

**I. AESTHETICS - Would the project**

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**SUBSTANTIATION:** (Check  if project is located within the view-shed of any Scenic Route listed in the General Plan):

a) **No Impact.** According to the San Bernardino County’s Open Space Overlay Map, the proposed project is not located within the vicinity of a designated Scenic Corridor and, therefore, will not have a substantial adverse effect on a scenic vista. According to the Town of Apple Valley’s General Plan and the North Apple Valley Industrial Specific Plan, the airport is surrounded by Specific Plan Industrial, General Commercial, and Estate Residential land uses.

b) **No Impact.** According to the California Department of Transportation Scenic Highway Program, the Airport is not located within close proximity to a designated state scenic highway. As a result, proposed projects will not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings located within a state scenic highway. Interstate Highway 15, located west of the airport, is not a designated scenic highway.

c) **Less than Significant Impact.** The area surrounding the airport can be generally described as open space with sparse low-density residential and primarily industrial developments. Apple Valley Airport is developed with aviation-related facilities. In the short-term, construction projects identified in the *2011 Apple Valley Airport Master Plan* would be concentrated in the vicinity of existing development or on land that has previously been disturbed or maintained on the airport’s west side (see **Figure 2** and **Table 2**). Over the long-term, new aviation facilities would likely be developed throughout airport property; however, proposed developments will not substantially degrade the existing visual character or quality of the airport and its surroundings.

d) **Less than Significant Impact.** New light sources on the airport would include the following: extension of medium intensity runway and taxiway lighting (MIRL/MITL) when Runway 18-36 and Taxiway A are extended to the north, installation of a medium intensity approach lighting system (MALS) on the north end of Runway 18, the installation of MIRL on Runway 8-26 and MITL on Taxiway B, the relocation of the airport rotating beacon, the installation of an LED obstruction light on Fairview Mountain immediately east of the airport to increase the safety of night time operations, and new security, parking, and streetlights.

Each of these lighting systems would not result in a significant impact, as the developments would occur totally within airport property. The LED obstruction light on Fairview Mountain would not result in a substantial impact since surrounding land is currently vacant with no sensitive receptors. Future land uses around the airport include commercial and industrial uses which will not be impacted by the proposed lighting sources on the airport.

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

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

**SUBSTANTIATION:** (Check  if project is located in the Important Farmlands Overlay):

a-e) **No Impact.** The airport is not located on land designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as depicted on the San Bernardino County Important Farmland 2008 maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. There are no agricultural uses on the airport. The airport is also not identified as forest land or timberland as defined by the Public Resources Code and there will be no loss in forest land or conversion of forest land taking place as a result of implementing of projects recommended in the *2011 Apple Valley Airport Master Plan*. No impacts would occur in this regard.

**III. AIR QUALITY** - Where available, the significance criteria established by the applicable air quality management or air pollution control district might be relied upon to make the following determinations. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**SUBSTANTIATION:** (Discuss conformity with the South Coast or Mojave Desert Air Quality Management Plan, if applicable):

a, b) **Less Than Significant Impact with Mitigation Incorporated.** Apple Valley Airport is located in the portion of San Bernardino County that is part of the Mojave Desert Air Quality Management District (MDAQMD). The MDAQMD has jurisdiction over the desert portion of San Bernardino County and the far eastern end of Riverside County. According to the EPA’s Greenbook, this area is designated as a nonattainment area under the 8-hour ozone and Particulate Matter (PM<sub>10</sub>) standards. This area is an attainment area for all other criteria pollutants.

The current regional air quality plan is the *Federal 8-Hour Ozone Attainment Plan* adopted by the MDAQMD on June 9, 2008, which outlines a plan to bring the nonattainment area into attainment of the 8-hour NAAQS for ozone by 2021. The MDAQMD has in place Reasonably Available Control Technology (RACT) requirements for the majority of sources as well as a new source review (NSR) program with a 25 ton per year major source level and a 1.3:1 offset ratio requirement. The RACT requirements target the reduction of nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOC). Appendices A and B of the 2008 *Federal 8-Hour Ozone Attainment Plan* includes emissions inventories for baseline (2002) and forecast (2008, 2011, 2014, 2017, 2020) scenarios. The emissions inventories include airport-related emissions for aircraft. Therefore, anticipated increases in aircraft-related emissions resulting from operational growth at such airports as Apple Valley Airport are covered under the MDAQMD’s *Federal 8-Hour Ozone Attainment Plan*.

Temporary increases in air emissions are anticipated during construction of projects outlined in the airport master plan. Additionally, vehicle trips to the airport may increase as a result of additional improvements to the airport.

During construction activities such as clearing, excavation, and grading operations, construction vehicle traffic and wind blowing over exposed earth may generate fugitive particulate matter emissions that would temporarily affect local air quality. The effects of construction activities would be increased by fugitive dust and locally elevated levels of PM<sub>10</sub>. Construction dust has the potential for creating a nuisance at nearby properties by contributing to increased levels of PM<sub>10</sub> for which the County is in non-attainment. This impact is considered potentially significant during construction of airport improvements. However, these emissions will be temporary and limited to the timeframe of the construction phase of the projects outlined in the airport master plan.

The *Mojave Desert Planning Area Federal Particulate Matter (PM<sub>10</sub>) Attainment Plan* adopted in July 1995, proposes attainment demonstration of the federal PM<sub>10</sub> standards through focused control of directly emitted PM<sub>10</sub>. Adherence to the following measure will reduce potential impacts associated with this issue to a less than significant level:

**Mitigation Measure AIR QUALITY-1: All construction contracts shall require that dust control practices and other construction measures (in accordance with MDAQMD Rules 403 – *Fugitive Dust* and 403.2 – *Fugitive Dust Control for the Mojave Desert Planning Area*) in effect at the time of the contract signing be implemented throughout all stages of construction.**

c) **Less Than Significant Impact.** *Operational Emissions:* The Airport Master Plan demand-based forecasts indicate that annual flight operations will increase from 46,400 in 2009 to 64,400 in 2030. Additionally, the type of aircraft operating at the airport is anticipated to change with growth in small and medium sized business jet and turboprop aircraft. As a result of the increased operations and change in fleet mix at the airport, emissions will also increase at the airport. According to the MDAQMD's CEQA Air Quality Handbook, projects with daily operational emissions that exceed any of the long term operational thresholds established by the MDAQMD should be considered significant. The thresholds are outlined in **Table 3**.

The FAA-approved *Emissions and Dispersion Modeling System, Version 5.1 (EDMS)* was used to calculate existing and future airport emissions using the master plan operations forecasts. EDMS is listed among the EPA's preferred guideline models and has been identified by the FAA as the only acceptable model for estimating aircraft emissions at airports. It calculates emissions of pollutants associated with an airport, including aircraft, ground support equipment, and automobiles.

EDMS does not calculate lead emissions; however an estimate of lead emissions can be made using methodology described in the EPA's *Documentation for Aircraft Component of the National Emissions Inventory Methodology*, April 2010. Also, as noted in the table, EDMS does not calculate hydrogen sulfide emissions. Generally, sources for hydrogen sulfide emissions include decomposition of human and animal wastes and industrial activities, such as food processing, coke ovens, kraft paper mills, tanneries, and petroleum refineries. None of these sources are present at the airport; therefore further evaluation of hydrogen sulfide emissions is not warranted. Additionally, ozone emissions are not calculated by EDMS; however, volatile organic compounds (VOC) and nitrogen (NO<sub>x</sub>) are precursors to ozone. Ground-level ozone is not emitted directly

into the air, but is created by chemical reactions between oxides of  $\text{NO}_x$  and VOCs in the presence of sunlight. As a result, VOC and  $\text{NO}_x$  emissions are used to estimate ozone emissions.

Automobile trips associated with the operation of Apple Valley Airport were also included in the analysis. For purposes of this study, the annual vehicle trips associated with the airport were calculated according to the Institute of Transportation Engineer's Trip Generation Manual, 7<sup>th</sup> Edition, based on average daily operations at the airport. Vehicle emissions associated with operation of the airport are included in the EDMS output report shown in **Appendix A**.

As previously discussed, Apple Valley Airport is located within the MDAQMD, which is currently a Federal nonattainment area for ozone and for  $\text{PM}_{10}$ . **Table 4** provides the projected  $\text{PM}_{10}$ ,  $\text{NO}_x$ , and VOC emissions associated with the operations at Apple Valley Airport under the existing condition (2010) and future condition (2030). This includes emissions from aircraft, automobiles, ground support equipment, and fueling operations.

As indicated in **Table 4**, the proposed airport improvements outlined in the airport master plan are not expected to have a notable affect on the quantity of operations at the airport in the long range condition as the estimated increase in emissions does not exceed the established thresholds outlined in the table.

