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## Background Data: March Air Reserve Base / Inland Port Airport and Environs

### INTRODUCTION

March Air Reserve Base/Inland Port Airport is located in northwestern Riverside County, approximately 70 miles east of Los Angeles. For most of the second half of the twentieth century, the base was known as March Air Force Base. The current March Air Reserve Base (ARB) name became official in 1996 as a result of recommendations of the 1993 Defense Base Realignment and Closure Commission (BRAC). Although the role of March ARB has evolved over time, the runway system and other basic aeronautical components of the base have existed in largely their present configuration since the World War II era. The airport's primary runway (Runway 14-32)—oriented north-northwest/south-southeast—is 13,300 feet in length, making it one of the longest in the state. The length, width, and pavement strength of Runway 14-32 enable it to accommodate nearly any type of military or civilian aircraft. The smaller secondary runway—Runway 12-30—was once the primary runway, but its length is now reduced to just over 3,000 feet and its use restricted to light military aircraft (helicopters and Aero Club airplanes). Civilian use of Runway 12-30 is not permitted. Exhibit MA-1 summarizes major airport features and Exhibit MA-2 depicts the overall layout of the airport.

Compared to the years when March operated as an Air Force Base, aircraft activity levels are substantially lower. Activity counts maintained by the Air Force air traffic control tower personnel at the base indicate a total of 34,230 aircraft operations took place during calendar year 2006, compared to approximately 125,000 during the peak years as an Air Force Base. Newer data for military aircraft operations is not available. As of calendar year 2012, fewer than 100 annual operations by civilian aircraft have occurred since discontinuation of commercial air cargo aircraft activity.

Two scenarios for future aircraft operations are taken into account in the *March Air Reserve Base / Inland Port Airport Land Use Compatibility Plan*. The first scenario is as documented in the 2005 *AICUZ Study [Air Installation Compatible Use Zone Study for March Air Reserve Base (AICUZ)]* (Department of the Air Force, August 2005)]. The AICUZ projects a total of up to 69,600 aircraft operations, including 44,860 by military aircraft, 3,740 by CalFire aircraft, and 21,000 by civilian aircraft. The second scenario is a composite of data from three more recent studies: the F-15 conversion study [*F-15 Aircraft Conversion Environmental Impact Statement 144th Fighter Wing California Air National Guard Fresno-Yosemite International Airport* (National Guard Bureau, March 2013)]; the Total Force Integration study [*Environmental Assessment for Proposed Military Construction and Total Force Integration at March Air Reserve Base* (Air Force Reserve Command, June 2010)]; and a study of general aviation facility needs done for the March Joint Powers

Authority [*Environmental Impact Report for March Inland Port General Aviation Facilities Development* (March Joint Powers Authority, August 2012)]. This scenario assumes a potential future mission of 54,104 annual military aircraft operations plus 21,000 civilian aircraft operations and no CalFire operations. Note that while both scenarios show civilian activity as limited to 21,000 annual aircraft operations in accordance with the joint use agreement and associated air quality conformance determination, the AICUZ scenario includes a much higher volume of evening and night air cargo activity than is included in the second scenario.

A summary of available data on current and both potential future activity scenarios is contained in Exhibit MA-3. Noise contours for the combined future military and civilian activity are depicted in Exhibit MA-4. The contours reflect a composite of the contours originally prepared as part of the four studies noted above. The noise contours and other compatibility factors contributing to the compatibility map delineation are depicted in Exhibit MA-5.

The March ARB/IPA facility is bordered by the City of Riverside to the northwest; the City of Moreno Valley to the northeast; the City of Perris to the south; and the County of Riverside to the west. The land uses in the vicinity of March ARB/IPA are generally compatible with base operations. Development continues to occur in the airport vicinity, however, and a potential for increased conflicts is apparent. Exhibit MA-6 provides a tabular summary of information about current and planned land uses in the airport vicinity. Exhibits MA-7A through MA-7F individually map the land use designations indicated in the current adopted general plans of each of the surrounding jurisdictions: Riverside County, March Joint Powers Authority, and the cities of Menifee, Moreno Valley, Perris, and Riverside.

**GENERAL INFORMATION**

- ▶ *Airport Ownership:* United States Air Force
  - › Airfield maintenance and usage shared with March Joint Powers Authority (JPA) by means of joint use agreement last amended June 2008
- ▶ *Year Opened:* 1918
- ▶ *Airport Property Size*
  - › Air Force property: 2,300 acres
  - › JPA property: 360 acres
- ▶ *Airport Classification:* Joint Use
- ▶ *Airport Elevation:* 1,538 feet MSL

**AIRPORT PLANNING DOCUMENTS**

- ▶ *Joint Use Agreement*
  - › Between March JPA and U.S. Air Force
  - › Amended June 2008
- ▶ *Air Installation Compatible Use Zone (AICUZ) Study*
  - › Prepared by U.S. Air Force, 2005
  - › Prior versions: 1985, 1992, 1998
- ▶ *March Inland Port Air Cargo Development Plan*
  - › Prepared for March JPA, April 1997

**RUNWAY/TAXIWAY DESIGN****Runway 14-32**

- ▶ *Critical Aircraft:* Military transport
- ▶ *Airport Reference Code:* D-VI
- ▶ *Dimensions:* 13,300 ft. long, 200 ft. wide
- ▶ *Pavement Strength (main landing gear configuration)*
  - › 65,000 lbs (single wheel)
  - › 260,000 lbs (dual wheel)
  - › 530,000 lbs (dual-tandem wheel)
- ▶ *Average Gradient:* 0.35%
- ▶ *Runway Lighting*
  - › High-intensity runway edge lights (HIRL)
  - › Rwy 32: standard 2,400-foot high-intensity approach lighting system with centerline sequenced flashers

**Runway 12-30**

- ▶ *Critical Aircraft:* Small single- and twin-engine piston
- ▶ *Airport Reference Code:* B-I (small)
- ▶ *Dimensions:* 3,010 ft. long, 100 ft. wide
- ▶ *Pavement Strength (main landing gear configuration)*
  - › 12,500 lbs (single wheel)
- ▶ *Average Gradient:* 0.44%
- ▶ *Runway Lighting:* None

**APPROACH PROTECTION**

- ▶ *Runway Clear Zones*
  - › Runways 14 and 32: 3,000-ft. long; mostly on-airport
  - › Runway 12 and 30: 1,000-ft. long; all on-airport
- ▶ *Approach Obstacles:* None

**BUILDING AREA**

- ▶ *Aircraft Parking Locations*
  - › Military: Northeast side of airport
  - › Civilian: Northeast of Runway 32 threshold
- ▶ *Other Major Facilities*
  - › Air Traffic Control Tower
  - › Extensive military facilities including military passenger terminal; aircraft maintenance facilities; alert aprons/hangars; munitions storage
  - › General aviation terminal (5,000 sq. ft.)
  - › Former DHL air cargo facility
- ▶ *Services*
  - › Civilian fuel farm at civilian airport

**TRAFFIC PATTERNS AND APPROACH PROCEDURES**

- ▶ *Airplane Traffic Patterns*
  - › All runways: Left traffic
  - › Pattern altitude:
    - Rectangular 3,000 ft. MSL (1,465 ft. above runway elevation)
    - Overhead 3,500 ft. (1,965 ft. above runway elevation)
- ▶ *Instrument Approach Procedures (best minimums)*
  - › Runway 32 ILS (CAT II):
    - Straight-in (1,600 ft. visibility; 100 ft. descent height)
  - › Runway 32 ILS:
    - Straight-in (½ mi. visibility; 200 ft. descent height)
    - Circling (1 mi. visibility; 600 ft. descent height)
  - › Runway 32 TACAN:
    - Straight-in (½ mi. visibility; 400 ft. descent height)
    - Circling (1 mi. visibility; 600 ft. descent height)
  - › Runway 32 VOR:
    - Straight-in (½ mi. visibility; 400 ft. descent height)
    - Circling (1 mi. visibility; 600 ft. descent height)
  - › Runway 14 TACAN (offset 29° west of straight in):
    - Straight-in (1 mi. visibility; 700 ft. descent height)
    - Circling (1 mi. visibility; 700 ft. descent height)
  - › No circling northeast of runway on any procedure
- ▶ *Standard Instrument Departure Procedures (SKYES-TWO)*
  - › Rwy 14: straight out to 20 NM, then right turn
  - › Rwy 32: left turn to at 2.0± mile beyond runway end south to DIAMD intersection (south of Lake Elsinore)
- ▶ *Visual Approach Aids*
  - › Airport: Rotating beacon
  - › Runways 14 and 32: PAPI
- ▶ *Operational Restrictions / Noise Abatement Procedures*
  - › Prior permission required for all transient civilian aircraft

**PLANNED FACILITY IMPROVEMENTS**

- ▶ *Airfield*
  - › Construct full-length west parallel taxiway for civilian use
- ▶ *Building Area*
  - › Air cargo facilities expansion northeast and northwest of Runway 32 approach end
- ▶ *Property*
  - › No fee acquisition planned

