared	Eligibility Status
110	Maintenance Hangar	Circa 2000	N/I	N/I	N/I	No	No	N/A
120	FBO Maintenance	Circa 1975	N/I	N/I	N/I	No	No	N/A
124	Hangar	Post-1981	N/I	N/I	N/I	No	No	N/A
130	Hangar	Circa 1965	N/A	12,060	N/A	Yes	Yes	Not eligible
140	Hangar	Circa 1965	N/A	17,472	N/A	Yes	Yes	Not eligible
150	Public Safety Building (ARFF)	1977	2001	6,156	11,404	No	No	N/A
200	Terminal Building	1949/1950	1949,1959, 1971,1973, 1974,1997, 2000	15,404	73,988	Yes	Yes	Not eligible
1600	Navy Flying Club (portable)	1962	N/A	2,000	N/A	Yes	Yes	Not eligible
P1-P6	Six Port-a-Port hangars	Circa 1976	Moved to present location 2008	8,400 (total)	N/A	No	No	N/A

Source: SWCA 2014.
DPR = Department of Parks and Recreation
N/I = no information; N/A = not applicable; FBO = fixed base operator; ARFF = aircraft rescue and firefighting

There are dozens of isolated historic-era cans and bottles (1940s to present) and miscellaneous historic-era debris (e.g., metal, glass, plastic) throughout the APE, the majority of which are related to recreational use or mid-twentieth century development within the Airport. None of this isolated debris was determined to be on or eligible for the NRHP.

The undeveloped areas that would be developed under the Proposed Action had limited visibility for conducting pedestrian surveys. Approximately 50 percent of the undeveloped areas had ground visibility of less than 25 percent, while the other 50 percent of the undeveloped area had visibility between 25 percent to 75 percent. Therefore, there is the potential that unknown archaeological resources could become visible after vegetation is



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removed from the construction areas. In order to ensure that undiscovered archaeological sites on or eligible for the NRHP are not inadvertently damaged before data could be recovered from them, the Airport proposes to implement an Archaeological Monitoring Plan to identify any unknown archeological sites that become visible after vegetation removal (see Mitigation, Avoidance, and Minimization measure HIS-4 below).

FAA has determined no historic properties would be affected by the Proposed Action. Therefore, the Proposed Action would not have a significant impact on historical, architectural, archaeological, or cultural resources. By letter of February 19, 2020 (**Appendix E**), the FAA has initiated a NHPA, Section 106 consultation with the California State Historic Preservation Office (SHPO). By letter of April 8, 2020 (**Appendix E**), the California SHPO concurred with the FAA determination that no historic properties would be affected by the Proposed Action, completing the NHPA, Section 106 consultation process.

There are no federally recognized Native American tribes for the Monterey region and, therefore, FAA has not conducted any government-to-government consultation with such tribes. However, in November 2019, the FAA contacted those tribes identified by the California Native American Heritage Commission (NAHC) as potentially having interest in the proposed project as part of their traditional homeland area. Two tribes, the Ohlone/Costanoan-Esselen Nation (OCEN) and the Salinan Tribe of Monterey, San Luis Obispo Counties, responded to the FAA inquiry. Both tribes have expressed interest in being retained as tribal monitors to work with the professional consultant archaeologist during construction on the project as both tribes anticipate archaeological resources may become visible during construction when dense vegetation is removed or ground-disturbing activities occur. Tribal consultation continued during public review of the Draft EA. Based on communications with the tribes, the MPAD has agreed to retain both the OCEN and Salinan Tribe of Monterey and San Luis Obispo Counties as tribal monitors to work with the professional archaeologist to monitor for historic or prehistoric archaeological resources during construction when dense vegetation is removed or ground-disturbing activities occur. If any archaeological resources, Traditional Cultural Properties, or Native American Sacred Sites are located during construction, these sites will be evaluated in accordance with the NHPA, Section 106, the *Native American Religious Freedom Act*, and any other applicable federal laws, Executive Orders, and DOT and FAA policies. The MPAD proposed to implement the avoidance and minimization measures for archaeological resources identified below.

Indirect Impacts. No indirect impacts to historical, architectural, archaeological, or cultural resources would occur. This EA includes avoidance and minimization measures in case of an unanticipated discovery of resources.

Conclusion. No impacts to known historical, architectural, archaeological, or cultural resources would occur due to the Proposed Action. Impacts to unknown cultural resources or the unanticipated discovery of human remains are, however, a possibility.

No Action Alternative

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

Mitigation, Avoidance, and Minimization Measures for the Proposed Action

As the impacts of the Proposed Action are not significant for this resource, there are no mitigation measures required to reduce the impacts to a not significant level. However, the Airport proposes to implement the following measures to further avoid and minimize the environmental impacts of the Proposed Action.

Avoidance and Minimization Measures

HIS-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.

HIS-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.

HIS-3: If human remains are encountered, then the procedures outlined by the California NAHC, in accordance with CHSC §7050.5 and PRC §5097.98, shall be followed. If the monitor determines that a discovery includes human remains:

- All ground-disturbing work within the immediate vicinity of the find (50 feet) shall halt;
- The archaeologist shall contact the Monterey County Coroner: – Monterey County Sheriff-Coroner 1414 Natividad Road Salinas, CA 93906 Phone: (831) 647-7792 Web: <https://www.montereysheriff.org/sheriff-coroner/>;
- As a courtesy, the archaeologist shall also notify the NAHC: – Native American Heritage Commission, 915 Capitol Mall, Room 364, Sacramento, California 95814 Phone: (916) 373-3710 Email: nahc@nahc.ca.gov;
- The coroner has two working days to examine the remains after being notified in accordance with CHSC §7050.5. If the coroner determines that the remains are Native American and are not subject to the coroner's authority, the coroner has 24 hours to notify the NAHC of the discovery; and
- The NAHC will immediately designate and notify the Native American Most Likely Descendant (MLD), who will have 48 hours after being granted access to the location of the remains to inspect them and make recommendations for treatment of them.

HIS-4: For areas of dense vegetation within the APE that have not been subject to extensive prior disturbance, an Archaeological Monitoring Plan shall be implemented as described below and in **Appendix E**. The Archaeological Monitoring Plan includes:

- A description of the field methods - The archaeological monitor(s) will observe all ground-disturbing activities within areas of dense vegetation that have not been subject to prior extensive disturbance (**Appendix E**; *Archaeological Monitoring Plan for the Airport Safety Enhancement Project for Taxiway A Relocation & Associated Building Relocations Project at Monterey Regional Airport, Monterey County, California*, Figure 1). The monitor will observe excavation equipment in progress and examine excavated sediments and excavation sidewalls for evidence of intact archaeological features, artifact concentrations, human remains, or unique isolated finds. The archaeological monitor(s) may screen portions of the excavated soils in order to assist in the characterization of the integrity of the subsurface deposit, or in the event of potentially significant and/or concentrated artifactual discovery. The monitor will take photographs of each excavation location and produce detailed sketch maps of certain excavation sidewall profiles.
- A discussion of Native American representation - A representative from the Ohlone/Costanoan Esselen Nation (the Tribe), who will be retained by Monterey Regional Airport (the Airport), will monitor alongside the consultant archaeological monitor (as needed). The duration of tribal monitoring may be dependent upon the type and extent of identified resources.
- The frequency of monitoring - The consultant archaeologist, in coordination with the excavation contractor, the Tribe, and Airport staff, shall determine what project activities will be monitored by an archaeologist with the areas identified in Figure 1 (**Appendix E**). In most cases, any ground-disturbing activities in native soil shall require archaeological monitoring because of the potential risk these activities pose to archaeological resources and to their depositional context. Construction activities occurring within previously disturbed soils exhibiting no evidence of archaeological resources may not warrant archaeological or tribal monitoring. An archaeological monitor and tribal monitor will be present during all activities deemed to be undertaken within areas that may expose archaeological resources. Archaeological and tribal monitoring will cease when it is determined that excavations within the identified sensitive areas for the project area are complete. Archaeological and tribal monitoring frequency may be scaled back to a spot-checking effort if it is determined by the archaeological monitor, in coordination with the Airport, that comprehensive monitoring is no longer required.
- Stop work authority and contact list - The archaeological and tribal monitors will have “stop work” authority in the event of a potentially significant discovery (see HIS-2 and 3 above). These situations include, but are not limited to, the discovery of:
 - Intact archaeological deposits;
 - Human remains, regardless of context;
 - Intact surface (milling features) or subsurface features such as hearths, concentrations of artifacts (i.e., caches), concentrations of ash/charcoal or fire-affected rock, or compacted living surfaces;
 - Potential funerary objects such as charmstones, pendants, certain bead types, and ceremonial tools;

- Unique or uncommon artifacts such as certain projectile point types, fishhooks, steatite artifacts, milling equipment, and bone tools; and
- Historic-era materials and/or subsurface features such as refuse deposits, ship remnants, foundations, building materials.

The archaeological and tribal monitors will be empowered to stop any project activity in the event of any potential discovery. It is entirely up to the discretion of the archaeological monitor on-site to determine when to stop work. If deemed necessary, project activities/equipment will cease within 50 feet of the find, and, if possible, be redirected to another portion of the project. The monitor will then contact the consultant archaeologist and the Airport to discuss the find and the potential course(s) of action. The archaeological monitor will retain a log of all identified contacts and the information will be included, as needed, in the daily monitoring logs.

- Monitoring and reporting procedures - At the conclusion of each workday, the archaeological monitor will complete a Daily Monitoring Log that will document the day's activities and discoveries, if any. Depending on the duration of project activities that require monitoring, the archaeological monitor may also provide a weekly summary report (via email) that will include information regarding locations monitored or surveyed, what type of construction activities were observed, and whether or not any potentially significant finds were identified. Upon completion of the archaeological monitoring, the consultant archaeologist will prepare a brief report summarizing the results of the fieldwork. The report will include figures and photographs, as necessary. The report will be provided to the Airport for submittal to the project's Environmental Coordinator, indicating that the archaeological monitoring conditions for the project have been met.

4.3.7 Land Use

Analysis Methodology and Significance Thresholds

FAA has not established a significance threshold for this category, and FAA has not provided specific factors to consider in making a significance determination for land use impacts in Exhibit 4-1 of FAA Order 1050.1F. The determination that significant impacts exist in the land use impact category is normally dependent on the significance of other impact categories. If the Proposed Action would result in other impacts that have land use ramifications (for example, disruption of communities, relocation, or induced socioeconomic impacts), the impacts on land use should be analyzed in these contexts and described accordingly under the appropriate impact category.

The potential for land use impacts for this EA has been assessed by evaluating proposed changes in land use within the project study area. Impacts to adjacent land uses due to the proposed project have also been assessed. In terms of adjacent land use impacts on airport operations, as previously described in Section 3.3.7.2, the Airport has provided a Land Assurance letter specifying that appropriate action has been or will be taken, to the extent reasonable, to restrict the use of land next to or near the Airport to uses that are compatible with normal airport operations pursuant to Title 49 United States Code (U.S.C.) §47107(a)(10) (**Appendix D**).

40 C.F.R. §1502.16(c) requires the discussion of environmental impacts, including "possible conflicts between the proposed action and the objectives of federal, regional, state, and local (and in the case of a reservation, Indian tribe) land use plans, policies and controls for the area concerned." Where an inconsistency exists, the NEPA document should describe the extent to which the agency would reconcile its action with the plan (40 C.F.R.

§1506.2[d]). Thus, consistency with local land use policies are addressed in a separate subsection below. While this EA discusses consistency with state and local land use policies, an inconsistency by itself does not automatically result in a significant impact.

Proposed Action Alternative

Construction Impacts. Construction impacts could have short-term effects on several existing uses at the Airport as construction would occur in phases within several areas of the Airport. For example, existing land uses would be temporarily disrupted as the various stages of relocation occur. Affected land uses would include: southeast ramp - GA hangars would be demolished and tenants would be relocated to the northeast ramp; northeast ramp - the Navy Flying Club and six Port-a-Port T-hangars would be relocated adjacent to proposed hangar and taxilane 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 passenger terminal building, which would remain operational until the proposed relocated passenger terminal complex is completed).

Temporary construction impacts to both on-airport users and off-airport nearby residents or occupants could include dust, construction noise, and congestion for several years as the construction for the Proposed Action moves through its various phases. These types of construction impacts are addressed more specifically in Sections 4.3.1, 4.3.9, and 4.3.10 as they relate to dust, noise, and traffic, respectively. Construction impacts to off-airport land uses would be minimized by the elevation differences, vegetative screening, and linear distances between proposed construction areas and the nearest off-airport land uses. However, temporary construction impacts could occur to some degree to the nearest neighboring land uses. See *Mitigation, Avoidance, and Minimization Measures for the Proposed Action* below as well as in Sections 4.3.1, 4.3.9, and 4.3.10.

Operation Impacts. Once Proposed Action components are implemented/constructed, operational impacts would occur primarily on the Airport. The Proposed Action would not introduce new land uses 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. On the south side of the Airport, the closest off-airport land uses are primarily 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. The relocated passenger terminal complex would not result in land use incompatibilities with these existing land uses. On the north side of the Airport, the proposed GA and ARFF buildings would be more than 650 feet from the closest off-airport land uses (i.e., residences within the City of Del Rey Oaks).

An operational land use impact that would occur on the Airport is the proposed change to the amount and location of GA tie-down and ramp space. Both the northeast and southeast GA ramps are primarily used for local aircraft needs (i.e., aircraft operations performed by aircraft based at the Airport). The existing southeast GA ramp is approximately 15,000 square yards (sy) in size and accommodates 32 aircraft tie-downs. These 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 Action would result in a decrease overall 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 adopted 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 AMP assumed that 95 percent of the Airport's based aircraft would eventually be permanently housed in an enclosed hangar (MPAD 2018b:4-20/21).

Table 4F shows the Airport’s hangar storage under the No Action and Proposed Action alternatives, as well as apron positions (tie-downs) and apron area needs for the local aircraft. Although the Proposed Action would reduce the amount of local aircraft apron and number of tie-down positions, the Airport’s 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 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 would not be a significant land use impact. Based on information in the recently completed AMP, the Airport has an excess of local apron tie-down positions (MPAD 2018b; Table 4G).

	No Action Alternative ¹	Proposed Action Alternative
Hangar Storage Area (sf)	414,800	484,800
Local Aircraft Apron Positions (i.e., tie downs)	63	28
Local Aircraft Apron Area (sy)	22,400	6,400

Source: MPAD 2018b: Table 4G
sf = square foot; sy = square yard
¹ Based on analysis completed in 2014 as part of the Airport Master Plan. Airport management has confirmed that the amount of available hangar space and apron has not changed since 2014.

Impacts Related to Land Use Plans, Policies, and Controls. 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 local jurisdictions, the Airport is adjacent to the cities of Del Rey Oaks and Monterey. In addition, as discussed previously in Section 3.3.7.2, land along the Airport’s frontage with Highway 68 just east of Olmsted Road was purchased by the Airport after MPAD was formed and remains within the City of Monterey’s jurisdiction in terms of land use control. Also, the proposed roundabout at the intersection of Olmsted and Garden roads would be subject to City of Monterey design approval. Because of the proximity of these cities, evaluation of the Proposed Action’s consistency with applicable goals and policies of each general plan is provided in **Appendix D**. The Airport Development Grant Program (see 49 U.S.C. §47101 *et seq.*) requires that a federal Airport Improvement Program grant may not be approved unless the Secretary of Transportation is satisfied that the project is consistent with plans (existing at the time a project is approved) of public agencies for development of the area in which the airport is located (49 U.S.C. §47106(a)(1)).

- City of Del Rey Oaks General Plan Goals and Policies. Applicable City of Del Rey Oaks general plan goals and policies related to the Airport are found in its Land Use, Circulation, Open Space/Conservation, and Noise Elements (City of Del Rey Oaks 1997). As can be seen in **Appendix D**, Table D1, the Proposed Action would be consistent with all applicable goals and policies.

However, Policy L-5 of the City of Del Rey Oaks Land Use Element stating, “The Airport shall not expand its present aviation operation” is not applicable as this policy is not consistent with 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 2014b).

- City of Monterey General Plan Goals and Policies. Consistency with applicable City of Monterey goals and policies is provided in **Appendix D**, Table D2, and includes input from the City of Monterey in its comment letter on the Draft EA (**Appendix F**, Comments #22-27). Goals and policies of the City of Monterey’s general plan that relate to the Airport are contained in its Urban Design, Circulation, Conservation, Open Space, Safety, and Noise Elements (City of Monterey 2016). As shown in **Appendix D**, Table D2, the

Proposed Action includes project features that provide consistency with most applicable City of Monterey general plan policies. However, Policy b.4 of the City of Monterey'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 applicable as it is not consistent with Grant Assurance No. 22, Economic Nondiscrimination (FAA 2014b).

The City of Monterey has identified inconsistencies with Circulation Element Policies c.8, i.6 and i.7 due to the proposed use of Airport Road for off-airport emergency services. Therefore, LU-1 under *Mitigation, Avoidance, and Minimization Measures* below states that once the ARFF building is relocated to the north side of the Airport, it will no longer be used for off-airport emergencies. With the implementation of this mitigation, inconsistencies with applicable City of Monterey general plan policies will not occur.

- *Casanova-Oak Knoll Neighborhood Plan Goals and Policies*. The City of Monterey also incorporates neighborhood plans into its general plan. The *Casanova-Oak Knoll Neighborhood Plan* includes goals and policies associated with the use of Airport Road for airport-related traffic and noise (**Appendix D**, Table D3). Similar to the discussion above under the City of Monterey's general plan policies and goals, the City of Monterey has identified inconsistencies with *Casanova-Oak Knoll Neighborhood Plan Policies* 16, 29, and 34 due to the proposed use of Airport Road for off-airport emergency services. Therefore, LU-1 under *Mitigation, Avoidance, and Minimization Measures* below states that once the ARFF building is relocated to the north side of the Airport, it will no longer be used for off-airport emergencies. With the implementation of this mitigation, inconsistencies with applicable *Casanova-Oak Knoll Neighborhood Plan* policies will not occur.

Indirect Impacts. Indirect land use impacts (such as dust, noise, or building lighting) would be minimized by the elevation differences, vegetative screening, established on-airport buffers, and linear distances between proposed activity areas and the nearest off-airport land uses. These potential concerns have been addressed more fully in Sections 4.3.1, 4.3.9 and 4.3.11, respectively.

Conclusion. Temporary construction impacts to both on-airport users and off-airport nearby residents or occupants could include dust, construction noise, and traffic congestion as the construction for the Proposed Action moves through its various phases. See *Mitigation, Avoidance, and Minimization Measures for the Proposed Action* below, as well as in Sections 4.3.1, 4.3.9, and 4.3.10. No significant operational impacts related to land use would occur. Operational land use impacts to off-airport land uses would be minimized by the elevation differences, vegetative screening, established on-airport buffers, and linear distances between proposed activity areas and the nearest off-airport land uses and are not significant.

The Proposed Action would provide an additional seven GA hangars, as well as replace the 44 hangars displaced from the southeast ramp. However, a loss of approximately 16,000 sy of ramp and 35 tie-down positions for local aircraft at the Airport would occur. This land use impact would not be significant as both the northeast and southeast GA ramps are currently under-utilized.

As shown in **Appendix D**, Tables D2 and D3, the Proposed Action includes measures or project features that provide consistency with most City of Monterey general plan policies. However, based on input from the City of Monterey in its comment letter on the Draft EA (**Appendix F**, Comments #22-27), inconsistencies with City of Monterey Circulation Element and *Casanova-Oak Knoll Neighborhood Plan* policies would occur due to the proposed use of Airport Road for off-airport emergency services. Therefore, mitigation is provided below to address this potential land use impact.

