

# Appendix J-4

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## Wildlife Hazard Review





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sent via email

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**Subject:** Wildlife Hazard Review of the West Campus Upper Plateau Specific Plan and Meridian Development project near March Air Reserve Base, Riverside County, California

Mr. Collier:

Meridian Park West, LLC (Meridian West) proposes to amend the *March Joint Powers Authority General Plan for March Air Reserve Base* through the adoption of the *West Campus Upper Plateau Specific Plan*. (Specific Plan) which addresses an approximately 818-acre area (Plan Area) adjacent to March ARB.<sup>1</sup> The Specific Plan will guide and direct the development of a portion of the Plan Area into a master-planned industrial park, known as the West Campus Upper Plateau. The adoption of the Specific Plan serves two main purposes:

- Provide design standards and guidelines for projects proposed within the boundaries of the West Campus Upper Plateau Specific Plan; and
- Support the terms and conditions of a 2012 Settlement Agreement between and among the Center for Biological Diversity (CBD), the San Bernadino Audubon Society, March Joint Powers Authority (JPA), and LNR Riverside, LLC as a means of environmental protection.

## PROJECT LOCATION

The 818-acre Plan Area is located within the western portion of the March Joint Powers Authority (MJPA) jurisdiction, specifically within the West March Planning Subarea (see **Figure 1**). The Plan Area is located within the Airport Influence Area (AIA) of the March ARB as identified in the Riverside County Airport Land Use Compatibility Plan (ALUCP), which was prepared by the Riverside County Airport Land Use Commission (ALUC) (2014; **Figure 2**). The Plan Area is also addressed in the Air Installation Compatible Use Zones (AICUZ) Study for March ARB that was prepared by the U.S. Air Force (2018; see **Figure 3**).

As presented to the Riverside County ALUC during a meeting on May 12, 2022, the proposed plan is one component of a large project that includes:

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<sup>1</sup> The Specific Plan Executive Summary cites a Plan Area acreage of 807.9 acres. Table 2.1 cites a Plan Area of 817.9 acres. A Plan Area of 817.9 is cited throughout this letter report.

- **General Plan Amendment/Specific Plan.** The West Campus Upper Plateau Specific Plan (SP-9) contains development standards, design guidelines, infrastructure master plans, maintenance responsibilities, phasing schedule, and implementation procedures necessary to construct a business park in the Plan Area. Following General Plan Amendment/Specific Plan adoption, the March JPA will establish zoning that is consistent with the land uses and locations identified in the Specific Plan.
- **Industrial Development on Two Parcels.** Meridian proposes to construct two industrial buildings with mezzanines on separate parcels totaling 1,820,000 square feet on (combined) 115.88 acres. No development has been proposed for the other parcels within the Plan Area at this time.
- **Tentative Map Approval.** Meridian proposes a tentative tract map to divide 359.6 acres into specific lots development, streets, and open space. Mead & Hunt cannot comment on the tentative map because projects are not proposed in this area. Individual projects will be reviewed as they are proposed.

## PROJECT REVIEW AND APPROACH

Many aviation facilities include large tracts of open, undeveloped land that provide added margins of safety and noise mitigation. These areas can also present potential hazards to aviation if they encourage/attract wildlife to enter an airport's approach or departure airspace or aircraft operations area. Constructed or natural areas — such as poorly drained locations, detention/retention ponds, roosting habitats on buildings, landscaping, odor-causing rotting organic matter (putrescible waste) disposal and some conservation-based land uses — can provide wildlife with ideal locations for feeding, loafing, reproduction, and escape. Mead & Hunt reviewed the Specific Plan to consider the potential effect of the proposed project to attract potentially hazardous wildlife to March ARB.

Mead & Hunt reviewed Information and policies related to the wildlife hazard management set forth in the following documents to consider the potential for the Specific Plan to increase potential wildlife hazards to aircraft operations at March ARB:

- *Riverside County ALUCP*, including countywide policies and specific policies associated with March ARB, and other applicable guidance;
- *Air Installations Compatible Land Use Zone Study for the March ARB*;
- Guidance set forth by the Federal Aviation Administration, specifically FAA Advisory Circular (AC) 150/5200-33C, "Wildlife Hazard Attractants On and Near Airports"; and
- Previous studies associated with potentially hazardous wildlife and the Bird/Wildlife Aircraft Strike Hazard (BASH) Plan for March ARB.

The following analysis was prepared under the direction of an FAA-qualified Airport Wildlife Biologist (QAWB) as set forth by FAA AC 150/5200-36B, "Qualifications for Wildlife Biologist Conducting Wildlife Hazard Assessments and Training Curriculums for Airport Personnel Involved in Controlling Wildlife Hazards on Airports."

## A. Applicable Wildlife Hazard Management Guidance and Policies

### 1. FAA Advisory Circular (AC)150/5200-33C, Wildlife Hazards On And Near Airports

The FAA identifies hazardous wildlife as “Species of wildlife (birds, mammals, reptiles), including feral and domesticated animals, not under control that may pose a direct hazard to aviation (i.e., strike risk to aircraft) or an indirect hazard such as an attractant to other wildlife that pose a strike hazard or are causing structural damage to airport facilities (e.g., burrowing, nesting, perching).” FAA AC 150/5200-33C provides guidance to identify “wildlife attractants,” or certain land uses that have the potential to attract hazardous wildlife on or near public-use airports. It also addresses airport development projects, including airport construction, expansion, and renovation, affecting aircraft movement near hazardous wildlife attractants. For airports that serve turbine-powered aircraft, the FAA suggests a separation of 10,000 feet between aircraft movement areas and potential wildlife attractants.

Specific wildlife attractants identified by the FAA include vegetation, habitats, and land use practices that can attract wildlife that poses a risk to aviation safety. Such land uses include, but are not limited to:

- **Waste disposal operations**, such as landfills, trash transfer stations, recycling centers that accept food waste, etc.
- **Water management facilities**, such as stormwater management retention/detention ponds that hold water for more than 48 hours or include emergent and submergent vegetation, artificial marshes, wetlands, wetland mitigation sites, and mitigation banks.
- **Dredge spoil containment areas**, which include the application of unconsolidated rock, soil, or shell materials extracted and deposited during dredging and dumping activities.
- **Agricultural activities**, including crop production and livestock production.
- **Aquaculture**, including freshwater and marine aquaculture.
- **Golf courses and landscaping**. The FAA recommends against the construction of new golf courses and also recommends that a QAWB review all landscaping plans based on their geographic location, their ability to produce seeds/fruits/berries, and their potential to provide nesting cover. If a hazardous wildlife attractant is detected, immediate corrective actions should be taken.
- **Structures**, which can attract birds for nesting, roosting, and loafing (e.g., flat rooftops, light posts, towers, etc).
- **Other attractants**, such as conservation easements, parks/open space, and wildlife management areas, that may have the potential to attract hazardous wildlife.

The FAA also warns against the synergistic effects of surrounding land uses, which can occur when two or more land uses may create a wildlife corridor directly through the airport and/or surrounding airspace.

## 2. Air Installation Compatible Use Zones Study for March Air Reserve Base

The Air Installation Compatible Use Zone (AICUZ) for March ARB outlines the location of runway clear zones, aircraft accident potential zones, and noise contours and provides recommendations for development compatible with military flight operations. The Air Force Reserve Command provides the study so that local governments can incorporate the study recommendations into community plans, zoning ordinances, subdivision regulations, building codes, and other documents (Air Force, 2018).

