# PLACER COUNTY

## Airport Land Use Compatibility Plans

### **Containing Individual Plans for:**

**Auburn Municipal Airport** 







## **Background Data:**

Lincoln Regional Airport and Environs

## Background Data: Lincoln Regional Airport and Environs

### INTRODUCTION

Lincoln Regional Airport/Karl Harder Field is a former military training airfield built during World War II on a mile-square section of open rangeland some three miles west of central Lincoln. After the war, title to the property was turned over to the City of Lincoln. For a period of time, the Airport was operated by the Lincoln Airport Authority under a joint powers agreement between the City and Placer County. Today, Lincoln Regional Airport is under the sole control of the City.

### AIRPORT MASTER PLAN AND AIRPORT LAYOUT PLAN STATUS

The Lincoln City Council adopted a master plan for Lincoln Regional Airport in May 2007. Since publication of the master plan, minor amendments have been made to the Airport Layout Plan (ALP). The current Airport Layout Plan (ALP) was approved by the Federal Aviation Administration (FAA) in June 2020. The information contained on the 2020 ALP, together with supplemental information provided in the 2007 master plan and by Airport personnel, forms the foundation for this Lincoln Regional Airport Land Use Compatibility Plan (ALUCP).

### **Airfield Configuration**

As originally constructed, Lincoln Regional Airport consisted of four runways – three in triangular arrangement and a fourth running through the center – each some 4,000 feet long by 300 feet wide. By the early 1970s, all but the center runway were closed. In the early 1980s, additional property was acquired and the one runway was extended northward to its present length of 6,000 feet.

Current plans call for another northerly runway extension of 1,000 feet and the eventual construction of a shorter, parallel runway east of the existing runway. Additional improvements include a full-length parallel taxiway on the west side of the existing runway to serve future aviation development. Relocation of the heliport with a total of six parking spaces to an area west of Runway 33 is also proposed. Compared to the 2007 Master Plan, the 2020 ALP shows a larger runway protection zone (RPZ) for Runway 33, increasing from 14 acres to 49 acres. The larger RPZ exceeds the FAA's standards for existing conditions but appropriately sized for future runway conditions. This ALUCP reflects the larger RPZ for both

existing and future conditions consistent with the FAA-approved 2020 ALP. Lastly, the 2020 ALP reflects future avigation easement acquisitions for the areas underlying the existing and future RPZs.

### **Aircraft Activity and Forecasts**

Lincoln Regional Airport is home to some 295 based aircraft including 4 helicopters, and serves a major air transportation role not only for the immediate Lincoln area, but also for the northeastern Sacramento metropolitan region.

The 2020 ALP Narrative Report contains the most recent detailed information regarding existing and forecast aircraft operations. The Report indicates that existing activity levels have remained at about 75,000 annual operations with a forecast of 87,000 annual operations. However, for land use planning purposes, the City of Lincoln sets noise standards for land uses in the vicinity of the Airport according to the noise modeling conducted for the 2007 master plan forecast of 138,000 annual operations. As such, the master plan forecast noise contours are used as the basis of this ALUCP. Exhibit 6C contains additional detailed information about existing and forecast Airport operations.

### Aircraft Traffic Patterns

For fixed-wing aircraft, Runways 15 and 33 both have a standard left-hand pattern, thus creating traffic patterns both east and west of the runway. The predominant direction of operations is landing and taking off to the south on Runway 15. Therefore, the primary traffic pattern is located east of the Airport.

Once the shorter parallel runway is constructed and the heliport is relocated, it is anticipated that Runway 15R and Runway 33R would utilize right traffic patterns. This would in effect separate air traffic between the two runways. Aircraft using the longest runway (Runway 15R/33L) would operate west of the Airport and aircraft using Runway 15L/33R would operate east of the Airport.

### SURROUNDING LAND USES

Lincoln Regional Airport is situated in the northwestern limits of the City of Lincoln. The City's sphere of influence encompasses nearly all of the land within the airport influence area. At present, though, the majority of the Airport environs fall within unincorporated Placer County jurisdiction.