No Action Alternative

The No Action alternative would avoid land use impacts associated with proposed construction activities, as well as the proposed loss of GA apron and tie-downs. However, the No Action alternative would be inconsistent with the City of Monterey goals and policies to increase transit and other non-vehicular opportunities within the region (Circulation Element Goals h and i and related policies) and to increase the safety of the Airport (Safety Element Goals e and related policies; Noise Element Goal a and Policy b.1) as no enhancements to the existing passenger terminal complex or airfield safety would occur. The No Action alternative would also be inconsistent with Circulation Element Policy c.8 as it would continue to allow truck traffic from existing landscaping storage operations located on the north side of the Airport. **Appendix D**, Tables D2 and D3 identify these items.

The No Action alternative would also be inconsistent with *Casanova Oak Knoll Neighborhood Plan* Policies 16 and 34 since existing airport-related traffic from the north side of the Airport would continue to access the Airport through the Casanova Oak Knoll neighborhood unabated.

Mitigation, Avoidance, and Minimization Measures for the Proposed Action

Mitigation Measure

The following mitigation measure is required to reduce land use policy inconsistencies with the City of Monterey Circulation Element and the *Casanova-Oak Knoll Neighborhood Plan* related to the use of Airport Road for off-airport emergencies. With implementation of this mitigation measure, land use impacts will not be significant.

LU-1: Once the ARFF building is relocated to the north side of the Airport, it shall no longer be used as a joint use facility that provides off-airport emergency services.

4.3.8 Natural Resources and Energy Supply

Significance Thresholds

FAA has not established a significance threshold for the Natural Resources and Energy Supply impact category (FAA Order 1050.1F, Exhibit 4-1). However, a factor to consider is if an action has the potential to cause demand to exceed available or future natural resource or energy supplies. The following subsections discuss energy, mineral resources, and water supply.

4.3.8.1 Energy

Analysis Methodology

Construction energy use would result from the operation of on-road and off-road equipment and vehicles. To estimate energy used during construction of the proposed project (i.e., temporary energy impacts), outputs for on- and off-road trips were calculated based on project engineer estimates. 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.

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.⁷ 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.

The operational energy impacts of the relocated passenger terminal and ARFF buildings and seven new hangars were estimated using energy consumption rates (i.e., kilowatt hour [kWh] per year and thousands of British thermal units [kBtu] per year) generated by CalEEMod 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 ARFF and passenger terminal buildings.⁸ 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. The existing electric and natural gas demand for the existing passenger terminal building and ARFF building were subtracted from the forecasted future use to calculate the potential net increase in demand. 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 (Monterey Regional Airport Utility Records 2018). See Section 3.3.8.1.

Proposed Action Alternative

Construction Impacts. **Table 4G** provides estimates of fossil fuel usage during the various phases of construction. 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 is not discussed further. The Airport would complete the construction of each phase in the most efficient way possible to reduce 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 4.3.1 for measures and regulatory requirements that would be implemented during construction). However, the estimated temporary anticipated fuel use during construction would not exceed available or future energy supplies. In addition, existing utility infrastructure would be relocated, as necessary.

⁷ Equipment usage hours, horsepower, and load factor values are all provided by CalEEMod (Version 2016.3.2). The CalEEMod software model 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 MBARD.

⁸ Airport land uses are not included in CalEEMod. Therefore, similar land uses were selected to represent the existing facilities. Specifically, the approximate 70,000-sf existing terminal was 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 totaling approximately 126,000 sf.

TABLE 4G
Estimated Construction Fuel Consumption (On- and Off-Road)
Proposed Action Alternative

Construction Phase	PROPOSED ACTION ALTERNATIVE	
	On-Road Fuel Consumption ¹ (gallons)	Off-Road Fuel Consumption ² (gallons)
Phase 1 (Years 1-3)	55,473	3,992
Phase 2 (Years 4-7)	153,322	36,759
Phase 3 (Year 8)	4,014	6,433
Phase 4 (Year 9)	28,408	3,751
Total	241,217	50,935

Sources: Fuel efficiency standards provided by the U.S. Department of Energy (2015); Construction on- and off-road assumptions provided by KHA 2017, DWL Architects 2017, and Neill Engineers 2017a.

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.

Operation Impacts. **Table 4H** shows the estimated net operational change in annual energy consumption due to the Proposed Action. Overall, an annual net increase in approximately 630,000 kWh of electricity and a net decrease in approximately 500 therms of natural gas could occur. However, this calculated energy demand does not include the anticipated savings in energy usage due to the proposed LEED certification of the new passenger terminal and ARFF building (i.e., approximately 25 percent less than the stated estimates).⁹ CCR, Title 24, part 6 building regulations would apply to all new development or redevelopment, including compliance with American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) 90.1 national standards; efficiency requirements for elevators and digital controls, as well as energy efficiency measures pertaining to building envelopes; mechanical systems; indoor, outdoor, and sign lighting; electrical power distribution; and solar readiness. 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. However, the increase in electrical use due to the Proposed Action would not exceed available or future energy supplies.

Energy use under the No Action alternative is based on existing energy use at the Airport and would be 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 kWh of electricity, which covers more than 90 percent of the existing electricity demand and supplements the previous electricity provided to the Airport by the Pacific Gas and Electric Company (PG&E) (Section 3.3.8.1). The anticipated increase in electrical use due to the Proposed Action would not exceed available or future energy supplies.

Indirect Impacts. No significant indirect impacts to energy resources would result from the Proposed Action given the regulatory environment for new buildings within the state (i.e., CCR, Title 24, parts 6 and 11). In addition, replacement buildings for the passenger terminal and ARFF facility would be constructed to LEED certification standards. Since sustainability measures would be implemented, energy use related to operation of the new passenger terminal and ARFF building would decrease when compared to the No Action alternative. For example, in addition to discretionary credits received based on the selected sustainability measures, the LEED certification process includes the following prerequisite practices: minimum energy performance; building-level energy metering; and refrigerant management (USGBC website 2019).

⁹ In 2011, the General Services Administration (GSA) 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 (GSA 2011). Because the level of certification attainment for the replacement ARFF building and passenger terminal building is unknown at the time of this EA, this general reduction rate is assumed to be applicable to both facilities.

TABLE 4H
Estimated Net Operational Annual Energy Consumption¹
Proposed Action Alternative

Project Component	Unit of Development	Annual Electricity Use (kWh per year)	Annual Natural Gas Use (therms per year)
Hangars - 7 hangars (net increase)	70,000 sf ²	105,900	0
New ARFF Building	13,400 sf	72,226	2,472
(less existing demand - 2015 - 2017) ³		- 47,188	- 1,573
<i>Net ARFF Usage</i>		25,038	899
New Passenger Terminal Building	100,000 sf	1,629,880	17,976
(less existing demand - 2015 - 2017) ³		- 1,127,084	- 19,362
<i>Net Passenger Terminal Usage</i>		502,796	-1,386
Net Energy Consumption		633,734	-487

Sources: CalEEMod analysis; Monterey Regional Airport Utility Records 2018 (electric meters #1009483641 and #1009479694; gas meters #61022698 and #259931V)

kWh = kilowatt hour; sf = square foot

¹ Does not include a reduction in energy demand due to proposed LEED certification of new buildings.

² Assumes seven, 100-foot by 100-foot box hangars.

³ Existing utility rates represent the average annual kWh per year usage from 2015 through 2017 for the Airport.

NOTE: Numbers reflect rounding.

Conclusion. No significant impacts to energy resources would result from the Proposed Action due to the following factors: the Airport would complete the construction of each phase in the most efficient way possible to reduce unnecessary energy consumption per CARB and MBARD requirements; the regulatory environment within the state (i.e., CCR, Title 24, parts 6 and 11) ensures that new buildings are constructed in an energy-efficient manner; proposed LEED certification of the new passenger terminal and ARFF buildings would ensure that new buildings are constructed in an energy-efficient manner; the Airport’s existing energy efficiency practices¹⁰ would ensure that proposed development is operated in an energy-efficient manner; the Airport’s overall electricity demand on energy suppliers (i.e., PG&E) is reduced due to the use of an on-airport solar farm.

No Action Alternative

No impacts related to energy demand and use at the Airport would result from the No Action alternative. No changes to the existing airport environment and operating procedures would occur.

Mitigation, Avoidance, and Minimization Measures for the Proposed Action

As the impacts of the Proposed Action are not significant for this resource, there are no mitigation measures required to reduce the impacts to a not significant level.

¹⁰ The Airport has implemented the following: use of light-emitting diode (LED) lights on the taxiways and Runway 10R-28L and pilot-controlled lighting for Runway 10R-28L; installation of 37 new flight information screens in the passenger terminal building with smart software to program the monitors to turn off when not needed to conserve energy; street lighting retrofits (i.e., energy-efficient induction [ECHED] lights or EverLast® Bi-Level Induction luminaire), from Fred Kane Drive to the north side of the Airport and at all parking areas and airfield ramp lighting; and newer and fewer airfield regulators (MPAD 2018a). Additionally, the Airport has several electric vehicle (EV) charging stations in their parking lot.

4.3.8.2 Mineral Resources

Proposed Action Alternative

The Proposed Action would require aggregate as building materials for pavement and subbase. There are several permitted aggregate sources within the County, including one with 1.5 to 3.0 million tons of available materials and several with 0.5 to 1.5 million tons of available materials (California Geological Survey 2012). Implementation of the Proposed Action would not have a significant impact on mineral resources due to the plentiful supply of available aggregate sources for building materials within the region.

No Action Alternative

No impacts related to mineral resources would result from the No Action alternative. No changes to the existing airport environment and operating procedures would occur.

Mitigation, Avoidance, and Minimization Measures for the Proposed Action

As the impacts of the Proposed Action are not significant for this resource, there are no mitigation measures required to reduce the impacts to a not significant level.

4.3.8.3 Water Supply and Demand

Analysis Methodology

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 calculated by project phase (KHA 2017; Neill Engineers 2017a; and DWL Architects 2017). These calculations were based on past construction projects at the Airport, each water truck was assumed to have a 4,000-gallon water capacity.

The operational water use analysis is based on the water allocation established by the Monterey Peninsula Water Management District (MPWMD) in June 1993; the Airport has 8.10 acre-feet (AF)¹¹ of water available to consume every month. 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. The Airport, therefore, has 5.20 AF per month (62.37 AF per year) remaining of its original allocation for future uses (Monterey Regional Airport 2017). This EA uses the Airport's remaining annual water allocation (i.e., 62.37 AF) to evaluate if there are sufficient entitlements for the proposed project.

Proposed Action Alternative

Construction Impacts. During construction of the Proposed Action, the contractor would use water from the existing on-airport north side non-potable wells and/or would secure their own water sources, as necessary. Construction water uses do not require potable water. Construction water use estimates (**Table 4I**) are based on the number of days water trucks would be used during the various phases of construction. Proposed construction activities would use approximately 5.4 million gallons of water for all the construction. Because the Airport would require the contractor to use non-potable water from the north side wells, this water demand would not affect

¹¹ 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.

the Airport’s water allocation from the MPWMD. The Airport’s existing system infrastructure for the north side well system would be adequate to accommodate a sustainable combined pumping rate of approximately 66.2 gallons per minute (gpm), which equates to approximately 34.3 million gallons annually, which would more than accommodate the total water demanded during construction. Therefore, impacts to the Airport’s water supply during construction are considered not significant.

Construction Phase	Proposed Action Alternative Water Use (gallons)
Phase 1 (Years 1-3)	568,000
Phase 2 (Years 4-7)	2,740,000
Phase 3 (Year 8)	308,000
Phase 4 (Year 9)	1,784,000
Total	5,400,000

Sources: KHA 2017; Neill Engineers 2017a; DWL Architects 2017.
NOTE: Numbers reflect rounding.

Operation Impacts. The following analysis focuses on individual project components of the Proposed Action that would result in operational water use. 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 2017). Groups are split into three types, as follows:

- Group I (0.00007 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 on-site laundry), school, and gym.
- Group II (0.00002 AF per sf): Bakery, pizza, coffee house, ice cream shop, dry cleaner (with on-site 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 project components analyzed in this EA 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 was used (e.g., the proposed relocated passenger terminal building uses the existing building’s water demand use factor) or the most similar use type was assumed to be close enough to provide an approximate annual water demand.

- 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. 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 to increase the number of hangars on the north side by 51. This would increase the number of hangars at the Airport overall by seven (i.e., net increase of seven hangars). However, no additional restroom facilities are planned because of this relocation (i.e., the number of overall toilets at the Airport would remain the same).

At a factor of 0.0001, which is the MPWMD demand factor for existing hangars at the Airport, the proposed net increase in hangars (70,000 sf) 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.

- **ARFF Building Relocation.** 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).
- **Passenger Terminal Building Relocation.** The existing passenger 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 building's functional spaces would require water use. The existing 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).

Table 4J summarizes the anticipated water use for the various proposed project components. The estimated net increase in operational water demand is 1.05 AF of water per year (342,144 gallons) and does not include any water credits related to achieving a level of LEED certification for the proposed relocated terminal and ARFF buildings (see discussion below under Indirect Impacts). Thus, development associated with the Proposed Action would not exceed the Airport's existing remaining California American Water (CalAm) allocation of 62.37 AF per year and impacts to water supply and demand are not significant.

Proposed Action Alternative	Project Size (sf)	MPWMD Factor	Annual Water Demand (AF)	Annual Water Demand (gal) ¹
Net north side hangar increase (7 hangars)	70,000 ²	0.00001	0.70	228,096
New ARFF Facility ³	5,000 (net)	0.00001	0.05 ⁴ (net)	16,293 (net)
New Passenger Terminal Building	30,000 (net)	0.00001	0.30 ⁴ (net)	97,755 (net)
Total Increase in Annual Water Demand			1.05 (net)	342,144 (net)

MPWMD = Monterey Peninsula Water Management District; sf = square feet; AF = acre-feet; gal = gallon;
¹ 1 AF = 325,851 gallons
² Assumes seven, 100-foot by 100-foot box hangars based on the average size of the proposed hangar pads.
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 uses a MPWMD factor of 0.0001 = 0.085 AF per year or 27,697 gallons per year of water. This MPWMD water use method overestimates the ARFF's existing water use but provides a conservative estimate of future water use using a standardized methodology.
⁴ Prior to construction, the applicable on-site credits for the LEED certification would be applied, and the water demand would be less than what is indicated in this table.
NOTE: Numbers reflect rounding.

Indirect Impacts. Potentially beneficial indirect impacts to water resources would result from the Proposed Action. Replacement buildings for the passenger terminal and ARFF facility would be constructed to LEED certification standards and water use related to operation of the new passenger terminal and ARFF building would

decrease when compared to the existing building operations. For example, in addition to discretionary credits received based on the selected sustainability measures, the LEED certification process includes the following prerequisite practices:¹² outdoor water use reduction; indoor water use reduction; and, building-level water metering (USGBC website 2019).

Conclusion. Development associated with the Proposed Action would not exceed the Airport's existing remaining CalAm allocation of 5.20 AF per month (62.37 AF per year) and would not have a significant impact on its existing water entitlements. Impacts to the Airport's water supply during construction are also considered not significant as the Airport has an available source of non-potable water.

No Action Alternative

No impacts related to water supply and demand would result from the No Action alternative. No changes to the existing airport environment and operating procedures would occur.

Mitigation, Avoidance, and Minimization Measures for the Proposed Action

As the impacts of the Proposed Action are not significant for this resource, there are no mitigation measures required to reduce the impacts to a not significant level.

4.3.9 Noise and Compatible Land Use

Analysis Methodology and Significance Thresholds

FAA Order 1050.1F, Table 4-1, states that a significant noise increase occurs when the Proposed Action would increase noise by Day-Night Average Sound Level (DNL) 1.5 decibel (dB) or more for a noise-sensitive area (such as residents, schools, hospitals, and places of worship) that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a 1.5 dB or greater increase, when compared to the No Action alternative for the same timeframe. In California, FAA accepts the substitution of CNEL in place of DNL (see Chapter Three, Footnote 6).

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. The Proposed Action does not involve a change in aircraft operations. Therefore, no operational analysis for aircraft noise is required.

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 (FHWA 2006).

¹² To achieve any level of LEED certification, the Airport would be required to adhere to the following three water conservation credits (USGBC website 2018):

- Reduce outdoor water use by either landscaping in a way that does not require a permanent irrigation system or reduce the project's landscape water requirements by at least 30 percent from the calculated baseline for the site's peak watering month.
- 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.
- 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.

RCNM contains a large database of construction equipment, including noise generation levels and acoustical use factors (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. Specified and measured noise level ranges for various pieces of construction equipment at 50 feet are presented in **Table 4K**. 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
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
* (spec) indicates that the L_{max} is based on common specifications for this equipment, not on measured data.

Proposed Action Alternative

Construction Impacts. Construction activities would result in temporary increases in ambient noise. Construction for the Proposed Action 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. The Airport allows nighttime construction on areas within the runway and taxiway system and their associated safety zones to avoid the need to close the runway during more active daytime hours.

Phase 1 of construction is expected to commence in 2020 and then continue over a three-year period, with expected completion in 2022. This work is specific to the north side of the Airport. During Phase 1, apron and hangar construction would occur approximately 650 feet from the residential area along Rosita Road, while the proposed northeast service road improvement would be approximately 400 feet from some residents of The Oaks condominiums at its closest point. However, typical construction distances for these sensitive receptors would be at least 1,000 feet during most construction activities. Other phases of the proposed project would occur on the south side of the Airport with the exception of construction of a permanent ARFF building on the north side during Phase 2. The closest sensitive receptor to south side construction activity would be a place of worship located on Garden Road approximately 750 feet south and west of construction activity areas.

Anticipated noise levels during construction at the closest sensitive receptors would range between 51 and 71 L_{eq}^{13} (dBA) (Dudek 2018). (A-weighted decibels [dBA] are an expression of the relative loudness of sounds in air as perceived by the human ear.) In comparison, FAA noise thresholds are expressed in dB DNL (or CNEL in California), which is an annual average sound level. These noise metrics are not equivalent. Thus, the anticipated L_{eq} range is provided for informational purposes only and is not intended for use in determining an impact based on FAA significance thresholds.

Construction noise would occur on an intermittent basis only and would not exceed the FAA noise threshold of a 1.5 dB CNEL increase in noise within or above the 65 CNEL for noise-sensitive land uses. However, avoidance and minimization measures are recommended since at least some of the expected construction activity would occur during nighttime hours or would occur within 400 feet of a residential area (The Oaks condominiums). See *Mitigation, Avoidance, and Minimization Measures for the Proposed Action* below.

Operation Impacts. The Proposed Action does not include changes in aircraft operations at the Airport (i.e., it would not expand the existing capacity of the airfield or the number of passenger terminal aircraft loading gates). The construction of seven additional hangars would help to replace the loss of approximately 16,000 sq of ramp and 35 tie-down positions for local aircraft at the Airport. The provision of additional hangars is in keeping with GA trends towards more sophisticated (and quieter) aircraft. The Proposed Action does not increase the existing or future 65 CNEL contours. If future airport operations increases do occur, as anticipated in the adopted AMP, these increases (and any associated aircraft noise) would be the result of increased demand at the Airport independent from the Proposed Action. Changes in airport operations are typically related to an increase in runway capacity, such as a runway extension, or due to local, regional, and national aviation trends and market factors.