**TABLE 3**  
**Significant Emissions Thresholds**  
**Mojave Desert Air Quality Management District**

Criteria Pollutant	Annual Threshold (tons)	Daily Threshold (pounds)
Greenhouse Gases ( $\text{CO}_2\text{e}$ )	100,000	548,000
Carbon Monoxide (CO)	100	548
Oxides of Nitrogen ( $\text{NO}_x$ )	25	137
Volatile Organic Compounds (VOC)	25	137
Oxides of Sulfur ( $\text{SO}_x$ )	25	137
Particulate Matter ( $\text{PM}_{10}$ )	15	82
Particulate Matter ( $\text{PM}_{2.5}$ )	15	82
Hydrogen Sulfide ( $\text{H}_2\text{S}$ )	10	54
Lead (Pb)	0.6	3

Source: MDAQMD CEQA Guidelines, August 2011 – Table 6

**TABLE 4**  
**Operations Emissions (Pounds Per Day)**  
**Apple Valley Airport**

Pollutant	2010	2030	Difference	Threshold
Greenhouse Gases (CO <sub>2</sub> e)	6914.1	13379.8	6465.7	548,000
Carbon Monoxide (CO)	1720.7	2300.5	579.8	548
Oxides of Nitrogen (NO <sub>x</sub> )	7.6	15.0	7.4	137
Volatile Organic Compounds (VOC)	46.3	106.1	59.8	137
Oxides of Sulfur (SO <sub>x</sub> )	2.9	5.6	2.7	137
Particulate Matter (PM <sub>10</sub> )	0.2	1.3	1.1	82
Particulate Matter (PM <sub>2.5</sub> )	0.2	1.3	1.1	82
Hydrogen Sulfide (H <sub>2</sub> S) <sup>1</sup>	-	-	-	54
Lead (Pb) <sup>2</sup>	1.0	1.4	0.4	3

<sup>1</sup>EDMS does not calculate emissions for H<sub>2</sub>S. Generally, sources for hydrogen sulfide emissions include decomposition of human and animal wastes and industrial activities, such as food processing, coke ovens, kraft paper mills, tanneries, and petroleum refineries. None of these sources are present at the airport.

<sup>2</sup>EDMS does not calculate emissions for lead. Lead emissions were calculated using EPA's *Documentation for Aircraft Component of the National Emissions Inventory Methodology*, April 2010

Source: Coffman Associates analysis

**Construction Emissions:** 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 material staging, demolition, and movement.

**Table 5** presents the estimated construction emissions for projects scheduled to occur within the first five years of the capital improvement program as outlined in the proposed Airport Master Plan. Construction emissions were estimated using the California Emissions Estimator Model (CalEEMod). Based on project-specific inputs, CalEEMod calculates emissions related to all phases of construction (demolition, grading, site preparation, building construction, paving). Additionally, the model accounts for fugitive dust related to ground disturbance and vehicle operation on unpaved areas. Based on the magnitude of a project, estimates for the number of hours for off-road equipment activity are used for the CalEEMod calculations. On-road vehicle activity is also evaluated with CalEEMod and includes on-site watering truck trips and pickup truck activity, and off-site trips for dump trucks hauling material to the disposal facility and laborer trips to the site. A summary of the construction emissions assumptions used for this analysis is included in **Appendix A**.

As indicated in the table, CalEEMod does not calculate emissions for hydrogen sulfide or lead. Generally, sources for hydrogen sulfide emissions include decomposition of human and animal wastes and industrial activities, such as food processing, coke ovens, kraft paper mills, tanneries, and petroleum refineries. None of these sources are present at the airport, therefore further evaluation of hydrogen sulfide emissions is not warranted. Additionally, sources of lead emissions are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline. Lead emissions related to the airport's operational emissions are presented in Table 4. Further evaluation of lead emissions is not warranted.

**Table 5** summarizes construction project emissions by year and includes the MDAQMD CEQA Significance Thresholds. As indicated in the table, construction emissions do not exceed the regional significance thresholds for any of the years evaluated.

**TABLE 5**  
**Construction Emissions Inventory Summary**  
**Apple Valley Airport**

	Construction Emissions (Pounds Per Day)				Threshold	Exceeds Threshold
	2012	2013	2014	2016		
Greenhouse Gases (CO <sub>2</sub> e)	5617.7	3598.2	3522.8	2154.1	548,000	No
Carbon Monoxide (CO)	16.8	20.5	18.6	15.0	548	No
Oxides of Nitrogen (NO <sub>x</sub> )	43.8	33.6	30.6	19.5	137	No
Volatile Organic Compounds (VOC)	4.7	4.6	4.0	3.2	137	No
Oxides of Sulfur (SO <sub>x</sub> )	0.1	<0.0	<0.0	<0.0	137	No
Particulate Matter (PM <sub>10</sub> )	6.7	7.1	7.8	1.7	82	No
Particulate Matter (PM <sub>2.5</sub> )	4.1	4.2	4.2	1.6	82	No
Hydrogen Sulfide (H <sub>2</sub> S) <sup>1</sup>	-	-	-	-	54	No
Lead (Pb) <sup>2</sup>	-	-	-	-	3	No

<sup>1</sup> CalEEMod does not calculate hydrogen sulfide emissions. Generally, sources for hydrogen sulfide emissions include decomposition of human and animal wastes and industrial activities, such as food processing, coke ovens, kraft paper mills, tanneries, and petroleum refineries. None of these sources are present at the airport.

<sup>2</sup> CalEEMod does not calculate lead emissions. Generally, sources of lead emissions are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline. Lead emissions related to the airport's operational emissions are presented in Table 4.

Source: Coffman Associates analysis

d) **Less Than Significant Impact.** Projects proposed in the airport master plan will not expose sensitive receptors to substantial pollutant concentrations. The MDAQMD defines sensitive receptors as residences, schools, daycare centers, playgrounds and medical facilities (MDAQMD 2009). Construction-related emissions during activities such as clearing, excavation, and grading operations, construction vehicle traffic and wind blowing over exposed earth would generate fugitive particulate matter emissions that would temporarily affect local air quality. The effects of construction activities would increase fugitive dust and locally elevated levels of particulate matter. However, the nearest sensitive receptors are located south of Papago Road, approximately 0.5 miles south of the airport operations area.

e) **Less Than Significant Impact.** During construction, the various diesel-powered vehicles and equipment in use on the site would create odors. These odors are temporary and not likely to be noticeable beyond the project boundaries. Airport operations could result in intermittent odors affecting a small area, but would not affect a substantial number of people.

**IV. BIOLOGICAL RESOURCES** - Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc...) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**SUBSTANTIATION:** (Check if project is located in the Biological Resources Overlay or contains habitat for any species listed in the California Natural Diversity Database )

a,b) **Less Than Significant Impact with Mitigation.** SWCA Environmental Consultants (SWCA) performed a habitat assessment at Apple Valley Airport in December 2011, which follows guidelines recommended by the Advanced Planning Division of the County of San Bernardino's Land Use Services Department. SWCA's report is attached as **Appendix B. Figure 5** depicts the vegetation communities, habitats, and special status species observations as a result of SWCA's field survey.

The findings of this investigation identified 26 plants and 27 wildlife special status species from federal, state, and local lists and databases to occur in the project vicinity. Four special status species (Joshua tree, desert tortoise, burrowing owl, and California horned lark) were found to be present on the project area, and seven (Mojave yucca, barrel cactus, honey mesquite, screw bean mesquite, Mojave monkeyflower, loggerhead shrike, and le Conte's thrasher) may occur on the project area. All remaining special status species were assessed as not likely to occur on the project area or absent from the project area.

### **SPECIAL STATUS SPECIES PRESENT**

#### Joshua Tree

Joshua trees are protected under two chapters of the Town of Apple Valley Development Code: the Desert Native Plant Protection code (Chapter 9.76.020) and the Joshua Tree Protection code (Chapter 9.76.040). This species is endemic to the Mojave Desert and occurs at elevations between 1,600 and 6,600 feet above mean sea level in a variety of vegetation communities, including sagebrush scrub, desert shrub, southwestern shrubsteppe, pinyon-juniper woodlands, and desert grasslands. One Joshua tree was observed on the project area in the Mojave creosote bush scrub vegetation community. This site is proposed in the master plan for future aviation use revenue support development.

#### Desert Tortoise

The desert tortoise is a long-lived, medium-sized, burrowing, terrestrial turtle listed as federally Threatened and California Threatened. This species is widely distributed through a broad array of desert scrub habitats in the Mojave and Colorado Deserts, primarily creosote bush scrub, saltbush scrub, and succulent scrub vegetation communities. Desert tortoises inhabit topographic situations as diverse as bajadas, alluvial fans, washes, canyons, and hillsides from below sea level to 4,130 feet or higher.

Desert tortoises have previously been observed in the project area by airport personnel. Additionally, there are 12 previously recorded occurrences for this species in the nine-quad vicinity, recorded between 1986 and 2008. Four of these occurrences are within five miles of the project area, including three that were recorded recently in 2004 and 2005. The Mojave creosote bush scrub and desert saltbush scrub found in the project area are vegetation communities that desert tortoises may inhabit, and these communities appear to support appropriate habitat for the species within the project area. The site visit was conducted during a period when spring annual plants were not visible, but the natural vegetation communities appeared not to have been disturbed to a level that would eliminate common annual species. Soils over the majority of the project area are loamy sands, which provide opportunities for burrowing. Additionally, the project area is located within the elevation limits of the species.