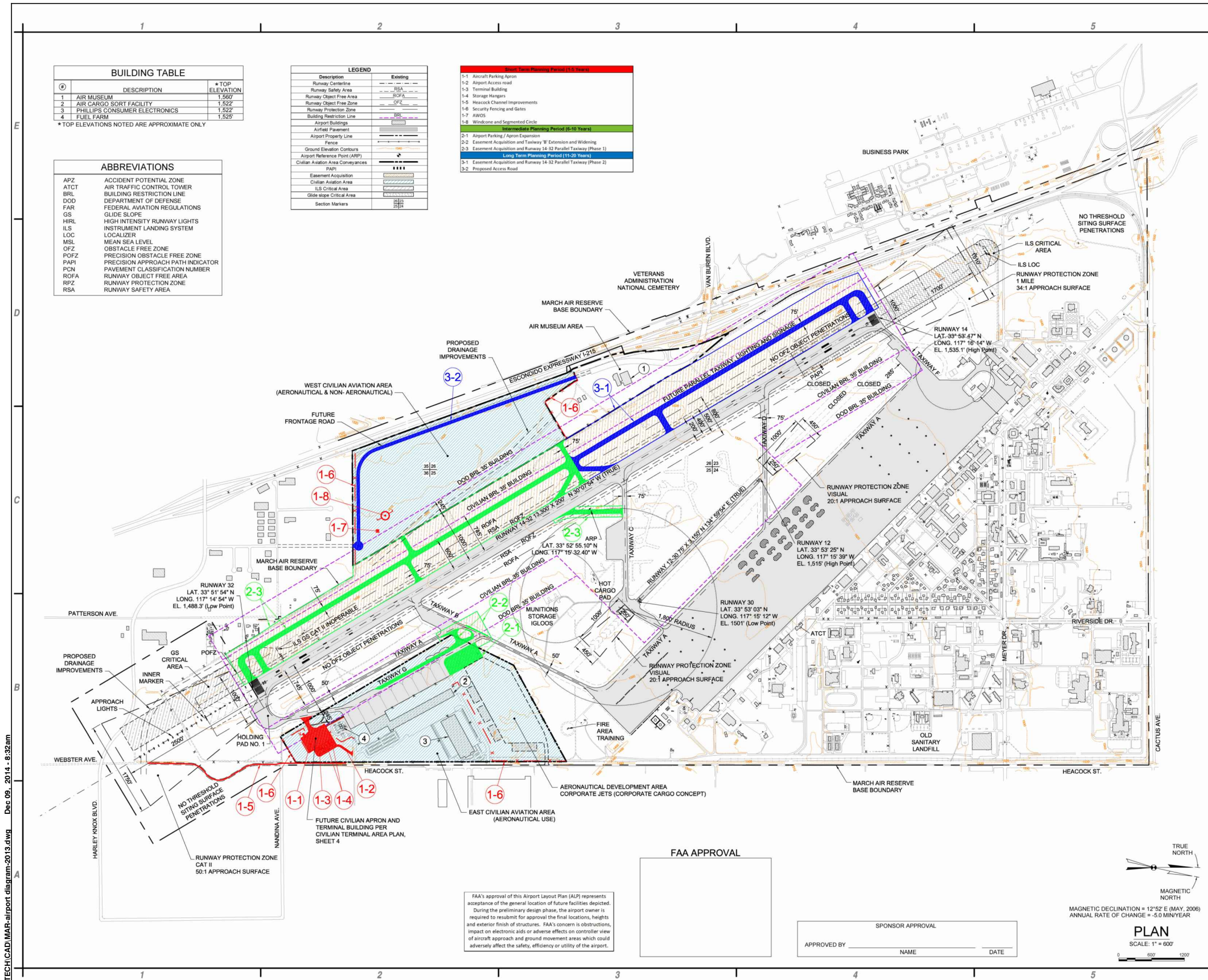
Exhibit MA-1

## Airport Features Summary

### March Air Reserve Base / Inland Port Airport

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BUILDING TABLE		
ID	DESCRIPTION	* TOP ELEVATION
1	AIR MUSEUM	1,560
2	AIR CARGO SORT FACILITY	1,522
3	PHILLIPS CONSUMER ELECTRONICS	1,522
4	FUEL FARM	1,525

\* TOP ELEVATIONS NOTED ARE APPROXIMATE ONLY

ABBREVIATIONS	
APZ	ACCIDENT POTENTIAL ZONE
ATCT	AIR TRAFFIC CONTROL TOWER
BRL	BUILDING RESTRICTION LINE
DOD	DEPARTMENT OF DEFENSE
FAR	FEDERAL AVIATION REGULATIONS
GS	GUIDE SLOPE
HIRL	HIGH INTENSITY RUNWAY LIGHTS
ILS	INSTRUMENT LANDING SYSTEM
LOC	LOCALIZER
MSL	MEAN SEA LEVEL
OFZ	OBSTACLE FREE ZONE
POFZ	PRECISION OBSTACLE FREE ZONE
PAPI	PRECISION APPROACH PATH INDICATOR
PCN	PAVEMENT CLASSIFICATION NUMBER
ROFA	RUNWAY OBJECT FREE AREA
RPZ	RUNWAY PROTECTION ZONE
RSA	RUNWAY SAFETY AREA

LEGEND	
Runway Centerline	Existing
Runway Safety Area	RSA
Runway Object Free Area	ROFA
Runway Object Free Zone	OFZ
Runway Protection Zone	RPZ
Building Restriction Line	BRL
Airport Buildings	Existing
Airfield Pavement	Existing
Airport Property Line	Existing
Fence	Existing
Ground Elevation Contours	Existing
Airport Reference Point (ARP)	Existing
Civilian Aviation Area Conveyances	PAPI
Easement Acquisition	Existing
Civilian Aviation Area	Existing
U.S. Critical Area	Existing
Glide Slope Critical Area	Existing
Section Markers	Existing

Short Term Planning Period (1-5 Years)	
1-1	Aircraft Parking Apron
1-2	Airport Access Road
1-3	Terminal Building
1-4	Storage Hangars
1-5	Heacock Channel Improvements
1-6	Security Fencing and Gates
1-7	AWOS
1-8	Workzone and Segmented Circle

Intermediate Planning Period (6-10 Years)	
2-1	Airport Parking / Apron Expansion
2-2	Easement Acquisition and Taxiway 'B' Extension and Widening
2-3	Easement Acquisition and Runway 14-32 Parallel Taxiway (Phase 1)

Long Term Planning Period (11-20 Years)	
3-1	Easement Acquisition and Runway 14-32 Parallel Taxiway (Phase 2)
3-2	Proposed Access Road

**C&S COMPANIES**  
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**DRAFT AIRPORT LAYOUT PLAN**  
**MARCH INLAND PORT**  
**RIVERSIDE COUNTY, CALIFORNIA**

MARK	DATE	DESCRIPTION

PROJECT NO: H7000001  
 DATE: DECEMBER 2012  
 DRAWN BY: CRF  
 DESIGNED BY: CRF  
 CHECKED BY: CRM

**AIRPORT LAYOUT PLAN**

3 of 9

**Riverside County**  
**Airport Land Use Commission**  
**March Air Reserve Base / Inland Port Airport**  
**Land Use Compatibility Plan**  
 (Adopted November 13, 2014)

Exhibit MA-2

**Airport Diagram**  
**March Air Reserve Base / Inland Port Airport**

Source: C&S Engineers, Inc. (December 2012)