Use of Airport Road could include emergency vehicles as a result of the relocation of the ARFF building to the north side of the Airport. This would occur primarily if re-negotiations with the City of Monterey result in continuing use of the ARFF for off-airport structural fire support. While emergency vehicle noise from sirens may cause temporary annoyance, the use of emergency sirens would be limited to emergency situations. Use of Airport Road for emergency vehicles is allowed per City of Monterey's *Casanova-Oak Knoll Neighborhood Plan*, Policy 29, which states that Airport Road can be used as an emergency and service road for the Airport. No other vehicular noise impacts would occur through the Casanova Oak Knolls neighborhood as the Proposed Action would reduce ADT through the neighborhood overall. Traffic noise from the Proposed Action, including emergency vehicle use, would not be significant.

¹³ 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 and is used to account for construction phases that include multiple pieces of equipment operating simultaneously.

Indirect Impacts. No indirect noise impacts related to the Proposed Action would occur. As discussed above, construction and vehicular noise would not be above FAA's noise thresholds of significance. Operational building noises, such as heating, ventilation, and air conditioning (HVAC) units, would also 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 building operational noise and vehicular traffic.

Conclusion. No aircraft noise impacts would result from the Proposed Action since changes in aircraft operations would not be associated with the proposed project. Construction noise would occur on a temporary and intermittent basis. Minimization and avoidance measures are recommended although construction activity would not create noise that would exceed FAA established noise thresholds. Operational noise associated with vehicular traffic or future buildings would not create noise that would exceed the FAA-established thresholds. No significant noise impacts would result from the Proposed Action.

No Action Alternative

No impacts related to noise levels for noise-sensitive land uses would result from the No Action alternative. No changes to the existing airport environment and operating procedures would occur.

Mitigation, Avoidance, and Minimization Measures for the Proposed Action

As the impacts of the Proposed Action are not significant for this resource, there are no mitigation measures required to reduce the impacts to a not significant level. However, the Airport proposes to implement the following measures to further avoid and minimize the environmental impacts of the Proposed Action.

Avoidance and Minimization Measures

NOI-1: Proposed north side daytime construction activity shall comply with the Del Rey Oaks Municipal Code, Chapter 8.20.010, which states that excessive, unnecessary or unusually loud noise before 7:00 AM or after 7:00 PM daily are a public nuisance and unlawful (see Del Rey Oaks Municipal Code, Chapter 8.20.010 B[3] for types of construction equipment identified as sources of potentially loud noise).

NOI-2: To address potential impacts of nighttime noise-generating construction activities, the following measures shall be incorporated:

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 three minutes (a five-minute limit is required by the state airborne toxics control measure (CCR, Title 13, §§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.

4.3.10 Socioeconomic Impacts, Environmental Justice, and Children’s Environmental Health and Safety Risks

4.3.10.1 Socioeconomic Impacts

Analysis Methodology and Significance Thresholds

The FAA has not established a significance threshold for this impact category (FAA Order 1050.1F, Exhibit 4-1). However, factors to consider that may be applicable to socioeconomic resources, if they are interrelated with natural or physical environmental impacts include, but are not limited to, situations in which the Proposed Action would have the potential to:

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

As discussed further under *Proposed Action Alternative* below, the Proposed Action would not induce substantial economic growth, disrupt, or divide the physical arrangement of an established community, displace housing or businesses, or produce a substantial change in the community tax base. The project could generate additional traffic during the construction stages of the project. However, in the long term, the Proposed Action would result in a decrease of ADT both on the south and north sides of the Airport and the surrounding roadway system.

Construction Impact Methodology. Caltrans and the City of Monterey do not assign specific thresholds for determining construction impacts to their transportation facilities since construction impacts are temporary impacts associated with project construction and are typically less than those caused by the daily operations of the project itself. The number of daily construction vehicle trips generated by the Proposed Action 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.

Proposed Action Alternative

The Proposed Action would not disrupt or divide the physical arrangement of an established community or displace housing or businesses. Implementation of the Proposed Action would create an estimated 14,600 temporary construction jobs during the nine-year development of the project, based on construction activity estimates by the project engineers (**Table 4L**). These jobs are estimated to occur as follows:

- An average of 820 jobs per year (for three years) during Phase 1;
- An average of 2,579 jobs per year (for four years) during Phase 2;
- Approximately 663 jobs for one year during Phase 3; and
- Approximately 1,167 jobs for one year during Phase 4.

Phase ²	Area of Airport	Years Per Phase	Construction Workers ³	Materials and Equipment Deliveries ⁴	Off-Airport Earth Removal ^{4,5}	Construction Debris Removal ⁴	Total Off-Airport Round Trips ¹	On-Airport Earth Removal ^{4,5,6}
Phase 1	North	3	2,458	3,278	0	0	5,736	2,428
Phase 2	North/South	4	10,314	4,969	0	629	15,912	7,524
Phase 3	South	1	663	87	0	120	870	0
Phase 4	South	1	1,167	1,501	896	0	3,564	0
TOTAL		9	14,602	9,835	896	749	26,082	9,952

Source: Coffman Associates 2020

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 and 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 22,400 cy earth removed ÷ 25 cy/truck = 896 round trips

⁶ On-airport earth removal trips are assumed to have both trip ends on-site and are excluded from construction vehicle trip totals.

In addition, the project would create an estimated 14 additional jobs related to passenger amenities in the relocated passenger terminal and other miscellaneous job opportunities (MPAD 2018a).

In general, the types of jobs that could be created by the Proposed Action are anticipated in the most current County and regional growth forecasts (Transportation for Monterey County [TAMC] 2018; AMBAG 2018b). 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. Therefore, the employment opportunities associated with the Proposed Action would not foster a substantial change in the community tax base nor would they induce substantial economic growth.

Disruptions to traffic patterns and changes to LOS on roads serving the Airport and its surrounding communities are discussed below.

Construction Impacts. As previously described throughout this EA, the Proposed Action would be constructed in four phases over a period of approximately nine years. 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.

Earth removal is expected to occur in Phase 4 only. It is estimated that a total of 22,400 cy of earth would be hauled off-site during this phase (Section 1.3.8, Table 1D). Construction debris removal is expected to occur in Phases 2 and 3 only. Delivery of materials and equipment is expected to occur during all construction phases. Construction worker trips would also occur during all construction phases.

Table 4L also provides estimates of the total number of construction-related round trips for each phase of construction. 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. Based on preliminary estimates from the project engineers and architects, approximately 26,080 total construction round trips could occur over nine years. The construction traffic would access both sides of the Airport from the south side via Olmsted Road and Highway 68.

During Phase 2 earth disposal activities, dirt would be moved from the south side to the north side stockpile/disposal sites. This could occur at night across the airfield to avoid longer haul trips or during the day using the east and newly constructed vehicle service roads. Hauling on the east service road would allow day-time operations but would require flaggers and one-way traffic control due to the width of the east vehicle service road. Since the east vehicle service road was not designed for the volume or weight of the trucks, it would need to be repaved following the hauling operation. Hauling across the aircraft movement areas would eliminate the likelihood of pavement damage since the existing pavements are designed to withstand heavy loads. However, restricting the hauling to late night-time closures would reduce the efficiency of the contractors and, therefore, would increase costs and construction time. There would also be increased risk for foreign object debris (FOD) in the movement areas.

Construction vehicle trips associated with the Proposed Action would represent a small fraction (less than one percent) of the existing daily volumes on the surrounding off-airport road network (**Table 4M**). The maximum number of trips for any of the phases of construction would be 50 passenger car equivalents (PCE) and less than one percent of the overall ADT on any individual roadway. (PCEs assume that each truck is the equivalent of two passenger cars.) The amount of estimated construction traffic would not disrupt local traffic patterns and would not substantially reduce the levels of service of roads. Thus, construction traffic impacts of the Proposed Action would not be significant.

Construction Phase	Total Daily Construction Trips (PCE) ¹	Construction Activity Area	Proposed Haul Routes ²	Existing ADT	Construction Trips Percentage of ADT
1	22	North	Olmsted Road	5,800	0.4 %
1	22	North	Highway 68	18,800	<0.1 %
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	49	South	Olmsted Road	5,800	0.8 %
4	49	South	Highway 68	18,800	0.3 %

Source: Coffman Associates 2020
 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.

Operation Impacts. The Proposed Action would result in a redistribution of traffic from the south side of the Airport to the north side due to the relocation of GA hangars and the ARFF building from the southeast ramp to the north ramp. In addition, new vehicular trips would result from the construction of up to seven additional hangars. However, these new “north side” trips would be offset by the removal of existing vehicle trips associated with the leased landscaping storage operations within the proposed north side stockpile areas. ADT associated with the Proposed Action and ADT to be removed are summarized in **Table 4N**. The trip generation rates for the relocated and new hangars are based on gate counts at the Airport’s existing hangar gates between November 1 and December 31, 2016. Trips generated by the relocated ARFF are based on Monterey Fire Department staffing, schedule, and incident reports (November 1 – December 31, 2016). (This number would be less if structural fire support is no longer provided by the relocated ARFF.) Trip generation for the leased landscaping storage operations are based on trip counts conducted from September 21 – 27, 2019.

Indirect Impacts. Since the Proposed Action would result in a decrease of vehicular trips, no additional indirect traffic impacts would occur.

Conclusion. The Proposed Action would result in a slight decrease in traffic on streets and intersections south and west of the Airport, including on Highway 68 and neighborhood streets within the Casanova Oak Knoll neighborhood. The Proposed Action will not have a significant impact on Socioeconomics.

Land Use	Trip Generation Rate (Weekday)	New Weekday ADT	ADT Including Weekend
Relocated GA Hangars (44 units)	1.41/unit ¹	62	59
Relocated ARFF Building	N/A	20 ²	20
New GA Hangars (7 units)	1.41/unit ¹	10	10
Subtotal (New ADT)		92	89
Reduction in ADT due to Elimination of Month-to-Month Landscaping Storage Operations	N/A	-122 ³	-100
Net Change in ADT		-30	-11

Source: Mott MacDonald 2019; KHA 2019
 GA = General Aviation; ARFF = aircraft rescue and firefighting; N/A = not applicable (see Notes 2 and 3)
 Notes:
 1. Trip generation rates for hangars based on gate counts at Monterey Regional Airport (November 1 – December 31, 2016).
 2. Trips generated by ARFF based on Monterey Fire Department staffing, schedule, and incident reports (November 1 – December 31, 2016). This number would be less if structural fire support is no longer provided by the relocated ARFF.
 3. Trip generation for leased landscaping storage operations based on traffic counts at Monterey Regional Airport (September 21 – 27, 2019).

No Action Alternative

No impacts related to traffic would result from the No Action alternative. No changes to the existing airport environment and operating procedures would occur.

Mitigation, Avoidance, and Minimization Measures for Proposed Action

As the impacts of the Proposed Action are not significant for this resource, there are no mitigation measures required to reduce the impacts to a not significant level. The Proposed Action would not result in significant LOS impacts.

4.3.10.2 Environmental Justice

Analysis Methodology and Significance Thresholds

FAA has not established a significance threshold for this impact category (FAA Order 1050.1F, Exhibit 4-1). However, factors to consider for environmental justice is if the Proposed Action or alternative(s) would lead to disproportionately high and adverse impacts to an environmental justice population (i.e., low income or minority) due to:

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

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

The U.S EPA's EJSCREEN online tool was used to determine the number and percentage of minority households located within 0.25 mile from the primary proposed project components, as well as from the overall project study area.¹⁴ The overall project study area includes the haul roads, stockpile/disposal sites, and minor project activity areas, such as remarking the Taxiway "A" pavement. The EJSCREEN report is based on the U.S. Census Bureau's American Community Survey (ACS) estimates (2016) (U.S. EPA website 2018b). This report also gives the per capita income for use in the evaluation of potential impacts to low-income populations.

Proposed Action Alternative

Table 40 shows the number of households located within 0.25 mile of the project study area, as well as the two primary project components: the proposed north side GA/ARFF relocation area; and the proposed relocated passenger terminal complex. As shown in the table, an estimated 521 households live within 0.25 mile of the project study area. The percent of minority population within 0.25 mile of the overall project study area is 34 percent, while those 0.25 mile from primary project components is approximately 29 percent. This is slightly higher than the percent of minority population within the Seaside-Monterey CCD (approximately 26 percent [Section 3.3.10.1, Table 3G]). Percentages of Hispanic population within 0.25 mile of the project study area and primary project components are from 15 to 18 percent.

¹⁴ Section 3.3.10.2, Exhibit 3M in Chapter Three shows the distribution of minority and low-income populations surrounding the Airport by census tract (C.T.) based on the 2010 census (C.T. 132, C.T. 133, and C.T. 134). This information indicates that the neighborhoods adjacent to the Airport within the City of Del Rey Oaks (C.T. 134) and south of the Airport across Highway 68 within the County (C.T. 132) are comprised of lower percentages of environmental justice population than is the neighborhood within the City of Monterey to the west of the Airport (C.T. 133).

TABLE 40
Environmental Justice Population Characteristics
Proposed Action Alternative

Proposed Action Component	# of Households within 0.25 Mile	Percent Minority within 0.25 Mile	Total Hispanic Population within 0.25 Mile	Per Capita Income within 0.25 Mile
North Side GA/ARFF Relocation Area	49	29%	15%	\$35,857
Passenger Terminal Complex	0	0%	0%	N/A
Total Project Study Area	521	34%	18%	\$53,214

Source: U.S. EPA 2018b

GA = general aviation; ARFF = aircraft rescue and firefighting; N/A = not applicable

NOTE: 0.25-mile radii for the various Proposed Action components overlap, while the total study area includes haul routes and other miscellaneous project components; thus, the total number of households within 0.25 mile of the overall project study area does not total the sum of the project components listed.

Based on the information provided in Section 3.3.10.1 (Table 3G), less than seven percent of the families within the Seaside-Monterey CCD live below the poverty level, compared to approximately 11 percent within the County and state overall. Per capita income for areas within 0.25 mile of the primary project components or the overall project study area ranges from \$35,857 to \$53,214, which is generally similar to or higher than the Seaside-Monterey CCD and County overall (\$36,317 and \$27,168, respectively).

These population statistics indicate that there are no low-income neighborhoods in proximity to the Airport.

Construction Impacts. Construction activity could result in dust, noise, and traffic, as discussed in Sections 4.3.1, 4.3.9, and 4.3.10.1. Neighborhoods within 0.25 mile of the project study area are approximately 34 percent minority population and are on the north side of the Airport. On the south side of the Airport, there are no households or minority populations within 0.25 mile of the project study area. *Mitigation, Avoidance, and Minimization Measures for the Proposed Action* in Sections 4.3.1 and 4.3.9 provide actions the Airport would take to minimize construction impacts to all neighboring areas. No disproportionately high or adverse effects would occur to minority populations in proximity to the Airport due to the Proposed Action.

Operation Impacts. Similar to the discussion under Construction Impacts, there are no environmental justice populations in areas located in proximity to the Airport that would experience disproportionately high and adverse impacts due to operation of the Proposed Action. Once Proposed Action components are implemented/constructed, operational impacts would occur primarily on the Airport. The Proposed Action would not introduce new land uses into an area that would be incompatible with the surrounding existing or planned land uses, and impacts to nearby minority populations (such as noise or lighting) would be minimized by the elevation differences, vegetative screening, established on-airport buffers, and linear distances between proposed activity areas and the nearest off-airport land uses.

Indirect Impacts. There are no environmental justice neighborhoods or areas located in proximity to the Airport that would experience disproportionately high and adverse impacts, directly or indirectly, due to the Proposed Action.

Conclusion. There are no environmental justice populations in proximity to the Airport that would experience disproportionately high and adverse impacts due to the Proposed Action, directly or indirectly. In addition, *Mitigation, Avoidance, and Minimization Measures for the Proposed Action* in Sections 4.3.1 and 4.3.9 provide actions the Airport would take to minimize construction impacts to all neighboring areas.

No Action Alternative

No impacts related to environmental justice would result from the No Action alternative. No changes to the existing airport environment and operating procedures would occur.

Mitigation, Avoidance, and Minimization Measures for the Proposed Action

As the impacts of the Proposed Action are not significant for this resource, there are no mitigation measures required to reduce the impacts to a not significant level.

4.3.10.3 Children’s Environmental Health and Safety Risks

Analysis Methodology and Significance Thresholds

FAA has not established a significance threshold for this impact category (FAA Order 1050.1F, Exhibit 4-1). However, a factor to consider for this resource subcategory is if the Proposed Action would lead to disproportionately high environmental health or safety risks to children.

The U.S EPA’s EJSCREEN online tool was used to determine the number and percentage of children age 0-17 living within 0.25 mile of the project study area, as well as from the primary proposed project components. A survey of schools and parks within 0.25 mile of the primary project components and the overall project study area was conducted to determine other areas that might contain a concentration of children.

Proposed Action Alternative

Table 4P shows the number of children located within 0.25 mile of the overall project study area, as well as from two primary project components: the north side GA/ARFF relocation area; and the proposed relocated passenger terminal complex. As shown in the table, an estimated 223 children ages 0-17 live within 0.25 mile of the project study area. an estimated 28 children live within 0.25 mile of the north side GA/ARFF relocation area (Rosita Road). No children live within 0.25 mile of the proposed passenger terminal complex.

Proposed Action Component	# of Households within 0.25 Mile	# of Children (Age 0-17) within 0.25 Mile	Parks and Schools within 0.25 mile
North Side GA/ARFF Relocation Area	49	28	None
Passenger Terminal Complex	0	0	None
Total Project Study Area	521	223	Del Rey Park; Monterey Peninsula Regional Park

Source: U.S. EPA 2018b
 GA = general aviation; ARFF = aircraft rescue and firefighting
 NOTE: 0.25-mile radii for the various Proposed Action components overlap, while the total study area includes haul routes and other miscellaneous project components; thus, the total number of children within 0.25 mile of the overall project study area does not total the sum of the project components listed.

There are two parks and no schools within 0.25 mile of the overall project study area. However, no schools or parks are within 0.25 mile of the primary project components.

Construction Impacts. Construction activity could result in dust, noise, and traffic, as discussed in Sections 4.3.1, 4.3.9, and 4.3.10.1. *Mitigation, Avoidance, and Minimization Measures for the Proposed Action* in Sections 4.3.1 and 4.3.9 provide actions the Airport will take to minimize construction impacts to all neighboring areas. These

measures would prevent children located within 0.25 mile of project construction activities from experiencing disproportionately high environmental health or safety risks due to the Proposed Action.

Operation Impacts. As discussed previously, operational land use impacts to off-airport land uses would be minimized by the elevation differences, vegetative screening, established on-airport buffers, and linear distances between proposed activity areas and the nearest off-airport land uses. No disproportionately high environmental health or safety risks to children would occur. The Airport is a secured environment and not readily accessible to children, especially when unsupervised. Further, hazards resulting from the Proposed Action would not be significant based on standard avoidance and minimization measures as discussed in Section 4.3.5.1.

Indirect Impacts. Similar to the discussion above, no indirect children's environmental health or safety risks would occur. The Airport is a secured environment and not readily accessible to children, especially when unsupervised.

Conclusion. Avoidance and minimization measures provided in other sections of this EA (i.e., *Mitigation, Avoidance, and Minimization Measures for the Proposed Action* in Sections 4.3.1, 4.3.5.1, and 4.3.9) are sufficient to prevent children within 0.25 mile of project construction activities from experiencing disproportionately high environmental health or safety risks due to the Proposed Action. Operational land use impacts to children (direct or indirect) would be minimized by the elevation differences, vegetative screening, established on-airport buffers, and linear distances between proposed activity areas and the nearest off-airport land uses.

No Action Alternative

No impacts related to children's environmental health or safety risks would result from the No Action alternative. No changes to the existing airport environment and operating procedures would occur.