Lands in the Airport environs are mostly dedicated to dryland farming and livestock grazing with residences widely scattered. The Lincoln Air Center, located within the City limits, occupies the adjoining square mile to the east. The Center consists of an industrial park on the western half of the property and residential uses in the eastern portion about a mile lateral of the Airport runway. The only other concentration of residential development is within County jurisdiction immediately south of the runway where several dozen homes are situated in a long-established subdivision comprised of five-acre lots.

With the construction of the Highway 65 Bypass west of the Airport, urbanization is anticipated to move westward and surround the Airport. The City's general plan reflects Village and Special Use Districts within the City's sphere of influence. These planned land use designations allow mixed-use residential and commercial projects. General plan policies require specific plans for these areas and limit future development to be consistent with the 2000 ALUCP.

### **EXHIBITS**

The following exhibits illustrate the compatibility factors and background information which serve as the basis for this ALUCP.

Exhibit 9A: Airport Features Summary—Presents information pertaining to the Airport configuration, operational characteristics, and applicable planning documents.

**Exhibits 9B-1 and 9B-2: 2020 Airport Layout Plan and Data Sheet**—The FAA-approved ALP depicting the Airport configuration and Airport building areas.

**Exhibit 9C: Airport Activity Summary**—Presents existing and forecast activity levels for the Airport as reflected in the 2007 Master Plan and 2020 ALP Narrative Report and brought forward for *ALUCP* purposes.

**Exhibits 9D and 9E: Compatibility Factors**—Depicts the extents of the four compatibility factors upon which the compatibility zones for Lincoln Regional Airport were derived. The four compatibility factors are defined by:

- Noise Future noise contours reflecting the 2007 master plan forecast of 138,000 annual operations.
- Overflight Primary traffic patterns reflecting where aircraft and helicopters operating at Lincoln Regional Airport currently and will in the future routinely fly.
- Safety A composite of several sample safety zones provided in the California Airport Land Use Planning Handbook (October 2011) applied to the existing and future airfield configurations in the following manner:
  - O Safety zones for a medium general aviation runway were applied to the existing airfield configuration as the majority of the operations are by small- and medium-sized aircraft.
  - O Safety zones for a large general aviation runway were applied to the future airfield configuration.
  - O Safety zones for a short general aviation runway were applied to the future parallel runway.
  - o Safety Zone 1 reflects the existing and future RPZs from the 2020 ALP.
- Airspace Protection FAA notification and obstruction surfaces as defined by Code of Federal Regulation (CFR) Part 77, Safe, Efficient Use, and Preservation of the Navigable Airspace.

Compatibility Zones – Policy zones developed for this ALUCP are based on the above four factors. Airport-specific considerations used to develop these zones are summarized in Chapter 6.

**Exhibit 9F: Compatibility Factors: Wildlife Hazards**—Depicts the extents of the FAA-designated separations for wildlife attractants in accordance with FAA Advisory Circular 150/5200-33C, *Hazardous Wildlife Attractants on or near Airports* (February 2020). Also identifies existing and planned reserve areas provided in the Placer County Conservation Program (PCCP).

**Exhibit 9G: Airport Environs Information**—Summarizes information about current and planned land uses in the environs of the Lincoln Regional Airport. Airport land use compatibility policies contained in the County's and City's general plans are also summarized.

**Exhibits 9H and 9I: General Plan Land Use Designations**—Shows planned land use designations as reflected in the 2013 and 2008 general plan land use diagrams, as amended, for Placer County and the City of Lincoln, respectively.

Exhibit 9J: Aerial—An aerial photo of the Airport environs.