### Burrowing Owl

The burrowing owl is a California Species of Special Concern, and its nests are protected under the Migratory Bird Treaty Act (MBTA). Within the California desert region, the western burrowing owl occurs primarily in agricultural fields and desert scrub habitats in the Mojave and Colorado Deserts. Burrowing owls require large, open expanses of sparsely vegetated areas on gently rolling or level terrain, with an abundance of active small mammal burrows, particularly those of the California ground squirrel.

A single burrowing owl was observed by SWCA staff during archeological surveys of the project area. Additionally, there are two previously recorded observations of this species within the project area boundaries. Within the nine-quad project vicinity, there are 44 occurrences, recorded between 1997 and 2010. In the more immediate project vicinity, 12 of the records are within five miles of the project area, and an additional 27 are between five and ten miles from the project. Vegetation communities and habitats within the project area where burrowing owls may occur and nest include Mojave creosote desert scrub, saltbush scrub, and rabbitbrush scrub communities, and ruderal habitat. Multiple burrowing mammal species were observed on the project area, including antelope ground squirrel and kangaroo rat species; the burrows of these species could provide suitable starting burrows for modification and occupancy by burrowing owls.

### California Horned Lark

The California horned lark is a California Species of Concern, and its nests are protected under the MBTA. This species is a short-distance migrant that occupies short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, and alkali flats. It prefers open, sparsely vegetated grasslands, ruderal habitats, and desert scrub communities with wide shrub spacing, and is a ground nester in these locations. There are no previously recorded occurrences of this species within ten miles of the project area, but a flock of approximately 45 individuals was observed in the Mojave creosote bush scrub community on the project area during the site visit. This species may occur and nest in ruderal habitat, and open, sparsely vegetated portions of Mojave creosote bush scrub, saltbush scrub, and rabbitbrush scrub vegetation communities on the project area.

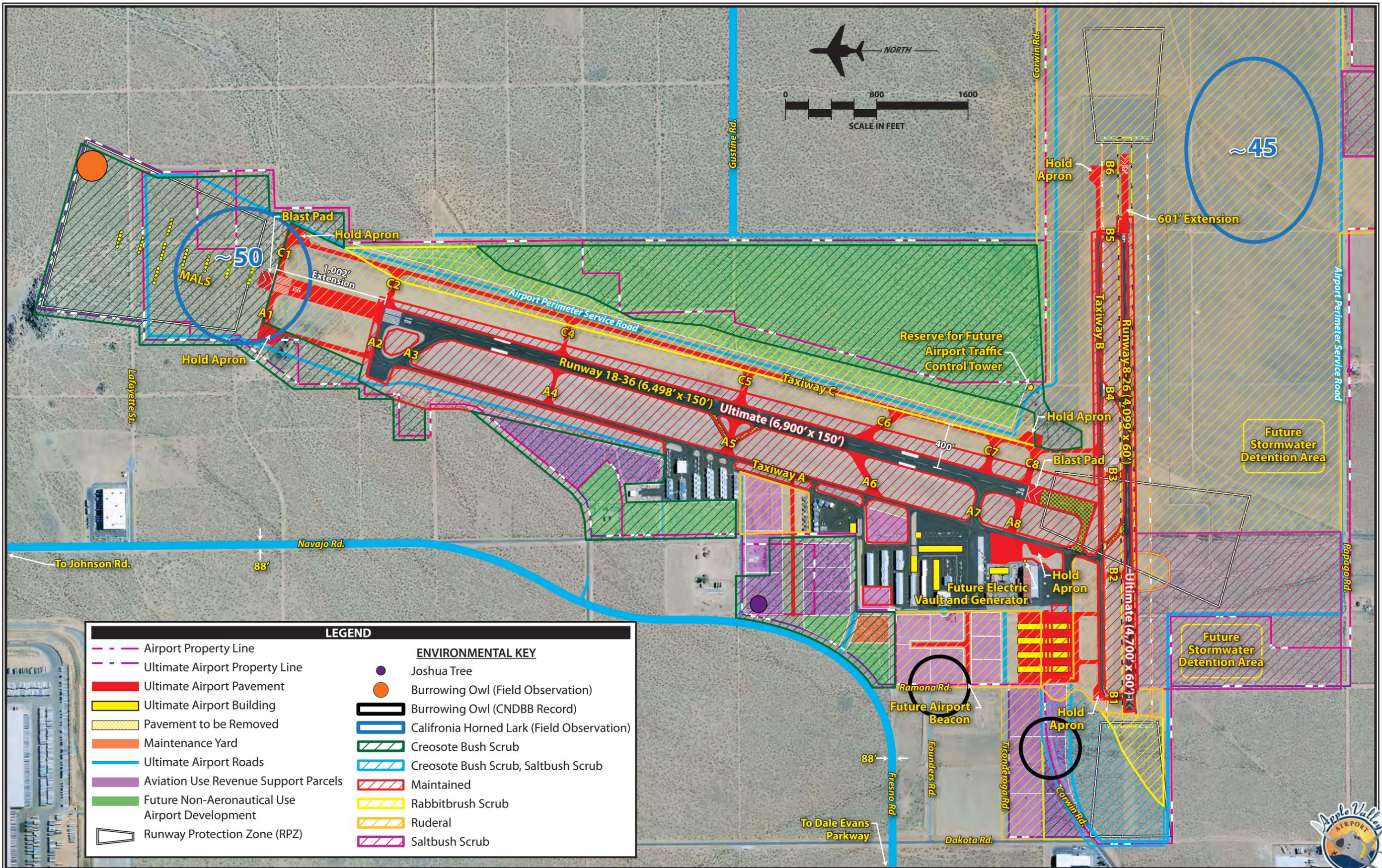
## **SPECIAL STATUS SPECIES THAT MAY OCCUR**

### Mojave Yucca

Mojave yucca is a perennial shrub-tree found in gravelly and calcareous soils on dry rocky slopes, flats, or washes throughout Mojavean desert scrub communities, including Mojave creosote bush scrub. This species commonly occurs in the vegetation communities present on-site. In particular, this species could occur in the Mojave creosote bush scrub community within the project area.

### Barrel Cactus

Barrel cactus is a perennial stem succulent found in sandy or rocky soils in Mojavean desert scrub communities, including Mojave creosote bush scrub and Joshua tree woodland. This species commonly occurs in the vegetation communities present on-site. In particular, this species could occur in the Mojave creosote bush scrub community within the project area.



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Figure 5  
VEGETATION COMMUNITIES, HABITATS,  
AND SPECIAL-STATUS SPECIES OBSERVATIONS



LEGEND		ENVIRONMENTAL KEY	
	Airport Property Line		Joshua Tree
	Ultimate Airport Property Line		Burrowing Owl (Field Observation)
	Ultimate Airport Pavement		Burrowing Owl (CNDBB Record)
	Ultimate Airport Building		California Horned Lark (Field Observation)
	Pavement to be Removed		Creosote Bush Scrub
	Maintenance Yard		Creosote Bush Scrub, Saltbush Scrub
	Ultimate Airport Roads		Maintained
	Aviation Use Revenue Support Parcels		Rabbitbrush Scrub
	Future Non-Aeronautical Use Airport Development		Ruderal
	Runway Protection Zone (RPZ)		Saltbush Scrub

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### Honey Mesquite

Honey mesquite is a perennial tree that is found in a variety of soils within creosote bush scrub or alkali sink vegetation communities. This species commonly occurs in the vegetation communities present on-site. In particular, this species could occur in the Mojave creosote bush scrub and saltbush scrub communities within the project area.

### Screw Bean Mesquite

Screw bean mesquite is a perennial tree that is found in a variety of soils within creosote bush scrub or wetland-riparian vegetation communities. This species commonly occurs in the vegetation communities present on-site. In particular, this species could occur in the Mojave creosote bush scrub community within the project area.

### Mojave Monkeyflower

Mojave monkeyflower is an annual herb found in sandy or gravelly soils, often in washes, in Mojavean desert scrub communities, including Mojave creosote bush scrub. There are 23 records of the species in the nine-quad project vicinity. One of these records is within five miles of the project area, recorded in 2005. This occurrence was a population distributed on a south-facing compound alluvial fan in creosote-dominated shrubland with compacted and rocky, fine soil. Because similar habitat (Mojave creosote bush scrub community on alluvial soils) occurs within the project area, this species may occur there.

### Le Conte's Thrasher

Le Conte's thrasher is a California Species of Special Concern. This species is a year-round resident that inhabits and nests in washes in sparse creosote scrub and saltbush scrub communities. There are 12 records of the species in the nine-quad project vicinity, ten of which are within ten miles of the project area, including three within five miles. Although eight of these ten observations are older than 20 years (recorded in 1916, 1921, 1925, 1932, 1963, 1986 (2), and 1987), two occurrences were recorded in 1991 within ten miles of the project site. This species may occur there as a year-round resident and breeder within the Mojave creosote bush scrub on the project area.

### Loggerhead Shrike

The loggerhead shrike is a California Species of Special Concern, and protection is afforded to this species as a nester by the CDFG. This species is a year-round resident that prefers open habitats interspersed with shrubs, trees, poles, fences, or other perches from which they can hunt. Nests are built in densely vegetated shrubs or trees, often containing thorns or near fences with barbs, which offer protection from predators and upon which prey items are impaled. There are four recent records of the species within ten miles of the project site, including two from 2006 within the riparian area of the Mojave Narrows, and two (recorded in 2005 and 2009) within creosote scrub with Joshua trees near disturbed areas (e.g., housing, recreational vehicle trails). None of the occurrences within ten miles of the project area are nesting occurrences. This species may occur and nest within the Mojave creosote bush scrub community on the project area.