Mitigation, Avoidance, and Minimization Measures for the Proposed Action

As the impacts of the Proposed Action are not significant for this resource, there are no mitigation measures required to reduce the impacts to a not significant level.

4.3.11 Visual Effects

4.3.11.1 Light Emissions

Analysis Methodology and Significance Thresholds

FAA Order 1050.1F, Exhibit 4-1, states that FAA has not established a significance threshold for the Visual Effects category. However, factors to consider are the degree to which the action would have the potential to:

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

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

Proposed Action Alternative

Construction Impacts. Under the Proposed Action, there could be construction activities that would 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 14 CFR part 77 (Part 77 obstruction) regulations to prevent hazards to aircraft operations. None of the construction lighting would be in proximity to residents. No residents are near the south side project construction areas, especially those along the airfield. Residents located farther south from the Airport, and at elevations above the airfield, are more than 0.5 mile away. On the north side of the Airport, views of construction lights would be blocked by elevation differences, vegetation, established on-airport buffers, and the linear distances between the proposed lit activity area (located within the airfield areas) and the nearest off-airport land uses.

As buildings outside the airport boundary are shielded from any lighting and glare from the construction sites, impacts to areas outside the boundary would not be significant. No substantial glare that could affect airport operations would occur as a result of construction activity. Therefore, no significant impact to airport operations from light emissions or glare would occur.

Operation Impacts. The Proposed Action would include several new sources of operational 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, a fuel farm, and the northeast service road improvement. Potential sources of glare would include the use of glass, reflective building materials, or the installation of solar panels on buildings or parking areas.

The closest residents to the proposed north GA hangar and ARFF development live on the south side of Rosita Road and would be approximately 700 feet to over 1,000 feet away. Thus, no new exterior lighting or sources of glare would be in proximity to residents. 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 4D**). 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 and ARFF. Although detailed design plans would be developed as improvements are implemented, it is assumed for this analysis 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, 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 4D**, trees and topography located along the northern 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 areas outside the airport boundary to lighting or glare from proposed north side development would not be significant.

On the south side, exterior lighting would be associated with the relocated passenger terminal, terminal loop road, and new parking lots. This lighting would replace existing parking lot, passenger terminal, and southeast GA ramp lighting. Potential sources of glare would 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 Airport Traffic Control Tower (ATCT).

The proposed shift of Taxiway "A" approximately 52.5 feet south would require the relocation of 1,850 linear feet 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 project components; 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 south side project components, impacts associated with lighting or glare would be minimal and not significant. For potential impacts to Highway 68, a designated scenic resource, see Section 4.3.11.2.

Indirect Impacts. As previously discussed, based on the line-of-sight analysis, trees and topography located along the northern airport property line prevent views past the southern edge of an existing berm located from 55 to 160 feet from the northern property line. Sensitive receptors to light and glare on the south side of the Airport would be buffered by current and proposed landscaping along Highway 68. Therefore, indirect impacts associated with light and glare to areas outside the Airport would not be significant.

Conclusion. No light- or glare-sensitive uses are immediately adjacent to the Airport that would be affected directly or indirectly by the Proposed Action. Due to the distance, vegetation, and topography between existing residents and proposed project components or future long-term projects, potential impacts related to project sources of light or glare would not be significant. If long-term developments had the potential to generate glint or glare for the ATCT, the FAA would require a glint and glare study before approving such projects.

No Action Alternative

No impacts related to light or glare emissions would result from the No Action alternative. No changes to the existing airport environment and operating procedures would occur.

Mitigation, Avoidance, and Minimization Measures for the Proposed Action

As the impacts of the Proposed Action are not significant for this resource, there are no mitigation measures required to reduce the impacts to a not significant level. However, the Airport proposes to implement the following measure to further avoid and minimize the environmental impacts of the Proposed Action.

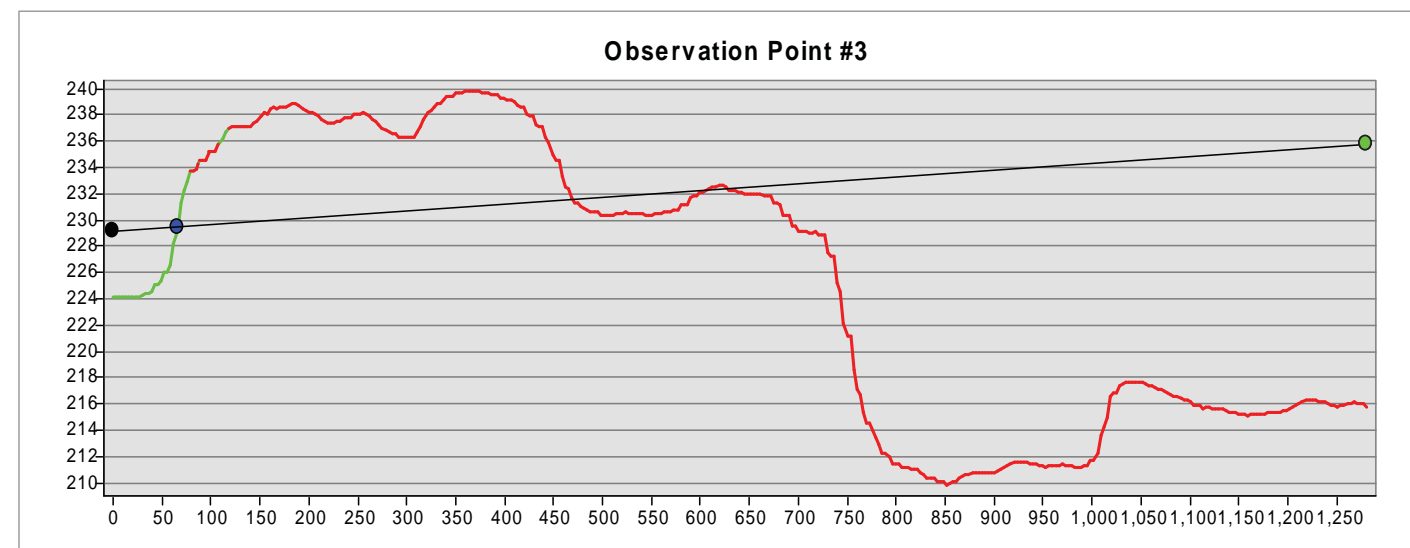
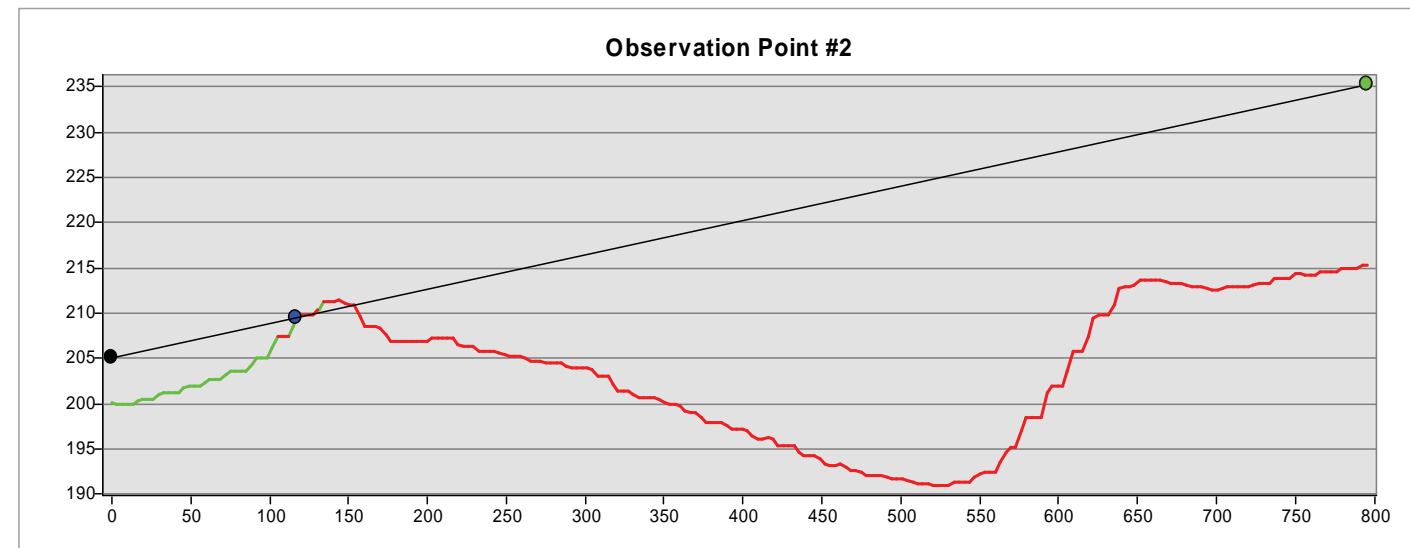
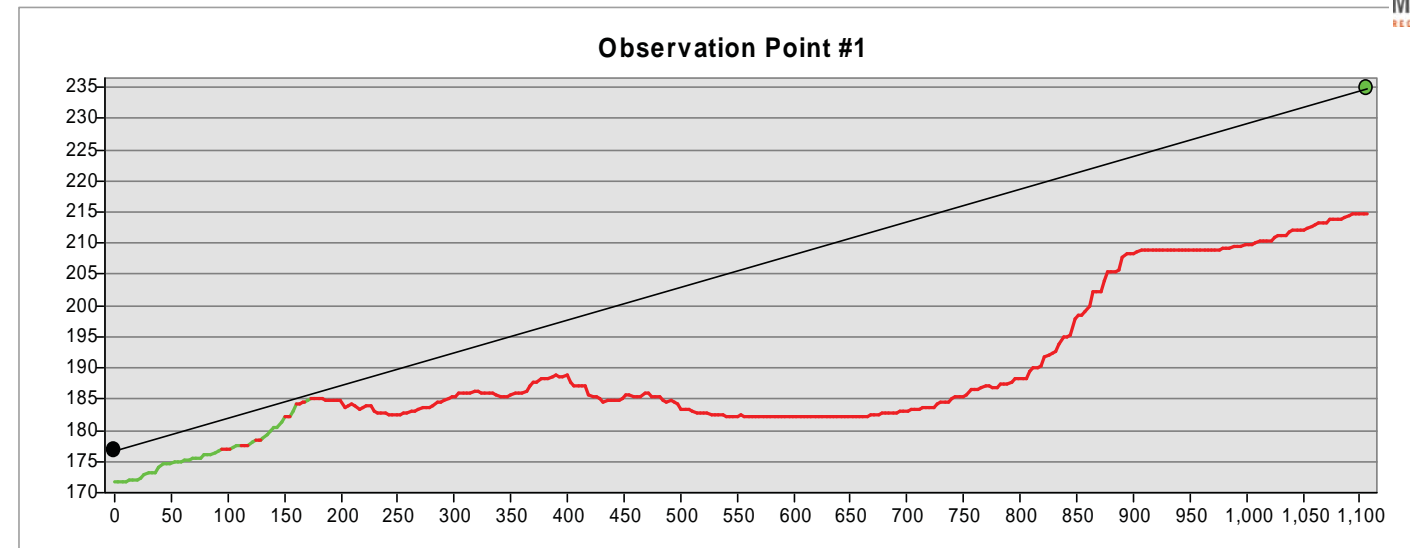
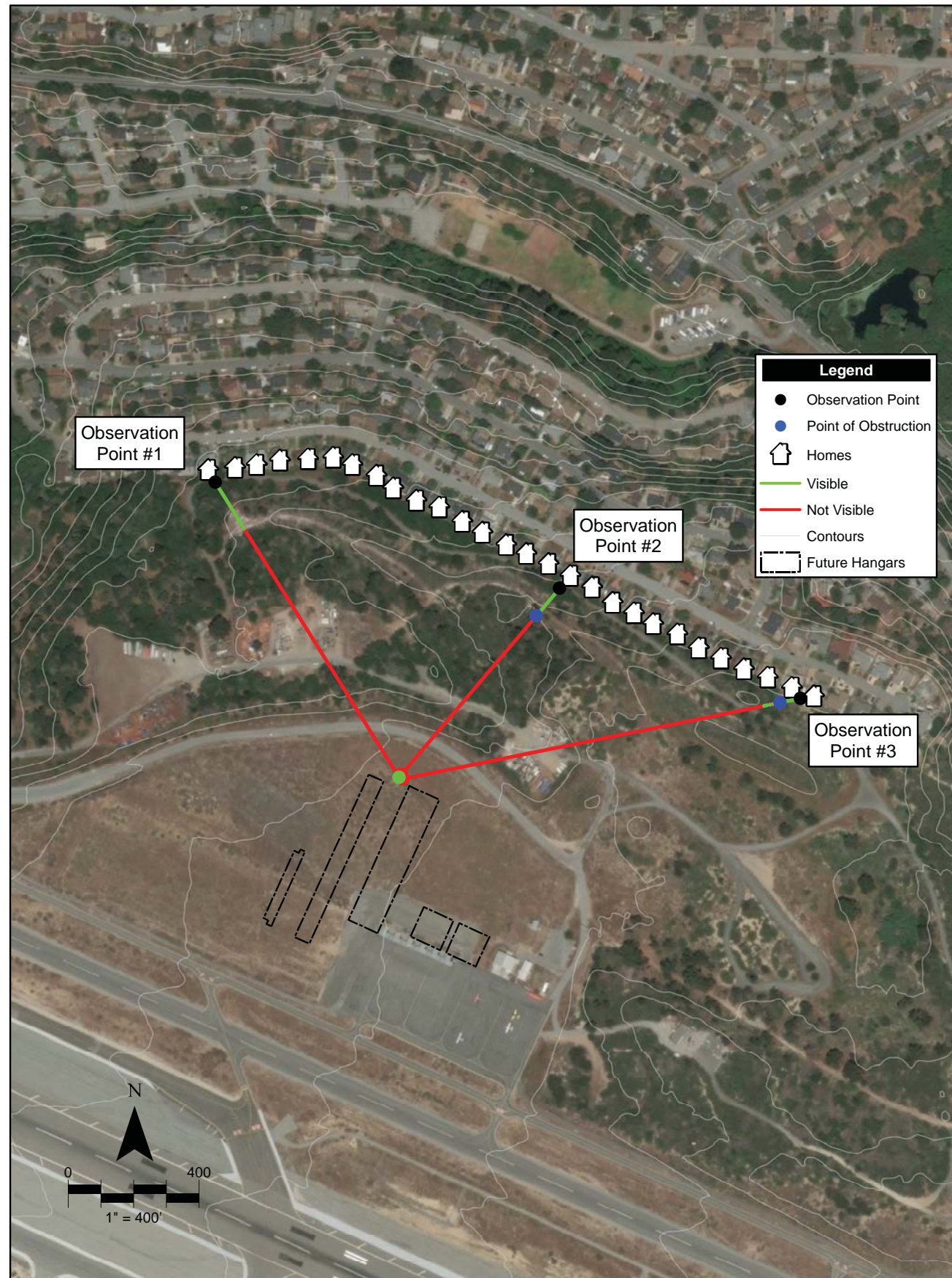
Avoidance and Minimization Measures

VR-1: Future projects with the potential to generate glint, glare, or affect the line-of-sight of the Airport ATCT would be required to complete a glint, glare, or line-of-sight study before FAA approval of such a project. The Airport would be required to implement a design that would preclude glint, glare, or line-of-sight impacts to the ATCT.

4.3.11.2 Visual Resources

Analysis Methodology and Significance Thresholds

FAA Order 1050.1F, Exhibit 4-1, states that FAA has not established a significance threshold for the Visual Effects category. However, factors to consider are the degree to which the action would have the potential to:



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

Therefore, visual resources impacts were determined by the extent to which any component of the Proposed Action would create a noticeable change in the visual character of the airport environs or affect the nature or views of existing visual resources.

Proposed Action Alternative

Construction Impacts. Construction activities would result in temporary visual changes with demolition and construction activities affecting various areas of the Airport throughout the different project phases. During each phase, security fencing would be provided around the construction sites and staging areas. As discussed in Section 3.3.11.2, public views of the Airport are restricted, even those available from the streets, highways, and land uses adjacent to the Airport, while long-range views are also limited in number and scope. Due to the size of the Airport and the locations of the proposed project components, 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. Scenic vistas from or across the Airport are not available due to significant topography and thick vegetation.

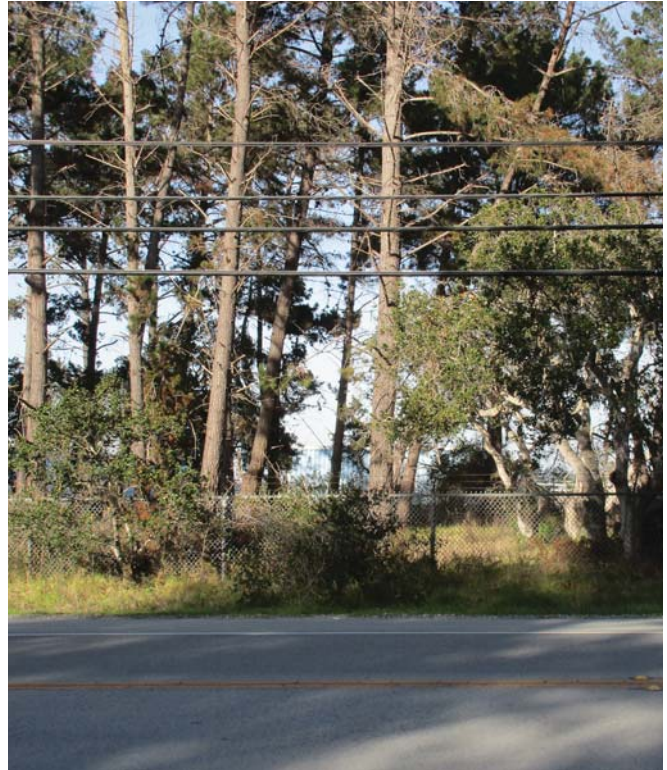
Views of construction on the south side of the Airport from Highway 68, a designated scenic highway, would be screened by the heavy vegetation that is currently present (**Exhibit 4E**). According to the *City of Monterey General Plan* Urban Design Element, Policy h.1, significant natural features within 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. While some of this vegetation may be removed due to a proposed drainage pond and swale (Section 4.3.12.1), much of the mature vegetation would be retained.

Given the industrial character of the Airport, the lack of public views of the construction areas, and the presence of existing screening vegetation on both sides of the Airport, construction activities would not substantially degrade the visual character or resources in the general area. Therefore, construction activities would not result in a significant impact on visual resources.

Operation Impacts. Implementation of the Proposed Action would not result in substantial changes to the visual character of the Airport or visual resources in the area. The area dedicated to commercial air carrier facilities would remain in the same general location of the Airport. Older facilities would be replaced with newer facilities that are generally consistent with the existing visual character of the area. Although detailed design plans would be developed during project design, proposed structures would need to comply with Part 77 obstruction regulations in terms of building heights and lighting. Therefore, the heights of buildings would be generally consistent with the height of the existing buildings on-site.

On the north side of the airfield, an existing GA apron and hangar area would be developed with new GA apron, additional hangars, taxiway pavement, and an ARFF building. From a visual standpoint, the area is located internal

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



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



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.

There are no designated scenic highways within the City of Del Rey Oaks in proximity to the proposed project. In addition, more than 400 linear feet, as well as intervening topography and vegetation, would occur between the proposed northeast service road improvement and the closest City of Del Rey Oaks resident.

On the south side of the airfield, the proposed project would be in areas of the Airport that are primarily developed with hangars, apron, vehicle parking lots, an ARFF building, and a passenger terminal building. The relocation of the proposed passenger 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 would be able to develop the area as a single project with a common design and theme. The actual visual appearance and building aesthetics are not known at this time. However, the proposed passenger terminal parking lot would be similar in visual character to the existing pavement and parking area.