AICUZ Study Section 5.3, Hazards to Aircraft Flight Zones, presents a discussion on Bird/Wildlife Strike Hazard (BASH), and notes that:

Wildlife represents a significant hazard to flight operations. Birds, in particular, are drawn to different habitat types found in the airfield environment including hedges, grass, brush, forest, water, and even the warm pavement of the runways. Although most bird and animal strikes do not result in crashes, they cause structural and mechanical damage to aircraft as well as loss of flight time.

To reduce the potential for strike hazards, the Air Force recommends against the development of land uses that attract birds near installations that support an active air operations mission, specifically in clear zones and accidental zones. The land uses include most of those identified by the FAA in AC 150.5200-33C and include, but are not limited to: waste disposal operations, wastewater treatment facilities and transfer stations, landfills, golf courses, wetlands, stormwater ponds/retention basins, dredge disposal sites, and fruit trees.

## 3. Riverside County Airport Land Use Compatibility Plan

Following Specific Plan adoption, the March JPA will establish zoning in the Plan Area that is consistent with the land uses and locations and uses identified in the Specific Plan. As Shown in **Figure 2**, Specific Plan Compatibility Zones, the Upper Plateau Specific Plan Area includes portions of Airport Compatibility Zones B1, B2, C1, and C2. ALUCP Table MA-2, Basic Compatibility Criteria for the March Air Reserve Base/Inland Port Airport, is presented as **Figure 4**. The table presents site-specific policies for the March AIA. Should conflicts occur between the county-wide policies and the site-specific policies for March ARB, the site-specific policies prevail.

ALUCP policies associated with wildlife hazard management and each Compatibility Zone are summarized below:

- **Zone B1 - Inner Approach Departure Zone.** Uses listed in AICUZ as not compatible in APZ 1 or APZ II and “hazards to flight” as identified in B2 below.
- **Zone B2 - High Noise Zone.** Prohibited uses include “Hazards to flight.” Table MA-2 identifies hazards to flights as:

“Land use development that may cause the attraction of birds to increase is also prohibited. Man-made features must be designed to avoid heightened attraction of birds. In Zones A, B1, and B2, flood control facilities should be designed to hold water for no more than 48 hours following a storm and be completely dry between storms (see FAA Advisory Circular 150/5200-33B). Additionally, certain farm crops and farming practices that tend to attract birds are strongly discouraged. These include: certain crops (e.g., rice, barley, oats, wheat – particularly durum – corn, sunflower, clover, berries, cherries, grapes, and apples); farming activities (e.g., tilling and harvesting); confined livestock operations, and fish production....”

- **Zone C1 - Primary Approach/Departure Zone.** Prohibited uses include “hazards to flight” (see item B2).
- **Zone C2 - Flight Corridor Zone.** Prohibited uses include “hazards to flight.”

## **B. General Plan Update/Specific Plan Review**

Mead & Hunt reviewed the Proposed Specific Plan for its consistency with wildlife hazard management guidance and policies included in the documents cited above. Mead & Hunt did not consider consistency with other compatibility issues, such as noise exposure, overflight, etc.

As summarized in the Specific Plan, the Center for Biological Diversity (CBD), the San Bernardino Valley Audubon Society, the March MJPA, and LNR Riverside LLC, entered into a Settlement Agreement on September 12, 2012 (CBD Settlement Agreement). The CBD Settlement Agreement contemplated the division of western acreage under the jurisdiction of the MJPA, including the Plan Area, into Conservation Area, Developable Area, Proposed Park Area, and Water Quality - Open Space Area. The proposed Specific Plan would support the implementation of the CBD Settlement Agreement.

## **Chapter 2: Specific Plan Land Uses and Overlay Districts**

The Specific Plan identifies several land uses for the approximately 818-acre Plan Area as summarized below:

- **Business Park (65.35 acres).** Business park areas are characterized as major employment concentrations. Outdoor storage as a primary use is prohibited.
- **Industrial (143.56 acres).** Industrial development may support manufacturing and non-manufacturing uses from warehouse and distribution facilities to industrial activities, including open storage, office/industrial parks, light industry, manufacturing, research and development centers, maintenance shops, and emergency services centers. The area devoted to outdoor storage may not exceed the building area.
- **Mixed use (42.22 acres).** Complementary land uses may include commercial, business park, office, medical, educational and vocational, research and development, and services.

- **Public Facility (5.71 acres).** Public facility uses include a wide range of public, quasi-public, and private uses such as public cultural and historical facilities, government administrative offices and facilities, public utilities, and major transportation corridors. However, land uses determined to be sensitive to, or incompatible with, aviation operations shall be excluded.
- **Park (10.88 acre).** A park will be established in the northwestern corner of the West Campus Upper Plateau area for both active and passive use including ball fields, exercise nodes, playground and picnic areas, and restrooms.
- **Open Space (67.11 acres).** Open space will be designated for hiking trails and other passive uses. The area will generally remain in its natural state, with the exception of planned hiking trails. Two trailheads will provide parking areas, benches, and information kiosks, etc.
- **Open Space - Conservation (445.47 acres).** The Plan Area includes an Open Space - Conservation Area as part of the Settlement Agreement. A majority of the Conservation Area is proposed within the eastern portion of the Plan Area. Several existing recreational trails are present throughout the Open Space - Conservation Area.
- **Roadways (37.70 acres).** Paved roads will provide access to and within specific land use areas throughout the Plan Area.

The following analysis considers these land uses and their potential to attract potentially hazardous wildlife to March ARB by considering individual topic areas presented in the Specific Plan.

#### *Overlay Areas*

Section 2.5 describes overlay zones that apply within Plan Area boundaries. The first paragraph in Section 2.5 states that the Specific Plan "provides land use regulations relating to safety (both for air navigation and for people within the West Campus Upper Plateau), noise impacts, and building heights," and subsequent paragraphs summarize those regulations (section 2.5.1). However, the discussion does not identify hazards to flight associated with wildlife hazard attractants.

**Recommendation:** The discussion should be amended to address hazards to flight associated with wildlife hazard attractants.

### **Chapter 3: Development Regulations**

Chapter 3 establishes the permitted and development standards that will apply to proposed development in the Plan Area. Mead & Hunt offers several recommendations on the Development Standards to prevent the creation of hazardous wildlife attractants.

- **Table 3.1 - West Campus Upper Plateau Specific Plan Land Use Table.** Some conditionally acceptable land uses could conflict with ALUCP policies and FAA guidance pertaining to wildlife attractants, such as Bar and Grill, Open Air Markets for Agricultural Products, Recycling Facilities, and Restaurants (Fast Food and Sit Down).



Such facilities have the potential to attract hazardous wildlife based on the presence of outdoor dining, food waste, and inadequate trash storage/disposal practices.

**Recommendation:** The Specific Plan should provide guidance to guard against the accumulation and storage of food and waste storage (see comments provided for Chapter 4).

- **3.5.1 Lot Development.** Policy 3.5.1, Lot Development, paragraph 3 states, “Construction of objects taller than 50 feet in the Height Caution Zone will require review by the Airport Land Use Commission. This does not comply with ALUCP Table MA-2, which also requires the review of objects greater than 35 feet tall in Zones B1 and B2 and the review of objects greater than 70 feet tall in Zones C1 and C2, even if they are located outside of the high terrain area.