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<b>BASED AIRCRAFT</b>				<b>TIME OF DAY DISTRIBUTION</b>			
	<i>Current</i>	<i>Future</i>	<i>Future</i>		<i>Current</i>	<i>Future<sup>b</sup></i>	<i>Future</i>
<i>Data Not Available</i>				<i>Fighter/Attack Aircraft</i>			
<b>ANNUAL AIRCRAFT OPERATIONS</b>				Day (7:00 a.m. – 7:00 p.m.)	*	92%	91% <sup>d</sup>
	<i>Current</i>	<i>Future<sup>b</sup></i>	<i>Future<sup>c</sup></i>	Evening (7:00 p.m. – 10:00 p.m.)	*	8%	7%
Military	*	44,860	54,104 <sup>d</sup>	Night (10:00 p.m. – 7:00 a.m.)	*	0%	2%
CalFire	0	3,740	0	<i>Other Military Aircraft – Arrivals</i>			
Civilian	66 <sup>a</sup>	21,000	21,000 <sup>c</sup>	Day	*	85%	66% <sup>c</sup>
<i>Total Annual Operations</i>	*	69,600	75,104	Evening	*	12%	17%
<i>Average Per Day</i>	*	191	206	Night	*	3%	17%
<b>OPERATIONS BY AIRCRAFT TYPE</b>				<i>Other Military Aircraft – Departures</i>			
	<i>Current</i>	<i>Future<sup>b</sup></i>	<i>Future<sup>c</sup></i>	Day	*	88%	71% <sup>c</sup>
<i>Military</i>		(69.4%)	(72.0%)	Evening	*	11%	4%
Transport	*	45.5%	37.7%	Night	*	1%	25%
Fighter/Attack	*	5.0%	2.4%	<i>Other Military Aircraft – Closed Pattern</i>			
Helicopter	*	4.7%	8.0%	Day	*	61%	86% <sup>c</sup>
Tanker	*	42.4%	46.2%	Evening	*	18%	9%
Contract Air Carrier	*	2.4%	1.1%	Night	*	21%	5%
Small Prop (Aero Club)	*	* <sup>e</sup>	4.6%	<i>Civilian Aircraft</i>			
<i>Civilian</i>		(30.2%)	(28.0%)	Day	*	37%	90% <sup>c</sup>
Commercial Jet	3% <sup>a</sup>	60.0%	60%	Evening	*	35%	5%
Business Jet	33%	9.2%	6%	Night	*	28%	5%
Prop (single & twin)	61%	30.8%	33%	<b>FLIGHT TRACK USAGE</b>			
Helicopter	3%	0.0%	1%	<i>Data Not Available</i>			
CalFire		(5.4%)	(0%)	<b>NOTES</b>			
<b>TYPE OF OPERATION</b>				<ul style="list-style-type: none"> <li>› Future activity represents combination of projected military mission and maximum approved civilian aircraft operations for undetermined dates</li> <li>* Data not available</li> <li><sup>a</sup> Source: March Inland Port Airport Authority CY 2012 data</li> <li><sup>b</sup> Source: <i>Air Installation Compatible Use Zone Study for March Air Reserve Base (AICUZ)</i> (Department of the Air Force, August 2005)</li> <li><sup>c</sup> Sources: <i>Environmental Assessment for Proposed Military Construction and Total Force Integration at March Air Reserve Base</i> (Air Force Reserve Command, June 2010); <i>Environmental Impact Report for March Inland Port General Aviation Facilities Development</i> (March Joint Powers Authority, August 2012)</li> <li><sup>d</sup> Source: <i>F-15 Aircraft Conversion Environmental Impact Statement 144th Fighter Wing California Air National Guard Fresno-Yosemite International Airport</i> (National Guard Bureau, March 2013)</li> <li><sup>e</sup> Air Force Aero Club operations on the secondary runway are not included in the AICUZ data</li> <li><sup>f</sup> Activity on Runway 12-30 not included; use limited to military Aero Club</li> </ul>			
	<i>Current</i>	<i>Future<sup>b</sup></i>	<i>Future<sup>c</sup></i>	<b>FLIGHT TRACK USAGE</b>			
<i>Military</i>				<i>Data Not Available</i>			
Local	*	43%	21%	<b>NOTES</b>			
Intinerant	*	57%	79%	<ul style="list-style-type: none"> <li>› Future activity represents combination of projected military mission and maximum approved civilian aircraft operations for undetermined dates</li> <li>* Data not available</li> <li><sup>a</sup> Source: March Inland Port Airport Authority CY 2012 data</li> <li><sup>b</sup> Source: <i>Air Installation Compatible Use Zone Study for March Air Reserve Base (AICUZ)</i> (Department of the Air Force, August 2005)</li> <li><sup>c</sup> Sources: <i>Environmental Assessment for Proposed Military Construction and Total Force Integration at March Air Reserve Base</i> (Air Force Reserve Command, June 2010); <i>Environmental Impact Report for March Inland Port General Aviation Facilities Development</i> (March Joint Powers Authority, August 2012)</li> <li><sup>d</sup> Source: <i>F-15 Aircraft Conversion Environmental Impact Statement 144th Fighter Wing California Air National Guard Fresno-Yosemite International Airport</i> (National Guard Bureau, March 2013)</li> <li><sup>e</sup> Air Force Aero Club operations on the secondary runway are not included in the AICUZ data</li> <li><sup>f</sup> Activity on Runway 12-30 not included; use limited to military Aero Club</li> </ul>			
<i>Civilian</i>	<sup>a</sup>			<b>FLIGHT TRACK USAGE</b>			
Local	0%	0%	0%	<i>Data Not Available</i>			
Intinerant	100%	100%	100%	<b>NOTES</b>			
<b>RUNWAY USE DISTRIBUTION<sup>f</sup></b>				<i>Data Not Available</i>			
	<i>Current</i>	<i>Future<sup>b</sup></i>	<i>Future<sup>c</sup></i>	<b>NOTES</b>			
<i>Military Aircraft – Day/Evening/Night</i>				<ul style="list-style-type: none"> <li>› Future activity represents combination of projected military mission and maximum approved civilian aircraft operations for undetermined dates</li> <li>* Data not available</li> <li><sup>a</sup> Source: March Inland Port Airport Authority CY 2012 data</li> <li><sup>b</sup> Source: <i>Air Installation Compatible Use Zone Study for March Air Reserve Base (AICUZ)</i> (Department of the Air Force, August 2005)</li> <li><sup>c</sup> Sources: <i>Environmental Assessment for Proposed Military Construction and Total Force Integration at March Air Reserve Base</i> (Air Force Reserve Command, June 2010); <i>Environmental Impact Report for March Inland Port General Aviation Facilities Development</i> (March Joint Powers Authority, August 2012)</li> <li><sup>d</sup> Source: <i>F-15 Aircraft Conversion Environmental Impact Statement 144th Fighter Wing California Air National Guard Fresno-Yosemite International Airport</i> (National Guard Bureau, March 2013)</li> <li><sup>e</sup> Air Force Aero Club operations on the secondary runway are not included in the AICUZ data</li> <li><sup>f</sup> Activity on Runway 12-30 not included; use limited to military Aero Club</li> </ul>			
<i>Arrivals</i>				<b>FLIGHT TRACK USAGE</b>			
Runway 14	*	10%	2%	<i>Data Not Available</i>			
Runway 32	*	90%	98%	<b>NOTES</b>			
<i>Departures</i>				<ul style="list-style-type: none"> <li>› Future activity represents combination of projected military mission and maximum approved civilian aircraft operations for undetermined dates</li> <li>* Data not available</li> <li><sup>a</sup> Source: March Inland Port Airport Authority CY 2012 data</li> <li><sup>b</sup> Source: <i>Air Installation Compatible Use Zone Study for March Air Reserve Base (AICUZ)</i> (Department of the Air Force, August 2005)</li> <li><sup>c</sup> Sources: <i>Environmental Assessment for Proposed Military Construction and Total Force Integration at March Air Reserve Base</i> (Air Force Reserve Command, June 2010); <i>Environmental Impact Report for March Inland Port General Aviation Facilities Development</i> (March Joint Powers Authority, August 2012)</li> <li><sup>d</sup> Source: <i>F-15 Aircraft Conversion Environmental Impact Statement 144th Fighter Wing California Air National Guard Fresno-Yosemite International Airport</i> (National Guard Bureau, March 2013)</li> <li><sup>e</sup> Air Force Aero Club operations on the secondary runway are not included in the AICUZ data</li> <li><sup>f</sup> Activity on Runway 12-30 not included; use limited to military Aero Club</li> </ul>			
Runway 14	*	10%	48%	<b>FLIGHT TRACK USAGE</b>			
Runway 32	*	90%	52%	<i>Data Not Available</i>			
<i>Closed Pattern</i>				<b>NOTES</b>			
Runway 14	*	10%	0%	<ul style="list-style-type: none"> <li>› Future activity represents combination of projected military mission and maximum approved civilian aircraft operations for undetermined dates</li> <li>* Data not available</li> <li><sup>a</sup> Source: March Inland Port Airport Authority CY 2012 data</li> <li><sup>b</sup> Source: <i>Air Installation Compatible Use Zone Study for March Air Reserve Base (AICUZ)</i> (Department of the Air Force, August 2005)</li> <li><sup>c</sup> Sources: <i>Environmental Assessment for Proposed Military Construction and Total Force Integration at March Air Reserve Base</i> (Air Force Reserve Command, June 2010); <i>Environmental Impact Report for March Inland Port General Aviation Facilities Development</i> (March Joint Powers Authority, August 2012)</li> <li><sup>d</sup> Source: <i>F-15 Aircraft Conversion Environmental Impact Statement 144th Fighter Wing California Air National Guard Fresno-Yosemite International Airport</i> (National Guard Bureau, March 2013)</li> <li><sup>e</sup> Air Force Aero Club operations on the secondary runway are not included in the AICUZ data</li> <li><sup>f</sup> Activity on Runway 12-30 not included; use limited to military Aero Club</li> </ul>			
Runway 32	*	90%	100%	<b>FLIGHT TRACK USAGE</b>			
<i>Civilian Aircraft – Day/Evening/Night</i>				<i>Data Not Available</i>			
<i>Arrivals &amp; Departures</i>				<b>NOTES</b>			
Runway 14	*	10%	6%	<ul style="list-style-type: none"> <li>› Future activity represents combination of projected military mission and maximum approved civilian aircraft operations for undetermined dates</li> <li>* Data not available</li> <li><sup>a</sup> Source: March Inland Port Airport Authority CY 2012 data</li> <li><sup>b</sup> Source: <i>Air Installation Compatible Use Zone Study for March Air Reserve Base (AICUZ)</i> (Department of the Air Force, August 2005)</li> <li><sup>c</sup> Sources: <i>Environmental Assessment for Proposed Military Construction and Total Force Integration at March Air Reserve Base</i> (Air Force Reserve Command, June 2010); <i>Environmental Impact Report for March Inland Port General Aviation Facilities Development</i> (March Joint Powers Authority, August 2012)</li> <li><sup>d</sup> Source: <i>F-15 Aircraft Conversion Environmental Impact Statement 144th Fighter Wing California Air National Guard Fresno-Yosemite International Airport</i> (National Guard Bureau, March 2013)</li> <li><sup>e</sup> Air Force Aero Club operations on the secondary runway are not included in the AICUZ data</li> <li><sup>f</sup> Activity on Runway 12-30 not included; use limited to military Aero Club</li> </ul>			
Runway 32	*	90%	94%	<b>FLIGHT TRACK USAGE</b>			

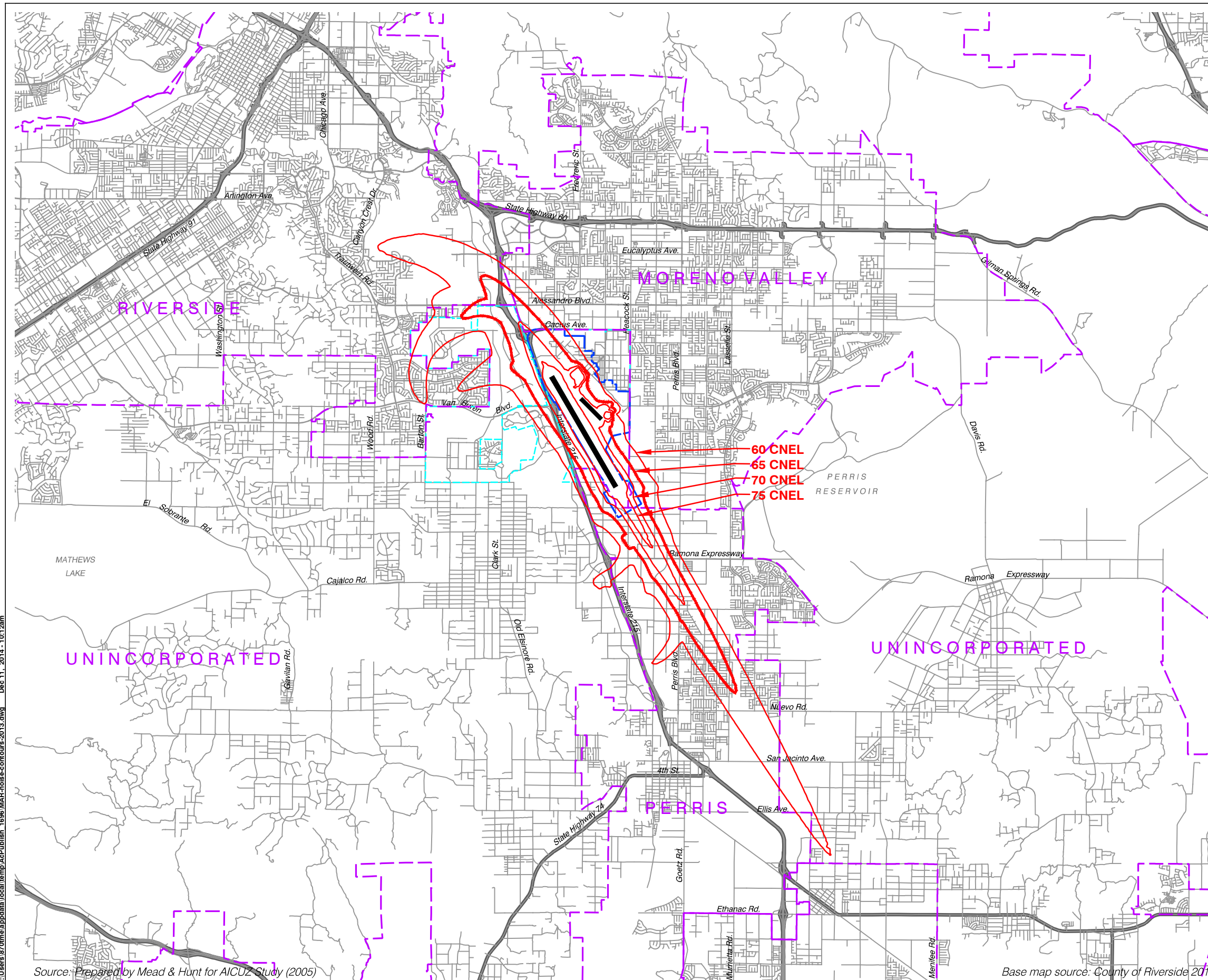
Exhibit MA-3

## Airport Activity Data Summary

March Air Reserve Base / Inland Port Airport

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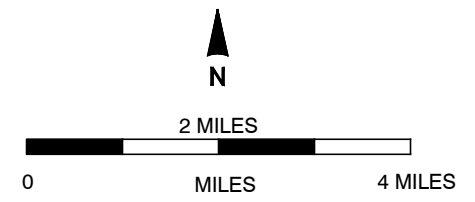
**LEGEND**