The proposed parking lot would remain outside the City of Monterey's 100-foot scenic corridor setback. This is consistent with other frontage properties along the highway. As this portion of the proposed project would be within the City of Monterey's land use control, landscaping plans incorporating native vegetation to the extent feasible within or adjacent to the 100-foot setback from Highway 68 would be required per city policies. See *Mitigation, Avoidance, and Minimization Measures for the Proposed Actions* below.

Indirect Impacts. No indirect impacts to visual resources would occur. Views from off-airport areas are not readily available due to existing topography and vegetation.

Conclusion. Overall, the Proposed Action would be consistent with the visual character of the Airport, 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 short- or long-range views would be exposed to these visual changes. Since most of the proposed development 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). Therefore, implementation of the Proposed Action would not result in a significant impact on visual resources.

The portion of the proposed project closest to the Highway 68 scenic corridor would be within the City of Monterey's land use control and landscaping plans, incorporating native vegetation to the extent feasible within or adjacent to the 100-foot setback from Highway 68 required per city policies. The landscaping plans shall include native species, protect existing cypress, Monterey pine and coast live oak trees to the extent possible, and use trees to screen parking, where appropriate. See *Mitigation, Avoidance, and Minimization Measures for the Proposed Action* below.

No Action Alternative

The No Action alternative would not change the land use on the Airport. Therefore, no change in the visual character associated with the Airport would occur.

Mitigation, Avoidance, and Minimization Measures for the Proposed Action

As the impacts of the Proposed Action are not significant for this resource, there are no mitigation measures required to reduce the impacts to a not significant level. However, the Airport proposes to implement the following measures to further avoid and minimize the environmental impacts of the Proposed Action.

Avoidance and Minimization Measures

- VR-2: Landscaping plans incorporating native vegetation to the extent feasible shall be incorporated within or adjacent to the 100-foot setback from Highway 68, as required by the City of Monterey permitting process. The landscaping plans shall include native species, protect existing cypress, Monterey pine and coast live oak trees to the extent possible, and use trees to screen parking, where appropriate. The use of plant species listed on the California Exotic Pest Plant Council lists shall not be allowed.
- VR-3: 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. Any 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 (City of Monterey 2018).

4.3.12 Water Resources (Surface Waters and Groundwater)

FAA Order 1050.1F identifies the following subcategories of impact under the overall topic of water resources: wetlands, floodplains, surface waters, groundwater, and wild and scenic rivers. As discussed in Section 3.3.12, the project study area does not contain wetlands or waters within *Clean Water Act* (CWA) jurisdiction, floodplains, or rivers, including designated wild and scenic rivers. Therefore, the following discussion is focused on potential surface waters and groundwater impacts.

4.3.12.1 Surface Waters

Analysis Methodology and Significance Thresholds

Per FAA Order 1050.1F, Table 4-1, an action will have significant impacts to surface waters if it would:

- Exceed water quality standards established by federal, state, local, and tribal regulatory agencies; or
- Contaminate public drinking water supply such that public health may be adversely affected.

Section 402 of the CWA created the National Pollutant Discharge Elimination System (NPDES) program to authorize point source discharges of pollutants to waters of the U.S. consistent with the CWA. In terms of water pollution, a point source is a single discharge source, such as a pipe coming from a wastewater treatment plant. However, the federal *Water Quality Control Act of 1987* amended the CWA to include regulation of certain discharges of pollutants in stormwater runoff under the NPDES program. Federal regulations (40 C.F.R. 122.26) require certain industrial facility owners and/or operators to obtain stormwater discharge permits. The specific types of facilities that need coverage are dependent upon the facility's Standard Industrial Classification Code. In California, NPDES permitting authority has been delegated to the State Water Resources Control Board (SWRCB), which, in turn, relies on regional water quality control boards (RWQCBs) to implement the program.

Individual construction projects that have a potential for one acre or more of ground disturbance are required to obtain NPDES coverage under the state's Construction General Permit Order 2009-2009-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 stormwater pollution prevention plan (SWPPP). The construction SWPPP is a project-specific document which deals primarily with reducing pollutant sources associated with erosion and sediment transfer and chemicals used at construction sites. The monitoring requirements are less stringent than the facility-specific SWPPP and no sampling is required. The Airport is within the Central Coast RWQCB's jurisdiction and must comply with the policies and water quality objectives of the *Water Quality Control Plan for the Central Coast Basin* (Basin Plan). California's antidegradation policy, formally known as the Statement of Policy with Respect to Maintaining High Quality Waters in California, also 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 (Central Coast RWQCB et al. 2017).

The Central Coast RWQCB's Resolution R3-2013-0032, *Post-Construction Requirements for Development in the Central Coast Region*, requires a stormwater management plan (SWMP) when the installation of new impervious surface occurs to prevent off-site 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.

The analysis of impacts to water quality relies heavily on the principles and discharge prohibitions contained in the 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 events¹⁵ 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 NPDES industrial general permit standards have been estimated. To identify potential impacts related to stormwater runoff, pre- and post-runoff volumes have been estimated and the need for on-site stormwater retention has been evaluated in light of the Central Coast RWQCB's Resolution R3-2013-0032.

Proposed Action Alternative

Construction Impacts. During and immediately after construction activities, erosion and sedimentation can cause a degradation of water quality due to stormwater runoff. Several of the potential construction areas contain erodible soils. On the north side of the Airport where the southeast GA hangars, the ARFF, and the northeast service road improvement 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 passenger terminal and apron relocation area.

An NPDES General Construction Permit would be required for all construction project components that would disturb greater than one acre. Acquisition of a General Construction Permit is dependent on the preparation of a

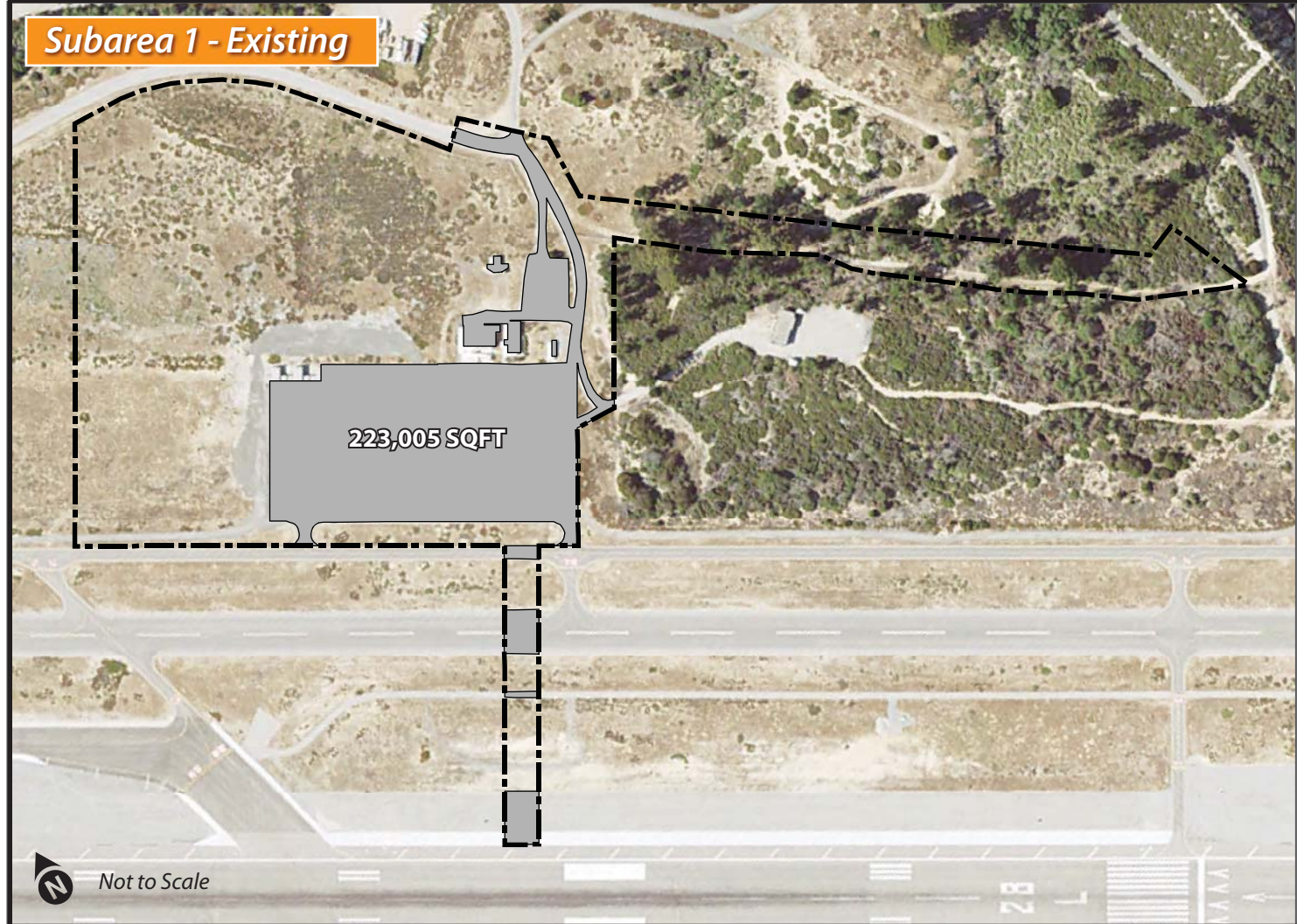
¹⁵ A qualifying storm event is defined as a precipitation event that: 1) produces a discharge for at least one drainage area; and 2) is preceded by 48 hours with no discharge from any drainage area.

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 construction on water resources due to implementation of the Proposed Action are not significant.

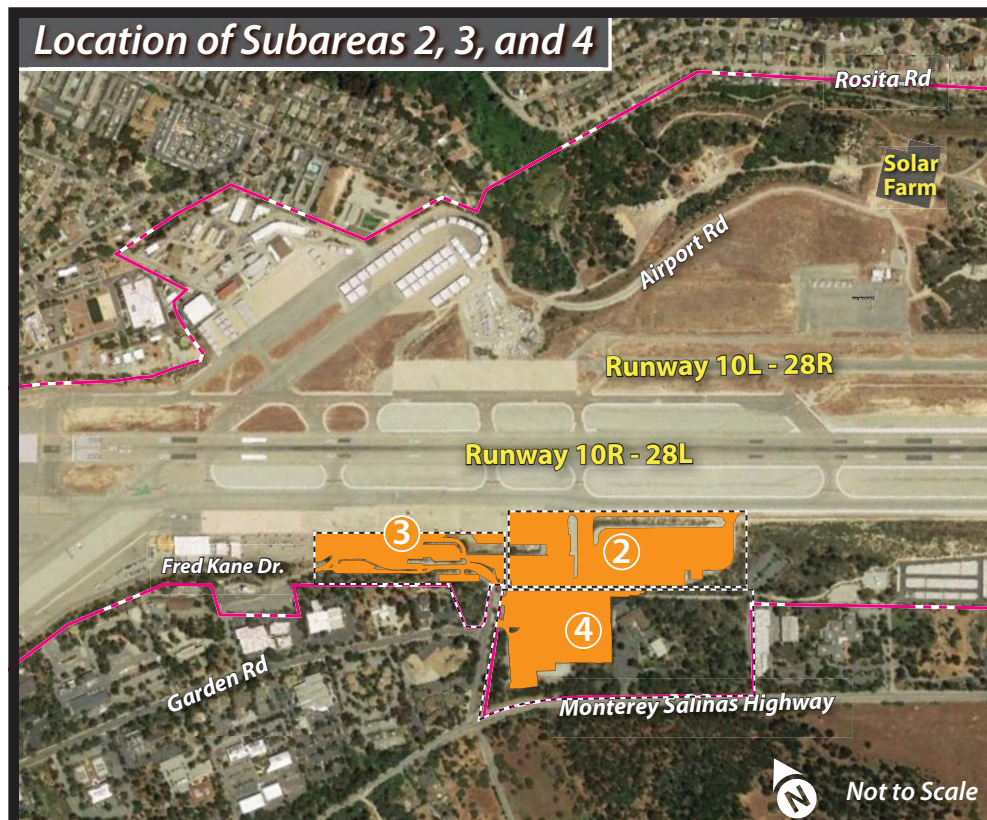
Operation Impacts. To facilitate the discussion of the impacts to surface water quality, **Exhibits 4F** and **4G** graphically depict the various areas of the Proposed Action. The existing and proposed impervious areas are discussed below:

- **Subarea 1 (Exhibit 4F).** Subarea 1 encompasses the proposed relocation of the southeast hangars and 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 northeast service road improvement. Existing impervious surface includes pavement and buildings and is approximately 223,005 sf. Under the Proposed Action, the new amount of impervious surface would be approximately 678,095 sf. This equates to an increase of 455,090 sf of impervious surface.
- **Subarea 2 (Exhibit 4G).** Subarea 2 encompasses the proposed relocated passenger terminal apron area. The existing impervious surface is approximately 513,765 sf and includes both pavement and buildings. Under the Proposed Action, the new amount of impervious surface would be approximately 655,381 sf. This equates to an increase of 141,616 sf of impervious surface.
- **Subarea 3 (Exhibit 4G).** Subarea 3 encompasses proposed parking along Fred Kane Drive. Existing impervious surface includes pavement and the existing passenger terminal building and is approximately 228,629 sf. Under the Proposed Action, the amount of impervious surface would be approximately 255,863 sf. This equates to an increase of 27,234 sf of impervious surface.
- **Subarea 4 (Exhibit 4G).** Subarea 4 encompasses the landside portions of the proposed passenger terminal complex. Existing impervious surface includes pavement and buildings and is approximately 294,971 sf; under the Proposed Action, the additional amount of impervious surface would be approximately 320,499 sf. This equates to an increase of 25,528 sf of impervious surface.

Table 4Q provides a summary of the amounts of impervious surface area under the Proposed Action and No Action alternatives in the areas of the Airport proposed for development. As can be seen in the table, the Airport would have approximately 11,432,594 sf of impervious surface in the area of development under the No Action alternative. The Proposed Action would result in an approximate six percent increase (649,468 sf). These changes in impervious surface have been used to evaluate potential impacts to water quality and drainage patterns in the following discussion.



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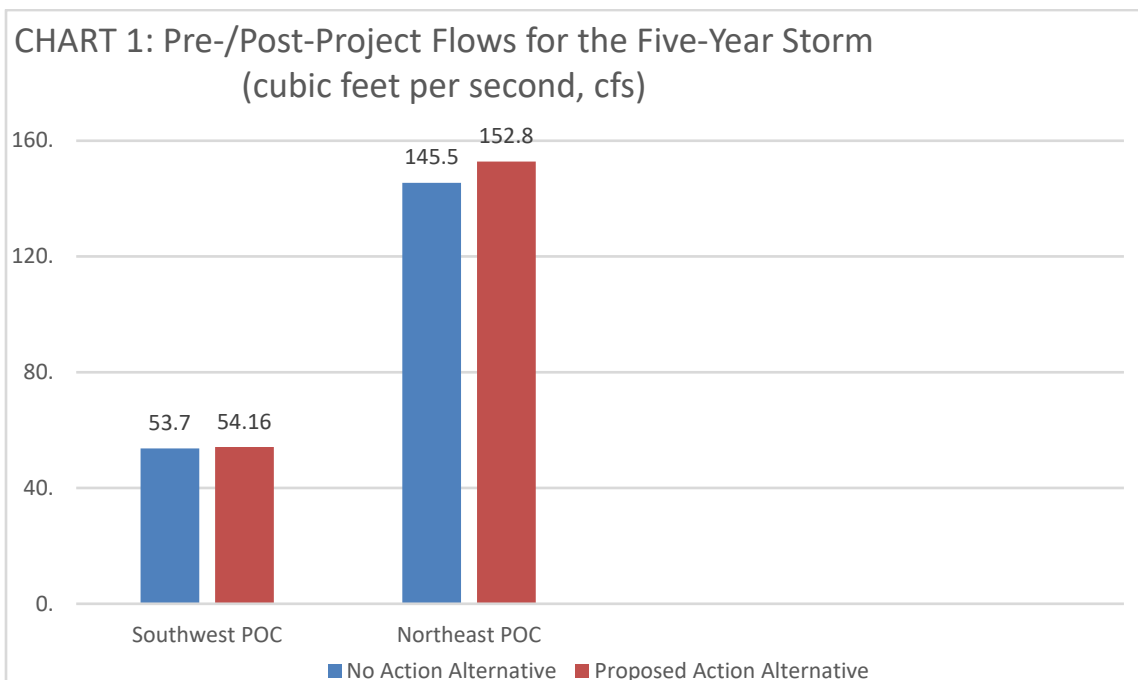
TABLE 4Q
Impervious Surfaces
No Action and Proposed Action Alternatives

Subarea	No Action Alternative (sf)	Proposed Action Alternative (sf)	Net Increase (sf)
1 - Northeast GA ramp and northeast service road improvement	223,005	678,095	455,090
2 - Southeast GA ramp (northern portion)	513,765	655,381	141,616
3 - Fred Kane Drive and parking areas	228,629	255,863	27,234
4 - Southeast GA ramp (southern portion) and relocated passenger terminal	294,971	320,499	25,528
Subarea Subtotals	1,260,370	1,909,838	649,468
AIRPORTWIDE TOTALS	11,432,594	12,082,062	649,468

sf = square feet (buildings and pavement)

Proposed Drainage Features

Overall, existing drainage patterns would not change with implementation of the Proposed Action. The Airport’s existing drainage patterns, shown on Exhibit 30 in the Affected Environment chapter (and as would remain under the No Action alternative), would still occur after the Proposed Action is completed. A technical drainage study has been completed to analyze the No Action and Proposed Action drainage conditions for Subareas 1 and 2 and to provide recommendations for the Proposed Action (KHA 2018). Changes to the Airport storm drain system’s stormwater flows under the Proposed Action were analyzed for the five-year storm event. **Chart 1** summarizes this information and provides a No Action and Proposed Action runoff flow comparisons for the five-year storm for those areas that would drain to the existing airport storm drain system.



POC = point of confluence

Source: Kimely-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 point of confluence (POC) under the Proposed Action (Section 3.3.12.3, Exhibit 30) compared to the No Action alternative. The increase is slight enough to be negligible. Flow to the northeast POC (i.e., the existing detention basin) would also be increased under the Proposed Action. The existing detention

basin was designed to accommodate future development on the north side of the Airport, including the northeast service road improvement, which would drain in a westerly direction; improvements to the detention basin to handle additional runoff would not be necessary (KHA 2018).

Areas along Fred Kane Drive west of Olmsted Road (Subarea 3) 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 implementation of the Proposed Action.

On the south side of the Airport, landside areas south of the proposed terminal relocation (Subarea 4) would drain from the Airport into drainage systems within the right-of-way of Highway 68. In this case, the detention basins would be required to meet FAA mandates for detention ponds per FAA AC 150/5200-33B. Caltrans policies and the Central Coast RWQCB Resolution R3-2013-0032 regarding pre- and post-construction runoff rates have also been considered (i.e., stormwater runoff would be directed to detention ponds that would be sized to hold runoff from the existing 10-year flows [pre-construction] to the future 100-year [post-construction] flows). **Table 4R** and **Exhibit 4H** identify the proposed drainage features on the south side. The proposed detention ponds would be incorporated into the project landscaping, including the landscaped setback along Highway 68.