Adherence to the following measure will reduce potential impacts associated with these special status species to a less than significant level:

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**Mitigation Measure BIOLOGICAL RESOURCES-1:** Figure 5 depicts the vegetation community and habitats along with the proposed master plan projects. Depending on which community and habitats each project is located within, certain focus surveys will be required. The location of obstruction lighting planned to the east of the Airport has not yet been determined. However, according to the County's Biotic Resources Overlay Map, the burrowing owl and desert tortoise have habitat or are known to occur in the mountains to the east of the Airport. Therefore, the focus surveys identified below may be necessary prior to the construction of the obstruction lighting fixture. The focus surveys include the following:

- Protocol desert tortoise surveys (April through May or September through October at temperatures below 40°C (104°F). Desert tortoises can be found anywhere on the airport that is not regularly maintained or developed;
- Protocol burrowing owl surveys (March 1 through August 31 for breeding season and December 1 through January 31 for winter resident survey, if required). Burrowing owls habitat all areas of the airport including developed and maintained land. These surveys shall follow established protocol and requirements of the County of San Bernardino and the California Department of Fish and Game (CDFG) specific to the burrowing owl;
- Nesting bird surveys (February 15 through September 15). Like the burrowing owl, many species of nesting birds will habitat all areas of the airport including developed and maintained land;
- Focused rare plant surveys that sample the entire blooming period of species that may occur in the project area (April through May). Rare plants may occur in the airport's creosote bush scrub, saltbush scrub, and rabbitbrush scrub communities;
- Spring plant surveys (February through May). Spring plant surveys may be needed prior to projects occurring in the airport's ruderal vegetation community;
- Jurisdictional waters delineations (any time during the year). Jurisdictional water delineations may be needed only where project is located in the vicinity of a wash; and
- An impact mitigation analysis will be needed for each focused survey conducted.

Survey reports and mitigation measures will need to be submitted and approved by responsible agencies prior to project initiation.

Table 6 and Figure 5 summarize which focused surveys will need to be conducted prior to construction projects in each vegetation community.

**Table 6**  
**Focus Survey Matrix**  
**Apple Valley Airport**

Vegetation Community	Protocol Desert Tortoise	Protocol Burrowing Owl	Nesting Bird	Focused Rare Plant	Spring Plant
Creosote Bush Scrub	X	X	X	X	
Creosote Bush Scrub, Saltbush Scrub	X	X	X	X	
Maintained		X	X		
Rabbitbrush Scrub	X	X	X	X	
Ruderal	X	X	X		X
Saltbush Scrub	X	X	X	X	
Developed		X	X		

**Mitigation Measure BIOLOGICAL RESOURCES-2.** If construction activities associated with proposed projects must occur during the burrowing owl nesting season (February 1 through August 31), burrowing owl surveys shall be conducted per CDFG-recommended burrowing owl protocol to determine whether the action area and its immediate vicinity are occupied by breeding season burrowing owls. Based on CDFG-protocol, focused breeding season surveys and pre-construction surveys may then be necessary. If burrowing owl is determined to occupy the action area or its vicinity, including a buffer area of 500 feet around the action area, a mitigation and monitoring plan shall be prepared and implemented prior to, during, and after project activities, as necessary.

**Mitigation Measure BIOLOGICAL RESOURCES-3:** When possible, the removal of potential nesting vegetation for migratory birds, including the California horned lark, shall occur outside the nesting season. A qualified biologist shall conduct a nesting bird study if this is not feasible. Surveys should be conducted no more than three days prior to removal date. If active nests are found, buffers shall be established around the vegetation (300 feet for raptors, 50 feet for all other birds). Construction activities impacting the nests shall be postponed until the nest is no longer active.

The above mitigation measures (BIOLOGICAL RESOURCES-1, 2, & 3) will reduce potential impacts to special status species below a level of significance.

c) **No Impact.** According to the Habitat Assessment prepared by SWCA (Appendix B), there are no wetlands or riparian areas on airport property nor will any be impacted by projects proposed within the Master Plan Update.

d) **Less than Significant with Mitigation.** There are no migratory wildlife corridors or native wildlife nursery sites present on the Airport. However, migratory species are known to occasionally move across the Airport. See the above mitigation measures (BIOLOGICAL RESOURCES-1, 2 &3), which will reduce potential impacts to migratory species that may be moving across or nesting at the Airport below a level of significance.

e) **Less Than Significant Impact with Mitigation.** The Town of Apple Valley has eight special status plant species protected under the Desert Native Plant Protection Code (Chapter 9.76.020 of the Town of Apple Valley Development Code) and/or Joshua Tree Protection code (Chapter 9.76.040 of the Town of Apple Val-

ley Development Code). However, per Section 9.76.010(c)(2), the Airport Sponsor is exempt from Town of Apple Valley provisions for the removal of any regulated native tree or desert native plant, except for Joshua Trees if the species to be impacted is on County owned land, which includes areas to be impacted by projects proposed in the Master Plan Update.

Adherence to the following mitigation measure will reduce potential impacts associated with the Joshua Tree species to a less than significant level.

**Mitigation Measure BIOLOGICAL RESOURCES-4:** Should a project require the disturbance, move, (transplant or otherwise), removal or destruction of a Joshua Tree species protected under the Town of Apple Valley Development Code, provisions identified in Chapter 9.76.040 of the Town of Apple Valley Development Code, including the acquisition of applicable permitting, must be followed. The Town Manager is responsible for the review and approval of any request to disturb, move, remove or destroy any protected species.

f) **No Impact.** The proposed airport projects will not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan as no such plans currently exist.

**V. CULTURAL RESOURCES** - Would the project

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**SUBSTANTIATION:** (Check if the project is located in the Cultural  or Paleontologic  Resources overlays or cite results of cultural resource review):

a) **No Impact.** SWCA Environmental Consultants (SWCA) performed a cultural resources survey of the project area, including coordination with Native American groups, a cultural resources records search, and an intensive pedestrian survey of the project area for cultural resources.

The San Bernardino Archaeological Information Center (SBAIC) completed the California Historical Resources Information System (CHRIS) records search on November 15, 2011, for the project area. The CHRIS records search identified eight prior cultural resource studies within 0.5 miles of the project area and two general overview studies. The two overview studies do not contain detailed information regarding the spe-

cific project area. Although the project area did not contain any previously recorded cultural resources, the CHRIS records search identified 11 such sites within 0.5 miles of the project area. One of these sites, a historic-era U-shaped rock feature, is located 16.4 feet outside of the project area. The four sites that had not been previously identified consist of historic-era domestic refuse. No prehistoric materials or built environment resources dating to the ethnographic or historic periods were encountered in the survey.

SWCA recommended no additional cultural resources work for this project. SWCA's full cultural resources survey report can be found in **Appendix C**.

b) **Less than Significant with Mitigation Incorporated** – From November 22 to 23, 2011, SWCA archaeologists conducted a pedestrian survey of the areas projected to be developed within the short term (1-5 years) under the proposed *Airport Master Plan Update*. SWCA archaeologists recorded four historic-era archaeological sites and updated one previously recorded historic-era archaeological site on November 23, 2011. The four newly recorded historic sites consist of historic-era trash scatters, likely representing the remains of residential activity associated with historic residences. The previously recorded historic site lacks evidence of any significant historical associations and does not appear to have any potential to yield further data. The five archaeological sites are recommended ineligible for inclusion in the CRHR.

SWCA initiated coordination with Native American groups and a cultural resources records search for the project on November 14, 2011. The Native American Heritage Commission responded on November 17, 2011; this response included a list of Native American contacts. Letters were sent to these Native American contacts on that same date.

However, in the event that cultural resources are discovered during construction grading, trenching, or excavation, project personnel should halt earth-moving activities in the immediate area and notify a qualified archaeologist to evaluate the resource.

**Mitigation Measure CULTURAL RESOURCES-1:** In the event that archaeological resources (artifacts or features) are exposed during ground-disturbing activities, an archaeologist who meets the Secretary of the Interior's professional qualification standards in archaeology shall be retained. Construction activities (e.g., grading, grubbing, vegetation clearing) within 9 meters (25 feet) of the discovery shall be halted while the resources are evaluated for significance under the NRHP and the California Register of Historic Resources (CRHR). Construction activities could continue in other areas. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted and would be discussed in consultation with the San Bernardino County Museum.

**Mitigation Measures CULTURAL RESOURCES-2:** For intermediate and long term development projects of the proposed *Airport Master Plan* update, where not previously surveyed, field surveys shall be undertaken prior to development to determine the presence of unidentified historic properties or archaeological resources on the Airport. Any findings will be properly documented according to applicable San Bernardino County Museum procedures. If Native American artifacts are uncovered, consultation with representatives of the Native American community shall occur.

c) **Less than Significant with Mitigation Incorporated** – There are no known paleontological sites within the Airport property and the Town of Apple Valley is not within the County of San Bernardino's Cultural Re-

sources Preservation (CP) Overlay District (County of San Bernardino 2011). In the event that unexpected paleontological resources are uncovered, conformance with the following mitigation will ensure that no impacts to paleontological resources occur.