- Noise Contours**
- 60 dB CNEL
  - 65 dB CNEL
  - 70 dB CNEL
  - 75 dB CNEL
- } Projected Activity Level (75,104 operations)

- Boundary Lines**
- March Air Reserve Base / Inland Port Airport
  - March Joint Powers Authority Property Line
  - City Limits

Projected Activity Level	
Annual Operations	75,104
Average Annual Day	206

- Note:**  
Contours represent composite of noise contours from four sources:
- Forecasts and noise contours from Air Installation Compatible Use Study for March Air Reserve Base (August 2005).
  - Environmental Assessment for Proposed Military Construction and Total Force Integration at March Air Reserve Base (Air Force Reserve Command, June 2010); Environmental Impact Report for March Inland Port General Aviation Facilities Development (March Joint Powers Authority, August 2012).
  - F-15 Aircraft Conversion Environmental Impact Statement 144th Fighter Wing California Air National Guard Fresno-Yosemite International Airport (National Guard Bureau, March 2013).



**Riverside County  
Airport Land Use Commission**  
**March Air Reserve Base / Inland Port Airport  
Land Use Compatibility Plan**  
(Adopted November 13, 2014)

Exhibit MA-4

**Noise Impact Area**  
March Air Reserve Base / Inland Port Airport

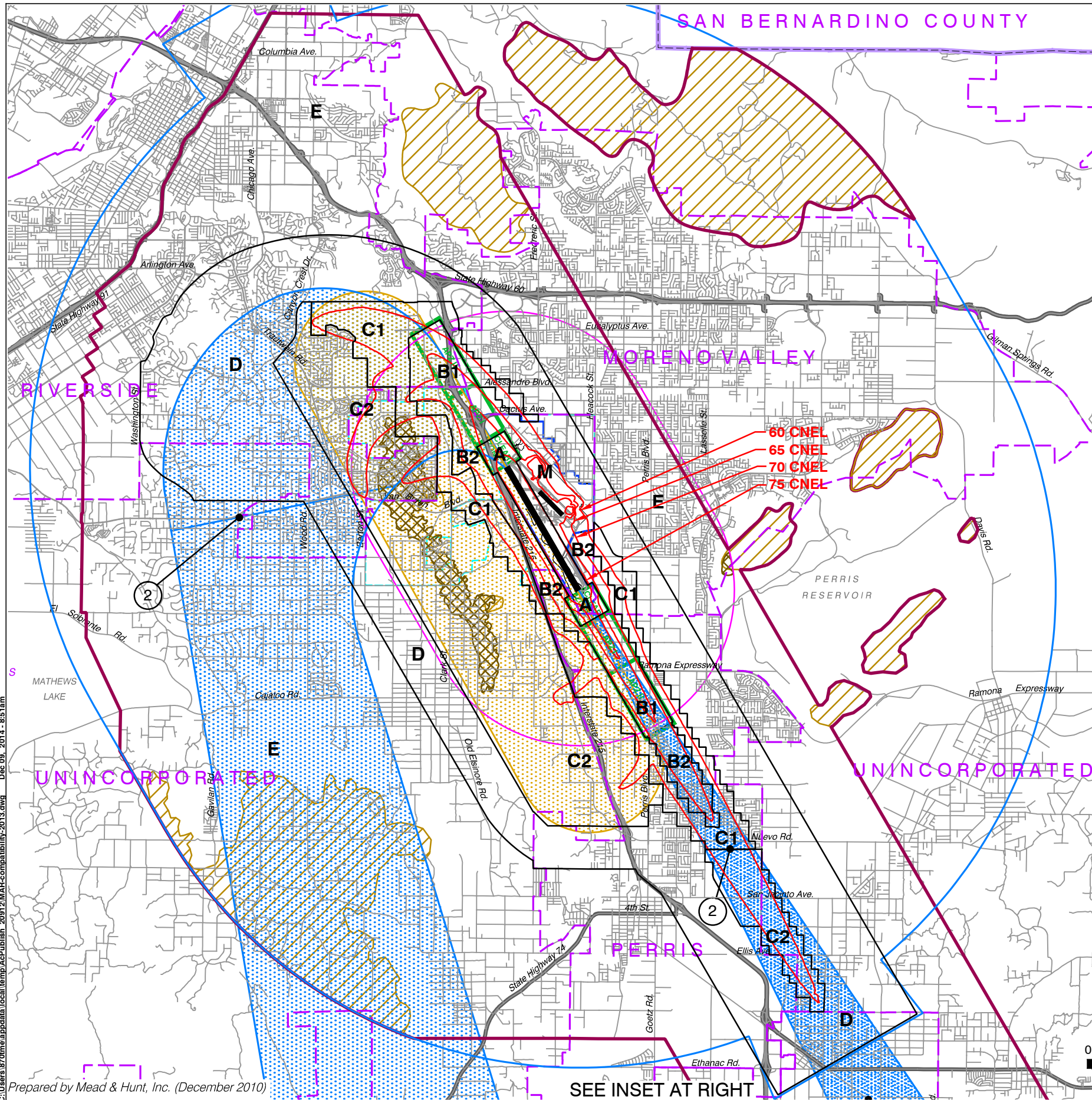
C:\Users\870me\appdata\local\temp\AcPublish\_1696\MAR-noise-contours-2013.dwg Dec 11, 2014 - 10:12am

Source: Prepared by Mead & Hunt for AICUZ Study (2005)

Base map source: County of Riverside 2013







**LEGEND**

**Compatibility Zones**

- Airport Influence Area Boundary
- Zone A
- Zone B1
- Zone B2
- Zone C1
- Zone C2
- Zone D
- Zone E
- Zone M

**Noise and Overflight Compatibility Factors**

- 75 dB CNEL
  - 70 dB CNEL
  - 65 dB CNEL
  - 60 dB CNEL
- Projected Activity Level (75,104 operations)

General Approach/Departure Traffic Pattern Envelope (approximately 80% of aircraft overflights estimated to occur within these limits)

Closed Circuit Traffic Pattern Envelope (approximately 80% of large aircraft overflights estimated to occur within these limits)

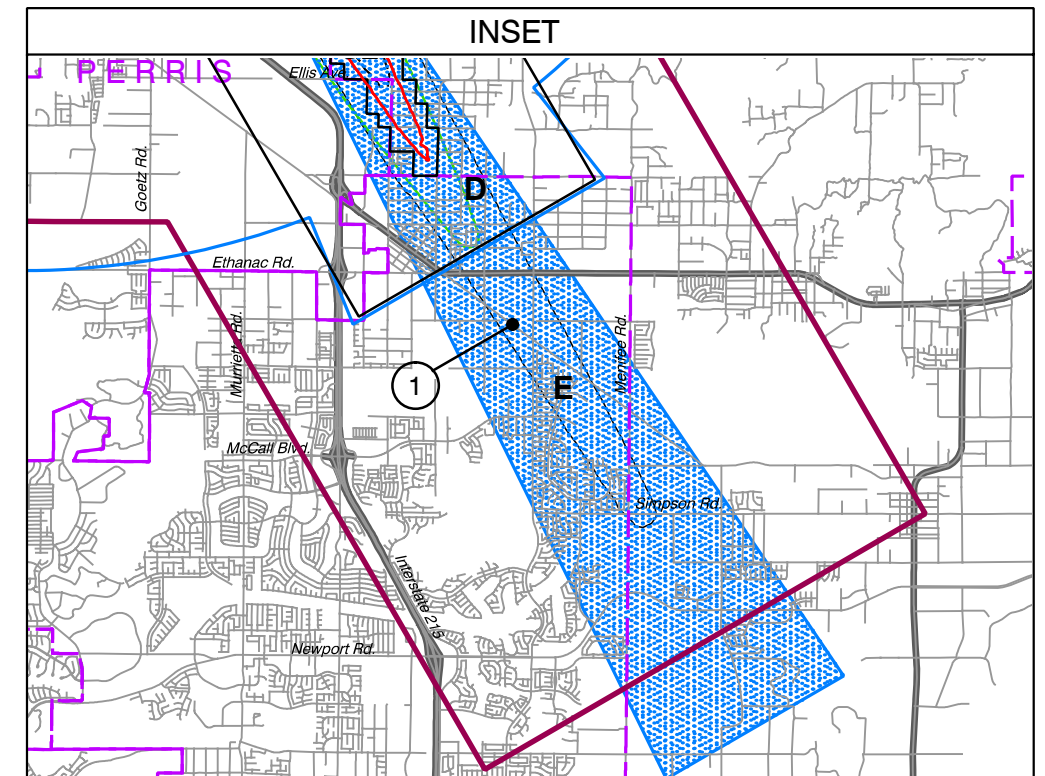
**Safety and Airspace Compatibility Factors**

- Accident Potential Zones
- FAR Part 77 Surface Limits
- Military Outer Horizontal Surface
- Civilian Conical Surface
- Terrain Penetration of FAR Part 77 Surfaces
- Military
- Civilian

**Boundary Lines**

- March Air Reserve Base / Inland Port Airport
- March Joint Powers Authority Property Line
- City Limits

- ① Point at which aircraft on Runway 32 ILS approach descend below 3,000 feet above runway end. Airport Elevation is 1,535 feet MSL.
- ② Point at which departing aircraft typically reach 3,000 feet above runway end.