TABLE 4R Proposed Detention Ponds (South Side) Proposed Action Alternative			
Detention Pond	Pond Bottom Elevation	Pond Top Elevation	Pond Surface Area
#1	207 feet above msl	209 feet above msl	7,029 square feet
#2	209 feet above msl	211 feet above msl	6,750 square feet
#3	216 feet above msl	218 feet above msl	1,100 square feet

msl = mean sea level
Source: Neill Engineers 2018.

The existing runoff from a 10-year storm for the impervious areas of the Airport that drain towards the northeast corner of Highway 68 and Olmsted Road, including the terminal parking area, is approximately 4.92 cfs, while the future 100-year storm would be approximately 8.93 cfs (Neill Engineers 2018). Based on this difference of 4.01 cfs, a series of detention basins would be needed with a total storage of between 7,300 and 7,500 cubic feet. The proposed ponds shown in **Exhibit 4H** would provide storage capacity of 10,000 cubic feet. A 12-inch polyvinyl chloride (PVC) pipe or an approximate one-foot-deep and six-foot-wide drainage swale would connect the ponds. The swale would be kept in its natural state.

Water Quality

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.

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) set forth by the state, even for the highest sampled values (Section 3.3.5.3, Table 3B). This



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indicates that the BMPs implemented through the Airport’s SWPPP are effective in preventing pollution via its stormwater.

As shown previously in Section 3.3.5.3, Table 3C of the Affected Environment chapter, 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 4S**, the approximate six percent increase in additional impervious surface for the Proposed Action was applied proportionately to the highest pollutant levels currently experienced at the Airport.

The Proposed Action’s theoretical future pollutant values, shown in **Table 4S**, would remain below the NALs for all pollutants currently monitored at the Airport. 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.

Indirect Impacts. Indirect impacts to water quality can result from future landscaping or maintenance activities, if these are not conducted according to in-place water quality BMPs such as those contained in an airport SWPPP. As discussed below under Conclusion, the Airport monitors its stormwater per the Central Coast RWQCB requirements. Future stormwater runoff from the Proposed Action, will, therefore, be monitored and regulated to ensure that potential indirect impacts to surface water does not occur.

Conclusion. An NPDES General Construction Permit would be required for all construction projects that would disturb greater than one acre. 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 operation of the new facilities due to implementation of the Proposed Action would not be significant.

TABLE 4S
Future Stormwater Pollutant Levels
Proposed Action Alternative

Parameter	Numeric Action Level ¹	Units	Highest Sampled Value (2015 - 2017)	Proposed Action Future Highest Value ² (Theoretical)	Over Numeric Action Level?
pH	6.0-9.0	pH units	6.0 to 7.0	N/A	N/A
Total Suspended Solids	100	mg/L	29.0	30.7	No
Oil and Grease	15	mg/L	2.1	2.2	No
Zinc	0.26	mg/L	0.12	0.13	No
Copper	0.0332	mg/L	0.019	0.20	No
Lead	0.262	mg/L	0.012	0.13	No
Nickel	1.02	mg/L	0.005	0.005	No
Chemical Oxygen Demand	120	mg/L	51.0	54.1	No

pH = potential of Hydrogen; N/A = not applicable; mg/L = milligrams per liter

¹ The state’s Industrial General Permit (IGP) 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 under the Proposed Action.

During operation of the Proposed Action, all stormwater leaving the Airport would be required to meet the Central Coast RWQCB’s Resolution R3-2013-0032 mandate to prevent off-site 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 requirements. Since the theoretical future runoff pollutant values for the Proposed Action would remain below the NALs for all pollutants currently monitored at the Airport, potential operational surface water quantity and quality impacts would not be significant.

No Action Alternative

No impacts related to surface water quantities or quality at the Airport would occur due to the No Action alternative. No changes to the existing airport environment and operating procedures would occur.

Mitigation, Avoidance, and Minimization Measures for the Proposed Action

As the impacts of the Proposed Action are not significant for this resource, there are no mitigation measures required to reduce the impacts to a not significant level. The Airport would be required, through the NPDES construction and industrial permitting process, to meet all applicable water quantity and quality standards.

4.3.12.2 Groundwater

Analysis Methodology and Significance Thresholds

Per FAA Order 1050.1F, Table 4-1, an action will have significant impacts to groundwater if it would:

- Exceed groundwater quality standards established by federal, state, local, and tribal regulatory agencies; or
- Contaminate an aquifer used for public water supply such that public health may be adversely affected.

The federal *Safe Drinking Water Act* (SDWA) applies to every public water system in the U.S. 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 aquifer¹⁶ 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].)

As previously discussed under Section 4.3.12.1, the state's antidegradation policy restricts degradation of ground water, even where existing water quality is higher than necessary for the protection of beneficial uses. In addition, the state's *Sustainable Groundwater Management Act* empowers local agencies to form groundwater sustainability agencies 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 groundwater sustainability agencies include, but are not limited to, the Salinas Valley Basin Groundwater Sustainability Agency and MPWMD (California DWR 2017). All GSPs are required to be completed by January 31, 2020 and updated every five years thereafter (AMBAG 2018a).

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. See Sections 3.3.8.3 and 4.3.8.3 for more information.

¹⁶ A sole source aquifer is an aquifer that supplies at least 50 percent of the drinking water consumed in the area it overlays.

Proposed Action Alternative

Construction Impacts. In terms of groundwater quality, construction activities due to the Proposed Action would not substantially contribute to, or adversely affect, 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. Therefore, no impacts to groundwater quality would occur due to construction activities. (See Sections 3.3.8.3 and 4.3.8.3 for a discussion of use of groundwater as a water source.)

Operation Impacts. In terms of impacts to groundwater quality and/or recharge during operation of the Proposed Action, the increase in impervious surface would not substantially contribute to, or adversely affect, groundwater recharge. As previously noted, the Airport does not serve as an effective groundwater recharge area. (See Sections 3.3.8.3 and 4.3.8.3 for a discussion of use of groundwater as a water source.)

Indirect Impacts. See the discussion above. The Airport does not serve as an effective groundwater recharge area. Therefore, indirect impacts to the groundwater basin would not occur. (See Sections 3.3.8.3 and 4.3.8.3 for a discussion of use of groundwater as a water source.)

Conclusion. Because the Airport does not serve as an effective groundwater recharge area, implementation of the Proposed Action would not result in a significant impact on groundwater quality or quantity.

No Action Alternative

Implementation of the No Action alternative would not result in an impact on groundwater quality or quantity. No changes to the existing airport environment and operating procedures would occur.

Mitigation, Avoidance, or Minimization Measures for the Proposed Action

As the impacts of the Proposed Action are not significant for this resource, there are no mitigation measures required to reduce the impacts to a not significant level.

4.4 CUMULATIVE IMPACTS

Analysis Methodology and Significance Thresholds

Cumulative impact analysis considers the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions (40 C.F.R. §1508.7). The analysis should focus on impacts that are truly meaningful to decision-makers. Specific thresholds for cumulative impacts are not established in FAA Order 1050.1F as the significance threshold varies according to the affected resources. In evaluating cumulative impacts, the impact of the Proposed Action has been added to the impacts of other cumulative projects to determine if the significant impact threshold would be exceeded.

The study area for cumulative impacts analysis is the same area as defined for the Proposed Action's direct and indirect impact analysis. Section 3.4 lists the projects considered under the cumulative analysis of this EA. For this analysis, cumulative projects were selected based on two criteria: projects within the airport boundaries that could contribute to physical changes and, thus, cumulative disturbance of the airport environment; and projects within

the surrounding region that could contribute to cumulative impacts to regional resources discussed in this Environmental Consequences chapter. As discussed in Section 3.4.1, several projects on airport property have been undertaken or are planned to be undertaken in the next five years. Section 3.4.2 discusses other cumulative projects considered in this EA.

Cumulative impacts are evaluated on the following time horizons: past actions, present actions, and reasonably foreseeable future actions. Past actions are those known to have occurred within the five years immediately prior to the year of project implementation. Present actions are those projects which are ongoing and would continue during the implementation of the Proposed Action. Reasonably foreseeable future actions are those that have: 1) received local approval for implementation, such as a building permit; 2) are expected to receive local approval during the nine-year duration of the Proposed Action; 3) are expected to occur within the five years immediately after implementation of the Proposed Action; or 4) are programmed into the five-year Airport Capital Improvement Program (ACIP). Projects without a building permit, such as those outlined within a community's general plan or specific plan, are not considered reasonably foreseeable as part of this analysis.

It has been determined through the analysis contained in Chapters Three and Four that the following resources are not present at the Airport, and therefore there is no potential for the Proposed Action to result in cumulative impacts to these resources: Coastal Resources, Farmlands, Wetlands, Floodplains, and Wild and Scenic Rivers.

Proposed Action Alternative

Air Quality and Climate (Greenhouse Gases). The cumulative impact area for Air Quality and Climate is the NCCAB. The Proposed Action would contribute air quality emissions and GHGs that would incrementally affect air quality and climate within the NCCAB in combination with other cumulative projects described in Section 3.4. However, at a regional level, MBARD requires that all projects include adequate measures to minimize fugitive dust, ozone precursors, and GHGs through its permitting and state-required *California Environmental Quality Act* (CEQA) processes. All cumulative projects considered in this EA would be required by MBARD to comply with the conditions of its rules and regulations. Therefore, unmitigated, significant cumulative impacts to air quality or the emission of GHGs would not occur as a result of implementation of the Proposed Action in combination with other cumulative projects.

Biological Resources (Monterey spineflower, Yadon's piperia, and migratory birds). The cumulative impact area for Biological Resources is the airport property. The analysis of the Proposed Action identifies potential impacts to two federally listed plant species, as well as nesting birds protected under the MBTA; Section 4.3.2 of this EA recommends mitigation to avoid significant impacts. As discussed in a Biological Assessment prepared in association with this EA (SWCA 2018a), the USFWS's guidance on cumulative effects analysis under the federal ESA Section 7 consultations requires an analysis of potential cumulative effects resulting from future state or private activities, not involving federal activities, that are reasonably certain to occur within the action areas of the federal action subject to consultation (USFWS 2017). MPAD approved the adoption of an AMP that includes a 20-year planning horizon. The AMP includes several potential projects that could affect Monterey spineflower and Yadon's piperia; however, all the reasonably foreseeable future projects included in the AMP are components of the Proposed Action and included in the Biological Assessment. As such, any reasonably foreseeable project that MPAD proposes in the action areas would be subject to FAA oversight, guidance, funding, and/or approval. If MPAD embarks on developing other AMP projects that have been identified to have the potential to affect Monterey spineflower and/or Yadon's piperia, FAA would initiate additional consultation(s) with the USFWS for the specific action. Due to FAA involvement on reasonably foreseeable actions that may occur on the Airport, no future state or private activities not involving federal activities are anticipated. In addition, USFWS has been consulted on all past and present projects on the Airport that could have impacts on federally listed species.

Therefore, cumulative effects, as defined by the USFWS's guidance on Monterey spineflower, Yadon's piperia, or other federal ESA-listed species at the Airport would not occur. Biological impacts have also been considered for those cumulative off-airport projects listed in Section 3.4 that are in natural areas, for example, Monterra Ranch.

Cumulative impacts to migratory birds could occur due to cumulative projects listed in this EA. However, preconstruction nesting bird surveys or other protective measures are conducted prior to development, as necessary, to avoid the nesting season and migratory bird nests. Therefore, cumulative impacts to protected birds would not be significant.

Department of Transportation Act, Section 4(f). The study area for *Department of Transportation Act, Section 4(f)* resources is the area within and immediately adjacent to the airport property. Neither the Proposed Action nor the other cumulative projects described in Section 3.4 would result in more than a minimal physical use of a Section 4(f) resource or constitute a constructive use based on an FAA determination that the Proposed Action and the cumulative projects would not substantially impair the Section 4(f) resource within the Section 4(f) study area. Therefore, the Proposed Action in combination with other cumulative projects would not use a Section 4(f) resource and would not represent a significant impact on the environment.

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

Future cumulative development projects could generate varying amounts of solid waste based on the type of actual development. As discussed in Section 3.3.5.2, the Monterey Peninsula Landfill (MPL) is not projected to reach capacity until the year 2115. Thus, the MPL would not exceed its capacity due to solid waste generated by future cumulative development considered in this EA. Therefore, no significant cumulative impacts to solid waste disposal would occur.

Historical, Architectural, Archaeological, and Cultural Resources. An approximate 120-acre APE was established for the Proposed Action and is the cumulative impact area for Historical, Architectural, Archaeological, and Cultural Resources. Several of the on-airport cumulative projects listed in Section 3.4.1 overlap with this APE. One of these cumulative projects was found to have adverse effects on historic resources, i.e., the RSA Project had an unanticipated discovery of cultural resources; however, the RSA Project effects were fully mitigated. No incrementally adverse effects on known historic, architectural, archaeological, or cultural resources would occur due to the Proposed Action in combination with other cumulative projects. Impacts to undiscovered cultural resources or the unanticipated discovery of human remains are, however, a possibility for any project, including future, foreseeable projects identified in Section 3.4. Standard protocols are required by state and federal law for any unanticipated discovery of cultural resources to ensure that adverse effects to protected resources including a significant cumulative impact to such resources do not occur.

Land Use. Similar to the study area for *Department of Transportation Act, Section 4(f)* resources, the study area for Land Use is the area within and immediately adjacent to airport property. During the construction phases of the Proposed Action, none of the other cumulative projects identified in Section 3.4 are likely to occur during the same time frame and in close enough proximity to cause incremental land use impacts in combination with the

Proposed Action. During operation of the Proposed Action, airport functions would continue to occur in a manner similar to the present. All known cumulative on-airport projects are maintenance or facility projects that do not change the overall airport operations.

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

The Airport has non-potable water supplies suitable to meet its construction needs, for example, dust suppression. Therefore, no cumulative impacts to water use during construction would occur from the Proposed Action in combination with other cumulative projects. In the long term, the Airport has potable water allocations from CalAm for operations at the Airport. The Airport does not currently use its full allocation, as discussed in Section 4.3.8.3. The existing allocations would, thus, be used for reasonably foreseeable future projects at the Airport, which would be required to conduct water demand analysis based on specific development proposals prior to project approval by the MPAD Board. Since the Airport has additional water allocations available and project-specific water demand analyses would be required prior to project approvals for future airport projects to ensure that water supplies can meet demand, no incremental cumulative impacts to the regional water supply would occur from the Proposed Action in combination with other cumulative projects.

Noise and Compatible Land Use. The cumulative impact area for Noise and Compatible Land Use is the Airport and adjacent land uses. On the Airport, construction activity at night occurs during very limited hours for projects within the airfield safety areas only. During the day, construction activity would follow the requirements of applicable local noise ordinances as would other cumulative projects considered in this EA (NOI-1 and NOI-2). No cumulative impacts related to noise, in conjunction with other construction projects being undertaken at the same time, would occur.

As discussed in Section 4.3.9, no incremental aircraft noise impacts would result from the Proposed Action in combination with other cumulative projects since changes in aircraft operations would not be associated with the proposed project. Operational noise associated with the Proposed Action in combination with other cumulative projects or future buildings would not create noise that would exceed the FAA-established thresholds. To increase traffic noise levels by three dB, a doubling of existing ADT would be required. The expected future construction traffic noise increase would be below that threshold and no discernible level of change for the average human ear would occur. No long-term traffic or traffic noise would result from the Proposed Action. Thus, no significant cumulative noise impacts would result from the Proposed Action in conjunction with other cumulative projects at the Airport.

Socioeconomics (Traffic). The cumulative impact area for Socioeconomics (Traffic) is the streets or highways immediately surrounding the Airport (i.e., Highway 68 and Freedom Boulevard in the vicinity of Olmsted and Airport roads). Since the Proposed Action would result in a decrease in traffic on these adjacent streets, no significant cumulative traffic impacts would result from the Proposed Action in conjunction with other cumulative on- or off-airport projects.

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

Visual Effects. The cumulative impact area for Visual Effects is the Airport. As discussed in Section 4.3.11, the Proposed Action would be consistent with the visual character of the Airport. The portion of the proposed project closest to the Highway 68 scenic corridor would be within the City of Monterey’s land use control and landscaping plans, incorporating native vegetation to the extent feasible within or adjacent to the 100-foot setback from Highway 68 required per city policies. Other cumulative airport projects would not have visual effects on the Highway 68 corridor or be readily visible from off-airport viewsheds. One off-airport cumulative project is located along the Highway 68 scenic corridor. The City of Monterey has already mitigated its visual impacts to the scenic highway. Cumulative impacts to the highway due to the incremental impact of this project in conjunction with the Proposed Action would not be significant due to the city’s oversight.

Future long-term development of the north side could include several new sources of lighting, including exterior building lights, parking lot security lights, and roadway lights. Potential sources of glare could include the use of glass, reflective building materials, or the installation of solar panels on buildings or parking areas. As previously discussed, based on the line-of-sight analysis, trees and topography located along the northern airport property line prevent views past the southern edge of an existing berm located from 55 to 160 feet from the northern property line. Dirt from the proposed commercial 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. Thus, incremental impacts related to lighting, glare, or other visual impacts from future airport development in combination with the Proposed Action would be less than significant. No significant cumulative visual effects would occur.

Water Resources - Surface Water and Groundwater. The cumulative impact area for Water Resources - Surface Water and Groundwater is the Airport. The proposed project, as well as other cumulative projects, would manage its stormwater runoff and any other potential pollutants with potential to discharge into water of the U.S. through a point source in accordance with required NPDES permits and other local or regional regulations, such as the 2016 Basin Plan and Resolution R3-2013-0032, *Post-Construction Requirements for Development in the Central Coast Region*. Therefore, no significant cumulative impact to surface water resources would occur.

The Airport does not serve as an effective groundwater recharge area. Therefore, incremental impacts to the groundwater basin due to the Proposed Action and other cumulative projects would not occur.

No Action Alternative

No cumulative impacts would occur with the No Action alternative since this alternative would not result in any physical change at the Airport.

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Chapter Five

COORDINATION AND PUBLIC INVOLVEMENT

5.1 PUBLIC AND AGENCY SCOPING PROCESS

The Monterey Peninsula Airport District (MPAD or District) issued a Notice of Preparation of an Environmental Assessment (EA) on the proposed Airfield Safety Enhancement Project for Taxiway “A” Relocation and Associated Building Relocations at Monterey Regional Airport (Airport) on November 6, 2016. The notice was published in the *Monterey Herald*, as well as posted on the Airport and project study websites. Public scoping letters were also sent to resource agencies, airport stakeholders, and other interested parties seeking input regarding potential environmental resources which might be impacted by the proposed project. The 45-day public scoping comment period extended from November 6, 2016 to December 20, 2016 at 5:00 PM (Pacific Standard Time [PST]). A list of the agencies and stakeholders notified, a copy of the information sent, and the responses received are included in this EA in **Appendix B**.

In conjunction with the public scoping effort, a public scoping meeting/public information workshop was held at the Airport’s Board Room (200 Fred Kane Drive, 2nd Floor, Monterey, California) on December 6, 2016, from 4:00 to 6:00 PM (PST). In addition to the notice discussed above, a public advertisement was published in the *Monterey Herald*, as well as posted on the Airport and project study websites. A total of 18 persons and agency representatives attended.

