

## Background Data: Jacqueline Cochran Regional Airport and Environs

### INTRODUCTION

Built during World War II and used by both the Army and the Navy, Jacqueline Cochran Regional Airport has had several name changes. As a civilian facility, it was called Thermal Airport from 1948 to 1998. To better reflect its regional function, the name was then changed to Desert Resorts Regional Airport. The most recent name change, to honor the pioneering woman pilot, took place in 2004.

The airport is located in the lower Coachella Valley of central Riverside County at an elevation of 114 feet below sea level. The facility has two runways: the primary, north/south runway (17-35) is 8,500 feet in length; and a northwest/southeast runway (12-30) measures 5,000 feet. A new master plan for the airport, completed in 2004, calls for extension of Runway 17-35 southward to a length of 10,000 feet. A future parallel, north/south runway that had been included in previous plans has been deleted from the current master plan. A summary of major existing and planned features of the airport is presented in Exhibit JC-1. Exhibit JC-2 depicts the updated airport layout plan drawing.

Annual aircraft operations at Jacqueline Cochran Regional Airport were estimated at 65,000 in 2002. The master plan projects this activity to reach some 110,000 by 2022 and continue to grow along with the urbanization of the Coachella Valley. Growth in business jet usage of the airport is expected to be particularly strong. For long-range compatibility planning purposes, an “ultimate” activity level of 220,000 annual operations is assumed. Further activity data is detailed in Exhibit JC-3. Noise impacts generated by the current, future, and ultimate activity levels are shown in Exhibits JC-4 through JC-6. The “ultimate” contours are also representative of a peak-season day in 2022. Exhibit JC-7 presents a compilation of the noise, risk, and other factors that form the basis for the compatibility map included in Chapter 3.

Land uses in the vicinity of the airport are in transition. As of 2004, the immediate environs are mostly agriculture or undeveloped. However, urban areas of the city of Coachella are barely a mile north. Coachella, as well as La Quinta to the west, plan to expand their cities southward. Within the unincorporated county area, a major development—Kohl Ranch—is proposed immediately south of the airport. This urbanization will pose challenges for long-term airport/land use compatibility. Exhibits JC-8 and JC-9 present tabular and map summaries of current and planned land uses around the airport. Exhibit JC-10 detail tabular and mapping of significant conflicts between the compatibility plan and local land use plans.

**GENERAL INFORMATION**

- ▶ Airport Ownership: County of Riverside
- ▶ Property Size
  - ▶ Fee title: 1,752 acres
  - ▶ Avigation easements: None
- ▶ Airport Classification: Transport
- ▶ Airport Elevation: minus 114 feet MSL

**AIRPORT PLANNING DOCUMENTS**

- ▶ Airport Master Plan
  - ▶ Approved by Riverside County Board of Supervisors December 2004
- ▶ Airport Layout Plan Drawing
  - ▶ Approved by Riverside County Board of Supervisors December 2004

**RUNWAY/TAXIWAY DESIGN**

**Runway 12-30**

- ▶ Critical Aircraft: Medium twin
- ▶ Airport Reference Code: B-II
- ▶ Dimensions: 5,000 ft. long, 100 ft. wide
- ▶ Pavement Strength (main landing gear configuration)
  - ▶ 20,000 lbs (single wheel)
- ▶ Average Gradient: 0.22% (rising to northwest)
- ▶ Runway Lighting:
  - ▶ Medium-intensity edge lights (MIRL)
- ▶ Primary Taxiways: Full-length parallel on southwest

**Runway 17-35**

- ▶ Critical Aircraft: Boeing Business Jet 2
- ▶ Airport Reference Code: D-III
- ▶ Dimensions: 8,500 ft. long, 150 ft. wide
- ▶ Pavement Strength (main landing gear configuration)
  - ▶ 174,000 lbs (dual wheel)
- ▶ Average Gradient: 0.24% (rising to north)
- ▶ Runway Lighting:
  - ▶ Medium-intensity edge lights (MIRL)
  - ▶ Runways 17, 35: (Runway End Indicator Lights (REILs))
- ▶ Primary Taxiways: Full-length parallel on west

**TRAFFIC PATTERNS AND APPROACH PROCEDURES**

- ▶ Airplane Traffic Patterns
  - ▶ All runways: Left traffic
  - ▶ Pattern altitude: 1,000 ft. AGL
- ▶ Instrument Approach Procedures (lowest minimums)
  - ▶ Runway 30 VOR/DME
    - Straight-in (1 mi. visibility, 240 ft. descent height)
    - Circling (1 mi. visibility, 340 ft. descent height)
  - ▶ Runway 30 RNAV (GPS )
    - Straight-in (1 mi. visibility, 260 ft. descent height)
    - Circling (1 mi. visibility, 320 ft. descent height)
  - ▶ Runway 35 RNAV (GPS )
    - Straight-in (1 mi. visibility, 700 ft. descent height)
    - Circling (1 mi. visibility, 700 ft. descent height)
- ▶ All runways VOR
  - Circling (1¼ mi. visibility; 1,100 ft. descent height)
- ▶ Standard Inst. Departure Procedures: None
- ▶ Visual Approach Aids
  - ▶ Airport: Rotating beacon
  - ▶ Runway 35: Precision Approach Path Indicator (3.0°)
  - ▶ Runway 17: Visual Approach Slope Indicator (3.0°)
- ▶ Operational Restrictions / Noise Abatement Procedures
  - ▶ None