**Recommendation:** Revise Policy 3.5.1 to comply with the ALUCP.

- **3.5.7 Conceptual Building Layouts.** Section 3.5.7 provides conceptual layouts for the two structures proposed as part of the proposed project. The conceptual plans appear to be consistent with applicable guidance, but a detailed review of the proposed project, including landscape and stormwater management plans, could not be performed as detailed plans are not available at this time. If the proposed plans for both structures comply with the Specific Plan Guidance and the recommendations included in this analysis, it will be consistent with the Specific Plan and Riverside County ALUCP.

**Recommendation:** Provide detailed plans for review as they become available.

#### Chapter 4: Design Guidelines

Chapter 4 seeks to provide guidance to developers, builders, engineers, architects, landscape architects, and other professionals to achieve and maintain the desired design quality and character of the built environment expected for the Plan Area. **Table 1** identifies modifications to specific measures to address potential wildlife hazards. Landscaping recommendations are discussed separately.

**Table 1. Recommended Modifications to Chapter 4, Design Guidelines**

Section	Recommendation
4.3.1 Building Form	Amend Item 4.3.1e as follows:  e. Pedestrian and ground-level building entries intended for visitor use should be recessed or covered by architectural projections, roofs, or arcades in order to provide shade and visual relief. <u>Projections should be treated with anti-perching devices to discourage wildlife (e.g. birds) from perching, roosting, and nesting. Recessed areas should be screened or equipped with bird slides to prevent nesting.</u>

<p>4.4.1 Walls and Fences</p>	<p>Section 4.4.1, third paragraph, states that landscaping within and outside of roadway rights-of-way serve as additional screening. Item “b” states:</p> <p>b. Landscaping may be used for visual screening instead of walls and fences where a solid physical barrier is not needed.</p> <p>The Riverside County ALUC has prepared specific guidelines for landscaping within the Airport Influence Area that warn against overlapping crowns at maturity and recommend the use of mixed vegetation to provide varied heights, both at the time of planting and at maturity. This guidance could be considered counter-intuitive to the Item 4.4.1b as presented. Item 4.4.1b should be amended as follows:</p> <p>b. Landscaping may be used for visual screening instead of walls and fences where a solid physical barrier is not needed. <u>Landscaping barriers must comply with Riverside County ALUC guidance, “Landscaping near Airports.”</u></p>
<p>4.4.2 Truck Courts and Loading Docks</p>	<p>item 4.4.2a should be amended as follows:</p> <p>a. Loading doors, service docks, and equipment areas should be oriented or screened to reduce visibility from public roads and publicly accessible locations within the West Campus Upper Plateau Specific Plan. Screening may be accomplished with solid walls or fences that are compatible with the architectural expression of the building. Screening may also be accomplished by landscaping <u>that complies with Riverside County ALUC guidance, “Landscaping near Airports.”</u></p>
<p>4.4.3 Ground or Wall-Mounted Equipment</p>	<p>Item 4.4.3a should be amended as follows:</p> <p>a. Ground-mounted equipment, including but not limited to mechanical or electrical equipment, emergency generators, boilers, storage tanks, risers, and electrical conduits, should be screened from public viewing areas including adjacent public roads. Screening may be accomplished with solid walls, or landscaping <u>that complies with Riverside County ALUC guidance, “Landscaping near Airports.”</u></p>
<p>4.4.5 Trash Enclosures</p>	<p>Birds and mammals are attracted to trash storage containers that include organic waste or to seek refuge. Item 4.4.5b should be modified and amended as follows:</p> <p>b. All outdoor trash enclosures shall be constructed with solid roofs to prevent exposure of dumpster contents to rainfall and prevent polluted stormwater runoff from entering these structures. <u>Such enclosures must accommodate covered dumpsters and waste receptacles that shall remain closed at all times, and their dimensions must accommodate the opening and closing of the dumpsters and receptacles.</u></p>
<p>4.4.6 Outdoor Lighting</p>	<p>Section 4.4.6 should be amended to include the following:</p> <p>j. <u>Lighting poles and lights fixtures must be equipped with anti-perching devices to discourage wildlife (e.g. bird) use.</u></p>
<p>4.4.7 Signage Guidelines</p>	<p>Item 4.4.6 h should be amended as follows:</p> <p>h. <u>Signs shall be constructed to not have exposed wiring, raceways, ballasts, conduit, transformers, or the like, and shall be equipped with anti-perching devices to discourage wildlife (e.g. bird) use.</u></p>

#### 4.5 Landscape Design Guidelines

Section 4.5, Landscape Design Guidelines, identifies principles and standards that will apply to the Plan Area. The Specific Plan states that “these Guidelines are intended to be flexible, and are subject to modification over time. However, any deviations from these Landscape Guidelines are to be in keeping with the spirit of the core elements of the over theme described herein...”. The guidance also states, “The landscaping plan serves the dual purpose of providing visual appeal while also being sensitive to the environment and climate by using drought tolerant materials.”

Landscaping is identified by the FAA as an important element in managing hazardous wildlife on and near airports, as plant materials can provide food, shelter, roosting and nesting habitat. Although the project is located within the AIA for March ARB, the current Specific Plan landscaping guidance does not address the relationship between landscaping and wildlife hazard management. As previously stated, ALUCP Table MA-2 identifies “hazards to flight” as a prohibited use and identifies wildlife attractants as a “hazard to flight” (note 8).

**Recommendation:** Amend Section 4.5 to identify or describe the following:

- The relationship between landscaping, wildlife attractants, and hazards to flight and the importance of addressing the creation of potential wildlife attractants during landscape design and installation;
- The necessity of preparing landscape plans that will not provide food, shelter, roosting, or nesting habitat for birds or mammals; and
- A requirement that landscaping plans that deviate from the Landscape Design Guidelines must be reviewed by a QAWB prior to approval.

##### 4.5.1 Plant Palette

The second paragraph of Section 4.5.1 states, “A list of plant materials approved for use in the Specific Plan is provided for in Appendix A - Landscape Plant Palette. The plants listed establish a base palette for the landscape design. Other similar plant materials may be substituted for species listed in Appendix A, provided the alternative plants are drought-tolerant and complement the Specific Plan design theme.” The discussion also refers to the ALUC’s “Landscaping Near Airports” brochure and states that “the general planting guidelines shall also be considered.”

**Recommendation:** Amend the language in Section 4.5.1 to require that proposed plant materials that deviate from the Landscape Guidance must be reviewed by a QAWB prior to approval.

Mead & Hunt reviewed the plant palette identified in Appendix A and identified some species that are inappropriate for proposed projects in the AIA. Table 2 identifies species that should be deleted from Appendix A because they provide food sources, habitat, or other features that are attractive to potentially hazardous wildlife.