Riverside County  
Airport Land Use Commission

March Air Reserve Base / Inland Port Airport  
Land Use Compatibility Plan

(Adopted November 13, 2014)

Exhibit MA-5

**Compatibility Factors Map**  
March Air Reserve Base / Inland Port Airport



Base map source: County of Riverside 2013

SEE INSET AT RIGHT

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**AIRPORT SITE**

- ▶ *Location*
  - › Northwestern section of Riverside County
  - › 10 miles southeast of central Riverside
  - › Situated on high valley floor of Perris Valley
- ▶ *Nearby Terrain*
  - › Relatively flat in immediate vicinity
  - › Santa Ana and San Jacinto Mountain Ranges located to the west and east, respectively
  - › Terrain greater than 150 ft. above the airport elevation (1,538 ft. MSL) exists several miles to the northeast (Box Springs Mts.), southwest (Santa Ana Mts.) and southeast (Lakeview Mts.)

**AIRPORT ENVIRONS LAND USE JURISDICTIONS**

- ▶ *Riverside County*
  - › Airport lies entirely within unincorporated area
- ▶ *March Joint Powers Authority*
  - › Has land use authority over March JPA property
- ▶ *City of Menifee*
  - › City limits 8¼ miles from south end of runway
- ▶ *City of Moreno Valley*
  - › Borders airport to the east
- ▶ *City of Perris*
  - › Borders airport to the south and lies beneath primary airport approach routes
- ▶ *City of Riverside*
  - › Borders airport to the west-northwest and lies beneath primary airport departure routes

**EXISTING AIRPORT AREA LAND USES**

- ▶ *General Character*
  - › Immediate area lies within the March JPA boundary and is primarily developed to the northeast with development beginning west of Highway 215
  - › Areas west and northwest (City of Riverside), north and east (city of Moreno Valley) mostly suburban residential and commercial uses
  - › Southwest area (unincorporated) mostly low-density and semi-rural residential
  - › South and southeast (City of Perris) suburban residential with interspersed vacant land
- ▶ *Runway Approaches*
  - › Northwest (Runway 14): Mixed suburban residential and commercial/warehouse/light industrial uses
  - › Southeast (Runway 32): Commercial/warehouse/light industrial uses among vacant land and scattered rural residential and mobile home parks

**STATUS OF COMMUNITY PLANS**

- ▶ *Riverside County*
  - › General Plan adopted by Board of Supervisors October 2003
  - › Reche Canyon, Mead Valley and Lake Mathews Area Plans adopted October 2003
- ▶ *March Joint Powers Authority*
  - › General Plan adopted by March JPA 1999
  - › General Plan Land Use Map updated January 2012
  - › March Business Center Specific Plan adopted February 2003
  - › Meridian Specific Plan SP-5 adopted August 2010
  - › March LifeCare Campus Specific Plan SP-7 adopted June 2011
  - › Development Code updated April 2012
  - › Zoning Map adopted April 2012
- ▶ *City of Menifee*
  - › General Plan adopted by City Council December 2013
- ▶ *City of Moreno Valley*
  - › General Plan adopted by City Council July 2006
- ▶ *City of Perris*
  - › General Plan 2030 elements adopted by City Council on various dates 2005-2010
  - › Park West Specific Plan adopted February 2007
  - › Harvest Landing Specific Plan adopted May 2010
- ▶ *City of Riverside*
  - › General Plan 2025 adopted by City Council November 2007

**PLANNED AIRPORT AREA LAND USES**

- ▶ *Riverside County*
  - › Southwest: Very low density residential, Business Park and Light Industrial
- ▶ *March Joint Powers Authority*
  - › Northeast: Low Density Residential, Mixed Use, Business Park, Office and Recreational area
  - › West: Industrial, Business Park, Mixed Use and Commercial uses with scattered Recreational uses west of Highway 215
  - › South: Aviation-related uses
- ▶ *City of Moreno Valley*
  - › Northeast: Office, Commercial, Specific Plan areas and Residential uses
  - › East: Low density residential uses with scattered commercial uses and public facilities
- ▶ *City of Perris*
  - › South: Industrial and commercial uses
- ▶ *City of Riverside*
  - › Northwest: Industrial/Business Parks and Sycamore Canyon Park facility
  - › West: Medium residential uses with scattered commercial uses and parks

Exhibit MA-6

## Airport Environs Information

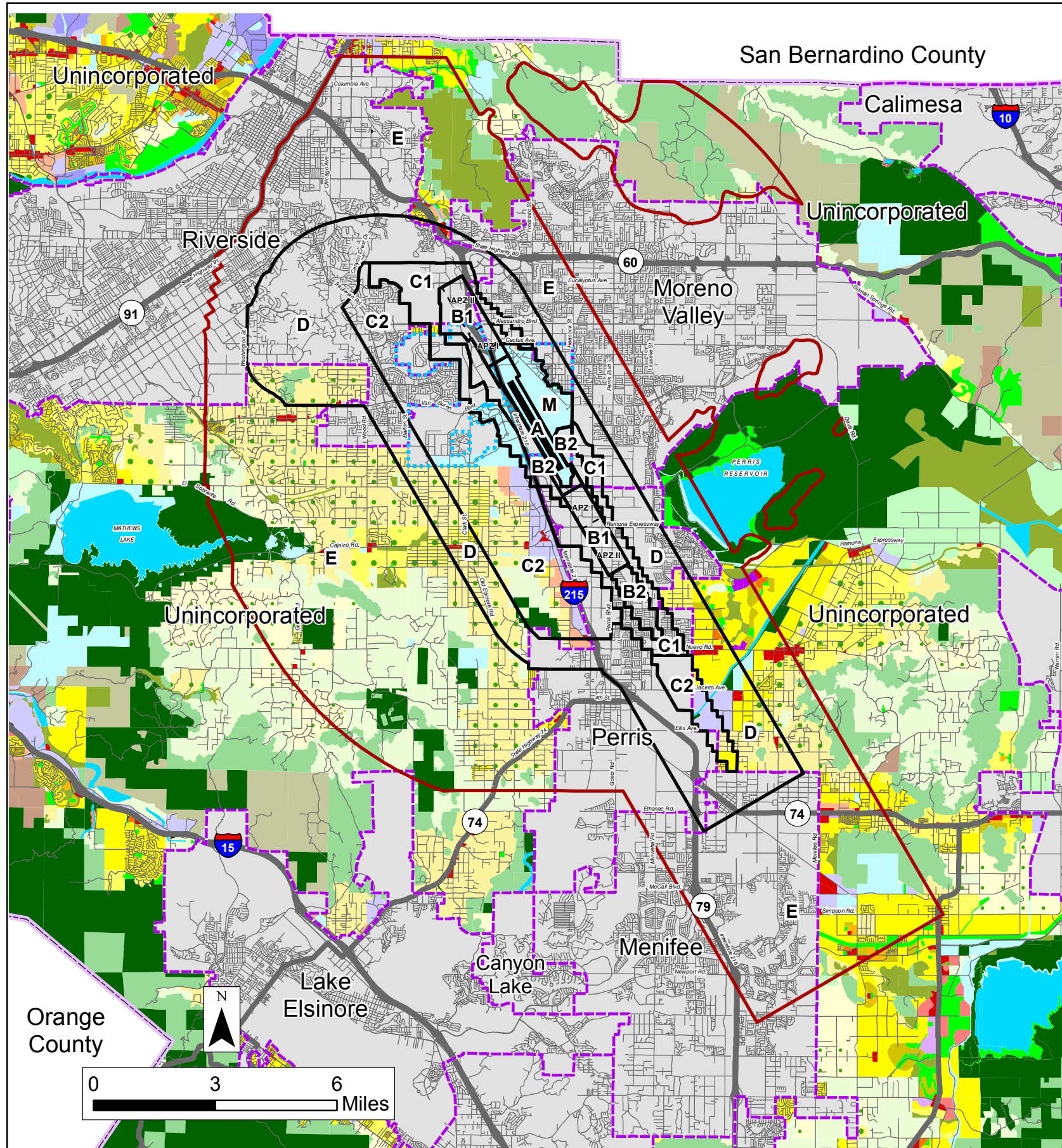
### March Air Reserve Base / Inland Port Airport