Responses to the scoping materials and/or public scoping meeting were received from the following Native American tribes; federal, state, and local agencies; businesses and organizations; and individuals as follows:

- Louise J. Miranda Ramirez, Chairperson, Ohlone/Costanoan-Esselen Nation (OCEN)
- Naomi Schowalter, Regulatory Project Manager, United States (U.S.) Army Corps of Engineers (USACE), San Francisco District, South Branch
- Glen W. Knowles, Assistant Field Supervisor, U.S. Fish and Wildlife Service (USFWS), Ventura Fish and Wildlife Office
- Crina Chan, California Department of Conservation, Office of Governmental and Environmental Relations
- Clyde Roberson, Mayor, City of Monterey
- Norman C. Groot, Executive Director, Farm Bureau Monterey
- Daniel Meier, C.M., Allegiant Air, LLC
- Robert J. Corliss, Chairman & Chief Executive Officer, Robert Talbott, Inc.
- Richard Ruccello, CONA president, Casanova Oak Knoll Neighborhood Association
- David Duke - San Benancio neighborhood resident
- Barbara Lovero, City of Monterey resident
- Doug Flaherty, City of Monterey resident
- Robert Yoha, City of Monterey resident

The concerns identified during agency and public scoping are identified below:

- Excavation within known cultural lands and potential destruction of sacred burial grounds and villages of the Ohlone/Costanoan-Esselen Nation;
- Potential jurisdiction of the USACE under Section 404 of the *Clean Water Act*;

- Need for focused surveys for Monterey gilia (*Gilia tenuiflora* ssp. *arenaria*), Monterey spineflower (*Chorizanthe pungens* var. *pungens*), and Yadon's piperia (*Piperia yadonii*);
- Future north side development should be contingent on a new access road to the northeast side of the Airport;
- Emergency vehicle access and response times could be affected if a new "north side" road to the east is not constructed;
- Existing water, storm, and sewer infrastructure upgrades may be needed for the project;
- A future traffic circle at the intersection of Highway 68 and Olmsted Road;
- Changes to future access to a neighboring property at 2901 Salinas Highway;
- A new access road to the northeast side of the Airport is needed;
- Opposition to increased traffic through the Casanova Oak Knoll neighborhood;
- Traffic mitigation is needed for any increased traffic through the Casanova Oak Knoll neighborhood;
- Possible "through" traffic across the north side of the Airport once a new "north side" road is constructed to the east unless a card key gate allowing only public safety vehicles is implemented;
- Relocating a fuel farm on the north side of the Airport and the resultant fuel delivery routes;
- Potential visual impacts to Highway 68;
- Early-turn and take-offs from Runway 28L that place departing aircraft at a low altitude over a residential neighborhood and preschools;
- Alternatives to proposed development if the new "north side" road is not approved;
- Existing aircraft noise affecting the San Benancio neighborhood;
- Resident opposition to expansion that results in additional flights or larger aircraft using the Airport;
- Impacts to the mutual support emergency response;
- A third access point at the Garden Road/Highway 68 intersection should be considered;
- Additional stormwater runoff onto adjacent property;
- Minimize noise and nighttime light intrusion; and
- Minimize industrial odors.

Several agency and public comments also identify their support for the proposed safety enhancements and the proposed new "north side" road to the east, as well as a future traffic circle at the intersection of Olmsted and Garden roads.

5.2 NATIVE AMERICAN CONSULTATION

As discussed previously in Section 4.3.6, there are no federally recognized Native American tribes for the Monterey region and, therefore, FAA has not conducted any government-to-government consultation with such tribes. However, in November 2019, the FAA contacted those tribes identified by the California Native American Heritage Commission (NAHC) as potentially having interest in the proposed project as part of their traditional homeland area. Two tribes, the Ohlone/Costanoan-Esselen Nation (OCEN) and the Salinan Tribe of Monterey, San Luis Obispo Counties, responded to the FAA inquiry. Both tribes have expressed interest in being retained as tribal monitors to work with the professional consultant archaeologist during construction on the project as both tribes anticipate archaeological resources may become visible during construction when dense vegetation is removed or ground-disturbing activities occur.

Tribal consultation continued during public review of the Draft EA. Based on communications with the tribes, the MPAD has agreed to retain both the OCEN and Salinan Tribe of Monterey and San Luis Obispo Counties as tribal monitors to work with the professional archaeologist to monitor for historic or prehistoric archaeological resources during construction when dense vegetation is removed or ground-disturbing activities occur. If any archaeological resources, Traditional Cultural Properties, or Native American Sacred Sites are located during construction, these sites will be evaluated in accordance with the *National Historic Preservation Act*, Section 106, the *Native American Religious Freedom Act*, and any other applicable federal laws, Executive Orders, and DOT and

FAA policies. The MPAD proposes to implement the avoidance and minimization measures for archaeological resources (Section 4.3.6). See **Appendix E** for copies of FAA’s tribal consultation letters and the response from the Ohlone/Costanoan-Esselen Nation, dated January 16, 2020 and **Appendix F** for a copy of the letter received from the Salinan Tribe of Monterey and San Luis Obispo Counties during the Draft EA public review and comment period.

5.3 DRAFT ENVIRONMENTAL ASSESSMENT’S AVAILABILITY FOR PUBLIC REVIEW

The District published a Notice of Availability (NOA) of the Draft EA for public review and comment on March 6, 2020, in the *Monterey Herald* and on the study website, with the public comment period scheduled to extend to April 6, 2020. An NOA with a link to the Draft EA was also sent to agencies and stakeholders notified during the initial public scoping period for the Final EA. However, on March 19, 2020, the Governor of California issued Executive Order N-33-20, a statewide stay-at-home order for California’s residents, in response to the COVID-19 public health emergency in order to preserve public health and safety, and the City of Monterey and the City of Del Rey Oaks requested the comment period be extended. The District subsequently published a notice in the *Monterey Herald* on March 26, 2020, to extend the public comment period until April 20, 2020. The District, on April 6, 2020, further extended the public comment period until May 1, 2020.

Copies of the Draft EA were available for review on the study website (www.montereyea.airportstudy.com) and at the following locations:

Federal Aviation Administration (FAA) San Francisco Airports District Office	1000 Marina Boulevard, Suite 220 Brisbane, CA 94005-1835
Monterey Regional Airport	200 Fred Kane Drive, Suite 200 Monterey, CA 93940
Monterey Public Library	625 Pacific Street Monterey, CA 93940
Seaside Public Library	550 Harcourt Street Seaside, CA 93955
Monterey Airport project website	www.montereyea.airportstudy.com

Anyone wishing to comment on the Draft EA was encouraged to submit written comments by letter or email to the following address:

Monterey Regional Airport
200 Fred Kane Drive, Suite 200
Monterey, CA 93940
Attn: Chris Morello, Deputy Director of Strategy and Development
planning@montereyairport.com

The cutoff date for comment submission was no later than **12:00 PM – Pacific Daylight Time, May 1, 2020.**

Under the *National Environmental Policy Act*, the Airport has prepared written responses to comments received on the Draft EA and prepared a Final EA for transmittal to the FAA for review and approval. All agency and/or public comment letters received during the official comment period are included in the Final EA along with individual responses (**Appendix F**). Following review of the Final EA, the FAA will either issue a Finding of No Significant Impact or decide to prepare a federal Environmental Impact Statement.

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Chapter Six

LIST OF PREPARERS

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

NAME	EXPERTISE	PROFESSIONAL EXPERIENCE
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AIRPORT REVIEWER		
Michael LaPier, A.A.E.	Executive Director, Monterey Regional Airport	B.S., Business Administration. Over 30 years of experience in senior airport management. Is an Accredited Airport Executive (A.A.E.) and has served as a member of the Small Airports Committee and United States (U.S.) Government Affairs Committee through Airports Council International - North America.
EA PREPARERS		
<i>Coffman Associates</i>		
James Harris	Airport Master Planning; Environmental Analysis; and Airport Management	B.S., Civil Engineering. Responsible for master planning, noise and land use compatibility planning, and environmental documentation for airports. Extensive experience throughout the western U.S., especially in California.
David Fitz, AICP, LEED Green Associate	Noise Modeling and Assessment	M.S., Community and Regional Planning; B.A. Landscape Architecture. Experienced in land use management, air quality and noise assessment, preparation of environmental documentation for airport projects, and air quality, noise, and land use compatibility analysis.
Judi Krauss, AICP	Land Use Planning; Environmental Analysis and Documentation; Socioeconomics	M.A., Economics; B.A., Environmental Studies. Transportation and land use planning, socioeconomic studies, and environmental analysis/documentation. Experienced in managing complex, multi-disciplined, environmental studies under the <i>National Environmental Policy Act (NEPA)</i> .
Kory Lewis	Land Use Planning; Environmental Analysis and Documentation; Air Quality Analysis; Greenhouse Gas Emission Analysis	Master of Urban Planning; B.A., Geography. Experienced in land use management, air quality and noise assessment, preparation of environmental documentation for airport projects, and air quality, noise, and visual impact computer modeling.

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Travis Belt	Senior Biologist	B.S., Forestry and Natural Resources. 15 years of experience in biological resources management, special-status species surveys, <i>Endangered Species Act</i> compliance, and environmental documentation.
Heather Gibson, RPA	Principal Investigator; Historical Archaeologist	Ph.D., Anthropology; M.A., Anthropology. 15 years of research experience including archival research, surveys, excavations, and construction monitoring at sites throughout California.
Leroy Laurie	Cultural Resource Specialist	B.S., Social Sciences. 15 years of experience as a cultural resource specialist throughout California and Nevada. Technical experience in archaeological fieldwork, laboratory analysis, archaeological testing plans, and graphics/mapping. Served as the primary point of contact for Native American coordination for Section 106 compliant projects.
Kevin Howen	GIS Specialist	B.S., Earth Sciences w/major in Geographic Information Systems
<i>EA Outreach/Coordination</i>		
Christine Eberhard	Outreach Coordinator	B.A., International Studies; Graduate, U.S. Army Command & General Staff College; Master of Dispute Resolution

Chapter Seven

REFERENCES

The following documents and websites were utilized during the preparation of this Environmental Assessment (EA):

Airport Cooperative Research Program (ACRP) 2007. *Report 25: Airport Passenger Terminal Planning and Design*, Volumes 1 and 2.

Allterra Environmental, Inc. (Allterra) 2015. *Feasibility Investigation of Monterey Peninsula Airport District Well System - Monterey, California*, August 6.

Association of Monterey Bay Area Governments (AMBAG) 2018a. *2040 Metropolitan Transportation Plan/Sustainable Communities Strategy and Regional Transportation Plans for Monterey, San Benito and Santa Cruz Counties Final Environmental Impact Report* (SCH#2015121080), certified June 13.

AMBAG 2018b. *2018 Regional Growth Forecast Technical Documentation*. Adopted June 13, 2018. Available at: <http://www.ambag.org/programs-services/planning/regional-growth-forecast>, accessed March.

California Air Pollution Officers Association (CAPCOA) 2017. *CalEEMod User's Guide*, Appendix A Calculation Details. Available at: <http://www.caleemod.com/>, accessed May 2018.

California Air Resources Board (CARB) 2011. In-Use Off-Road Diesel-Fueled Fleets Regulation, as amended. Information available at: <https://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm>, accessed December 2018.

CARB 2017. Area Designation Maps, last reviewed October. Available at: <http://www.arb.ca.gov/desig/adm/adm.htm>, accessed November 2018.

California Department of Toxic Substances Control (DTSC) website 2018a. Hazardous Waste and Substances Site List – Site Cleanup (Cortese List). Available at: http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm, accessed March 1.

California DTSC website 2018b. Kettleman Hills Facility. Available at: <http://www.dtsc.ca.gov/Hazardous-Waste/Projects/CWMISiteDescription.cfm>, accessed April.

California Department of Transportation (Caltrans) 2002. *Guide for the Preparation of Traffic Impact Studies*, December.

Caltrans website 2020. Scenic Route 68 Corridor Improvements Project. Available at: <https://dot.ca.gov/caltrans-near-me/district-5/district-5-current-projects/d5-scenic-route-68-improvements>, accessed May.

California Department of Water Resources (DWR) 2017. Sustainable Groundwater Management. California CASGEM and Groundwater Sustainability Basin Prioritization - Versions June 2014 and January 2015. Available at: <http://www.water.ca.gov/groundwater/sgm/gsa.cfm>, accessed May 2018.

California Geological Survey 2012. Map Sheet 52, Aggregate Sustainability in California.

- CalRecycle website 2018. Estimated Solid Waste Generation Rates. Available at: <https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates>, accessed April.
- Central Coast Regional Water Quality Control Board (RWQCB) 2013. Letter to Mr. Jerry Vincent, USACE, Sacramento District and Mr. Tom Greer, Monterey Peninsula Airport District from Mr. Kenneth A. Harris, Jr., Executive Officer, California Water Boards, Central Coast RWQCB, RE: Naval Auxiliary Station Monterey, Acceptance of Draft Final Feasibility Study, Trichloroethene and Petroleum Fumes, dated December 19.
- Central Coast RWQCB, State Water Resources Control Board, California Environmental Protection Agency 2017. *Water Quality Control Plan for the Central Coastal Basin*, September 27.
- City of Del Rey Oaks 1995. City of Del Rey Oaks Municipal Code.
- City of Del Rey Oaks 1997. *General Plan Update for the City of Del Rey Oaks*.
- City of Del Rey Oaks website 2018. Planning and Building Guidelines, Zoning Map. Available at: <https://www.delreyoaks.org/planning-and-building-guidelines.htm>, accessed November.
- City of Del Rey Oaks website 2020. Available at: <https://www.delreyoaks.org/publicworks/page/major-projects-update>, accessed May.
- City of Monterey 1985. *Casanova-Oak Knoll Neighborhood Plan*, adopted August 6.
- City of Monterey 2016. *City of Monterey General Plan*, amended March (Resolution No. 16-042).
- City of Monterey 2017. Monterey City Code, Chapter 38, Zoning Ordinance, August.
- City of Monterey 2018. Notice of Intent to Adopt a Negative Declaration and Initial Study on 2969 Monterey Salinas Highway - Vehicle Storage Facility. Available at: <https://monterey.org/City-Hall/Newsroom/Whats-New/Whats-New-Details/notice-of-intent-to-adopt-a-negative-declaration-2969-monterey-salinas-highway-vehicle-storage-facility-project>.
- City of Monterey website 2018. GIS Maps and Data. Available at: <https://monterey.org/Services/GIS>, accessed April.
- City of Monterey website 2019. Development Projects. Available at: <https://monterey.org/Services/Planning/Development-Projects>, accessed September.
- City of Seaside website 2020. Available at: <http://www.ci.seaside.ca.us/467/Projects-Proposals>, accessed May.
- Coffman Associates 2020. Memorandum to File regarding project changes and updated analysis, February.
- Cornerstone Earth Group 2017. *Preliminary Geotechnical Investigation for Monterey Peninsula Airport Terminal Building, Parking Structure, Apron Area, and North Side Improvement Areas*, March 29.
- Council of Environmental Quality (CEQ) 2017. *Withdrawal of Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change on NEPA Reviews*, April 5. Available at: <https://www.federalregister.gov/documents/2017/04/05/2017-06770/withdrawal-of-final-guidance-for-federal-departments-and-agencies-on-consideration-of-greenhouse-gas>.

- Dudek 2018. *Final Environmental Noise Assessment for the Monterey Regional Airport's Proposed Master Plan and Associated Development Projects in Monterey County, California*, September.
- DWL Architects + Planners, Inc. (DWL Architects) 2017. MRY Concept Planning for the Monterey Regional Airport, dated September 22.
- Environ Strategy Consultants, Inc. 2018. California State Water Resources Control Board New General Permit for Storm Water Discharges Associated with Industrial Activities, Order NPDES No. CAS000001, Effective July 1, 2015. Available at: http://www.esjpa.org/meetings/2014/0814/Presentations/RWQCB_NewNPDESPermit.pdf, accessed June.
- Federal Aviation Administration (FAA) 1988. Advisory Circular (AC) 150/5360-13, *Planning and Design Guidelines for Airport Terminal Facilities*, April 22 (cancelled on July 13, 2018).
- FAA 2006. Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*, April 28.
- FAA 2007. AC 150/5200-33B, *Hazardous Wildlife Attractants On or Near Airports*, August 28.
- FAA 2008. AC 150/5210-15A, *Aircraft Rescue and Firefighting Station Building Design*, September 10.
- FAA 2009. AC 150/5220-24, *Airport Foreign Object Debris (FOD) Detection Equipment*, September 30.
- FAA 2010. Order 5200.11, FAA Airports [ARP] Safety Management System, August 30.
- FAA 2012. *Interim Guidance of Land Uses within a Runway Protection Zone*, September 27.
- FAA 2013. AC 150/5320-5D, *Airport Drainage Design*, August 15.
- FAA 2014a. AC 150/5300-13A, *Airport Design*, as amended, February 26.
- FAA 2014b. Airport Sponsor Assurances, March. Available at: https://www.faa.gov/airports/aip/grant_assurances/.
- FAA 2015a. *Aviation Emissions and Air Quality Handbook*, Version 3, Update 1, January.
- FAA 2015b. Order 1050.1F, *Environmental Impacts: Policies and Procedures*, September 26.
- FAA 2016. AC 150/5320-6F, *Airport Pavement Design and Evaluation*, November 10.
- FAA 2017a. AC 150/5000-17, *Critical Aircraft and Regular Use Determination*. June 20.
- FAA 2017b. Monterey Regional Airport Layout Plan (ALP) set, Airport Airspace Drawing. Conditionally approved on October 20.
- FAA 2018a. AC 150/5360-13A, *Airport Terminal Planning*, July 13.
- FAA 2018b. AC 150/5370-10H, *Standards for Specifying Construction of Airports*, December 21.

- FAA 2018c. *National Plan of Integrated Airport Systems (2019-2023)* (NPIAS) Report. Available at: http://www.faa.gov/airports/planning_capacity/npias/reports/.
- FAA 2019. Air Traffic Activity System (ATADS), Airport Operations, Monterey Regional Airport. Available at: <http://aspm.faa.gov/opsnet/sys/Airport.asp>, accessed August.
- FAA 2020. Chart Supplement Southwest U.S., 30 JAN 2020 to 26 MAR 2020. Available at: https://aeronav.faa.gov/afd/30jan2020/sw_171_30JAN2020.pdf.
- FAA website 2019. Passenger Boarding (Enplanement) and All-Cargo Data for U.S. Airports (Preliminary as of July 31, 2019). Available at: https://www.faa.gov/airports/planning_capacity/passenger_allcargo_stats/passenger/, accessed August.
- Federal Emergency Management Agency (FEMA) 2009. Flood Insurance Rate Maps, Monterey, California and Incorporated Areas, Nos. 06053C0328G and 06054C0329G, effective date April 2. Available at: <http://msc.fema.gov/portal/search?AddressQuery=200%20Fred%20Kane%20Drive%2C%20Monterey%2C%20CA>.
- Federal Highways Administration (FHWA) 2006. *Roadway Construction Noise Model* (RCNM).
- GCR Inc. 2018, 2019. AirportIQ 5010, Monterey Regional Airport. Available at: <http://www.gcr1.com/5010Web/airport.cfm?Site=MRY&CFID=11674928&CFTOKEN=82118365>.
- General Services Administration (GSA) Public Buildings Service 2011. *Green Building Performance*, August.
- Hazard Management Services, Inc. 2004, 2007. *Bulk Asbestos Analysis*, October 1, July 27.
- Holland, Robert 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California*. Sacramento, California: California Department of Fish and Game.
- International Air Transport Association (IATA) 2004. *Airport Development Reference Manual* (Level of Service Standards) 9th Edition.
- Intergovernmental Panel on Climate Change (IPCC) 2007. *Fourth Assessment Report*. Available at: <https://www.ipcc.ch/assessment-report/ar4/>.
- IPCC 2014. AR5 Synthesis Report: Climate Change 2014. Available at: <http://www.ipcc.ch/report/ar5/syr/>.
- Kimley-Horn and Associates, Inc. (KHA) 2017. Preliminary Construction Estimates.
- KHA 2018. *Proposed Airfield Safety Enhancement Project for Taxiway "A" and Associated Building Relocations*, Conceptual Design Criteria Report, Monterey Regional Airport, January.
- KHA 2019a. Monterey Airport Traffic Data Collection.
- KHA 2019b. MRY North Side Road revised limits of disturbance. January 8.
- Mayo Clinic website 2019. Lead poisoning. Available at: <https://www.mayoclinic.org/diseases-conditions/lead-poisoning/symptoms-causes/syc-20354717>, accessed August.