Table 2. Plant Materials Attractive to Potentially Hazardous wildlife	
Botanical Name	Common Name
<b>Trees</b>	
<i>Arbutus unedo</i>	Strawberry Tree
<i>Arbutus 'Marina'</i>	Marina Strawberry Tree
<i>Callistemon viminalis</i>	Weeping Bottlebrush
<i>Chilopsis linearis 'Burgundy Lace'</i>	Burgundy Lace Desert Willow
<i>Chitalpa tashkentensis</i>	Chitalpa
<i>Cinnamonum camphora</i>	Camphor Tree
<i>Eriobotrya japonica</i>	Loquat
<i>Eriobotrya deflexa</i>	Bronze Loquat
<i>Juglans californica</i>	California Walnut
<i>Juglans hindsii</i>	California Black Walnut
<i>Laurus nobilis 'Saratoga'</i>	Saratoga Laurel
<i>Pistacia chinensis</i>	Chinese Pistache
<i>Prosopis chilensis</i>	Thornless Chilean Mesquite
<i>Pyrus calleryana 'Aristocrat'</i>	Aristocrat Pear
<i>Tabebuia impetiginosa</i>	Pink Trumpet Tree
<i>Tecoma stans</i>	Yellow Bells
<i>Quercus spp.</i>	Oak
<b>Shrubs</b>	
<i>Anigozanthos</i>	Kangaroo Paw
<i>Anisacanthus quadrafidus var. Wrightii</i>	Flame Acanthus
<i>Callistemon viminalis 'Little John'</i>	Little John Callistemon
<i>Dianella revoluta 'Little Rev'</i>	Little Rev Flax Lily
<i>Dianella tasmanica</i>	Variegated Flax Lily
<i>Dodonaea viscosa 'Purpurea'</i>	Purple Hopseed
<i>Elaeagnus pungens</i>	Silverthorn
<i>Leucophyllum frutescens + cvs</i>	Texas Ranger
<i>Leymus condensatus 'Canyon Prince'</i>	Canyon Prince Wild Rye
<i>Olea europea 'Little Ollie'</i>	Dwarf Olive
<i>Phlomis fruticosa</i>	Jerusalem Sage
<i>Rhaphiolepis spp.</i>	Indian Hawthorn
<i>Stachys byzantine</i>	Lamb's Ear
<i>Trichostema lanatum</i>	Woolly Blue Curls
<i>Elymus triticoides</i>	Creeping Wild Rye

**Recommendation:** Remove plant species identified in **Table 2** from the Specific Plan plant palette in Appendix A.

#### 4.5.3 Streetscapes

Several of the streetscape figures presented in section 4.5.3 include plant materials that were identified for deletion are noted **Table 2**. Such figures include, but are not limited to, Figure 4-4 (Creeping Wild Rye), Figure 4.5 (Creeping Wild Rye), Figure 4-6 (Saratoga Laurel and Dwarf Olive), 4-7 (Creeping Wild Rye).

**Recommendation:** Review and revise these figures to eliminate the species identified in **Table 2**.

#### 4.5.4 Entries and Monuments

Figure 4-8 identifies typical Corner Plantings.

**Recommendation:** Revise the figure to eliminate Holly Oak.

#### 4.5.5 Open Space Areas

The Specific Plan states, “With exception to passive use activity proposed within the open space area west of Barton Street, the open space areas are primarily intended to maintain landscaping and an overall aesthetic consistent with the current undeveloped environment.”

**Recommendation:** This paragraph should be amended to indicate that the landscaping should be “maintained with an aesthetic consistent with the current undeveloped environment while considering aviation safety in accordance with the Landscape Design Guidance, the Riverside County ALUCP, and ALUC guidance “Landscaping Near Airports.””

### Chapter 6: Infrastructure and Grading

#### 6.5 Storm Water Management

The Specific Plan provides stormwater management facilities in accordance with FAA guidance and Riverside County ALUC guidance regarding stormwater management and detention times, and no new stormwater management ponds are proposed.

The first paragraph of this section states, “stormwater in the northeastern portion of the Project area will be detained and flow to a detention basin on Alessandro Boulevard via an open channel. Storm water in other parts of the Specific Plan Area will be detained and flow through a storm drain system and ultimately discharged to existing native flow lines.” The section concludes, “The storm drain system would ultimately connect with various open native channels and carry stormwater off the Specific Plan Area....”

If the connections to these open channels and native areas require modification to accommodate site-related runoff, such modification must consider their potential to attract potentially hazardous wildlife to March ARB.

**Recommendation:** Amend the paragraph to include the following text: In the event that open channels or native flow lines require modification tin include additional project-related drainage, the modifications must be designed so that they do not include habitat enhancements to support potentially hazardous wildlife through the incorporation of vegetation that provides food, shelter, or nesting habitat for wildlife.

## 6.7 Solid Waste

**Recommendation:** Amend the solid waste discussion to include the following text: Solid waste that is stored on site for recycling and disposal must be contained in covered receptacles that remain closed at all times.

### 6.8.1 Grading and Development

Section 6.8.1 includes several bullet items to describe grading plan development standards.

**Recommendation:** Amend the seventh bullet item as follows:

- Potential brow [sic] ditches, terrace drains, or other minor swales, determined necessary at future stages of project review, shall be concealed, as feasible and possible, with landscape plantings, earth berms and similar features. Seed mixes used for soil stabilizations shall be reviewed by a QAWB and revised as necessary to exclude the use of grains or other constituents that may attract potentially hazardous wildlife.

## Chapter 8: Consistency with the General Plan

Chapter 8 states, “The West Campus Upper Plateau Specific Plan is based upon the goals and policies set forth in the March JPA General Plan and presents those General Plan elements and policies. Relevant policies associated with aircraft operations at the March ARB include the following:

- **Land Use Goal 6** refers specifically to “the continued Military Mission of March ARB, and preservation of the airfield from incompatible land use encroachment.” The Specific Plan evaluation concludes that, “The industrial, mixed use, and recreation activities consistent with other existing uses within the March JPA boundary. These uses will support the Military Mission of the March ARB.”

While it is true that the proposed land uses associated with the Upper Plateau development are consistent with the March JPA General Plan, it is also true that more than half of the acreage in the Plan Area will be used for habitat conservation in response to the Settlement Agreement, which will result in the in the establishment of a permanent conservation easement.

- **Safety/Risk Management Goal 7** identifies the need to “Reduce the possible risk of upset, injury and loss of life, property damage, and other impacts associated with an aviation facility.” The Specific Plan contends that it is consistent with this goal as it was designed to incorporate appropriate uses in development-limited areas in accordance with the 1998 AICUZ study and the ALUCP.

The proposed project is consistent with many policies associated with aviation guidance related to safety and hazardous wildlife management, but several inconsistencies were identified. Moreover, the majority of the Plan Area will be used for Open Space - Conservation in accordance with the 2012 Settlement Agreement for the purpose of habitat conservation, and a permanent conservation easement will be placed on the property.

The proposed Open Space - Conservation Area will require the development of passive trails and periodic maintenance. Such activities will be undertaken in accordance with the Specific Plan. However, a permanent conservation easement may be inconsistent with ongoing aircraft operations unless specific provisions are included to address the presence of hazardous wildlife attractants that may require modification to support the ongoing Military Mission at March ARB, as stated in the March JPA General Plan. At this time, specific plans/designs for the Open Space - Conservation Area are not available.

FAA AC 150/5200-33C identifies conservation areas and wildlife management areas as having the potential to attract hazardous wildlife. The implementation of habitat enhancements and the establishment of a permanent conservation easement may attract hazardous wildlife to the aircraft operations area and the AIA for March ARB. The AC states that a QAWB should evaluate proposed mitigation projects before the mitigation is implemented, and "Regardless of the source of the attraction, when hazardous wildlife is noted on a public-use airport, the airport operator should take prompt remedial action(s) to protect aviation safety."

**Recommendations:** The following items should be incorporated into the Specific Plan to promote ongoing safety of aircraft operations at March ARB:

- Design plans for the development of the proposed Open Space - Conservation Area shall be reviewed by a QAWB for their consistency with the 2018 AICUZ, ALUCP, FAA guidance, and the current BASH Plan for March ARB. Inconsistent items should be revised to address the safety of ongoing aircraft operations.
- A proposed permanent conservation easement shall be reviewed by an Aviation Planner and QAWB to identify potential conflicts for ongoing aircraft operations and the Military Mission at March ARB. If potential conflicts are identified, safety concerns shall prevail.
- In the event that the conditions within the Plan Area, including areas within conservation easements, are identified as attracting potentially hazardous wildlife or increasing wildlife risks to aircraft operations, the land use, easement, and conservation practices shall be modified to remove the hazard. In the event that the remedial action conflicts with the conservation goals, safety concerns shall prevail.