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#### **GENERAL INFORMATION**

- Airport Ownership: City of Lincoln
- Property Size
  - > Fee title: 725 acres
  - > Avigation easement: None existing, 100 acres future
- Airport Classification: General Aviation Reliever
- Airport Elevation: 121 ft. MSL (surveyed)

#### **BUILDING AREA**

- Location
  - > East side of runway
- Aircraft Parking Capacity
  - > 165 tiedown spaces on apron
  - > 220 hangar spaces
- Services
  - Self-serve general aviation and jet fuel available 24 hours per day or by truck
  - Aircraft repairs; avionics sales and services; interior refurbishing
  - Aircraft rental; hangar leasing and sales; flight instruction; pilot supplies
  - > Helicopter repair
  - Skydiving; rental cars

#### **RUNWAY/TAXIWAY DESIGN**

### **Runway 15/33**

- Airport Reference Code: B-I
- Critical Aircraft: Citation I
- Dimensions: 6,001 ft. long, 100 ft. wide
- Runway OFA Width: 800 ft.
- Pavement Strength (main landing gear configuration)
  - > 36,000 lbs. (single wheel)
  - > 50,000 lbs. (dual wheel)
- Effective Gradient: 0.18%
- Runway Lighting:
  - Medium-Intensity Runway edge Lights (MIRLs) and Runway End Identifier Lights (REILS) (pilot controlled)
  - Medium-intensity approach lighting system (MALSR) on Runway 15
- Runway Markings
  - > Runway 15: Precision
  - > Runway 33: Nonprecision
- Primary Taxiways: Full-length parallel east of runway

#### Heliport

- Location: Helipad and helicopter parking located east of runway near aircraft parking apron
- Dimensions: 60 ft. long, 60 ft. wide
- Lighting: helipad perimeter lights (pilot controlled)

#### **APPROACH PROTECTION**

- Runway Protection Zones (RPZs)
  - Runway 15: 1,000 ft. inner width, 1,750 outer width, 2,500 ft. long (50:1 approach slope); majority onairport property
  - Runway 33: 1000 ft. inner width, 1,510 outer width, 1,700 ft. long (34:1 approach slope); more than twothirds on airport property
- Approach Obstruction
  - > Runway 15: 25-ft. tree, 710 ft. from runway end, 32:1 slope to clear
  - > Runway 33: 40-ft. trees, 1,400 ft. from runway end, 35:1 slope to clear
- Heliport Protection Zones (Existing/Future): 1,000 ft. inner width, 1,750 outer width, 2,500 ft. long (8:1 approach slope); all on airport and clear of obstructions

### TRAFFIC PATTERNS AND APPROACH PROCEDURES

- Airplane Traffic Patterns
  - > Runway 15/33: Left traffic
  - > Runway 15/33: Left traffic
  - > Pattern Altitude: 1,000 ft. AGL
- FAR Part 77 Category
  - > Runway 15: Precision [PIR]
  - > Runway 33: Nonprecision [C]
  - Runway 15: Visual Runway 33: Visual
- Instrument Approaches

Visibility	Min. Descent
(miles)	Height (ft. AGL)
1/2	200
1	399
GPS):	
1/2	200
1	399
GPS):	
1	359
	(miles) ½ 1 GPS):

- Visual Navigational Aids
  - > Airport: Rotating beacon
  - > Runway 15: 4-light PAPI on left, MALSR
  - > Runway 33: 4-light PAPI on left
- Helicopter Traffic Patterns: Left traffic and 1,000 ft. AGL pattern altitude
- Operational Restrictions: None

(continued on next page)