**Mitigation Measure CULTURAL RESOURCES-3:** In the event that unknown paleontological resources are discovered during construction, the San Bernardino County Museum shall be notified immediately. Construction activities (e.g., grading, grubbing, vegetation clearing) within 9 meters (25 feet) of the discovery shall be halted while the resources are evaluated.

d) **No Impact.** There are no known human remains or formal cemeteries within the Airport property. If any human remains are encountered during construction, the County of San Bernardino Coroner's Office must be contacted within 24 hours and all work halted until proper clearance has been received, according to the State of California *Health and Safety Code*, Section 7050.5. If the human remains are determined to be pre-historic, the coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Conformance with applicable laws and policies will ensure that no impacts to human remains occur as a result of the proposed project.

**VI. GEOLOGY AND SOILS** - Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map Issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 181-B of the California Building Code (2001) creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**SUBSTANTIATION:** (Check  if project is located in the Geologic Hazards Overlay District):

a) **(i-iv) No Impact.** There are no known faults traversing the Apple Valley Airport. The Alquist-Priolo Earthquake Fault Zone, established by the State Geologist for the active Helendale Fault, is located approximately four miles northeast of the airport. As a result, seismic activity including strong ground shaking could occur at the airport in association with the Helendale Fault. Ground shaking associated with earthquakes can produce secondary seismic hazards including liquefaction, subsidence, seismically induced settlement, slope instability, flooding, rockfall, tsunamis, and seiches.

According to the *North Apple Valley Industrial Specific Plan/Environmental Impact Report* certified by the Town of Apple Valley in October 2006, the specific plan area, which includes Apple Valley Airport, “generally consists of granular soils with historic groundwater depths ranging from approximately 105 feet below the surface to 155 feet below the surface. Thus, the site is not considered susceptible to liquefaction during seismic events in nearby faults. Likewise, groundwater is not expected to impact grading or foundation construction activities.” Expansion, shrinkage, and subsidence are not expected on the airport due to the granular, non-plastic alluvial nature of the soils (from the RMA geotechnical study). The airport terrain consists of gently sloping terrain not subject to landslides.

The master plan proposed improvements to airfield facilities, including runways and taxiways. Landside improvements include new aircraft storage hangar buildings, an expanded terminal building, and aircraft parking apron expansions. No residential dwellings are planned on or near the airport. As a result, the proposed master plan improvements would not expose people or structures to potential adverse effects involving items VI.a.i-iv.

b) **Less than Significant Impact with Mitigation Incorporated.** Some erosion and loss of topsoil could occur during construction. However, the site consists primarily of gently sloping terrain and the impact potential of soil erosion is not significant. Erosion control measures undertaken during construction would reduce the potential for soil erosion.

**Mitigation Measures GEOLOGY AND SOILS-1:** During construction, erosion and sedimentation shall be reduced to a less than significant level on the site by measures such as silt fences, covering of stockpiled soil materials, and other Best Management Practices (BMPs) for erosion control as identified in the *Water Quality Control Plan for the Lahontan Region*, effective March 31, 1995 and amended through December 2005.

c) **Less than Significant Impact with Mitigation Incorporated.** According to the *North Apple Valley Industrial Specific Plan/Environmental Impact Report* certified by the Town of Apple Valley in October 2006, the specific plan area, which includes Apple Valley Airport, “generally consists of granular soils with historic groundwater depths ranging from approximately 105 feet below the surface to 155 feet below the surface. Thus, the site is not considered susceptible to liquefaction during seismic events in nearby faults. Likewise, groundwater is not expected to impact grading or foundation construction activities.” Expansion, shrinkage, and subsidence are not expected on the airport due to the granular, non-plastic alluvial nature of the soils. The airport terrain consists of gently sloping terrain not subject to landslides. Alluvial soils found in the airport area may not be sufficiently uniform or compact to support new building foundation loads. Grading will be performed in accordance with site-specific geotechnical recommendations and the California Building Code.

**Mitigation Measures GEOLOGY AND SOILS-2:** Grading will be performed in accordance with site-specific geotechnical recommendations and the California Building Code for the construction of all new buildings proposed in the airport master plan.

d) **No Impact.** Expansive soil is addressed under (VI.c) above.

e) **No impact.** This issue is not relevant to the project as septic tanks or alternative wastewater systems are not proposed in the airport master plan.

<b>VII GREENHOUSE GAS EMISSIONS</b> - Would the project:				
	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>SUBSTANTIATION:</b>				

a,b) **Less than Significant Impact.** In September 2006, Governor Schwarzenegger signed the Global Warming Solutions Act (Assembly Bill 32), which was created to address the global warming situation in California. The Act requires that the greenhouse gas (GHG) emissions in California be reduced to 1990 levels by 2020. This is part of a larger plan in which California hopes to reduce its emissions to 80 percent below 1990 levels by 2050. This reduction shall be accomplished through an enforceable statewide cap on GHG emissions that shall be phased in starting in 2012 and regulated by the California Air Resources Board (CARB). With this Act in place, CARB is in charge of setting specific standards for different source emissions, as well as monitoring whether they are being met.

As discussed in Section III of this document, the proposed project’s primary contribution to air emissions is attributable to construction activities. Project construction will result in GHG emissions from the following construction-related sources: (1) construction equipment emissions and (2) emissions from construction workers personal vehicles traveling to and from the construction site. Construction-related GHG emissions vary depending on the level of activity, length of the construction period, specific construction operations, types of equipment, and number of personnel.

The primary emissions that would result from the proposed project occur as carbon dioxide (CO<sub>2</sub>) from gasoline and diesel combustion, with more limited vehicle tailpipe emissions of nitrous oxide (N<sub>2</sub>O) and methane (CH<sub>4</sub>), as well as other GHG emissions related to vehicle cooling systems. Although construction emissions are a one-time event, GHG emissions such as CO<sub>2</sub> can persist in the atmosphere for decades.

In September of 2011, the County of San Bernardino adopted a Greenhouse Gas Emissions Reduction Plan (GHG Plan) aimed to reduce the County’s internal and external GHG emissions to 15 percent below current levels by 2020. The GHG Plan also set a performance standard that if a project does not exceed 3,000 metric tons of carbon dioxide equivalents (MTCO<sub>2</sub>e) per year, it will be considered to be consistent with the plan and determined to have a less than significant individual and cumulative impact for GHG emissions. MTCO<sub>2</sub>e is a unit of measure that combines the differing impacts of all GHGs into a single unit.

*Operation Emissions:* Based on CARB’s *Local Government Operations Protocol For the Quantification and Reporting of Greenhouse Gas Emissions Inventories*, fuel emissions were normalized to CO<sub>2</sub> emissions (expressed as CO<sub>2</sub>e using Global Warming Potential [GWP] factors published by the International Panel for Climate Control [IPCC]).

**Table 7** provides the projected CO<sub>2</sub> emissions associated with the operations at Apple Valley Airport under the existing condition (2010) and future condition (2030). This includes emissions from aircraft, automobiles, ground support equipment, and fueling operations.

As indicated in **Table 7**, the proposed airport improvements outlined in the airport master plan are not expected to exceed the 3,000 tons per year threshold in the long range condition. Therefore, the airport master plan is consistent with the GHG Plan and has a less than significant individual and cumulative impact for GHG emissions.

**TABLE 7**  
**Carbon Dioxide Emissions (Tons per year)**  
**Apple Valley Airport**

Pollutant	2010	2030	Difference	Threshold
CO <sub>2</sub> /MTCO <sub>2</sub> e	1,261.8	2,441.8	1,180	3,000

For the purposes of this analysis, only CO<sub>2</sub> was modeled. EDMS does not model CH<sub>4</sub> or N<sub>2</sub>O.  
 Source: Coffman Associates analysis

*Construction Emissions:* As discussed in Section III of this document, the proposed project’s primary contribution to air emissions is attributable to construction activities. Project construction would result in GHG emissions from the following construction-related sources: (1) construction equipment emissions and (2) emissions from construction workers personal vehicles traveling to and from the construction site. Construction-related GHG emissions vary depending on the level of activity, length of the construction period, specific construction operations, types of equipment, and number of personnel.

The primary emissions that would result from the proposed project occur as carbon dioxide (CO<sub>2</sub>) from gasoline and diesel combustion, with more limited vehicle tailpipe emissions of nitrous oxide (N<sub>2</sub>O) and methane (CH<sub>4</sub>), as well as other GHG emissions related to vehicle cooling systems. Although construction emissions are a one-time event, GHG emissions such as CO<sub>2</sub> can persist in the atmosphere for decades.

**Table 5** summarizes the yearly greenhouse gas emissions associated with construction of the proposed improvements. Green house gas emissions were calculated using CalEEMod based on the methodology discussed in Section III – Air Quality. Since the project would not create 3,000 metric tons of carbon dioxide equivalents (MTCO<sub>2</sub>e) per year, the generation of GHGs is considered less than significant.