## CEQA CONSIDERATIONS

The General Plan Amendment/Specific Plan will be subject to environmental review in accordance with the California Environmental Quality Act (CEQA). As part of that CEQA analysis, an applicant must consider whether a proposed project would, “Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect” (CEQA Guidelines, Appendix G). The proposed Upper Plateau Specific Plan is located within the Airport Influence Area (AIA) identified in the adopted 2014 March ARB/Inland Port ALUCP; therefore, the proposed project is subject to review by the Riverside County ALUC to determine its consistency with the adopted ALUCP, including policies associated with wildlife attractants and hazards to flight. A determination of inconsistency by the ALUC would be considered a significant impact pursuant to CEQA. The incorporation of the recommended modifications identified in this review would make the Specific Plan consistent with agency guidance, the 2018 AICUZ, and the Riverside County ALUCP with regard to potentially hazardous wildlife.

## LIMITATIONS ON THIS REVIEW

At the time of this review, neither a Biological Resources Report nor a draft CEQA document were available to provide more detailed input regarding current site conditions. Additional review pertaining to wildlife hazard management and aviation safety must be addressed as part of the EIR analysis.

Thank you for this opportunity to review the West Campus Upper Plateau Specific Plan. Should you have any questions, please reach out to me ([Rick.Jones@meadhunt.com](mailto:Rick.Jones@meadhunt.com)) or Lisa Harmon ([lisa.harmon@meadhunt.com](mailto:lisa.harmon@meadhunt.com)) by email or contact Lisa by telephone (916-993-4650).

Sincerely,  
MEAD & HUNT INC.



Rick Jones  
FAA-Qualified Airport Wildlife Biologist

### Attachments:

Figure 1 – Project Location

Figure 2 – Airport Land Use Compatibility Zones within the Plan Area

Figure 3 – AICUZ for March ARB

Figure 4 – Table MA-2, Basic Compatibility Criteria for the March Air Reserve Base/Inland Port Airport