**Exhibit 9A** 

### **Airport Features Summary**

### **AIRPORT PLANNING DOCUMENTS**

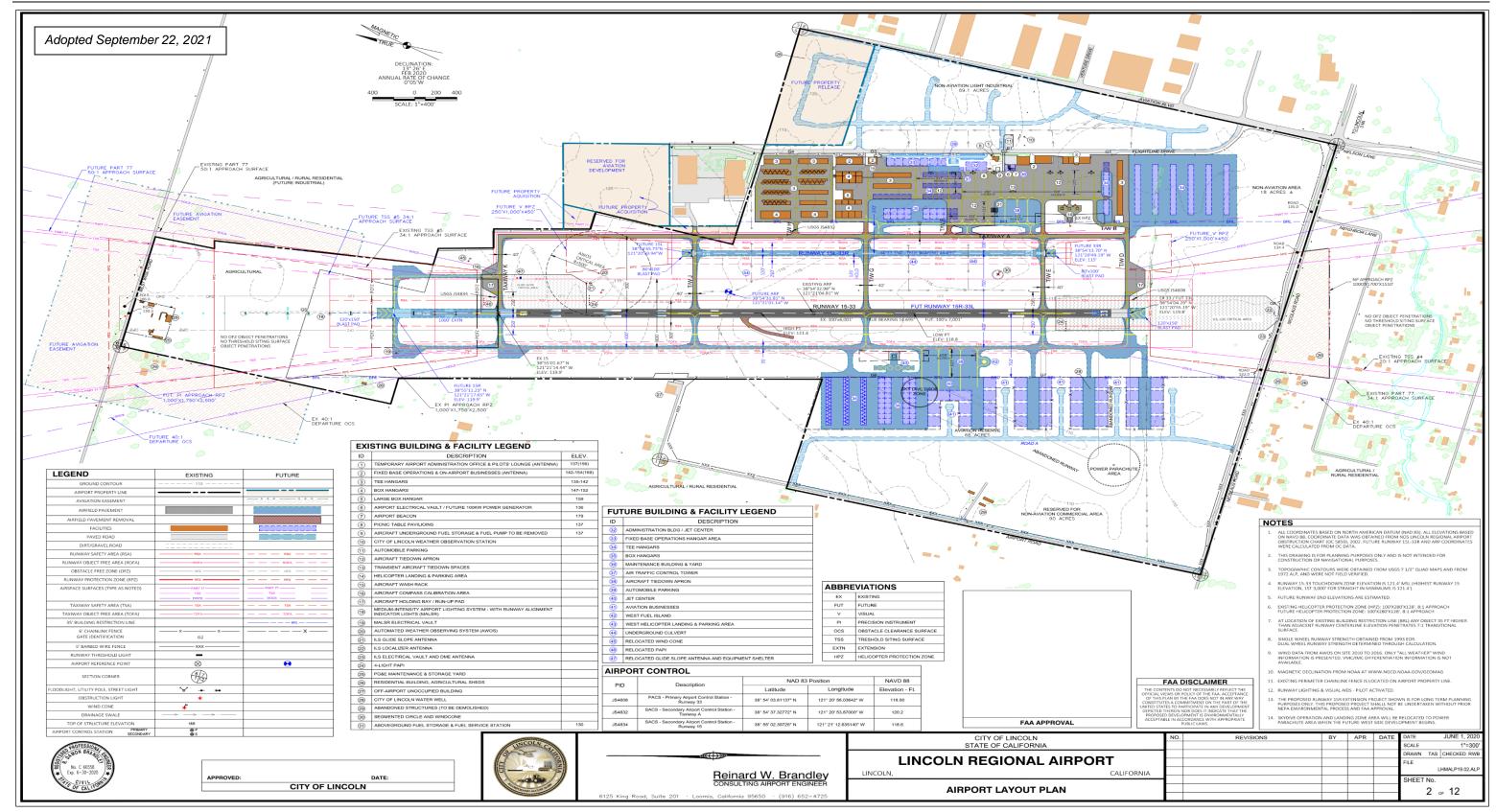
- Airport Master Plan
  - > Adopted by Lincoln City Council May 2007
- Airport Layout Plan
  - > Approved by FAA June 2020
  - Accepted by Caltrans Division of Aeronautics for basis of this ALUCP (January 2021)