**APPROACH PROTECTION**

- ▶ Runway Protection Zones (RPZs)
  - ▶ Runway 17: 1,700-ft. long; majority on airport property
  - ▶ Runway 35: 1,000-ft. long; ½ on airport property
  - ▶ Runways 12 and 30: 1,000-ft. long; all on airport
- ▶ Approach Obstacles
  - ▶ Runway 17: Road
  - ▶ Runway 30: Trees 580 ft. beyond runway end

**BUILDING AREA**

- ▶ Location: North side of airport, between runways
- ▶ Aircraft Parking Capacity
  - ▶ Hangar spaces: 56
  - ▶ Tiedowns: 43
- ▶ Other Major Facilities
  - ▶ Riverside County fire station
- ▶ Services
  - ▶ Fuel: 100LL, Jet A (24-hour call out)
  - ▶ Other: Aircraft rental, maintenance and storage; seasonal sailplane rides

**POTENTIAL FACILITY IMPROVEMENTS**

- ▶ Airfield
  - ▶ Extend Runway 35 to 10,000-ft.
  - ▶ Establish Runway 35 straight-in precision approach
  - ▶ Establish Runway 17 nonprecision approach
  - ▶ Construct helicopter facility south of Taxiway A
- ▶ Building Area
  - ▶ Add up to 130 hangar spaces
  - ▶ Expand transient apron for large business jets
- ▶ Property
  - ▶ Acquire 128 acres for Runway 35 extension and RPZ
  - ▶ Acquire 62 acres for future aviation use west of Runway 35 approach end
  - ▶ Acquire 8 acres for Runway 17 RPZ
  - ▶ Release 60 acres on north and south as excess to aviation needs