FIGURE 1 – PROJECT LOCATION

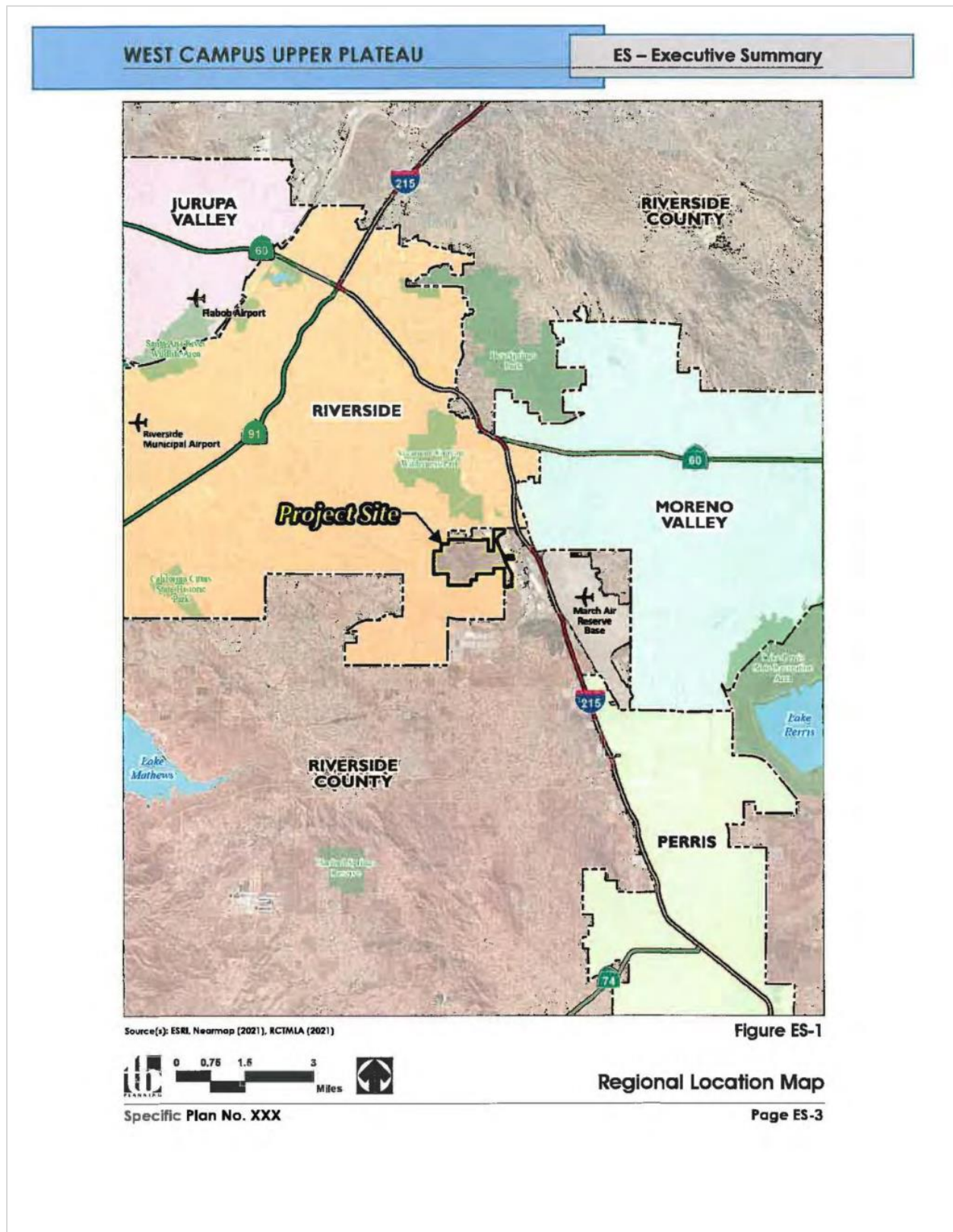




FIGURE 2 – AIRPORT LAND USE COMPATIBILITY ZONES WITHIN THE PLAN AREA

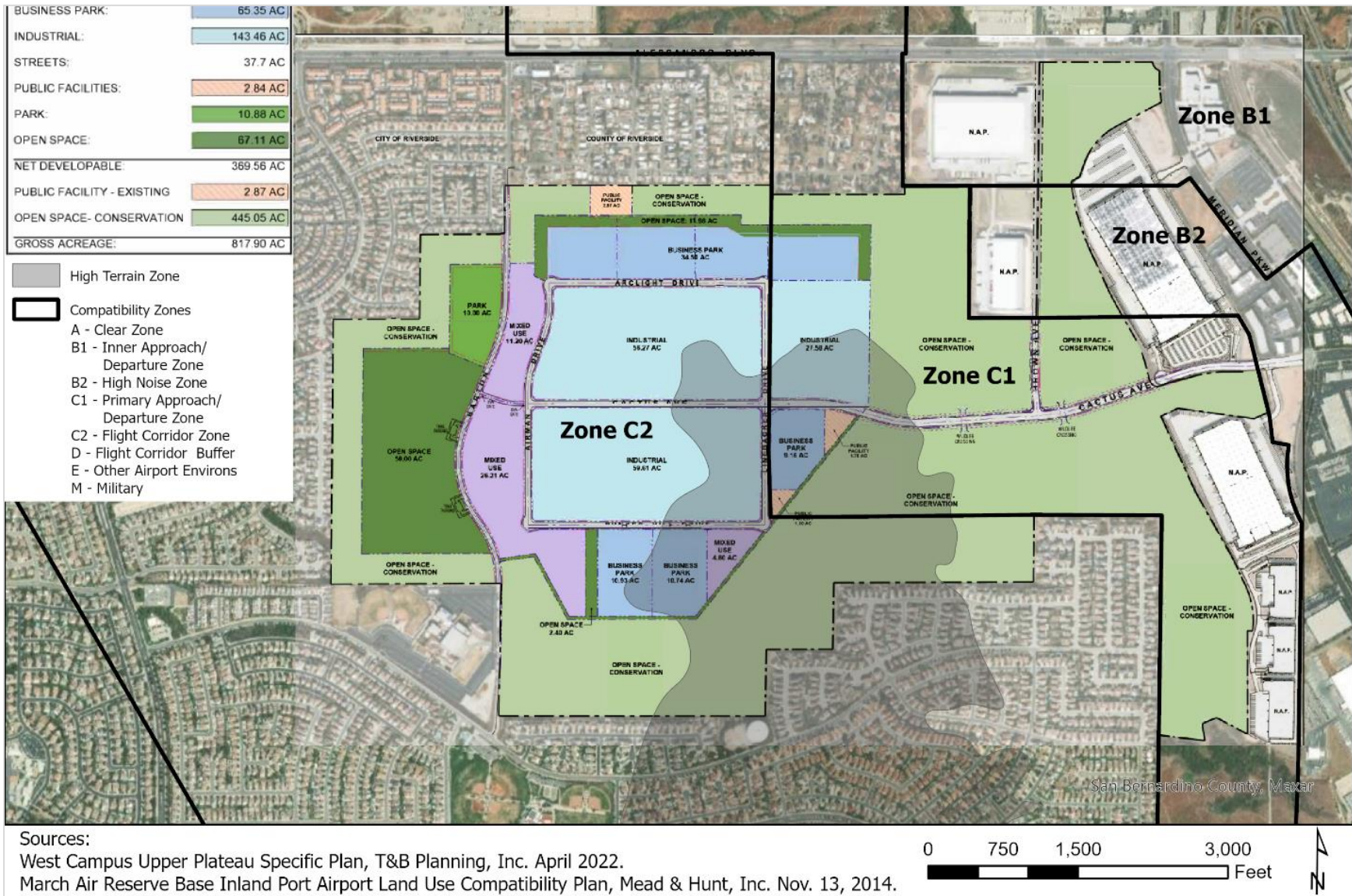




FIGURE 3 – AICUZ FOR MARCH ARB

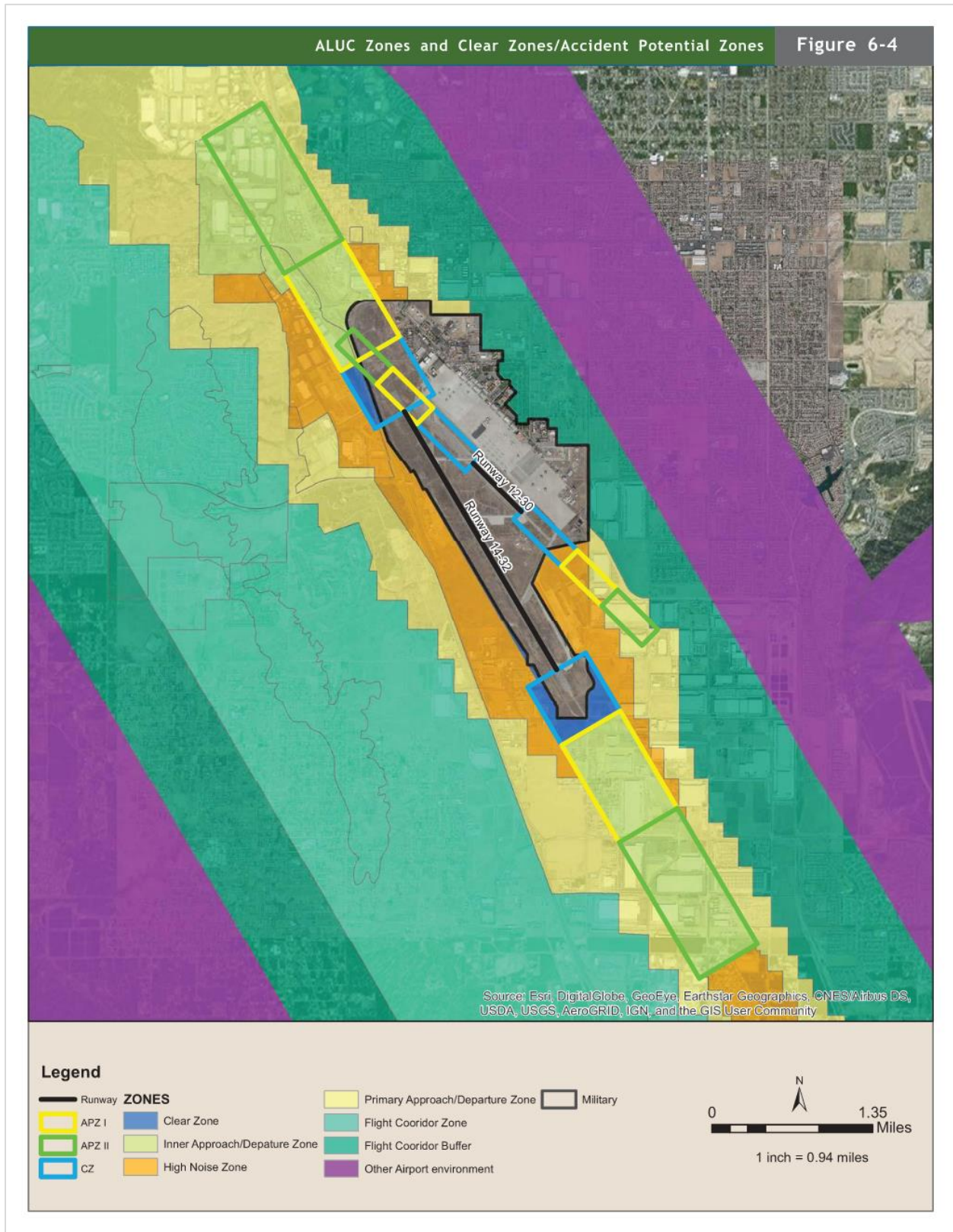




FIGURE 4 – TABLE MA-2, BASIC COMPATIBILITY CRITERIA FOR THE MARCH AIR RESERVE BASE/INLAND PORT AIRPORT

INDIVIDUAL AIRPORT POLICIES AND COMPATIBILITY MAPS **CHAPTER 3**

Zone	Locations	Density / Intensity Standards			Req'd Open Land	Additional Criteria	
		Residential (d.u./ac) <sup>1</sup>	Average <sup>5</sup>	Other Uses (people/ac) <sup>2</sup> Single Acre <sup>6</sup>		Prohibited Uses <sup>3</sup>	Other Development Conditions <sup>4</sup>
<b>M</b>	Military					<ul style="list-style-type: none"> <li>› No ALUC authority</li> </ul>	
<b>A</b>	Clear Zone <sup>7</sup>	No new dwellings allowed	0	0	All Remaining	<ul style="list-style-type: none"> <li>› All non-aeronautical structures</li> <li>› Assemblages of people</li> <li>› Objects exceeding FAR Part 77 height limits</li> <li>› All storage of hazardous materials</li> <li>› Hazards to flight <sup>8</sup></li> </ul>	<ul style="list-style-type: none"> <li>› Electromagnetic radiation notification <sup>9</sup></li> <li>› Avigation easement dedication and disclosure <sup>4,7</sup></li> </ul>
<b>B1</b>	Inner Approach/Departure Zone	No new dwellings allowed <sup>10</sup>	25 (APZ I)	100 (APZ II and outside APZs) <sup>11</sup>	Max. 50% lot coverage within APZs <sup>12</sup>	<ul style="list-style-type: none"> <li>› Children's schools, day care centers, libraries</li> <li>› Hospitals, congregate care facilities, hotels/motels, restaurants, places of assembly</li> <li>› Bldgs with &gt;1 aboveground habitable floor in APZ I or &gt;2 floors in APZ II and outside of APZs <sup>13</sup></li> <li>› Hazardous materials manufacture/storage <sup>14</sup></li> <li>› Noise sensitive outdoor nonresidential uses <sup>15</sup></li> <li>› Critical community infrastructure facilities <sup>16</sup></li> <li>› Hazards to flight <sup>8</sup></li> <li>› Uses listed in AICUZ as not compatible in APZ I or APZ II <sup>17</sup></li> </ul>	<ul style="list-style-type: none"> <li>› Locate structures maximum distance from extended runway centerline</li> <li>› Sound attenuation as necessary to meet interior noise level criteria <sup>18</sup></li> <li>› Zoned fire sprinkler systems required</li> <li>› Airspace review req'd for objects &gt;35 ft. tall <sup>19</sup></li> <li>› Electromagnetic radiation notification <sup>9</sup></li> <li>› Avigation easement dedication and disclosure <sup>4</sup></li> </ul>
<b>B2</b>	High Noise Zone	No new dwellings allowed <sup>10</sup>	100	250	No Req't	<ul style="list-style-type: none"> <li>› Children's schools, day care centers, libraries</li> <li>› Hospitals, congregate care facilities, hotels/motels, places of assembly</li> <li>› Bldgs with &gt;3 aboveground habitable floors</li> <li>› Noise-sensitive outdoor nonresidential uses <sup>15</sup></li> <li>› Critical community infrastructure facilities <sup>16</sup></li> <li>› Hazards to flight <sup>8</sup></li> </ul>	<ul style="list-style-type: none"> <li>› Locate structures max. distance from runway</li> <li>› Sound attenuation as necessary to meet interior noise level criteria <sup>18</sup></li> <li>› Aboveground bulk storage of hazardous materials discouraged <sup>14,20</sup></li> <li>› Airspace review req'd for objects &gt;35 ft. tall <sup>19</sup></li> <li>› Electromagnetic radiation notification <sup>9</sup></li> <li>› Avigation easement dedication and disclosure <sup>4</sup></li> </ul>