**ESTABLISHED AIRPORT COMPATIBILITY MEASURES**

*Policy wording not shown in quotes is condensed from original*

- ▶ *Riverside County General Plan (October 2003)*
  - › Prohibit new residential uses, except single-family dwellings on legal residential lots of record, within airports' 60 dB CNEL contour as defined by ALUC (Noise Policy 7.3)
  - › Submit proposed actions to ALUC as required by state law; other actions and projects may be submitted on voluntary and advisory basis (Land Use Policies 1.8 and 14.8)
- ▶ *March Joint Powers Authority General Plan (1999)*
  - › "Ensure that plans and development conform to the draft Comprehensive Land Use Plan for March AFB/ March Inland Port." (Land Use Policy 6.5)
  - › "Ensure that sensitive land uses (i.e., schools, high occupancy land uses, etc.) are discouraged from locating and operating in areas determined to be incompatible with airport operations." (Land Use Policy 6.6)
  - › "Ensure that land uses adhere to both military and civilian Part 77 conical surface criteria, relative to height restrictions." (Land Use Policy 6.8)
  - › "Protect flight paths from inappropriate development encroachment." (Transportation Policy 13.6)
  - › "Noise sensitive uses ... shall be discouraged in areas where noise levels exceed acceptable limits." (Noise Policy 1.2)
- ▶ *City of Moreno Valley General Plan (2006)*
  - › "Discourage residential uses where current or projected exterior noise due to aircraft over flights will exceed 65 CNEL." (Policy 6.3.2)
  - › Buildings containing noise-sensitive uses require insulation where future noise environment is likely to exceed 70 CNEL (Policy 6.3.3)
  - › Residential uses not permitted in APZs and business uses restricted to low intensities in accordance with AICUZ guidelines (Policy 6.16.4)
- ▶ *City of Moreno Valley Zoning*
  - › Air Installation Compatibility Use Overlay District (AICUZ) limits types of uses within the airport's accident potential zones I and II
- ▶ *City of Perris General Plan (2005)*
  - › "Reduce or avoid the existing and potential future impacts from air traffic on new sensitive noise land uses in areas where air traffic noise is 60 dBA CNEL or higher." (Noise Policy IV.A)
  - › Consult AICUZ guidelines and ALUC policies when considering development project applications (Noise Policy I.D)
- ▶ *City of Perris Municipal Code*
  - › Noise insulation required for new residential development where exterior noise levels equal 60 dBA CNEL or greater (Section 16.22.030)
- ▶ *City of Riverside General Plan (2007)*
  - › "Work cooperatively with the Riverside County Airport Land Use Commission in developing, defining, implementing and protecting airport influence zones around the MARB/MIP ..." (Land Use Policy 22.2)
  - › "Protect flight paths from encroachment by inappropriate development using the Riverside County Airport Land Use Compatibility Plan to determine the consistency of proposed development" (Circulation Policy 11.1)
  - › Limit building heights and land use intensities beneath airport approach and departure paths to protect public safety (Circulation Policy 11.2)
  - › Utilize the Airport Protection Overlay Zone to advise landowners of special noise considerations associated with their development (Noise Policy 2.5)
  - › "Avoid placing noise-sensitive land uses ... within the high noise impact areas (over 65 dB CNEL) for March Air Reserve Base/March Inland Port ..." (Noise Policy 3.1)
  - › "Support the noise/land use policies for the area adjacent to the March Air Reserve Base/March Inland Port through the adoption of the March JLUS into the Riverside County Airport Land Use Compatibility Plan." (Noise Policy 3.4)
  - › "When planning for development near airports, anticipate possible increases in airport activity and expansion of airport facilities and services and the effects these changes may have on public safety." (Public Safety Policy 4.2)
  - › "Ensure that development within airport influence areas is consistent with the Airport Protection Overlay Zone development standards and the Riverside County Airport Land Use Compatibility Plan." (Public Safety Policy 4.6)
- ▶ *City of Riverside Zoning Codes*
  - › Airport zone (AIR) and airport industrial (AI) zone restrict types of uses and heights of structures on and near airports
  - › No FAR Part 77 height limit zoning

**Exhibit MA-6, continued**



**Planned Land Use Designations**

- Estate Residential
- RC-EDR
- Very Low Density Residential
- RC-VLDR
- Low Density Residential
- RC-LDR
- Medium Density Residential
- Medium High Density Residential
- High Density Residential
- Very High Density Residential
- Highest Density Residential
- Commercial Retail
- Commercial Tourist
- Commercial Office
- Community Center
- Light Industrial
- Heavy Industrial
- Business Park
- Public Facilities
- Mixed Use Policy Area
- Rural Residential
- Rural Mountainous
- Rural Desert
- Agriculture
- Conservation
- Conservation Habitat
- Open Space Recreation
- Open Space Rural
- Water
- Mineral Resources
- Indian Lands

**Legend**

- County Boundary
- City Boundary
- March ARB/Air Force Property
- March Joint Powers Authority Property
- Runway
- Airport Influence Area Boundary
- Compatibility Zones

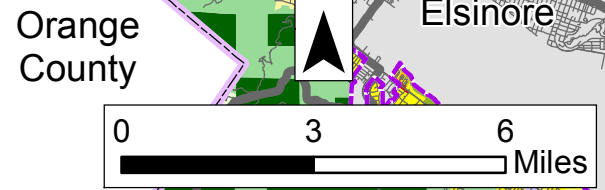
**Notes**

1. Land Use Source: County of Riverside, RCTLMA GIS, 2013. The General Plan provides new land use designations for all parcels in the unincorporated area of Riverside County as adopted October 7, 2003, updated through January 2012.

**Riverside County  
Airport Land Use Commission**  
**March Air Reserve Base / Inland Port Airport  
Land Use Compatibility Plan**  
*(Adopted November 13, 2014)*

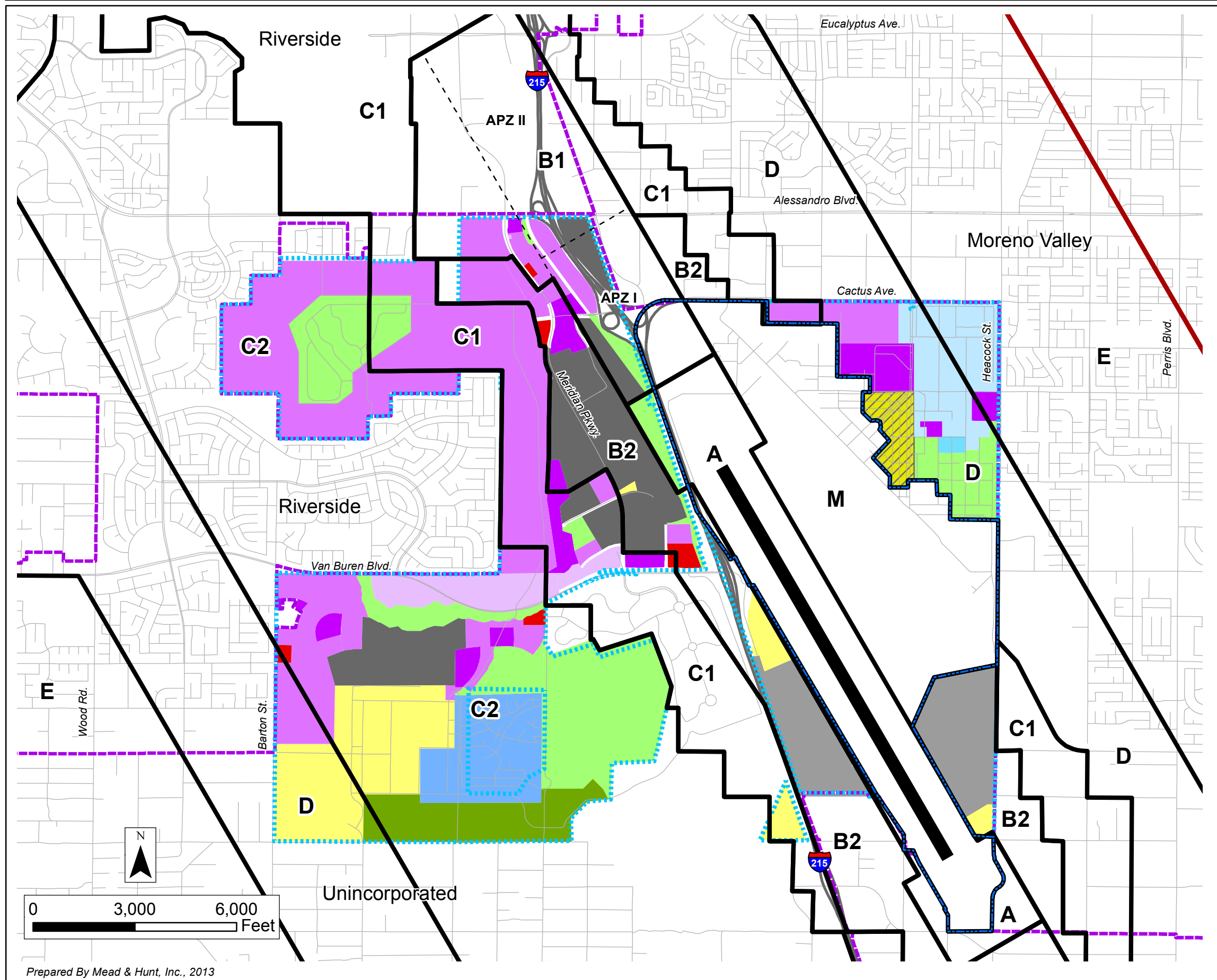
Exhibit MA-7A

**Planned Land Uses:  
County of Riverside**









### Legend

- City Boundary
- March ARB/Air Force Property
- March Joint Powers Authority Property
- Runway
- Airport Influence Area Boundary
- Compatibility Zones

### Planned Land Use Designations

- Aviation
- Business Park
- Cemetery
- Historic District
- Industrial
- Mixed Use
- Office
- Park/Recreation/Open Space
- Public Facility
- Commercial
- SP-4 Air Force Village West
- SP-6 US Vets
- SP-7 March LifeCare Campus

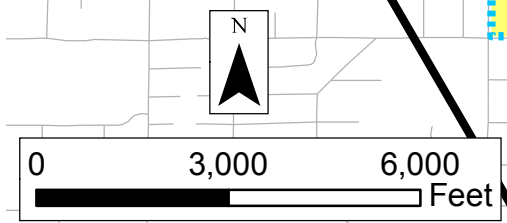
### Notes

1. Land Use Source: March Joint Powers Authority, Zoning Map, April 18, 2012, and General Plan Land Use Map, January 11, 2012. Mead & Hunt digitized land use maps based on County GIS parcel data, June 2013.