**VIII HAZARDS AND HAZARDOUS MATERIALS –**  
 Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**SUBSTANTIATION:**

a,b) **Less Than Significant Impact.** Proposed airport improvements are planned to accommodate the expected increased usage of the facility. Potentially hazardous materials such as fuel, paint products, lubricants, solvents, and cleaning products may be used during the course of daily activities at the airport. The proposed project may result in an increase in the amount of hazardous materials routinely transported to the site (more airplanes utilizing the facility may result in increased usage of fuel). The transportation of hazardous materials to the site will be conducted in accordance with all applicable state and federal laws.

Compliance with all applicable laws and regulations will reduce the potential impact associated with the routine transport, use, or disposal of hazardous materials to a less than significant level.

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Due to the presence of hazardous materials on-site, the potential for an accidental release of hazardous materials into the environment is present at the airport. Hazardous materials and hazardous waste on-site will be handled in accordance with all applicable state and federal laws. The handling of hazardous materials and hazardous waste in accordance with all applicable state and federal laws will reduce the potential impacts associated with an accidental release of hazardous materials into the environment to a less than significant level.

c) **No Impact.** The project site is not located within 0.25 mile of an existing school. The Airport is within the Apple Valley Unified School District. Sycamore Rock Elementary School, located approximately two miles southeast of the airport, is the closest school. No impacts are anticipated with this issue.

d) **No Impact.** A review of the California Department of Toxic Substances Control Hazardous Waste and Substances Site list resulted in no sites on or near the Apple Valley Airport. Therefore, there are no impacts related to this issue.

e) **Less than Significant.** The proposed project consists of changes to the Apple Valley Airport to accommodate increased future use of this facility. Areas surrounding the airport do have potential risk associated with airport use. The Town of Apple Valley has established Airport Overlay Districts within its General Plan, to ensure compatible land uses in and around the airport, thereby reducing the impacts associated with the safety of people residing or working in the project area to a less than significant level.

f) **No Impact.** The project is not located within the vicinity of a private airstrip or heliport. There are no impacts associated with this issue.

g) **No Impact.** All proposed projects in the master plan are contained within existing or ultimate airport property and will not impair or interfere with adopted emergency response plans or emergency evacuation plans.

h) **Less than Significant Impact.** The Airport is not located within a fire hazard overlay (County General Plan Map EH 31) or adjacent to any forested areas. Therefore, no additional risk of loss, injury, or death involving wildland fires would occur.

**IX HYDROLOGY AND WATER QUALITY - Would the project:**

	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level, which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or offsite?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structure which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**SUBSTANTIATION:**

a,e,f) **Less than Significant Impact with Mitigation Incorporated.** Projects proposed in the airport master plan include the extension of both runways, taxiway improvements, and the construction of hangar buildings and other landside support buildings and paved surfaces and roadways, which will increase stormwater runoff potential generated on the airport.

Waste discharges include discharges of storm water and construction project discharges. A construction project resulting in the disturbance of one acre or more requires an NPDES permit. Construction project proponents are required to prepare a Storm Water Pollution Prevention Plan (SWPPP). Adherence to measures included in the SWPPP will reduce potential water quality impacts to a less than significant level.

**Mitigation Measure HYDROLOGY AND WATER QUALITY-1: Construction of the planned improvements at the airport requires an update of the airport's SWPPP and conformance with NPDES procedures.**

b) **No Impact.** Water is provided to the airport by the Apple Valley Ranchos Water Company (AVR). The Alto Subarea underlying aquifer of the Mojave Groundwater Basin is the primary source for water for AVR. The Altos Subarea is recharged from the snowmelt of the San Bernardino Mountains and the Mojave River. Development of the proposed airport master plan projects will not require any additional sources of water. The extension of both runways, construction of additional hangars, taxiways, apron, automobile parking, and road construction will incrementally reduce the amount of land available for groundwater recharge. When compared to the groundwater basin's total recharge area of approximately 1,400 square miles (896,000 acres) the loss of permeable area on the 800-acre project site is insignificant.

c,d) **Less Than Significant with Mitigation Incorporated.** Implementation of the airport master plan will require the construction of impermeable surfaces, which will result in the alteration of the existing on-site drainage patterns. The master plan proposes the construction of an on-site drainage detention basin on the south end of the airport. Storm water flows from new developments will be directed to this drainage detention basin, resulting in a less than significant impact on local drainage patterns. As a result, there is a very low chance that new development will produce substantial erosion or siltation.

The airport is surrounded by large areas of open space. Increases in storm water flow created by new airport development will not create any flooding at on-site or off-site locations. See also response to IX g,h.

**Mitigation Measure HYDROLOGY AND WATER QUALITY-2: The design and construction of an on-site storm water detention basin at the south end of the Airport shall incorporate best management practices (BMPs) to collect and manage storm water runoff.**

g,h) **No Impact.** Housing construction is not part of the proposed project. Therefore, the proposed project will not place housing within a 100-year flood hazard area, as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Maps.

The Federal Emergency Management Agency (FEMA) classifies the area containing the Apple Valley Airport as Zone D. According to FEMA, Zone D indicates areas where there are possible, but undetermined, flood hazards.

According to the 2009 Town of Apple Valley *General Plan*, the only portions of Apple Valley vulnerable to inundation during the 100-year flood occur along the Mojave River and Desert Knolls Wash, and within the Apple Valley Dry Lake. The Apple Valley Airport is not located in these areas; therefore, implementation of the proposed projects will not substantially increase the exposure of persons or property to flood hazards.

i) **No Impact.** According to the County Hazard Overlay Map, Apple Valley Airport is not located within a dam inundation area. Therefore, no impacts would occur.

j) **No Impact.** The Apple Valley Airport is not located near any water body that would be impacted by a seiche, tsunami, or mudflow. No impacts would occur.

<b>X. LAND USE AND PLANNING</b> - Would the project:				
	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b><i>SUBSTANTIATION:</i></b>				

a) **No Impact.** Airport development projects recommended in the master plan would not be located within or divide existing neighborhoods, nor would it introduce a barrier between residential uses; therefore, no impact related to this issue will occur.

b) **No Impact.** The Apple Valley Airport Master Plan is consistent with the current planned land uses for the site, as shown in the Town of Apple Valley *General Plan*. The Apple Valley Airport is located in the North Apple Valley Industrial specific plan area. The airport itself is designated as airport industrial use and is surrounded by areas planned for specific plan industrial, general commercial, and residential estate. Proposed property acquisitions for airport improvements include land designated for general commercial and specific plan industrial uses. The master plan reflects the County of San Bernardino’s vision for the airport. For these reasons, there is no impact associated with this issue.

c) **No Impact.** The proposed airport projects will not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan because no such plan exists currently.

**XI. MINERAL RESOURCES** - Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**SUBSTANTIATION:** (Check  if project is located within the Mineral Resource Zone Overlay):

a) **No Impact.** According to the Town of Apple Valley *General Plan*, the project area is located within a Mineral Resource Zone (MRZ) -3 classification, where the available geologic information indicates that mineral deposits are likely to exist; however, the significance of the deposit is undetermined. No mineral extraction has occurred on-site. Development of airport uses will not result in the loss of availability of statewide or locally important mineral resources. Adjacent properties do not include a state-classified or designated area or existing surface mine. No impact related to this issue will occur.

b) **No Impact.** The airport is not classified as an area of locally important mineral resource recovery. No mineral extraction has occurred on-site. No impact related to this issue will occur.

**XII. NOISE** - Would the project result in:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**SUBSTANTIATION:** (Check if the project is located in the Noise Hazard Overlay District  or is subject to severe noise levels according to the General Plan Noise Element )

The following discussion is based on an Apple Valley Airport noise analysis resulting in noise contour maps for existing (2009) and future noise conditions (2015 and 2030). The analysis and maps are attached to this Initial Study as **Appendix D**.

a/c/e) **Less Than Significant Impact.** Federal and state standards categorize residential uses within the 65 CNEL (or DNL) contour as incompatible. The Town of Apple Valley has adopted policies for new developments to assure that noise levels in backyards and useable open space do not exceed 65dBA CNEL.

The noise exposures contours were developed using the FAA-approved Integrated Noise Model (INM), which accepts inputs for several airport characteristics, including aircraft type, operations, flight tracks, time of day, and topography. For the purposes of this analysis, noise contours were prepared for the existing condition as well as the anticipated noise condition in 2030. The 2030 contours assume the operational levels described in Chapter Two of the *Apple Valley Airport Master Plan*.

The current 65 CNEL contour (**Appendix D**) remains almost entirely on airport property. Only a very small area (less than one acre) extends beyond airport property on the east side of Runway 18-36. No noise-sensitive land uses are contained within this contour of significance. Future noise contours for 2015 and 2030 result in the 65 CNEL contour remaining almost entirely on ultimate airport property. Only a small portion (less than one acre) extends beyond airport property northwest and northeast of Runway 18-36. Where the 65 CNEL contour does extend beyond ultimate airport property, it encompasses land that, ac-

According to the *North Apple Valley Industrial Specific Plan*, is planned for commercial and industrial land uses, which are considered compatible with airport operations.