<b>C1</b>	Primary Approach/Departure Zone	≤3.0	100	250	No Req't	<ul style="list-style-type: none"> <li>› Children's schools, day care centers, libraries</li> <li>› Hospitals, congregate care facilities, places of assembly</li> <li>› Noise-sensitive outdoor nonresidential uses <sup>15</sup></li> <li>› Hazards to flight <sup>8</sup></li> </ul>	<ul style="list-style-type: none"> <li>› Critical community infrastructure facilities discouraged <sup>16,20</sup></li> <li>› Aboveground bulk storage of hazardous materials discouraged <sup>14,20</sup></li> <li>› Sound attenuation as necessary to meet interior noise level criteria <sup>18</sup></li> <li>› Airspace review req'd for objects &gt;70 ft. tall <sup>19</sup></li> <li>› Electromagnetic radiation notification <sup>9</sup></li> <li>› Deed notice and disclosure <sup>4</sup></li> </ul>
<b>C2</b>	Flight Corridor Zone	≤ 6.0	200	500	No Req't	<ul style="list-style-type: none"> <li>› Highly noise-sensitive outdoor nonresidential uses <sup>15</sup></li> <li>› Hazards to flight <sup>8</sup></li> </ul>	<ul style="list-style-type: none"> <li>› Children's schools discouraged <sup>20</sup></li> <li>› Airspace review req'd for objects &gt;70 ft. tall <sup>19</sup></li> <li>› Electromagnetic radiation notification <sup>9</sup></li> <li>› Deed notice and disclosure <sup>4</sup></li> </ul>
<b>D</b>	Flight Corridor Buffer	No Limit	No restriction <sup>21</sup>	No Req't	No Req't	<ul style="list-style-type: none"> <li>› Hazards to flight <sup>8</sup></li> </ul>	<ul style="list-style-type: none"> <li>› Major spectator-oriented sports stadium, amphitheaters, concert halls discouraged <sup>21</sup></li> <li>› Electromagnetic radiation notification <sup>9</sup></li> <li>› Deed notice and disclosure <sup>4</sup></li> </ul>
<b>E</b>	Other Airport Environs	No Limit	No Restriction <sup>21</sup>	No Req't	No Req't	<ul style="list-style-type: none"> <li>› Hazards to flight <sup>8</sup></li> </ul>	<ul style="list-style-type: none"> <li>› Disclosure only <sup>4</sup></li> </ul>
<b>*</b>	High Terrain	Same as Underlying Compatibility Zone			Not Applicable	<ul style="list-style-type: none"> <li>› Hazards to flight <sup>8</sup></li> <li>› Other uses restricted in accordance with criteria for underlying zone</li> </ul>	<ul style="list-style-type: none"> <li>› Airspace review req'd for objects &gt;35 ft. tall <sup>19</sup></li> <li>› Avigation easement dedication and disclosure <sup>4</sup></li> </ul>

Table MA-2

**Basic Compatibility Criteria**  
March Air Reserve Base / Inland Port Airport

FIGURE 4 (CONTINUED)

**CHAPTER 3** INDIVIDUAL AIRPORT POLICIES AND COMPATIBILITY MAPS

**NOTES:**

Policies referenced here are from the *Riverside County Airport Land Use Compatibility Plan* adopted by the Riverside County ALUC for other airports beginning in October 2004. The countywide policies are hereby incorporated into the *March ARB/IPA ALUCP* except as modified or supplemented by the policies in Section MA.2 of this chapter. A complete copy of the *Riverside County Airport Land Use Compatibility Plan* is available on the Riverside County Airport Land Use Commission website at [www.rcaluc.org](http://www.rcaluc.org).