- Monterey Bay Air Resources District (MBARD) website 2018. Rule 424: National Emission Standards for Hazardous Air Pollutants, November 19. Available at: <https://www.arb.ca.gov/drdb/mbu/curhtml/R424.PDF>, accessed April.
- Monterey Bay Unified Air Pollution Control District (MBUAPCD) 2008. *CEQA Air Quality Guidelines*. Available at: [http://mbard.org/pdf/CEQA_full%20\(1\).pdf](http://mbard.org/pdf/CEQA_full%20(1).pdf), accessed May 2018.
- Monterey County Assessor's Office 2014. Shape files for existing land use data.
- Monterey Peninsula Airport District (MPAD) 2016. *California Environmental Quality Act Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration: Fly Monterey Solar Program*, December 14.
- MPAD 2017a. *Hazardous Materials Business Response Plan*, December 16.
- MPAD 2017b. *Spill Prevention, Control, and Countermeasure Plan*.
- MPAD 2018a. *Final Airport Master Plan Environmental Impact Report* (SCH#2015121105). Prepared by Coffman Associates, Inc. for Monterey Regional Airport, November.
- MPAD 2018b. *Monterey Regional Airport Master Plan*. Prepared by Coffman Associates, Inc. for Monterey Regional Airport, adopted on November 26.
- Monterey Peninsula Waste Management District (MPWMD) 2014. *Review Draft Monterey Peninsula, Carmel Bay, and South Monterey Bay Integrated Regional Water Management Plan Update*, May.
- MPWMD 2017. Rule 24 – Calculation of Water Use Capacity and Capacity Fees, January 25. Available at: <http://www.mpwmd.net/rules/Rule24.pdf>.
- Monterey Regional Airport 2015-2017. Storm Water Multiple Application and Tracking System (SMART) reports.
- Monterey Regional Airport 2017. Records regarding water permits issued from 1993-March 31, 2017.
- Monterey Regional Airport 2018. Proposed Airport Capital Improvement Plan (ACIP) (2019-2024) (draft).
- Monterey Regional Airport Management 2018. Solar generation information, email to Tresa Carter, Coffman Associates from Chris Morello, Senior Manager of Development and Environment, May 16.
- Monterey Regional Airport (MRY) records 2015, 2016. Email from D. Johanson, MRY Project Manager, to J. Krauss, Coffman Associates, September 5, 2019.
- Monterey Regional Airport Utility Records 2018. Electricity and natural gas bills from the Pacific Gas and Electric Company for 2015 – 2017.
- Monterey Regional Waste Management District (MRWMD) 2016. *Annual Report*.
- MRWMD website 2018. Facilities. Available at: <http://www.mrwmd.org/materials-recovery-facility/>.
- Morello, Chris, Senior Manager of Development and Environment, Monterey Regional Airport 2018. Email communication with SWCA Environmental on April 10.

- Mott MacDonald 2019. *Monterey Regional Airport Environmental Assessment Traffic Impact Analysis*, January.
- Neill Engineering Corporation (Neill Engineers) 2017a. Preliminary engineering details for proposed action alternatives, April.
- Neill Engineers 2017b. Technical Memorandum on Drainage at the Monterey Regional Airport, May 19.
- Neill Engineers 2018. Drainage calculations and design for landside development at the Monterey Regional Airport, December.
- OpTerra Energy Services 2018. Energy Services Contract, MRY and OpTerra Energy Services.
- Pat Noyes & Associates 2002. *Casanova Oak Knoll Neighborhood Traffic Calming Plan*.
- SWCA Environmental Consultants (SWCA) 2014. *Historic Resources Assessment and Survey Report, Monterey Regional Airport, Monterey, California*, August.
- SWCA 2017. *Supplemental Historic Resources Assessment for Monterey Regional Airport, Monterey County, California*. June 5.
- SWCA 2018a. *Biological Assessment for the Monterey Regional Airport Safety Enhancement Project for Taxiway "A" Relocation and Associated Building Relocations, Monterey County, California*, December.
- SWCA 2018b. *Biological Resources Survey Report for the Monterey Regional Airport Master Plan and Associated Development Projects, Monterey County, California*, July 18.
- SWCA 2018c. *Cultural Resources Survey Report for the Monterey Regional Airport Master Plan and Associated Development Projects, Monterey County, California*, October.
- SWCA 2018d. Technical Memorandum to Judi Krauss, Coffman Associates from Leroy Laurie, Cultural Resources Team Leader, RE: Recommended Finding of No Historic Properties Affected: Monterey Regional Airport Safety Enhancement Project/SWCA Project No. 37212, November 1.
- SWCA 2020. Technical Memorandum to Judi Krauss, Coffman Associates from Travis Belt, Senior Biologist, RE: Revised Biological Impacts to Federal Resources for the Monterey Regional Airport North Access Road and General Aviation Study Area/SWCA Project No. 37212, January 16.
- Transportation Agency for Monterey County (TAMC) 2017. *Final SR 68 Scenic Highway Plan*, August. Available at: <https://www.tamcmonterey.org/wp-content/uploads/2016/05/SR68-Scenic-Highway-Plan-Reduced-File-Size.pdf>.
- TAMC 2018. *2018 Monterey County Regional Transportation Plan*, adopted June 27.
- United States (U.S.) Army Corps of Engineer (USACE) 2013. Feasibility Study - Trichloroethene and Petroleum Plumes, Naval Auxiliary Air Station Monterey, Formerly Used Defense Site, Monterey, CA (DERP-FUDS No. J09CA15002).
- U.S. Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS) 2017. Web Soil Survey. Available at: <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>, accessed April.

- U.S. Department of Commerce, U.S. Census Bureau 2017. Urban Area shape file, accessed March.
- U.S. Department of Commerce, U.S. Census Bureau 2019a. American FactFinder website: DP-03, Selected Economic Characteristics, 2017 American Community Survey (ACS) 5-Year Estimates. Available at: <https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t#none>, accessed September.
- U.S. Department of Commerce, U.S. Census Bureau 2019b. American FactFinder website: DP-05, ACS Demographic and Housing Estimates, 2017 ACS 5-Year Estimates. Available at: <https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t#none>, accessed September.
- U.S. Department of Energy 2015. *Average Fuel Economy of Major Vehicle Categories*. Available at: www.afdc.energy.gov/data/, accessed April 2018.
- U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) website 2019. Safety and Health Regulations for Construction, Part 1926.1101 App H - Substance Technical Information for Asbestos - Non-Mandatory. Available at: <https://www.osha.gov/laws-regs/regulations/standard-number/1926/1926.1101AppH>, accessed August.
- U.S. Department of Transportation (U.S. DOT) 2006. *FHWA Highway Construction Noise Handbook*. Final Report. FHWA-HEP-06-015. DOT-VNTSC-FHWA-06-02. Cambridge, Massachusetts: DOT, Research and Innovative Technology Administration, August.
- U.S. Environmental Protection Agency (U.S. EPA) 2015. *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2013*, April. Available at: <http://www.epa.gov/climatechange/ghgemissions/usinventoryreport.html#fullreport>.
- U.S. EPA 2016, 2017, 2018. Air Data: Air Quality Data Collected at Outdoor Monitors Across the U.S. - Annual Summary Data. Available at: https://aq5.epa.gov/aqsweb/airdata/download_files.html#Annual, accessed August 2019.
- U.S. EPA 2018a. Green Book - California Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants. Available at: https://www3.epa.gov/airquality/greenbook/anayo_ca.html, accessed November.
- U.S. EPA 2018b. EJSCREEN website. Environmental Justice Screening and Mapping Tool (Version 2018). Available at: <https://ejscreen.epa.gov/mapper/>, accessed November, December.
- U.S. EPA, Climate Change Division, Office of Atmospheric Programs 2009. *Technical Support Document for Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act 2-3*. Available at: <http://epa.gov/climatechange/endangerment.html>.
- U.S. Fish and Wildlife Service (USFWS) 1998. Recovery Plan for Five Plants from Monterey County, California. Portland, Oregon: U.S. Fish and Wildlife Service, Region 1.
- USFWS 2017. *Section 7 Consultation Guidance for Preparing a Biological Assessment*. Available at: https://www.fws.gov/midwest/endangered/section7/ba_guide.html, accessed December 11, 2018.
- USFWS 2018. Information for Planning and Consultation (IPaC) Database. Available at: <http://ecos.fws.gov/ipac/>, accessed May.

- U.S. Geological Survey (USGS) 2017. The National Atlas of the United States. Available at: <http://nrhp.fo-cus.nps.gov/natreg/docs/Download.html>, accessed April.
- U.S. Global Change Research Program 2009. *Global Climate Change Impacts in the United States*. Available at: <http://www.globalchange.gov/what-we-do/assessment/previous-assessments/global-climate-change-impacts-in-the-us-2009>.
- U.S Green Building Council (USGBC) website 2018. LEED Credit Library, LEED BD+C: New Construction Water Efficiency Credits. Available at: <https://www.usgbc.org/node/1734960?return=/credits/new-construction/v4/water-efficiency>, accessed April 6.
- USGBC website 2019. Checklist: LEED v4 for Building Design and Construction Checklist. Available at: <https://www.usgbc.org/resources/leed-v4-building-design-and-construction-checklist>, accessed September.
- U.S. Transportation Security Administration (TSA) 2011. *Recommended Security Guidelines for Airport Planning, Design and Construction*, revised May.
- Waste Management website 2019. Chemical Waste Management, Inc. - Kettleman Hills brochure. Available at: https://www.wmsolutions.com/pdf/brochures/CWM_Kettleman_Hills_Brochure.pdf, accessed August.
- Widell, Cherilyn, State Historic Preservation Officer 1996. Letter to Fred J. Hempel, Federal Highway Administration, Sacramento, CA regarding "Historic Property Survey Report, Route 68 Corridor Study, Monterey County," dated January 19.

Chapter Eight

ACRONYMS AND ABBREVIATIONS

A.A.E. - Accredited Airport Executive
AB - Assembly Bill
AC - Advisory Circular
ACIP - Airport Capital Improvement Program
ACRP - Airport Cooperative Research Program
ACS - American Community Survey
ADG - Airplane Design Group
ADO - Airports District Office
ADT - average daily traffic
AEDT - Aviation Environmental Design Tool
AF - acre-feet
AFY - acre feet per year
AICP - American Institute of Certified Planners
AIP - Airport Improvement Program
Airport - Monterey Regional Airport
Airport Master Plan EIR - *Final Airport Master Plan Environmental Impact Report (SCH#2015121105)*
Alterra - Alterra Environmental, Inc.
ALP - airport layout plan
AMBAG - Association of Monterey Bay Area Governments
AMP - Airport Master Plan
AOA - Air Operations Area
AOC - Airport Operating Certificate
APE - Area of Potential Effect
AQ - Air Quality
ARFF - aircraft rescue and firefighting
ARP SMS - FAA Airports Safety Management System
ASHRAE - American Society of Heating, Refrigeration, and Air Conditioning Engineers
ATADS - Air Traffic Activity System
ATCT - air traffic control tower
AvGas - aviation gasoline

B.A. - Bachelor of Arts
Basin Plan - *Water Quality Control Plan for the Central Coast Region*
bgs - below ground surface
BIO - Biological Resources
Biological Assessment - *Biological Assessment for the Monterey Regional Airport Safety Enhancement Project for Taxiway "A" Relocation and Associated Building Relocations, Monterey County, California*
BMP - best management practices
B.S. - Bachelor of Science
BSA - biological study area

CAA - *Clean Air Act*
CalAm - California American Water
CalEEMod - California Emissions Estimator Model
CalGreen - California Green Building Standards Code
CalRecycle - California Department of Resources Recycling and Recovery

Caltrans - California Department of Transportation
CAPCOA - California Air Pollution Control Officers Association
CARB - California Air Resources Board
CCD - Census County Division
CCR - California Code of Regulations
CEQ - Council on Environmental Quality
CEQA - *California Environmental Quality Act*
CERCLA - *Comprehensive Environmental Response, Compensation, Liability Act*
C.F.R. - Code of Federal Regulations
cfs - cubic feet per second
CH₄ - methane
CHRIS - California Historical Resources Information System
CHSC - California Health and Safety Code
CNEL - Community Noise Equivalent Level
CNPS - California Native Plant Society
CO - carbon monoxide
CO₂ - carbon dioxide
CO_{2e} - carbon dioxide equivalent
CONA - Casanova Oak Knoll Neighborhood Association
C/OS - Conservation/Open Space
County - County of Monterey or Monterey County
CRHR - California Register of Historical Resources
C.T. - census tract
CWA - *Clean Water Act*
cy - cubic yard(s)

dB - decibel
dBA - A-weighted decibels
District - Monterey Peninsula Airport District
DNL - day-night average sound level (also referred to as L_{dn})
DOT - Department of Transportation
DPIC - Design Professional Insurance Company
DPR - Department of Parks and Recreation
DTSC - Department of Toxic Substances Control
DWL Architects + Planners, Inc.
DWR - California Department of Water Resources

EA - Environmental Assessment
ECHED - energy-efficient induction
EIR - Environmental Impact Report
EJSCREEN - U.S. EPA's Environmental Justice Screening tool
EMAS - engineered materials arresting system
EO or E.O. - Executive Order
EPA - Environmental Protection Agency
ESA - *Endangered Species Act*
EV - electric vehicle

FAA - Federal Aviation Administration
FBO - fixed base operator

FEMA - Federal Emergency Management Agency
FHWA - Federal Highway Administration
FNMOC - U.S. Navy's Fleet Numerical Meteorology and Oceanography Center
FOD - foreign object debris
FR - *Federal Register*

GA - general aviation
gal - gallon
GHG - greenhouse gas(es)
GIS - Geospatial Information System or Geographic Information System
gpm - gallons per minute
GPS - Global Positioning System
GSA - General Services Administration
GSP - groundwater sustainability plans

HAZ - Hazardous Materials
HCM – Highway Capacity Manual
HFCs - hydrofluorocarbons
HIS - Historic, Architectural, Archaeological, and Cultural Resources
HP - horsepower
HUD - U.S. Department of Housing and Urban Development
HVAC - heating, ventilation, and air conditioning

IATA - International Air Transport Association
IGP - Industrial General Permit
ILS - Instrument Landing System
Inc. - incorporated
IPaC - Information for Planning and Consultation
IPCC - Intergovernmental Panel on Climate Change
I-R-130-D2 - Industrial, Administration, Research District – 130,000 sf minimum – Development Control Overlay District

Jet A - jet fuel
kBTU - British thermal units
KHA - Kimley-Horn and Associates, Inc.
kV - kilovolt(s)
KVA - kilovolt-ampere
kWh - kilowatt hour

lb(s) - pound(s)
LED - light-emitting diode
LEED - Leadership in Energy and Environmental Design
 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
LU - Land Use

M.A. - Master of Arts
 MALSR - medium intensity approach lighting system with runway alignment indicator lights
 MBARD - Monterey Bay Air Resources Board
 MBTA - *Migratory Bird Treaty Act*
 MBUAPCD - Monterey Bay Unified Air Pollution Control District
 mg/L - milligrams per liter
 MLD - Most Likely Descendant
 mm - mitigation measure
 MPAD - Monterey Peninsula Airport District
 mpg - miles per gallon
 mph - miles per hour
 MPL - Monterey Peninsula Landfill
 MPWMD - Monterey Peninsula Water Management District
 MRF - materials recovery facility
 MRWMD - Monterey Regional Waste Management District
 MRY - Monterey Regional Airport
 M.S. - Master of Science
 MSL (or msl) - mean sea level
 MT - metric ton

N. - North
 N/A - not applicable
 NAAQS - National Ambient Air Quality Standards
 NAHC - Native American Heritage Commission
 NALs - numeric action levels
 NCCAB - North Central Coast Air Basin
 Neill Engineering Corporation - Neill Engineers
 NEPA - *National Environmental Policy Act*
 NESHAP - National Emission Standards for Hazardous Air Pollutants
 NHPA - *National Historic Preservation Act*
 N/I - no information available
 NOA - Notice of Availability
 NOI - Noise
 N₂O - nitrous oxides
 NO_x - oxides of nitrogen
 NO₂ - nitrogen dioxide
 NPDES - National Pollutant Discharge Elimination System
 NPIAS - *National Plan of Integrated Airport Systems*
 NPL - National Priorities List
 NRHP - National Register of Historic Places
 NRL - Naval Research Laboratory

O₃ - ozone
 OCEN - Ohlone/Costanoan-Esselen Nation
 OFA - object free area
 Order 1050.1F - FAA Order 1050.1F *Environmental Impacts: Policies and Procedures*
 Order 5050.4B - FAA Order 5050.4B *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*
 OSHA - Occupational Safety and Health Administration

P.A. - Proposed Action
PAPI - precision approach path indicators
Part 77 - Title 14 Code of Federal Regulations, part 77
Part 139 - Title 14 Code of Federal Regulations, part 139
Part 150 - Title 14 Code of Federal Regulations, part 150
Pb - lead
PCB - polychlorinated biphenyl
PCC - Portland concrete cement
PCE - passenger car equivalent
PFCs - perfluorocarbons
PG&E - Pacific Gas and Electric Company
pH - potential of hydrogen
PhD - Doctor of Philosophy
P.L. - Public Law
PM - particulate matter
POC - point of confluence
ppb - parts per billion
ppm - parts per million
PRC - Public Resources Code
PST - Pacific Standard Time
PVC - polyvinyl chloride

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
RNAV - area navigation
RNP - required navigation performance
ROG – reactive organic gas(es)
RON - remain overnight
RPA - Registered Professional Archaeologist
RPZ - runway protection zone
RSA - runway safety area
RSA Project - Runway Safety Area Improvement Project
RSIP - residential sound insulation program
RV - recreational vehicle
RWQCB - Regional Water Quality Control Board

SCH - State Clearinghouse
SDWA - *Safe Drinking Water Act*
sf - square foot (feet)
SF₆ - sulfur hexafluoride
SHPO - State Office of Historic Preservation or State Historic Preservation Officer
SIPs - State Implementation Plans
SMART - Storm Water Multiple Application and Report
SO₂ - sulfur dioxide
SPCC - spill prevention, control and countermeasure

SWCA - SWCA Environmental Consultants, Inc.
SWMP - stormwater management plan
SWPPP - stormwater pollution prevention plan
SWRCB - State Water Resources Control Board
sy - square yard(s)

TAMC - Transportation Agency for Monterey County
TCE - trichloroethene
TDG - Taxiway Design Group
TDM - transportation demand management
TNC - transportation network company
TSA - Transportation Security Administration

U.S. - United States
U.S. EPA - United States Environmental Protection Agency
USACE - United States Army Corps of Engineers
U.S.C. - United States Code
USDA-NRCS - United States Department of Agriculture - Natural Resources Conservation Service
USFWS - United States Fish and Wildlife Service
USGBC - United States Green Building Council
USGS - United States Geological Survey

VOCs - volatile organic compounds
VR - Visual Resources

μm - micrometer(s)
 $\mu\text{m}/\text{m}^3$ - micrometers per cubic meter



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