### **PROPOSED FACILITY IMPROVEMENTS**

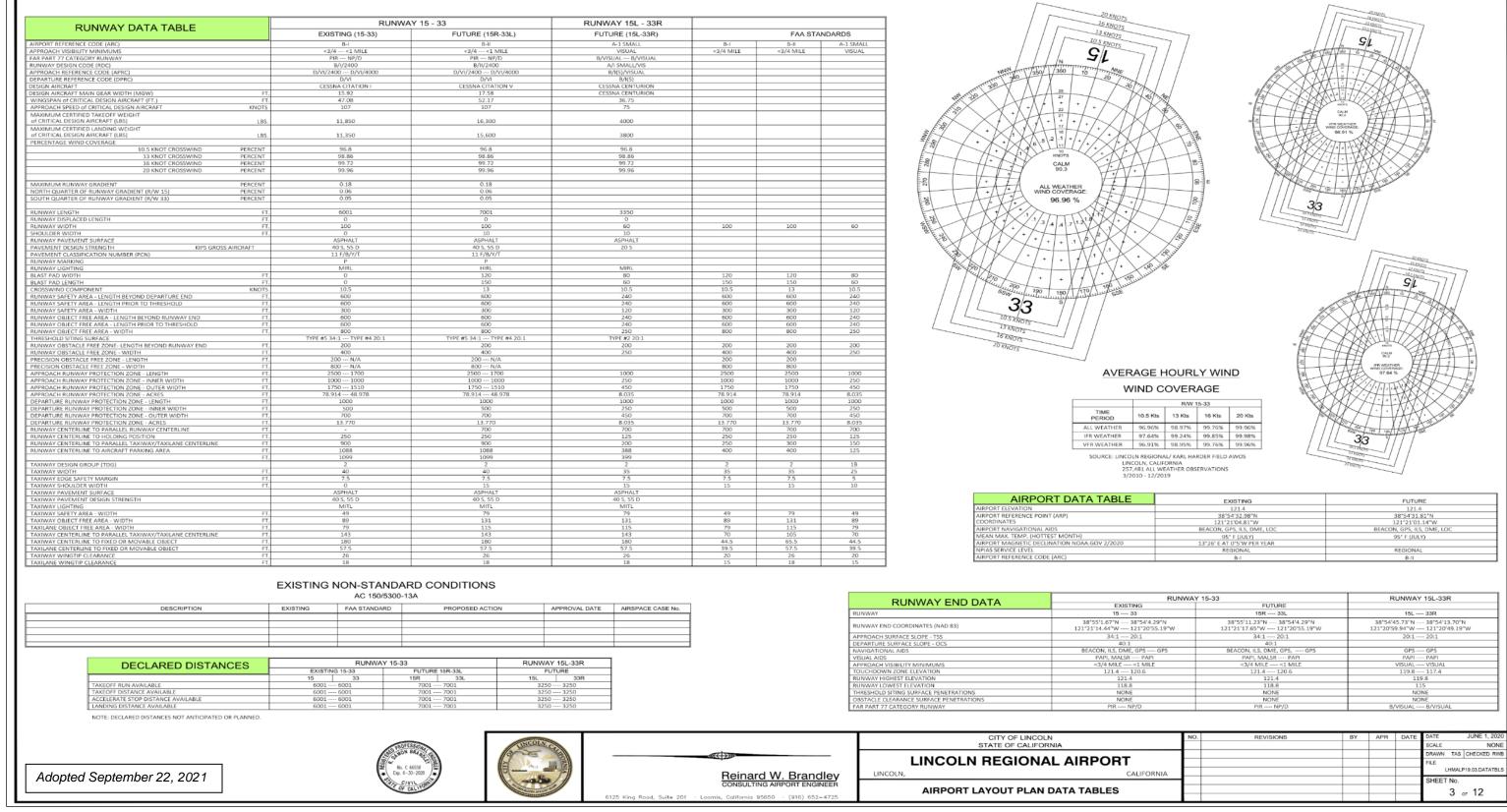
- Airfield
  - Extend primary runway 1,000 ft. north for future runway length of 7,001 ft.; upgrade FAA airport reference code/runway design code to B-II (Citation V)
  - Construct lighted, 3,350-ft. long by 60-ft. wide parallel runway 700 ft. east of existing primary runway; FAA runway design code A-I (small) (Cessna Centurion), 250 ft. wide Runway OFA, 20,000 lbs. (single wheel) pavement strength, MIRL runway lighting, basic/visual runway markings
  - Construct full-length parallel taxiway on west side of runway to serve future aviation development
  - Relocate helipad and parking spaces from southeast position to new site southwest of runway
- Approach Protection
  - Acquire avigation easements for remaining existing and future Runway 15 RPZs plus surrounding buffer area
  - Acquire avigation easement for remaining Runway 33 RPZ (14 acres)
- Building Area
  - New building area southwest of runway including sites for new FBO facilities, hangars, and a large parking apron