Exhibit JC-1

# Airport Features Summary

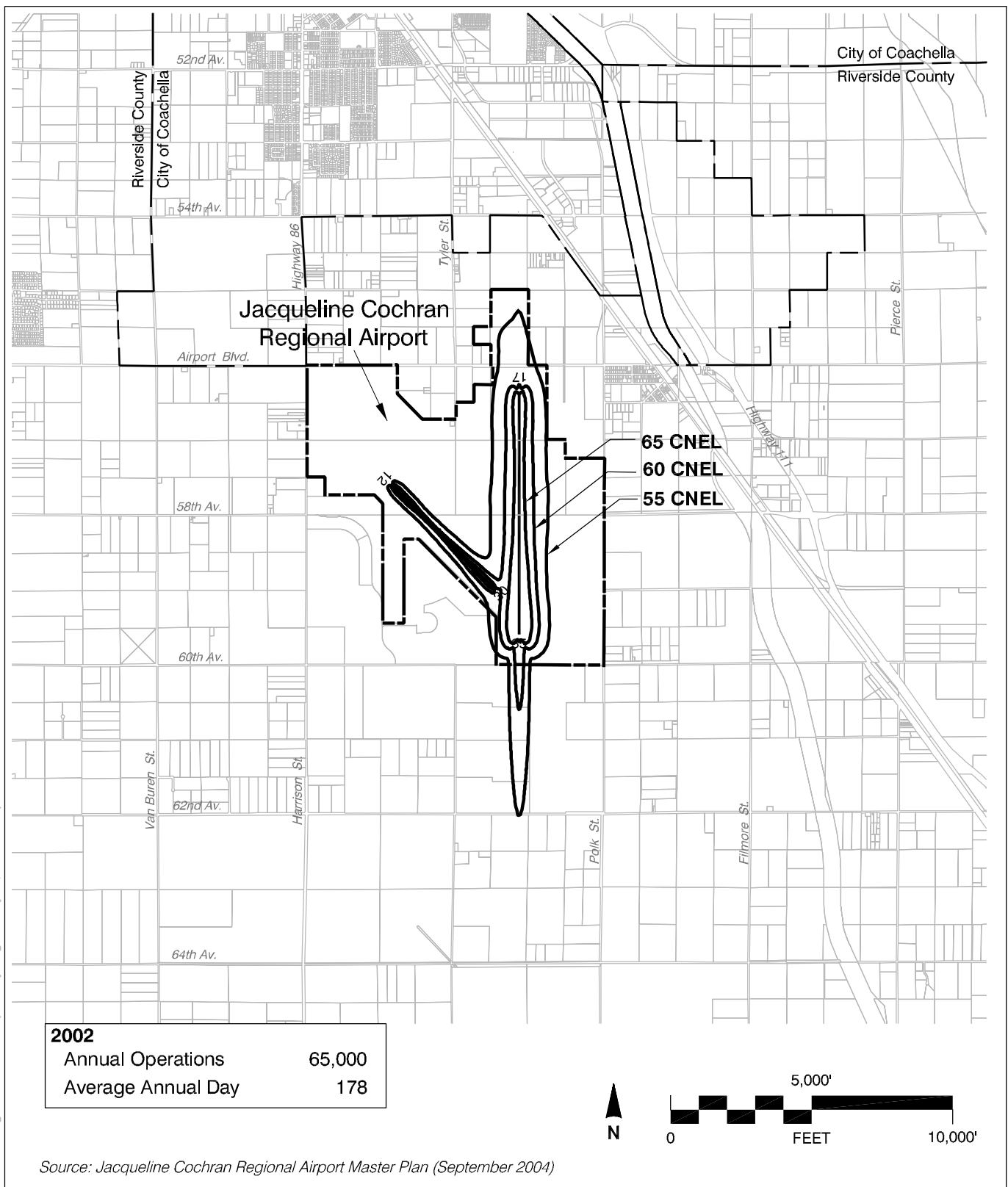
Jacqueline Cochran Regional Airport

<b>BASED AIRCRAFT</b>				<b>TIME OF DAY DISTRIBUTION <sup>a</sup></b>		
	<b>Current <sup>a</sup></b> 2002 data	<b>Future <sup>a</sup></b> 2025	<b>Ultimate</b>		<b>Current</b>	<b>Future &amp; Ultimate</b>
<i>Aircraft Type</i>				<i>Single-Engine</i>		
Single-Engine	51	161		Day	95.0%	no change
Twin-Engine Piston & Turboprop	14	54	data not available	Evening	3.0%	
Business Jets	4	34		Night	2.0%	
Helicopters / Others	2	6		<i>Twin-Engine, Piston</i>		
<b>Total</b>	<b>71</b>	<b>255</b>		Day	96.0%	no change
				Evening	2.5%	change
				Night	1.5%	
<b>AIRCRAFT OPERATIONS</b>				<i>Large (Charter) Jets</i>		
	<b>Current <sup>a</sup></b> 2002 data	<b>Future <sup>a</sup></b> 2025	<b>Ultimate <sup>b</sup></b>	Day	90%	no change
<b>Total</b>				Evening	5%	change
Annual	65,000	110,000	220,000	Night	5%	
Average Day	178	301	603 <sup>c</sup>	<i>Business Jets &amp; Other Aircraft</i>		
<i>Distribution by Aircraft Type</i>				Day	98.0%	no change
Single-Engine	35%	29%	25%	Evening	1.5%	change
Twin-Engine Piston	15%	12%	10%	Night	0.5%	
Twin-Engine, Turboprop	22%	23%	24%	<b>RUNWAY USE DISTRIBUTION <sup>a</sup></b>		
Business & Large Jet	26%	33%	37%		<b>Current</b>	<b>Future &amp; Ultimate</b>
Helicopters / Other	2%	3%	4%	<i>Takeoffs &amp; Landings</i>		
<i>Distribution by Type of Operation</i>				<i>Single &amp; Twin-Engine, Piston – Day/Evening/Night</i>		
Local (incl. touch-and-goes)				Runway 17	20%	
Single-Engine	34%	34%	33%	Runway 35	70%	no change
Twin-Engine Piston	30%	30%	30%	Runway 12	3%	change
Turboprop	10%	10%	10%	Runway 30	7%	
All Others	100%	100%	100%	<i>Twin-Engine Turboprop &amp; Helicopter – Day/Evening/Night</i>		
<b>Total</b>	<b>19%</b>	<b>15%</b>	<b>14%</b>	Runway 17	22%	
<i>Itinerant</i>				Runway 35	74%	no change
Single-Engine	66%	66%	67%	Runway 12	1%	change
Twin-Engine Piston	70%	70%	70%	Runway 30	3%	
Turboprop	90%	90%	90%	<i>Small Business Jets – Day/Evening/Night</i>		
All Others	100%	100%	100%	Runway 17	10%	
<b>Total</b>	<b>57%</b>	<b>55%</b>	<b>76%</b>	Runway 35	86%	no change
				Runway 12	0%	change
				Runway 30	4%	
				<i>Medium Business Jets &amp; Large Jets – Day/Evening/Night</i>		
				Runway 17	5%	no change
				Runway 35	95%	change
<b>FLIGHT TRACK USAGE <sup>a</sup></b>						
<b>Current &amp; Future</b>						
▶ Approaches, Runway 17				▶ Departures, Runway 17		
› All: 90% right traffic; 10% straight in				› Jets: 100% straight out		
▶ Approaches, Runway 35				› Others: 60% left turns; 10% right turns; 30% straight		
› Jets: 60% left traffic; 40% straight in				▶ Departures, Runway 35		
› Others: 60% left traffic; 10% right traffic; 30% straight				› Med & Large Jets: 80% left; 10% right; 10% straight		
▶ Approaches, Runways 12 & 30				› Others: 80% left turns; 10% right turns; 10% straight		
› All: 100% straight in				▶ Departures, Runways 12 & 30		
				› All: 100% straight out		
<b>Notes</b>						
<sup>a</sup> Source: <i>Jacqueline Cochran Regional Airport Master Plan (December 2004)</i> and <i>Environmental Baseline Data/CEQA Initial Study (December 2004)</i> ; 2022 Airport Master Plan forecast assumed as 2025 for compatibility planning purposes						
<sup>b</sup> Source: Estimated/projected by Mead & Hunt for compatibility planning purposes; reflects time frame beyond 20 years						
<sup>c</sup> Ultimate annual average day also representative of future peak season average day						