- <sup>1</sup> Residential development must not contain more than the indicated number of dwelling units (excluding secondary units) per gross acre. Clustering of units is encouraged provided that the density is limited to no more than 4.0 times the allowable average density for the zone in which the development is proposed. Gross acreage includes the property at issue plus a share of adjacent roads and any adjacent, permanently dedicated, open lands. Mixed-use development in which residential uses are proposed to be located in conjunction with nonresidential uses in the same or adjoining buildings on the same site shall be treated as nonresidential development for the purposes of usage intensity calculations; that is, the occupants of the residential component must be included in calculating the overall number of occupants on the site. A residential component shall not be permitted as part of a mixed use development in zones where residential uses are indicated as incompatible. See Countywide Policy 3.1.3(d). All existing residential development, regardless of densities, is not subject to ALUC authority.
- <sup>2</sup> Usage intensity calculations shall include all people (e.g., employees, customers/visitors, etc.) who may be on the property at a single point in time, whether indoors or outside.
- <sup>3</sup> The uses listed here are ones that are explicitly prohibited regardless of whether they meet the intensity criteria. In addition to these explicitly prohibited uses, other uses will normally not be permitted in the respective compatibility zones because they do not meet the usage intensity criteria. See *Riverside County Airport Land Use Compatibility Plan*, Volume 1, Appendix D for a full list of compatibility designations for specific land uses.
- <sup>4</sup> As part of certain real estate transactions involving residential property within any compatibility zone (that is, anywhere within an airport influence area), information regarding airport proximity and the existence of aircraft overflights must be disclosed. This requirement is set by state law. See Countywide Policy 4.4.2 for details. Easement dedication and deed notice requirements indicated for specific compatibility zones apply only to new development and to reuse if discretionary approval is required. Except within Zone A (Clear Zone), aviation easements are to be dedicated to the March Inland Port Airport Authority. See sample language in [www.marchipa.com/docs\\_forms/avigationeasement.pdf](http://www.marchipa.com/docs_forms/avigationeasement.pdf). Any aviation easements required within Zone A shall be dedicated to the United States of America.
- <sup>5</sup> The total number of people permitted on a project site at any time, except rare special events, must not exceed the indicated usage intensity times the gross acreage of the site. Rare special events are ones (such as an air show at the airport) for which a facility is not designed and normally not used and for which extra safety precautions can be taken as appropriate.
- <sup>6</sup> Clustering of nonresidential development is permitted. However, no single acre of a project site shall exceed the indicated number of people per acre. See Countywide Policy 4.2.5 for details.
- <sup>7</sup> Clear zone (equivalent to runway protection zone at civilian airports) limits that delineate Zone A are derived from locations indicated in the March Air Reserve Base AICUZ study. See Note 4 for aviation easement dedication requirements in this zone.
- <sup>8</sup> Hazards to flight include physical (e.g., tall objects), visual, and electronic forms of interference with the safety of aircraft operations. Land use development that may cause the attraction of birds to increase is also prohibited. Man-made features must be designed to avoid heightened attraction of birds. In Zones A, B1, and B2, flood control facilities should be designed to hold water for no more than 48 hours following a storm and be completely dry between storms (see FAA Advisory Circular 150/5200-33B). Additionally, certain farm crops and farming practices that tend to attract birds are strongly discouraged. These include: certain crops (e.g., rice, barley, oats, wheat – particularly durum – corn, sunflower, clover, berries, cherries, grapes, and apples); farming activities (e.g., tilling and harvesting); confined livestock operations (i.e., feedlots, dairy operations, hog or chicken production facilities, or egg-laying operations); and various farming practices (e.g., livestock feed, water, and manure). Fish production (i.e., catfish, trout) conducted outside of fully enclosed buildings may require mitigation measures (e.g., netting of outdoor ponds, providing covered structures) to prevent bird attraction. Also see Countywide Policy 4.3.7.
- <sup>9</sup> March ARB must be notified of any land use having an electromagnetic radiation component to assess whether a potential conflict with Air Base radio communications could result. Sources of electromagnetic radiation include microwave transmission in conjunction with a cellular tower, radio wave transmission in conjunction with remote equipment inclusive of irrigation controllers and other similar EMR emissions.
- <sup>10</sup> Other than in Zone A, construction of a single-family home, including a second unit as defined by state law, on a legal lot of record is exempted from this restriction where such use is permitted by local land use regulations. Interior noise level standards and aviation easement requirements for the compatibility zone in which the dwelling is to be located are to be applied.
- <sup>11</sup> Non-residential uses are limited to 25 people per gross acre in Accident Potential Zone (APZ) I and 50 people per acre in APZ II and elsewhere in Zone B1. Single-acre intensity limits are 100 people/acre throughout Zone B1.
- <sup>12</sup> In APZ I, any proposed development having more than 20% lot coverage must not provide on-site services to the public. Zoned fire sprinklers are required. Also, in APZ I, site design of proposed development should to the extent possible avoid placement of buildings within 100 feet of the ex-

**Table MA-2, continued**



FIGURE 4 (CONTINUED)

tended runway centerline; this center strip should be devoted to parking, landscaping, and outdoor storage. Maximum lot coverage is not limited outside the APZs.

- <sup>13</sup> Within APZ II and outside APZs, two-story buildings are allowed.
- <sup>14</sup> Storage of aviation fuel and other aviation-related flammable materials on the airport is exempted from this criterion. In APZ I, manufacture or bulk storage of hazardous materials (toxic, explosive, corrosive) is prohibited unless storage is underground; small quantities of materials may be stored for use on site. In APZ II and elsewhere within Zone B1, aboveground storage of more than 6,000 gallons of nonaviation flammable materials per tank is prohibited. In Zones B2 and C1, aboveground storage of more than 6,000 gallons of hazardous or flammable materials per tank is discouraged.
- <sup>15</sup> Examples of noise-sensitive outdoor nonresidential uses that should be prohibited include major spectator-oriented sports stadiums, amphitheatres, concert halls and drive-in theaters. Caution should be exercised with respect to uses such as poultry farms and nature preserves.
- <sup>16</sup> Critical community facilities include power plants, electrical substations, and public communications facilities. See Countywide Policy 4.2.3(d).
- <sup>17</sup> For properties in either APZ I or II, any use listed as "N – not compatible" for that particular APZ in Table 3-1 of the 2005 *Air Installation Compatible Use Zone Study for March Air Reserve Base*. Beyond the boundaries of the APZs in Zone B1, such uses are discouraged, but not necessarily prohibited unless otherwise specified herein.
- <sup>18</sup> All new residences, schools, libraries, museums, hotels and motels, hospitals and nursing homes, places of worship, and other noise-sensitive uses must have sound attenuation features incorporated into the structures sufficient to reduce interior noise levels from exterior aviation-related sources to no more than CNEL 40 dB. This requirement is intended to reduce the disruptiveness of loud individual aircraft noise events upon uses in this zone and represents a higher standard than the CNEL 45 dB standard set by state and local regulations and countywide ALLUC policy. Office space must have sound attenuation features sufficient to reduce the exterior aviation-related noise level to no more than CNEL 45 dB. To ensure compliance with these criteria, an acoustical study shall be required to be completed for any development proposed to be situated where the aviation-related noise exposure is more than 20 dB above the interior standard (e.g., within the CNEL 60 dB contour where the interior standard is CNEL 40 dB). Standard building construction is presumed to provide adequate sound attenuation where the difference between the exterior noise exposure and the interior standard is 20 dB or less.
- <sup>19</sup> This height criterion is for general guidance. Airspace review requirements are determined on a site-specific basis in accordance with Part 77 of the Federal Aviation Regulations. Shorter objects normally will not be airspace obstructions unless situated at a ground elevation well above that of the airport. Taller objects may be acceptable if determined not to be obstructions. The Federal Aviation Administration or California Department of Transportation Division of Aeronautics may require marking and/or lighting of certain objects. See Countywide Policies 4.3.4 and 4.3.6 for additional information.
- <sup>20</sup> Discouraged uses should generally not be permitted unless no feasible alternative is available.
- <sup>21</sup> Although no explicit upper limit on usage intensity is defined for *Zone D and E*, land uses of the types listed—uses that attract very high concentrations of people in confined areas—are discouraged in locations below or near the principal arrival and departure flight tracks.

Table MA-2, continued