Source: Data Compiled by Mead & Hunt, 2014; Amended September 2020

#### Exhibit 9A, continued



Source: Lincoln Regional Airport Layout Plan, May 2008. Map not to scale.



Source: Lincoln Regional Airport Layout Plan, May 2008. Map not to scale.

	BA	ACKGROUND DA	TA: LINCOLN REGIONAL AIRPORT AN	ID ENVIRONS	CHAPTER
BASED AIRCRAFT A			RUNWAY USE DISTRIBUTION	<b>1</b>	
	Current	Future		Current	Future
A: 0. T			Single-Engine Aircraft	<b>-</b>	
Aircraft Type			Takeoffs		
Single-Engine	267	303	Runway 15(R)	85%	0%
Multi-Engine	24	60	Runway 33(L)	15%	0%
Business Jet	0	31	Runway 15L		85%
Helicopters	4	4	Runway 33R		15%
Total	291	398	Landings		1070
			Runway 15(R)	85%	0%
AIRCRAFT OPERATIONS A			Runway 33(L)	15%	0%
	Current	Future	Runway 15L		85%
			Runway 33R		15%
Total			Twin-Engine Reciprocating		1070
Annual	75,387	138,000	Takeoffs		
Average Day	206	378	Runway 15(R)	85%	42.5%
			Runway 33(L)	15%	7.5%
Distribution by Aircraft Type			Runway 15L		42.5%
Single-Engine Fixed Prop	47%	50%	Runway 33R	_	7.5%
Single-Engine Variable Prop	36%	26%	Landings		7.070
Twin-Engine Reciprocating	4%	7%	Runway 15(R)	85%	42.5%
Twin-Engine Turboprop	4%	8%	Runway 33(L)	15%	7.5%
Business Jet	3%	8%	Runway 15L	1576	42.5%
Helicopter	<1%	1%	Runway 33R		7.5%
			Turboprops		7.570
Distribution by Type of Operation			Takeoffs		
Local (incl. touch-and-goes)	50%	no	Runway 15(R)	85%	68%
Itinerant	50%	change	Runway 33(L)	15%	12%
			Runway 15L	-	17%
TIME OF DAY DISTRIBUTION A			Runway 33R	_	3%
	Current	Future	Landings		070
			Runway 15(R)	85%	68%
All Aircraft	/		Runway 33(L)	15%	12%
Day (7 am to 7pm)	88%	no	Runway 15L	-	17%
Evening (7 pm to 10 pm)	8%	change	Runway 33R	_	3%
Night (10 pm to 7 an	n) 4%		Jets		0,0
	•		Takeoffs		
			Runway 15(R)	85%	85%
			Runway 33(L)	15%	15%
			Runway 15L		0%
			Runway 33R	_	0%
			Landings		0,70
			Runway 15(R)	85%	85%
			Runway 33(L)	15%	15%
			Runway 15L		0%
			Runway 33R	_	0%
			Helicopters		3,0
			Takeoffs and Landings		
				85%	0%
			Runway 15(R)	85%	