Exhibit JC-3

## Airport Activity Data Summary

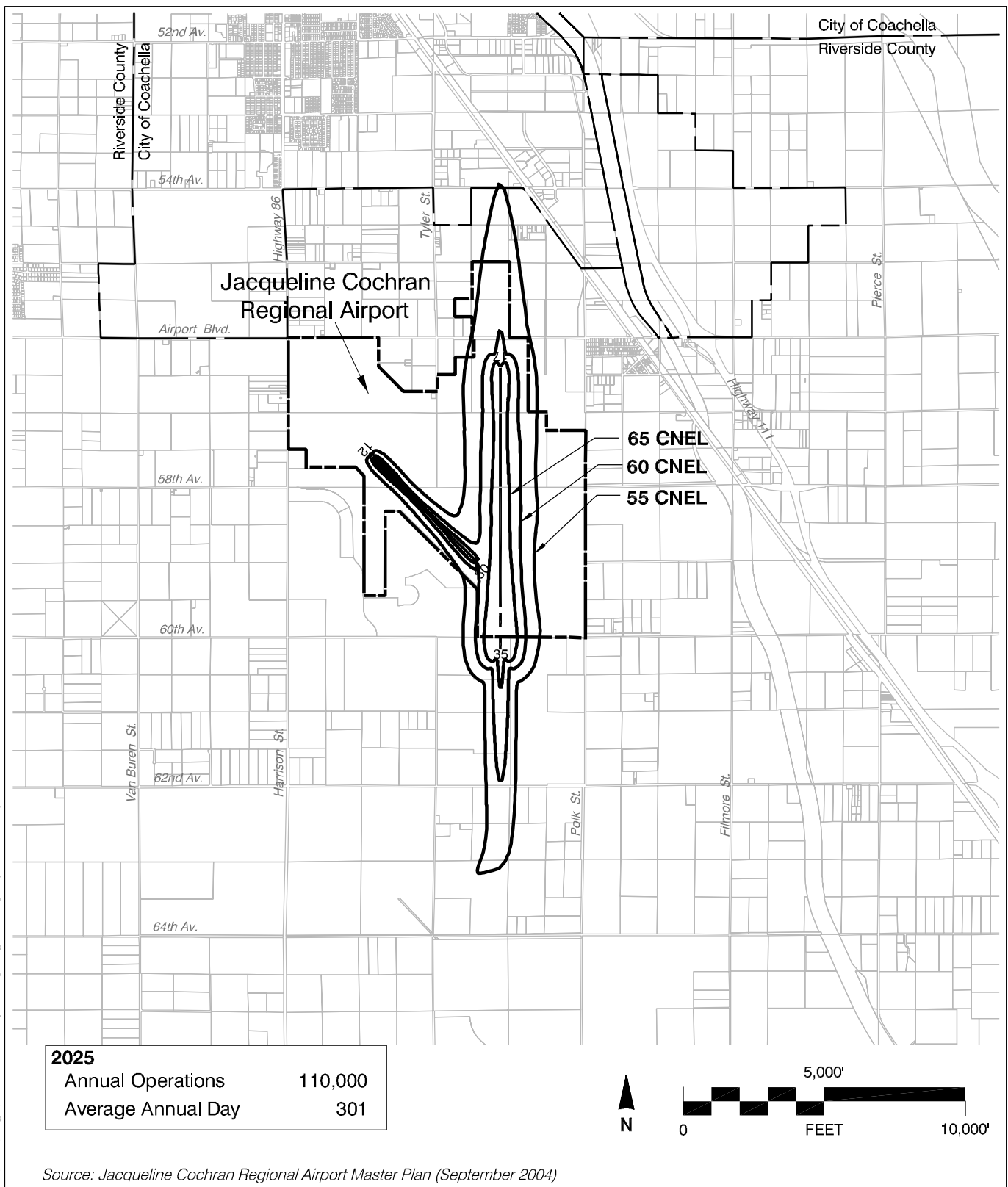
### Jacqueline Cochran Regional Airport



P:\RCO\Dwgs\TRIM-noise-compatibility.dwg May 04, 2005 - 4:22pm

**Exhibit JC-4**

**Existing Noise Impacts**  
**Jacqueline Cochran Regional Airport**

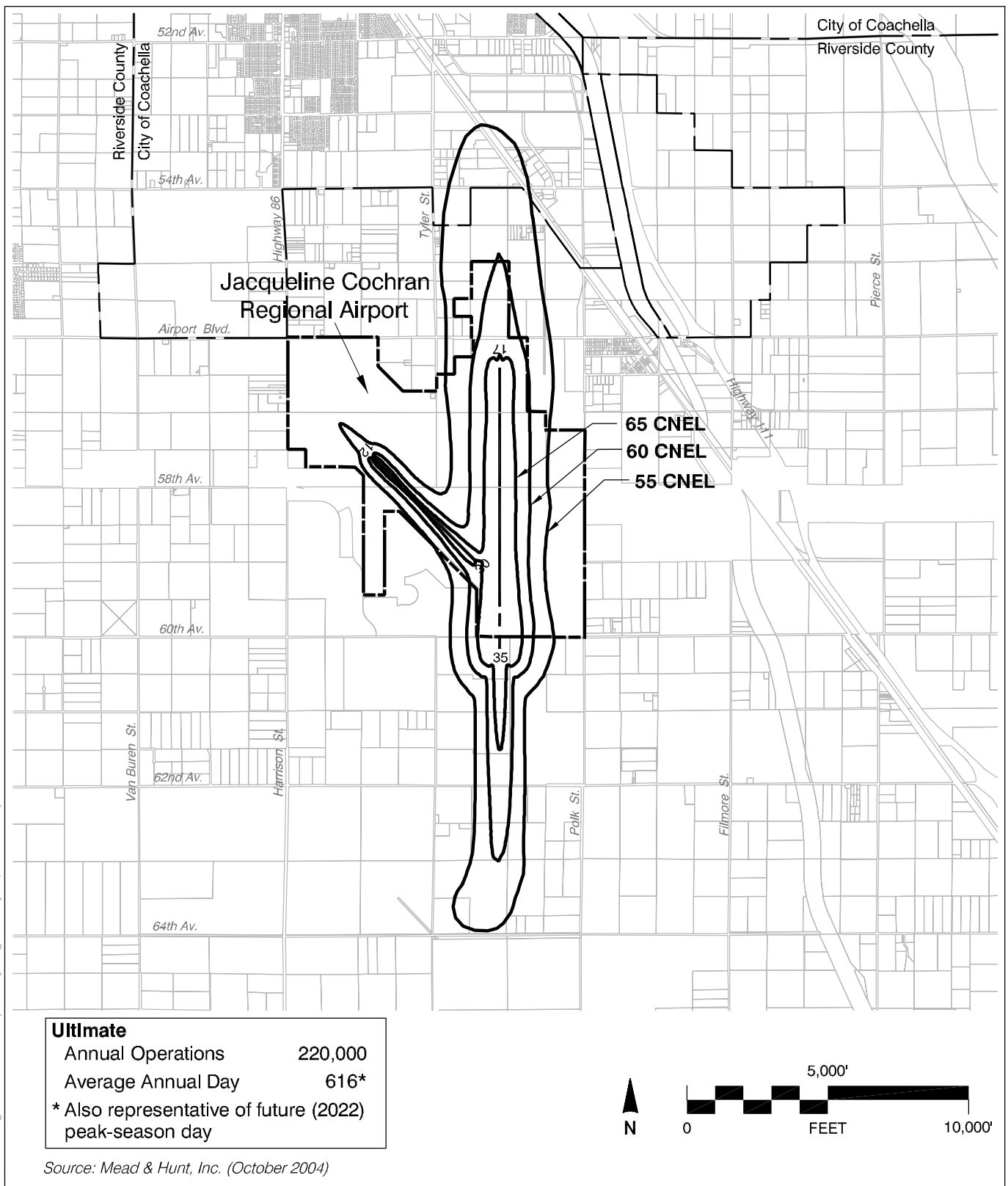


Source: Jacqueline Cochran Regional Airport Master Plan (September 2004)

**Exhibit JC-5**

**Future Noise Impacts**  
Jacqueline Cochran Regional Airport

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P:\RCO\Draws\TRM-noise-compatibility.dwg May 04, 2005 - 4:29pm

Exhibit JC-6

# Ultimate Noise Impacts

## Jacqueline Cochran Regional Airport

**AIRPORT SITE**

- ▶ *Location*
  - ▶ Central Riverside County
  - ▶ 25 miles southeast of Palm Springs
  - ▶ 10 miles northeast of Salton Sea
- ▶ *Nearby Terrain*
  - ▶ Situated on floor of Coachella Valley at elevation of 114 ft. below sea level; mostly flat terrain nearby
  - ▶ Santa Rosa Mountains 10± miles southwest; Toro Peak (elev. 8,716 ft.) 16 miles southwest
  - ▶ Mecca Hills 2± miles northeast; Little San Bernardino Mountains 8± miles northeast (peak elevations mostly 5,000-6,000 feet MSL)