According to the Town of Apple Valley’s Development Code 2010, Table 9.65.060-A, no schools, preschools, or day care centers are allowed within the two airport overlay districts (A-1 and A-2). Additionally, the land surrounding the airport has been planned to industrial and commercial land uses within the North Apple Valley Industrial Specific Plan. Therefore, all future development of sensitive receptors (e.g., residents, schools) will be located outside of the current and forecast 65 CNEL contour area. Therefore, less than significant effects on future sensitive receptors will occur.

b) **No Impact.** No pile driving or other sources of significant ground-borne vibration is expected to occur at the airport. No impact associated with this issue will occur.

d) **Less Than Significant Impact.** The only temporary increase in ambient noise levels would occur during construction activities at the airport. The sensitive noise receptors (residences) nearest the airport are over 1,000 feet from potential construction sites. Given the distance, less than significant impacts are anticipated.

f) **No Impact.** The project is a public airport; therefore, this checklist item does not apply.

**XIII. POPULATION AND HOUSING** - Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**SUBSTANTIATION:**

a) **Less Than Significant Impact.** The proposed airport improvements will not induce growth not anticipated in the Town of Apple Valley’s General Plan. Additionally, the project site is located in an urbanizing area, to which roadways and utility infrastructure have already been extended and municipal services provided. The proposed changes to the airport are consistent with the County of San Bernardino’s plan for the area. As the proposed project is consistent with the Town of Apple Valley and County of San Bernardino planning for the project area, no significant growth inducing impact will be associated with development of the project site.

b,c) **No Impact.** No housing would be displaced by the proposed activities identified in the airport master plan update.

**XIV. PUBLIC SERVICES**

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other Public Facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**SUBSTANTIATION:**

**a) Fire Protection? Less than Significant Impact.** Fire protection service at the airport is provided by the Apple Valley Fire Protection District. Development of the proposed airport master plan improvements will not have a significant effect on the demand for fire protection services. Proposed buildings, including hangars and terminal expansion, will be designed and constructed per applicable fire prevention/protection standards, including the determination of the water supply to meet fire flow requirements. Adherence to these standards will reduce potential impacts related to the provision of fire protection services to a less than significant level.

**Police Protection? Less than Significant Impact.** Police protection service to the airport is provided by the San Bernardino County Sheriff’s department. Development of the airport master plan update will not result in a substantial increased demand for police protection services. The proposed master plan update includes security fencing that will meet all federal standards for security. Adherence to these standards will reduce potential impacts related to the provision of police protection services to a less than significant level.

**Schools? No Impact.** The project consists of changes to the Apple Valley Airport. There will be no local population increase due to the implementation of the proposed airport master plan; therefore, there will be no associated impacts in regard to the demand for school services.

**Parks? No Impact.** The proposed airport master plan improvements do not include a residential component. The proposed project is unlikely to significantly increase local or regional populations; therefore, the proposed project would not cause an increase in the use of existing neighborhood or regional parks or other recreational facilities in the area. No impacts associated with this issue will occur.

**Other Public Facilities? No Impact.** Maintenance of public facilities and infrastructure in the County of San Bernardino would not be significantly altered by development of the Apple Valley Airport master plan update. The services and utilities required to operate this airport would be typical of other uses in the county and will not result in excessive wear and tear on the existing circulation, sewer, storm drain, or other public facilities.

<b>XV. RECREATION</b>				
	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant</i>	<i>No Impact</i>
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b><i>SUBSTANTIATION:</i></b>				

a,b) **No Impact.** No new residences or recreational facilities would be constructed as part of the airport master plan. The proposed project would not induce population growth in adjacent areas and would not increase the use of recreational facilities in surrounding neighborhoods. No significant adverse impacts are anticipated; therefore, no mitigation measures are required.

<b>XVI. TRANSPORTATION/TRAFFIC - Would the project:</b>				
	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**SUBSTANTIATION:**

a,b) **Less than Significant Impact.** Vehicular trip generation for the proposed Master Plan was estimated based on the increase in daily flights attributable to the project. Trips were estimated based on the rates contained in *Trip Generation*, 8<sup>th</sup> Edition, General Aviation Airport (Land Use 022). Implementation of the proposed Master Plan is estimated to increase annual flight operations from 46,400 in 2009 to 64,400 by 2030. According to the Forecast Chapter in the Master Plan, peak day operations are expected to increase by 75 flights from 193 currently to 268 in 2030. This daily increase in the number of flights will generate 148 vehicle trips daily (75 flights x 1.97 = 148).

Corwin Road, which serves as the airport access road, is classified as a “Major Road” in the Apple Valley *General Plan*. According to the 2009 General Plan, Corwin Road’s existing daily roadway capacity is 12,700 and estimated existing daily traffic nearest the airport is 600 vehicles, resulting in a volume/capacity ratio of 0.05. According to the General Plan, volume-to-capacity ratios of 0.80 or less represent acceptable traffic flow. The addition of 148 daily trips will have a less than significant impact in relation to the traffic load and capacity of the roadway, as well as the vicinity street system.

c) **Less than Significant Impact.** The *Apple Valley Airport Master Plan* proposes airfield improvements, including the elimination of runway incursion hot spots and expansion of taxiways and aircraft holding aprons to improve overall safety and efficiency of air traffic activities. These measures will reduce hazard potential resulting from increased operations.

d) **Less than Significant Impact.** Corwin Road, the existing airport access road, is planned to be cut off by the proposed High Desert Corridor. Local roads, such as Ticonderoga Road, Dakota Road, and Fresno Road will need to be improved and extended to replace Corwin Road as the primary airport access route. Any on-site or off-site improvements associated with road projects would be designed and constructed in accordance with the appropriate standard plans of San Bernardino County. As is required in the State of California, the engineering design plans for improvements to any public streets will be prepared by a registered engineer. Potential hazards would be mitigated to less than significant as part of the design process. The airport master plan will not create incompatibility between existing and proposed uses, nor will it worsen any existing incompatibility. As a result, impacts associated with land use incompatibility are considered to be less than significant.

e) **No Impact.** The airport master plan would not result in inadequate emergency access. The Town of Apple Valley is considering the construction of a fire station at the northeast corner of Johnson Road and Navajo Road, approximately two miles north of the airport. Adequate access roads are planned to serve the airport property in emergency situations.

f) **No Impact.** The airport master plan would not result in conflicts with adopted policies, plans, or programs supporting public transit, bicycle, or pedestrian facilities, nor will it decrease the performance or safety of such facilities.

**XVI. UTILITIES AND SERVICE SYSTEMS - Would the project:**

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded, entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill(s) with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**SUBSTANTIATION:**

a) **Less than Significant Impact.** Under Section 402 of the Clean Water Act (CWA), the Regional Water Quality Control Board (RWQCB), Lahontan Region, issues National Pollutant Discharge Elimination System (NPDES) permits to regulate waste discharges to “waters of the nation,” which include rivers, lakes, and their tributary waters. Waste discharges include discharges of storm water and construction project discharges. A construction project resulting in the disturbance of more than one acre requires an NPDES permit. Construction project proponents are also required to prepare a Storm Water Pollution Prevention Plan (SWPPP). Furthermore, prior to the issuance of building permits, a project’s applicant will be required to satisfy the Town of Apple Valley’s requirements related to the payment of fees and/or the provision of adequate wastewater facilities. Because the project will comply with the waste discharge prohibitions and water quality objectives established by the RWQCB and the Town of Apple Valley, impacts related to this issue will be reduced to a less than significant level.

b,e) **Less than Significant Impact.** Wastewater conveyance and treatment services to Apple Valley Airport are provided by the Town of Apple Valley. According to the Town of Apple Valley General Plan 2010, typical daily flows at the Victor Valley Wastewater Reclamation Authority (VVWRA) are approximately 13 million gallons per

day (mgd). The capacity of the facility is 18 mgd. Due to the nature of activities conducted at the airport, the proposed airport master plan is not expected to significantly increase the flow of wastewater from the project site to the VVWRA. Considering the current existing capacity of the VVWRA and the minimal increase in the flow of wastewater expected from the airport master plan proposed projects, impacts associated with sewer services are considered less than significant.

c) **Less than Significant Impact.** Development of the proposed master plan projects will result in an increase in the amount of impermeable surfaces and, therefore, an increase in surface runoff. To mitigate the increased surface runoff, a storm water detention basin on the southern portion of airport property and drainage improvements throughout the airfield is planned. These drainage improvements will occur entirely on airport property on land that has previously been disturbed or maintained. As a result, significant environmental effects associated with the construction of the detention basin and other drainage improvements are not anticipated. As previously stated in response to XVI.a, all construction projects that disturb more than one acre require an NPDES permit. Under the NPDES permit, the project proponent is required to prepare a SWPPP. Adherence to best management practices (BMPs) specified by the NPDES permit and SWPPP are expected to reduce potential impacts associated with this issue to a less than significant level.

d) **Less than Significant Impact.** Water is supplied to Apple Valley Airport from the Apple Valley Ranchos Water Company (AVR). Due to the nature of activities conducted at the airport, the proposed airport master plan projects are not expected to significantly increase water usage at the airport. Impacts associated with water usage for the proposed airport master plan are considered less than significant.

f) **Less than Significant Impact.** Burrtec Waste Industries is contracted with the Town of Apple Valley for solid waste and recycling services. Solid waste is transported to the Victorville landfill northwest of the Town. According to the Town of Apple Valley General Plan 2010, the Victorville landfill has a daily permitted limit of 3,000 tons per day and presently receives approximately 1,293 tons per day. The airport master plan will not cause a significant increase in solid waste and, therefore, will have a less than significant impact on the Victorville landfill capacity.

g) **Less than Significant Impact.** Projects proposed in the airport master plan will be required to comply with applicable elements of AB 1327, Chapter 18 (California Solid Waste Reuse and Recycling Access Act of 1991) and other applicable local, state, and federal solid waste disposal standards, thereby ensuring that impacts associated with this issue are considered to be less than significant.