### NOTES:

Source: Data Compiled by Mead & Hunt, 2014; Amended September 2020

**Exhibit 9C** 

0%

85%

15%

15%

### **Airport Activity Data Summary**

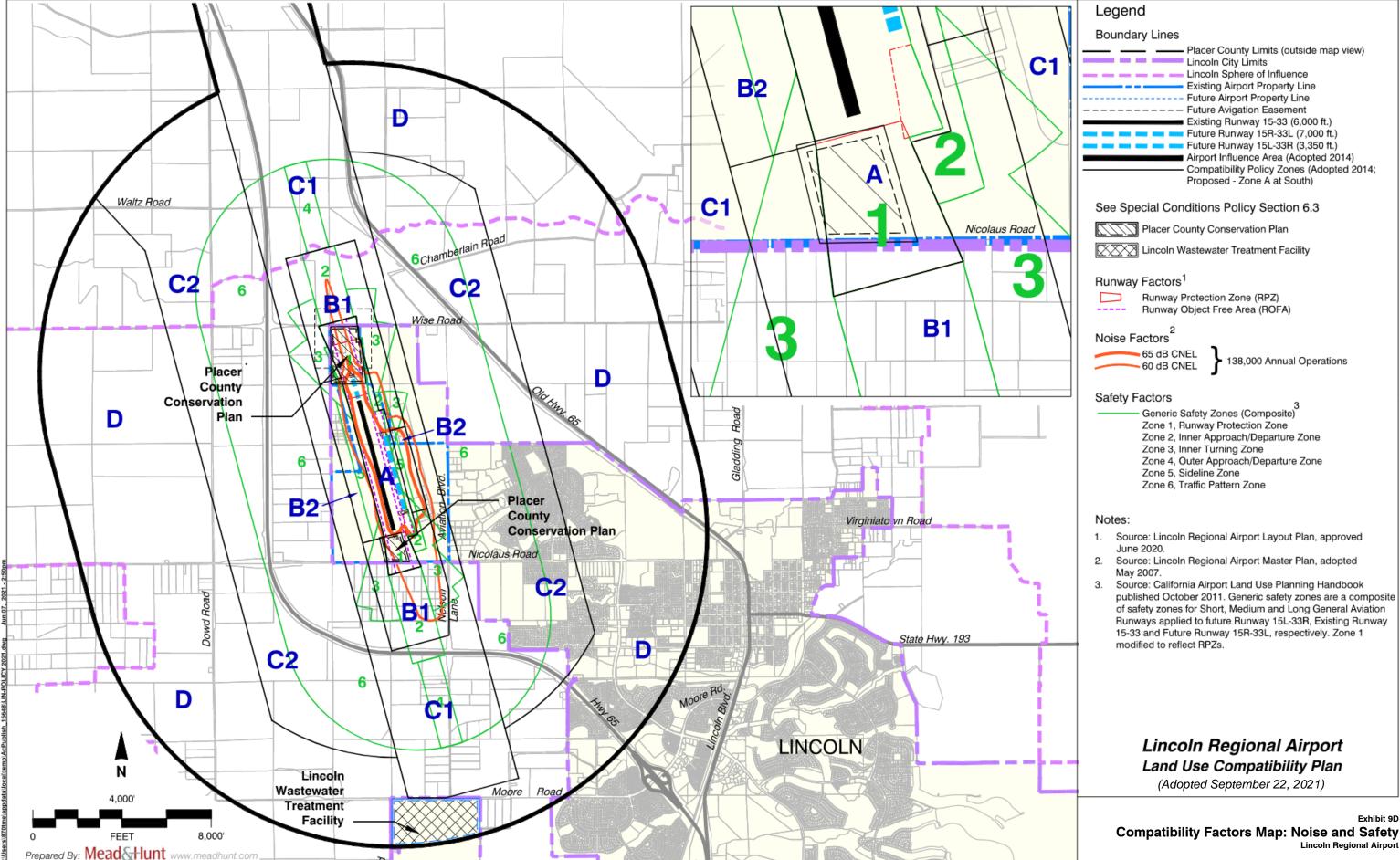
Runway 33(L)