**AIRPORT ENVIRONS LAND USE JURISDICTIONS**

- ▶ *County of Riverside*
  - ▶ Airport within unincorporated county jurisdiction
  - ▶ Community of Thermal at northeast corner of airport
- ▶ *City of Coachella*
  - ▶ City limits touch northwest corner of airport (area is within Augustine Indian Reservation) and within 1 mile north of Runway 17 approach end
  - ▶ City sphere including additional area north west of airport
- ▶ *City of Indio*
  - ▶ Nearest point within city limits, 4 miles northwest (outside airport influence area)
- ▶ *City of La Quinta*
  - ▶ Southern extension of city within 3 miles west

**STATUS OF COMMUNITY PLANS**

- ▶ *Riverside County*
  - ▶ General Plan, a portion of Riverside County Integrated Project, adopted by Board of Supervisors Oct. 2003
  - ▶ Kohl Ranch Specific Plan, amended January 2003
- ▶ *City of Coachella*
  - ▶ *General Plan 2020* adopted October 1998
- ▶ *City of La Quinta*
  - ▶ General Plan adopted early 2002
  - ▶ Land use map updated March 2002

**EXISTING AIRPORT AREA LAND USES**

- ▶ *General Character*
  - ▶ Predominantly agriculture or undeveloped desert within 1 mile; urban areas farther north
- ▶ *Runway Approaches*
  - ▶ Northwest (Runway 12): Undeveloped near runway; high school 2.0 miles from runway end
  - ▶ Southeast (Runway 30): Agriculture and undeveloped
  - ▶ North (Runway 17): Undeveloped near runway; Hwy 111, 1½ miles from runway end
  - ▶ South (Runway 35): Agriculture, undeveloped desert
- ▶ *Traffic Patterns*
  - ▶ Southwest: Agriculture and undeveloped
  - ▶ East: Community of Thermal on northeast; agriculture elsewhere

**PLANNED AIRPORT AREA LAND USES**

- ▶ *Riverside County*
  - ▶ North: Heavy & light industrial within 1 mile of runway
  - ▶ East: Additional urban uses (residential, light industrial, commercial) in Thermal; agriculture south of town
  - ▶ South: New community (Kohl Ranch) along extended runway centerline; open space & industrial up to 1 mile beyond existing runway end
  - ▶ West: Vista Santa Rosa Policy Area to remain agricultural & rural residential
- ▶ *City of Coachella*
  - ▶ Light industrial north of airport
  - ▶ Commercial & low-density residential along Hwy 86 beyond 1 mile from airport
  - ▶ Very-low-density residential in West Coachella
- ▶ *City of La Quinta*
  - ▶ Low-density residential to west outside city sphere
  - ▶ New community to south, as in county plan; outside city sphere of influence

Exhibit JC-8

## Airport Environs Information

### Jacqueline Cochran Regional Airport

**ESTABLISHED AIRPORT COMPATIBILITY MEASURES**

**Riverside County**

- ▶ *Riverside County General Plan*
  - ▶ Prohibit new residential uses, except single-family dwellings on legal residential lots of record, within airports' 60 dB CNEL contour as defined by ALUC (Policy N 7.4)
  - ▶ Safety compatibility zones and criteria from previous compatibility plan incorporated into General Plan
  - ▶ Review all proposed projects and require consistency with any applicable compatibility plan (LU 14.2)
  - ▶ Submit proposed actions and projects to ALUC as required by state law (Policy LU 1.9); other actions may be submitted on voluntary and advisory basis (LU 14.8)
- ▶ *Kohl Ranch Specific Plan*
  - ▶ Incorporates safety compatibility guidelines from 1992 ALUC *Comprehensive Land Use Plan*
  - ▶ Sets guidelines for water features to minimize bird attraction
  - ▶ No mention of noise standards noted

**City of Coachella**

- ▶ *City of Coachella General Plan*
  - ▶ "... designate land use patterns to avoid conflicts between new development and flight approaches to the airport, and to avoid placing conflicting land uses adjacent to airport property" (pg 18)
  - ▶ "Within the Thermal Airport Master Plan boundary, the Thermal Airport Master Plan is the official General Plan land use diagram, except where specific land uses have been assigned. The Master Plan should be consulted for a detailed understanding of allowable land uses and maximum densities or intensities." (Land Use Element)

**City of La Quinta**

- ▶ *General Plan Land Use Element*
  - ▶ "City shall consider airport Master Plans in all development proposals adjacent to ... airport" (Policy 4)
  - ▶ "Coordinate and cooperate with Riverside County Airport [Land Use?] Commission ..." to assure that the airport continues to meet the city's existing and future transportation, commercial, and emergency needs (Policy 9)