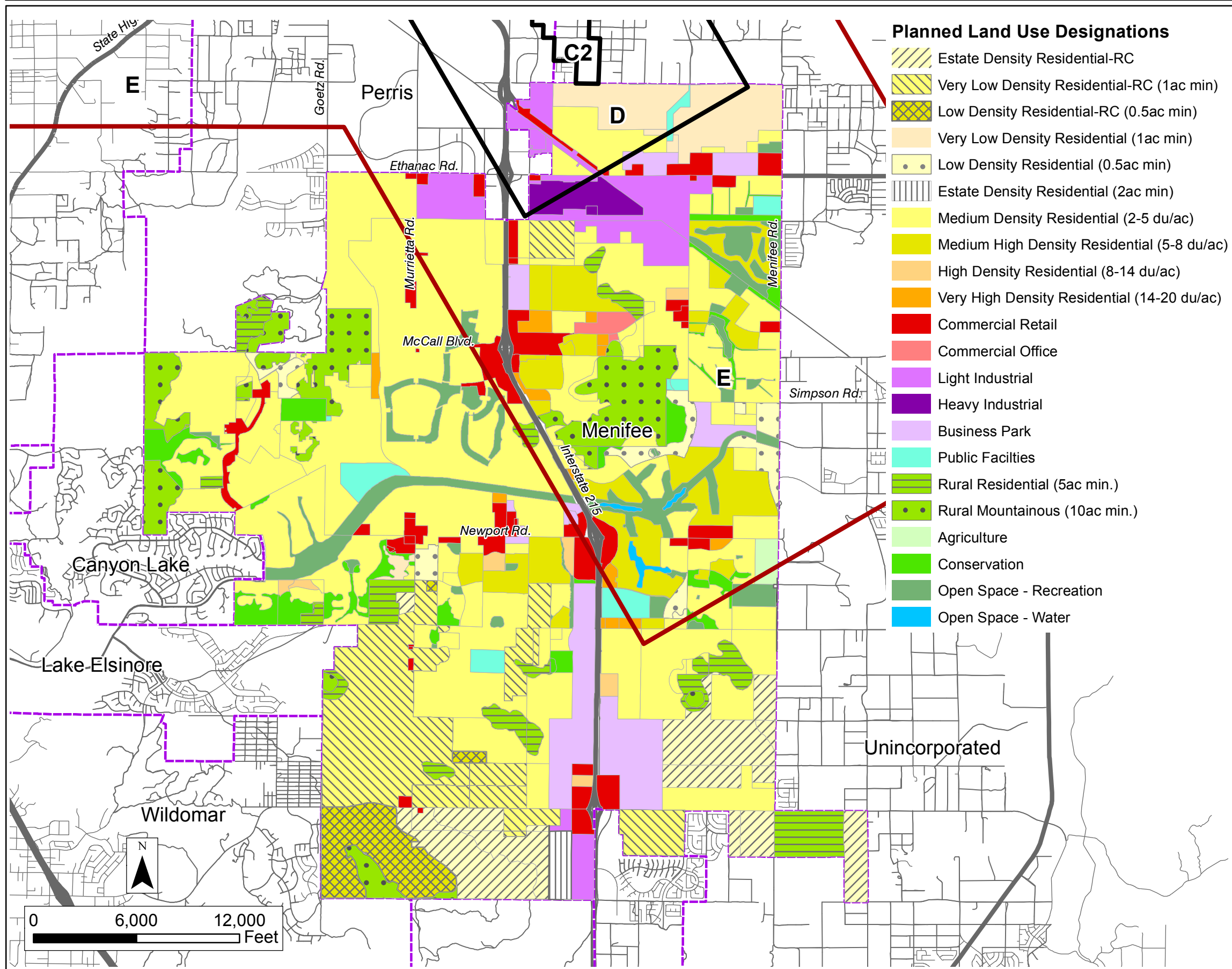
**Riverside County  
Airport Land Use Commission**  
**March Air Reserve Base / Inland Port Airport  
Land Use Compatibility Plan**  
*(Adopted November 13, 2014)*

Exhibit MA-7B

**Planned Land Uses:  
March Joint Powers Authority**







- ### Planned Land Use Designations
- Estate Density Residential-RC
  - Very Low Density Residential-RC (1ac min)
  - Low Density Residential-RC (0.5ac min)
  - Very Low Density Residential (1ac min)
  - Low Density Residential (0.5ac min)
  - Estate Density Residential (2ac min)
  - Medium Density Residential (2-5 du/ac)
  - Medium High Density Residential (5-8 du/ac)
  - High Density Residential (8-14 du/ac)
  - Very High Density Residential (14-20 du/ac)
  - Commercial Retail
  - Commercial Office
  - Light Industrial
  - Heavy Industrial
  - Business Park
  - Public Facilities
  - Rural Residential (5ac min.)
  - Rural Mountainous (10ac min.)
  - Agriculture
  - Conservation
  - Open Space - Recreation
  - Open Space - Water

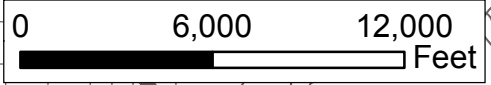
- ### Legend
- County Boundary
  - City Boundary
  - Runway
  - Airport Influence Area Boundary
  - Compatibility Zones

**Notes**  
 1. Land Use Source: City of Menifee General Plan Map

**Riverside County  
 Airport Land Use Commission**  
**March Air Reserve Base / Inland Port Airport  
 Land Use Compatibility Plan**  
 (Adopted November 13, 2014)

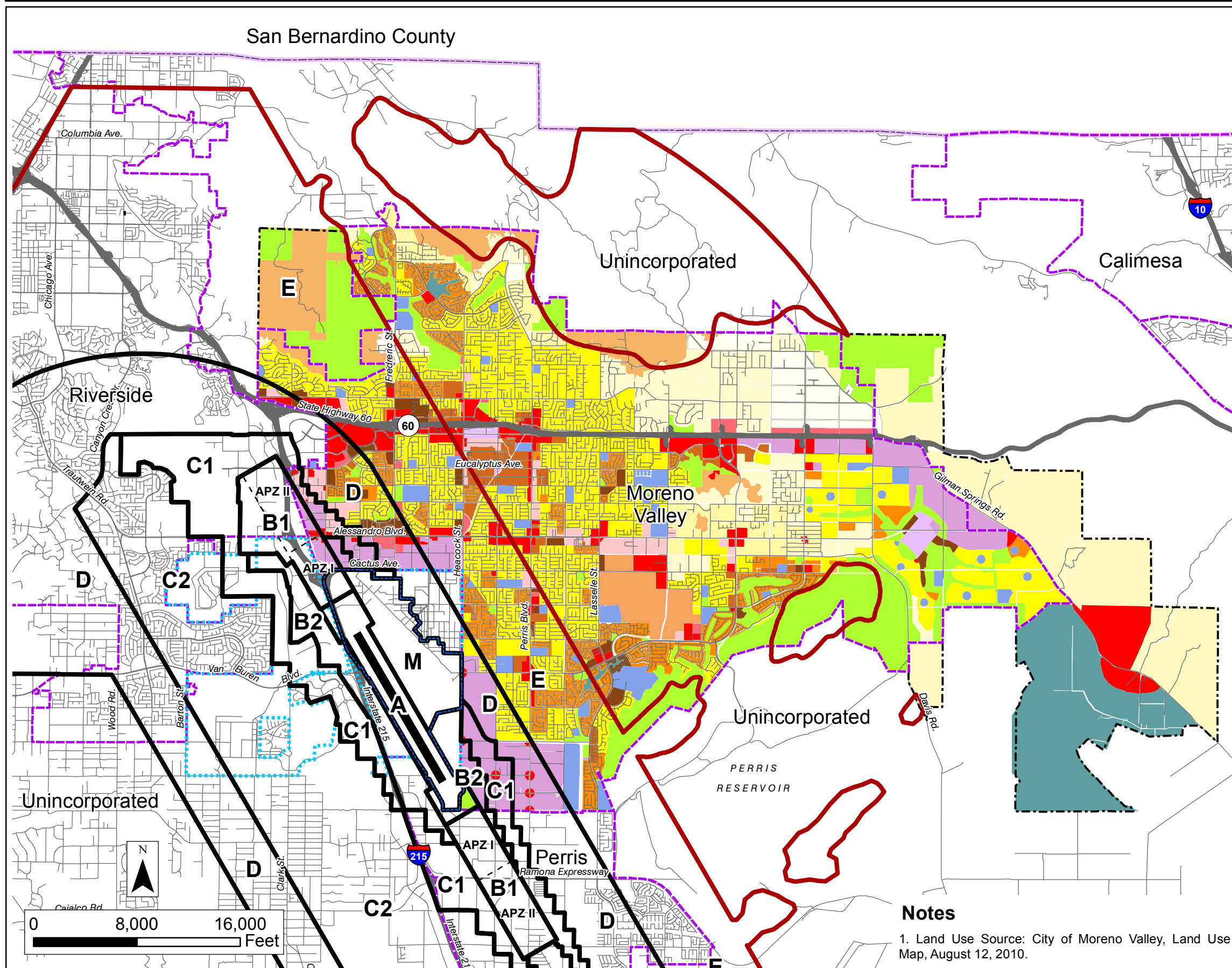
Exhibit MA-7C

**Planned Land Uses:  
 City of Menifee**









**Legend**

- County Boundary
- City Boundary
- Moreno Valley Sphere of Influence
- March ARB/Air Force Property
- March Joint Powers Authority Property
- Runway
- Airport Influence Area Boundary
- Compatibility Zones