**XVII. MANDATORY FINDINGS OF SIGNIFICANCE:**

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

**SUBSTANTIATION:**

- a) **Less than Significant with Mitigation Incorporated.** Mitigation Measures have been included for Biological Resources. Implementation of the proposed project with the mitigation measures would not degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause fish or wildlife populations to drop below self sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.
- b) **Less Than Significant with Mitigation Incorporated.** Impacts associated with the proposed project would not be considered cumulatively adverse or unfavorable. With incorporated mitigation measures identified in this Initial Study, the project is not anticipated to generate significant amounts of air pollutants, traffic, or noise. Cumulative impacts are not anticipated to be significant.
- c) **No Impact.** The proposed project would not be used for storing any toxic or hazardous materials, nor does the construction and operation of the project involve such a use. Impacts due to air quality, geology, hazards and hazardous materials, and hydrology and water quality will be mitigated to a less than significant level. Any direct or indirect impacts to human beings would, therefore, be mitigated.

**LIST OF PREPARERS**

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**REFERENCES**

County of San Bernardino, 2011. "General Plan Update – Mapping" - Land Use Zoning District Maps, Hazard Overlay Maps, Geologic Hazard Overlay Maps, Resource Overlay Maps, [www.sbcounty.gov/landuseservices/general%20plan%20update/Mapping/Default.asp](http://www.sbcounty.gov/landuseservices/general%20plan%20update/Mapping/Default.asp), accessed July 2012.

Federal Emergency Management Agency Flood Insurance Rate Map and Flood Boundary Map.

Mojave Desert Air Quality Management District (MDAQMD) - 2010 California Environmental Quality Act (CEQA) and Federal Conformity Guidelines.

San Bernardino County General Plan (Available online at [http://www.co.san-bernardino.ca.us/landuseservices/general\\_plan/Default.asp](http://www.co.san-bernardino.ca.us/landuseservices/general_plan/Default.asp))

San Bernardino County Development Code (Available online at <http://www.co.san-bernardino.ca.us/landuseservices/DevCode/Default.asp>)

Town of Apple Valley General Plan 2010 (Available online at <http://www.applevalley.org/Index.aspx?page=687>)

North Apple Valley Industrial Specific Plan (Available online at <http://www.applevalley.org/Index.aspx?page=368>)

# ATTACHMENT 1

## MITIGATION MONITORING PLAN For the Proposed Apple Valley Airport Master Plan Update

Self-Monitoring Project Features and Mitigation Measures: Compliance with these requirements will be incorporated into the construction documents for the project. Construction will not be considered completed until these measures have been incorporated into the project and compliance is achieved. The captions below refer to corresponding sections of the Initial Study checklist for this project, using the Appendix G format from the CEQA Guidelines.

MITIGATION MEASURE
<p><u>AIR QUALITY-1</u>: All construction contracts shall require that dust control practices and other construction measures (in accordance with MDAQMD Rules 403 – <i>Fugitive Dust</i> and 403.2 – <i>Fugitive Dust Control for the Mojave Desert Planning Area</i>) in effect at the time of the contract signing be implemented throughout all stages of construction.</p>
<p><u>BIOLOGICAL RESOURCES-1</u>: Depending on which community and habitats each project is located within, certain focus surveys will be required. The focus surveys include the following:</p> <ul style="list-style-type: none"><li>• Protocol desert tortoise surveys (April through May or September through October at temperatures below 40°C (104°F). Desert tortoises can be found anywhere on the airport that is not regularly maintained or developed;</li><li>• Protocol burrowing owl surveys (March 1 through August 31 for breeding season and December 1 through January 31 for winter resident survey, if required). Burrowing owls may inhabit all areas of the airport, including developed and maintained land. These surveys shall follow established protocol and requirements of the County of San Bernardino and the California Department of Fish and Game (CDFG) specific to the burrowing owl;</li><li>• Nesting bird surveys (February 15 through September 15). Like the burrowing owl, many species of nesting bird will inhabit all areas of the airport, including developed and maintained land;</li><li>• Focused rare plant surveys that sample the entire blooming period of species that may occur in the project area (April through May). Rare plants may occur in the airport’s creosote bush scrub, saltbush scrub, and rabbitbrush scrub communities;</li><li>• Spring plant surveys (February through May). Spring plant surveys may be needed prior to projects occurring in the airport’s ruderal vegetation community;</li><li>• Jurisdictional waters delineations (any time during the year). Jurisdictional water delineations may be needed only where the project is located in the vicinity of a wash; and</li><li>• An impact-mitigation analysis will be needed for each focused survey conducted.</li></ul> <p>Survey reports and mitigation measures will need to be submitted and approved by responsible agencies prior to project initiation.</p>
<p><u>BIOLOGICAL RESOURCES-2</u>: If construction activities associated with proposed projects must occur during the burrowing owl nesting season (February 1 through August 31), burrowing owl surveys shall be conducted per CDFG-recommended burrowing owl protocol to determine whether the action area and its immediate vicinity are occupied by breeding season burrowing owls. Based on CDFG-protocol, focused breeding season surveys and pre-construction surveys may then be necessary. If burrowing owl is determined to occupy the action area or its vicinity, including a buffer area of 500 feet around the action area, a mitigation and monitoring plan</p>

## ATTACHMENT 1

### PROJECT-SPECIFIC MITIGATION MONITORING PLAN For the Proposed Apple Valley *Airport Master Plan Update* (continued)

shall be prepared and implemented prior to, during, and after project activities, as necessary.
<b>BIOLOGICAL RESOURCES-3:</b> When possible, the removal of potential nesting vegetation for migratory birds, including the California horned lark, shall occur outside the nesting season. A qualified biologist shall conduct a nesting bird study if this is not feasible. Surveys should be conducted no more than three days prior to removal date. If active nests are found, buffers shall be established around the vegetation (300 feet for raptors, 50 feet for all other birds). Construction activities impacting the nests shall be postponed until the nest is no longer active.
<b>BIOLOGICAL RESOURCES-4:</b> Should a project require the disturbance, move, (transplant or otherwise), removal or destruction of a Joshua Tree species protected under the Town of Apple Valley Development Code, provisions identified in Chapter 9.76.040 of the Town of Apple Valley Development Code, including the acquisition of applicable permitting, must be followed. The Town Manager is responsible for the review and approval of any request to disturb, move, remove or destroy any protected species.
<b>CULTURAL RESOURCES-1:</b> In the event that archaeological resources (artifacts or features) are exposed during ground-disturbing activities, an archaeologist who meets the Secretary of the Interior's professional qualification standards in archaeology shall be retained. Construction activities (e.g., grading, grubbing, vegetation clearing) within 9 meters (25 feet) of the discovery shall be halted while the resources are evaluated for significance under the NRHP and the California Register of Historic Resources (CRHR). Construction activities could continue in other areas. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted and would be discussed in consultation with the San Bernardino County Museum.
<b>CULTURAL RESOURCES-2:</b> For intermediate and long term development projects of the proposed <i>Airport Master Plan</i> update, where not previously surveyed, field surveys shall be undertaken prior to development to determine the presence of unidentified historic properties or archaeological resources on the Airport. Any findings will be properly documented according to applicable San Bernardino County Museum procedures. If Native American artifacts are uncovered, consultation with representatives of the Native American community shall occur.
<b>CULTURAL RESOURCES-3:</b> In the event that unknown paleontological resources are discovered during construction, the San Bernardino County Museum shall be notified immediately. Construction activities (e.g., grading, grubbing, vegetation clearing) within 9 meters (25 feet) of the discovery shall be halted while the resources are evaluated.
<b>GEOLOGY AND SOILS-1:</b> During construction, erosion and sedimentation shall be reduced to a less-than-significant level on the site by measures such as silt fences, covering of stockpiled soil materials, and other best management practices (BMPs) for erosion control as identified in the <i>Water Quality Control Plan for the Lahontan Region</i> , effective March 31, 1995 and amended through December 2005.
<b>GEOLOGY AND SOILS-2:</b> Grading will be performed in accordance with site-specific geotechnical recommendations and the California Building Code for the construction of all new buildings proposed in the airport master plan.
<b>HYDROLOGY AND WATER QUALITY-1:</b> Construction of the planned improvements at the airport requires an update of the airport's Storm Water Pollution Prevention Plan (SWPPP) and conformance with National Pollutant Discharge Elimination System (NPDES) procedures.
<b>HYDROLOGY AND WATER QUALITY-2:</b> The design and construction of an on-site storm water detention basin at the south end of the Airport shall incorporate best management practices (BMPs) to collect and manage storm water runoff.