**Exhibit JC-8, continued**



**COUNTY OF RIVERSIDE:  
GENERAL PLAN (2003)**
**Residential Land Use**

- ▶ **Compatibility Zone B1**
  - › Medium-Density Residential (2.1 to 5.0 dwelling units per acre) designation south of 62<sup>nd</sup> Avenue [R1] conflicts with *Zone B1* compatibility criteria
- ▶ **Compatibility Zone C**
  - › Medium-Density Residential (2.1 to 5.0 dwelling units per acre), Medium-High Density Residential (5.1 to 8.0 dwelling units per acre), and Very-High Density Residential (14.1 to 20.0 dwelling units per acre) designations south of airport [R2] conflict with *Zone C* compatibility criteria
- ▶ **Compatibility Zone D**
  - › Low-Density, Very-Low Density, and Estate Density Residential (0.4 to 2.0 dwelling units per acre) designations west of airport [R3] potentially conflict with the high- and- low options for *Zone D*
  - › Medium Density Residential (2.1 to 5.0 dwelling units per acre), Medium-High Density Residential (5.1 to 8.0 dwelling units per acre), and High-Density Residential (8.1 to 14.0 dwelling units per acre) designations east of airport [R4] potentially conflict with the high- and -low density options for *Zone D*
  - › Medium Density Residential (2.1 to 5.0 dwelling units per acre), Medium-High Density Residential (5.1 to 8.0 dwelling units per acre), and Highest Density Residential (>20 dwelling units per acre) designations south of airport [R5] potentially conflict with the high- and -low density options for *Zone D*
- ▶ **Compatibility Zone E**
  - › No inconsistencies noted

**Other Policies**

- ▶ **General Plan**
  - › Acknowledgement of ALUC policies—no conflict
  - › Established ALUC 60 dB CNEL noise contour policy for new residential development—no conflict
- ▶ **Zoning Codes**
  - › No height limit zoning established

**Non-Residential Land Use**

- ▶ **Compatibility Zone A**
  - › A potential conflict exists in *Zone A*; a portion of the northeast corner of *Zone A* (north of Airport Boulevard) is designated as Heavy Industrial/Warehousing [R6]; no structures are allowed in *Zone A*; site proposed for airport acquisition
- ▶ **Compatibility Zone B1**
  - › Potential Conflict: *Zone B1* intensity limits (25 people/acre) apply to areas designated as Heavy Industrial and Light Industrial/Warehousing (north and south of airport) and Low and High Intensity Commercial/Office south of the airport [R7]
- ▶ **Compatibility Zone B2**
  - › Potential Conflict: *Zone B2* intensity limits (100 people/acre) apply to areas designated as Heavy Industrial and Light Industrial/Warehousing east of airport [R8]
- ▶ **Compatibility Zone C**
  - › Potential Conflict: *Zone C* intensity limits (75 people/acre) apply to areas designated as Heavy Industrial and Light Industrial/Warehousing north and south of airport [R9], High Intensity Commercial/Office south of airport [R10], and Light Industrial/Warehousing and Low-Intensity Commercial/Office west of the airport [R11]
- ▶ **Compatibility Zone D**
  - › Potential Conflict: *Zone D* intensity limits (100 people/acre) apply to areas designated as Heavy Industrial, Light Industrial/Warehousing, and Low-Intensity Commercial north, south, and east of airport [R12]
- ▶ **Compatibility Zone E**
  - › No inconsistencies noted

**AUGUSTINE INDIAN RESERVATION**

- ▶ **Compatibility Zone C**
  - › Potential Conflict: *Zone C* intensity limits (75 people/acre) apply to Indian lands northwest of airport [A1]
- ▶ **Compatibility Zone D**
  - › Potential Conflict: *Zone D* intensity limits (100 people/acre) apply to Indian lands northwest of airport [A2]

*Note: This is an initial land use consistency review prepared for the purpose of identifying areas where a conflict exists or potentially exists with ALUC compatibility zone criteria. This review is based upon available general plan documents and does not take into account existing land use. When a conflict between the general plan and compatibility criteria exists, it is not deemed inconsistent when the general plan is merely representing existing development. A more comprehensive analysis is necessary at the time a general plan land modification is presented to the ALUC for review.*

Exhibit JC-10

## General Plan Consistency Review (Preliminary)

### Jacqueline Cochran Regional Airport Environs

**CITY OF COACHELLA:  
GENERAL PLAN (1998), AND ZONING CODES**

**Residential Land Use**

- ▶ *Compatibility Zone D*
  - › Residential land use designations with densities ranging from 5.1 to 8.0 dwelling units per acre north of the airport [C1] potentially conflict with the high- and- low options for *Zone D*
- ▶ *Compatibility Zone E*
  - › No inconsistencies noted