**Planned Land Use Designations**

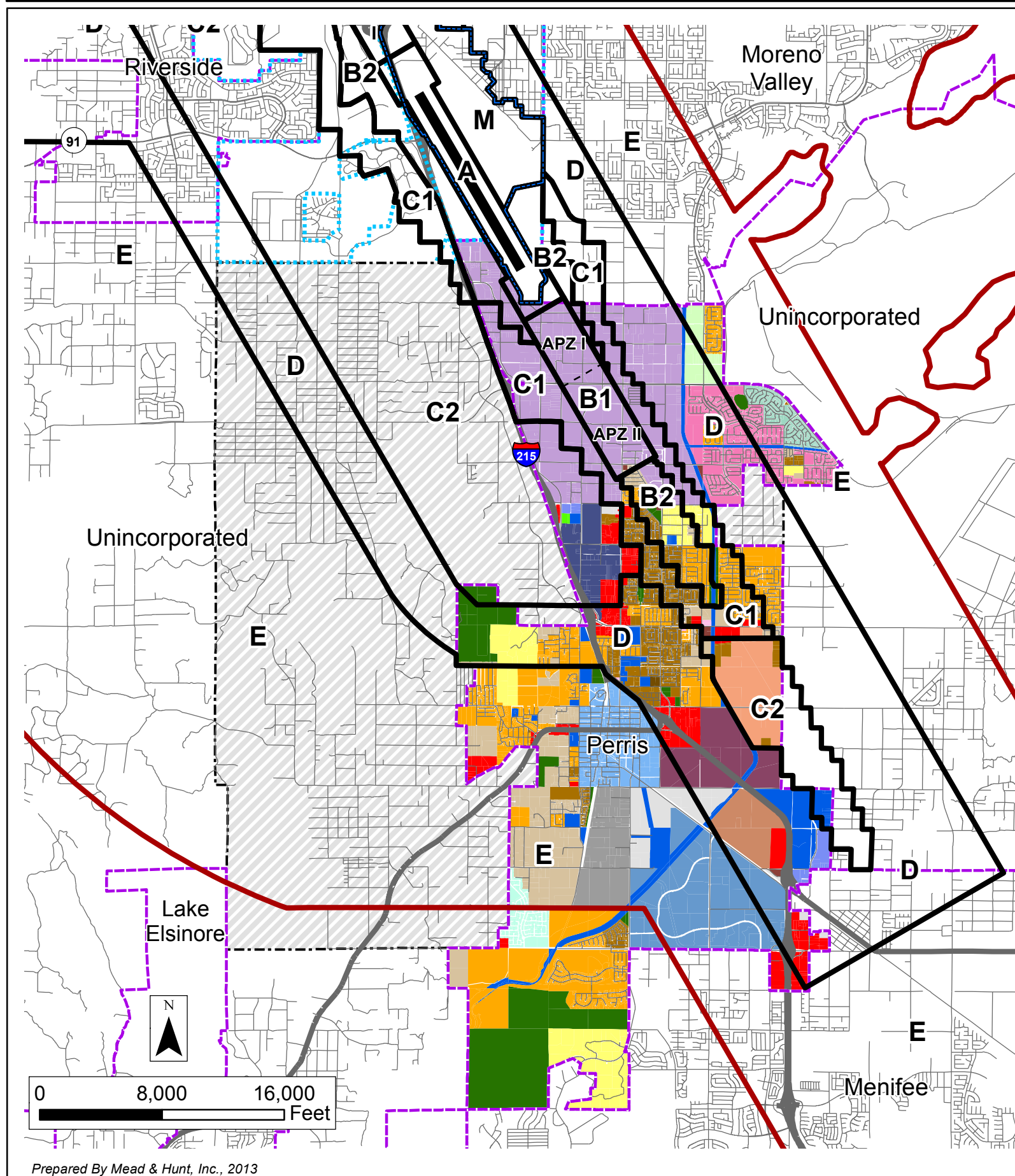
- Residential: Max. 1 du/ac
- Mixed Use
- Residential: Max. 2 du/ac
- Rural Residential: Max 2.5 du/ac
- Residential: Max. 3 du/ac
- Residential: Max. 5 du/ac
- Residential: Max. 5 or 15 du/ac
- Residential: Max. 10 du/ac
- Residential: Max. 15 du/ac
- Residential: Max. 20 du/ac
- Hillside Residential
- Planned Residential
- Residential/Office
- Office
- Commercial
- Business Park/Light Industrial
- Open Space
- Public Facilities
- Floodplain

**Riverside County  
Airport Land Use Commission**

**March Air Reserve Base / Inland Port Airport  
Land Use Compatibility Plan**  
(Adopted November 13, 2014)

**Notes**  
1. Land Use Source: City of Moreno Valley, Land Use Map, August 12, 2010.





**Planned Land Use Designations**

- INDUSTRIAL
  - GI - General Industrial
  - LI - Light Industrial
  - BP - Business Park
- COMMERCIAL
  - CC - Community Commerical
  - NC - Neighborhood Commerical
  - PO - Professional Office
- RESIDENTIAL
  - R-20,000 - Residential 20,000
  - R-10,000 - Residential 10,000
  - R-6,000 - Residential 6,000
  - MFR-14 - Multi-Family Residential 14
  - MFR-22 - Multi-Family Residential 22
- SPECIFIC PLAN
  - DTSP - Downtown Specific Plan
  - GV SP - Green Valley Specific Plan
  - HL SP - Harvest Landing Specific Plan
  - MR SP - May Ranch Specific Plan
  - NP SP - New Perris Specific Plan
  - PVCC SP - Perris Valley Commerce Center Specific Plan
  - PW-SP - Parkwest Specific Plan
  - RG-SP - River Glen Specific Plan
  - RW-SP - Rivewoods Specific
  - SP - Specific Plan
  - VA-SP - Villages of Avalon
- OTHER
  - A1 - Light Agricultural
  - OS - Open Space
  - P - Public Facility

**Legend**

- City Boundary
- City of Perris Sphere of Influence
- March ARB/Air Force Property
- March Joint Powers Authority Property
- Runway
- Airport Influence Area Boundary
- Compatibility Zones

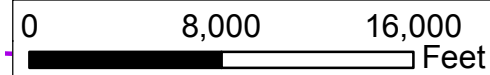
**Notes**

1. Land Use Source: City of Perris, General Plan Map, January 3, 2013.

**Riverside County  
Airport Land Use Commission**  
**March Air Reserve Base / Inland Port Airport  
Land Use Compatibility Plan**  
(Adopted November 13, 2014)

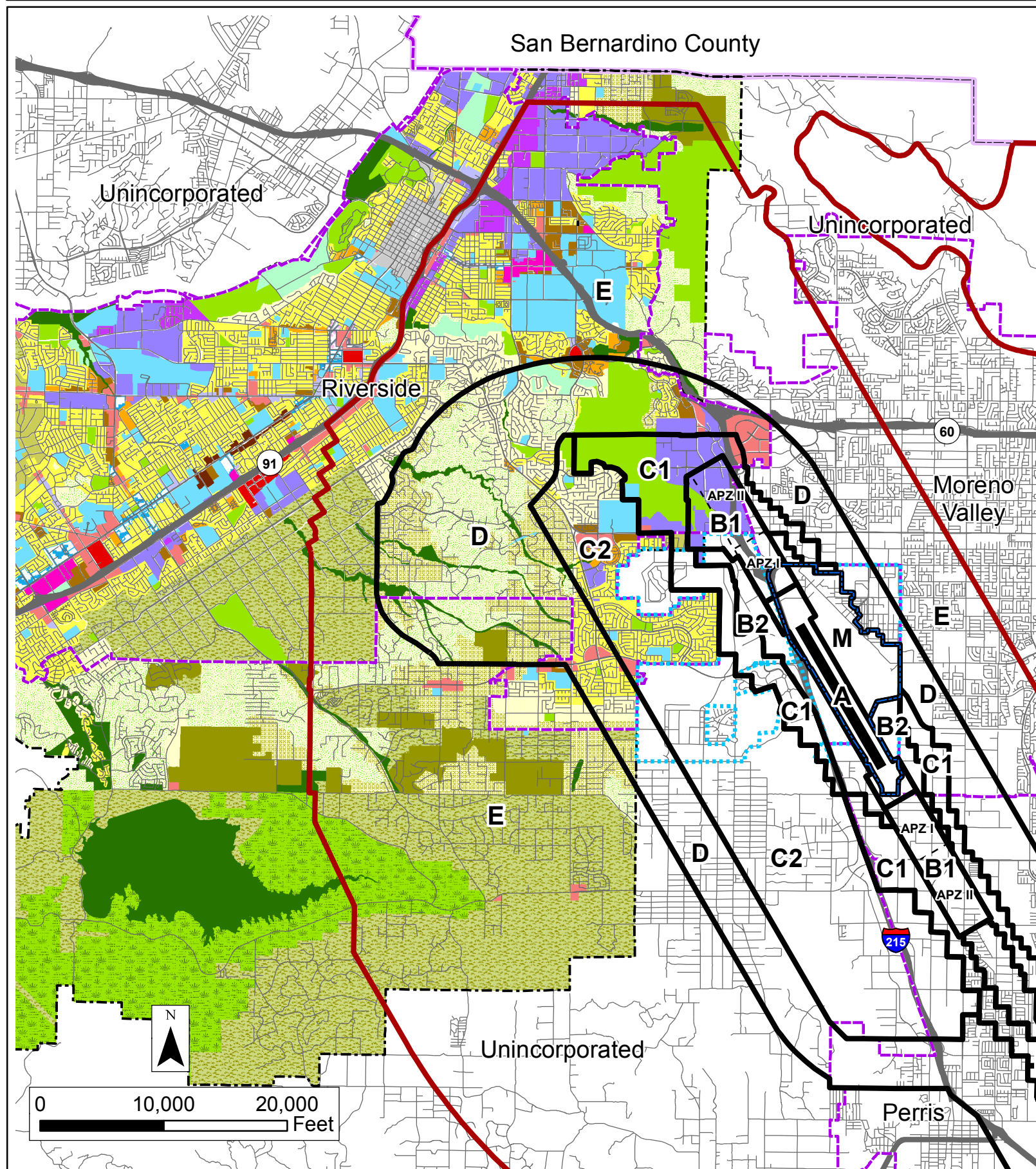
Exhibit MA-7E

**Planned Land Uses:  
City of Perris**









- ### General Plan Land Use Designations
- A - AGRICULTURAL
  - A/RR - AGRICULTURAL/RURAL RESIDENTIAL
  - HR - HILLSIDE RESIDENTIAL
  - SRR - SEMI RURAL RESIDENTIAL
  - VLDR - VERY LOW DENSITY RESIDENTIAL
  - LDR - LOW DENSITY RESIDENTIAL
  - MDR - MEDIUM DENSITY RESIDENTIAL
  - MHDR - MEDIUM HIGH DENSITY RESIDENTIAL
  - HDR - HIGH DENSITY RESIDENTIAL
  - VHDR - VERY HIGH DENSITY RESIDENTIAL
  - C - COMMERCIAL
  - CRC - COMMERCIAL REGIONAL CENTER
  - DSP - DOWNTOWN SPECIFIC PLAN
  - OSP - ORANGECREST SPECIFIC PLAN
  - O - OFFICE
  - B/OP - BUSINESS/OFFICE PARK
  - I - INDUSTRIAL
  - MU-N - MIXED USE-NEIGHBORHOOD
  - MU-V - MIXED USE-VILLAGE
  - MU-U - MIXED USE-URBAN
  - PF - PUBLIC FACILITIES/INSTITUTIONAL
  - PR - PRIVATE RECREATION
  - P - PUBLIC PARK
  - OS - OPEN SPACE/NATURAL RESOURCES
  - RAT - KANGAROO RAT HABITAT

- ### Legend
- County Boundary
  - City Boundary
  - Riverside Sphere of Influence
  - March ARB/Air Force Property
  - March Joint Powers Authority Property
  - Runway
  - Airport Influence Area Boundary
  - Compatibility Zones

### Notes

1. Land Use Source: City of Riverside, Land Use Policy Map, January 10, 2012.

**Riverside County  
Airport Land Use Commission**  
**March Air Reserve Base / Inland Port Airport  
Land Use Compatibility Plan**  
(Adopted November 13, 2014)

Exhibit MA-7F

**Planned Land Uses:  
City of Riverside**