**Other Policies**

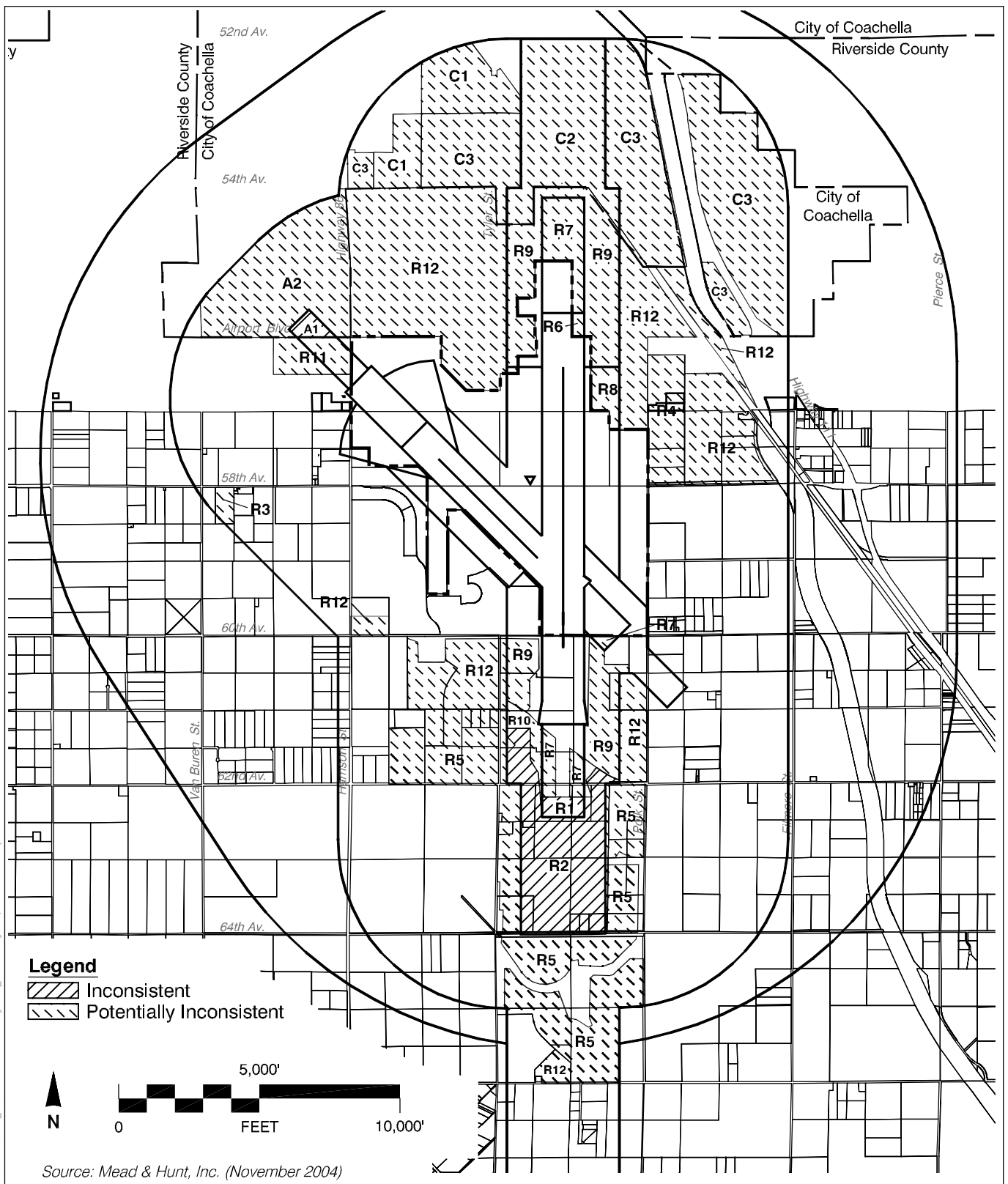
- ▶ *General Plan*
  - › The Circulation Element “encourages implementation of the *Thermal Airport Master Plan* as it relates to safety, land use, and noise.”
  - › No acknowledgment of ALUC coordination
  - › The General Plan should be amended to incorporate the current *ALUC Compatibility Plan* with respect to Jacqueline Cochran Regional Airport
  - › Noise policy conditionally allows residential development up to 70 dB CNEL conflicts with *Compatibility Plan* limit of 60 dB CNEL
- ▶ *Zoning Codes*
  - › Airport height limit zoning not established

**Non-Residential Land Use**

- ▶ *Compatibility Zone C*
  - › Potential Conflict: *Zone C* intensity limits (75 people/acre) apply to area designated as Light Industrial/Warehousing north of airport [C2]
- ▶ *Compatibility Zone D*
  - › Potential Conflict: *Zone D* intensity limits (100 people/acre) apply to areas designated as Light Industrial/Warehousing and Low-Intensity Commercial/Office northwest and northeast of airport [C3]
- ▶ *Compatibility Zone E*
  - › No inconsistencies noted

*Note: This is an initial land use consistency review prepared for the purpose of identifying areas where a conflict exists or potentially exists with ALUC compatibility zone criteria. This review is based upon available general plan documents and does not take into account existing land use. When a conflict between the general plan and compatibility criteria exists, it is not deemed inconsistent when the general plan is merely representing existing development. A more comprehensive analysis is necessary at the time a general plan land modification is presented to the ALUC for review.*

**Exhibit JC–10, continued**



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**Exhibit JC-10, continued**