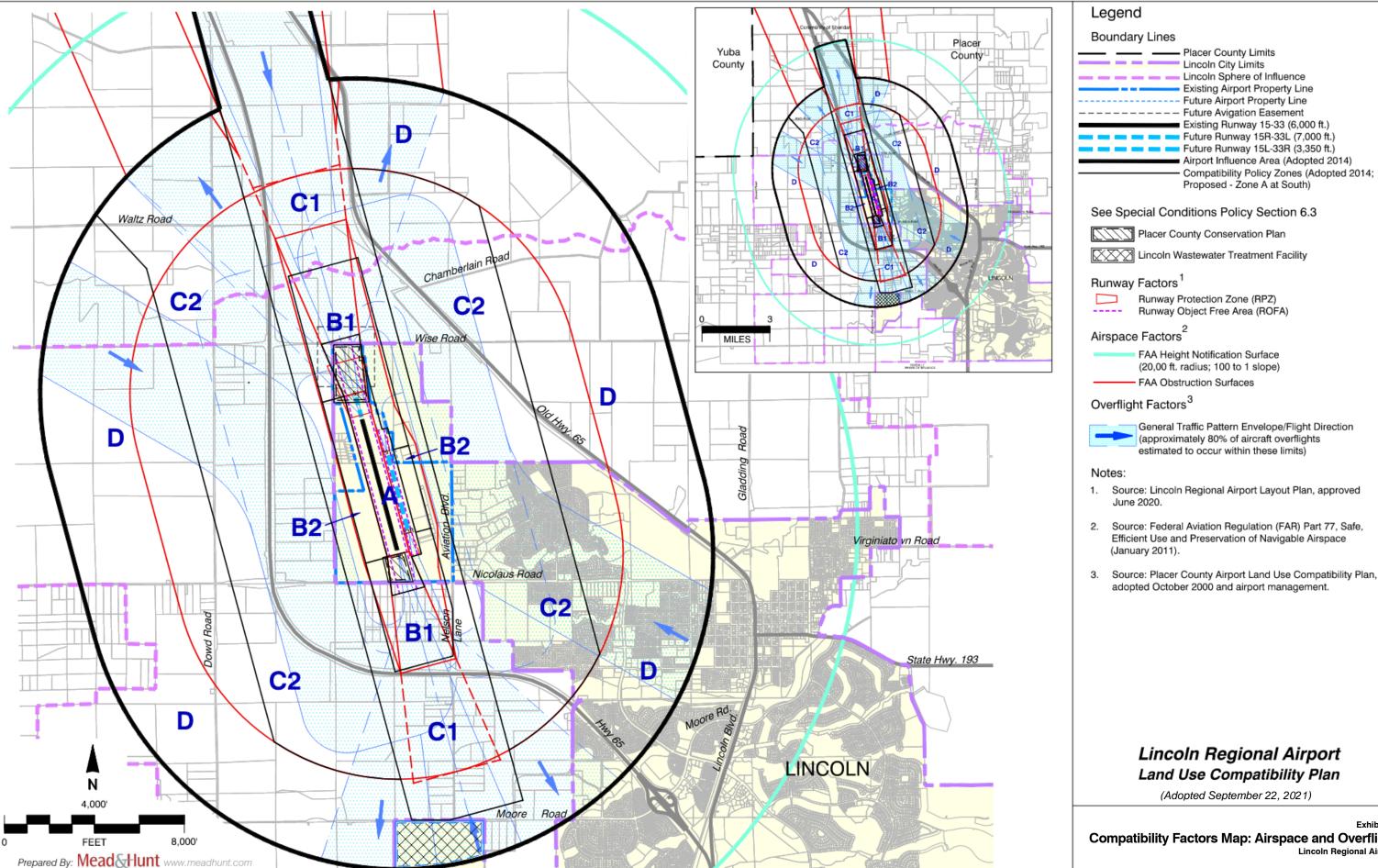
Runway 33R

Runway 15L

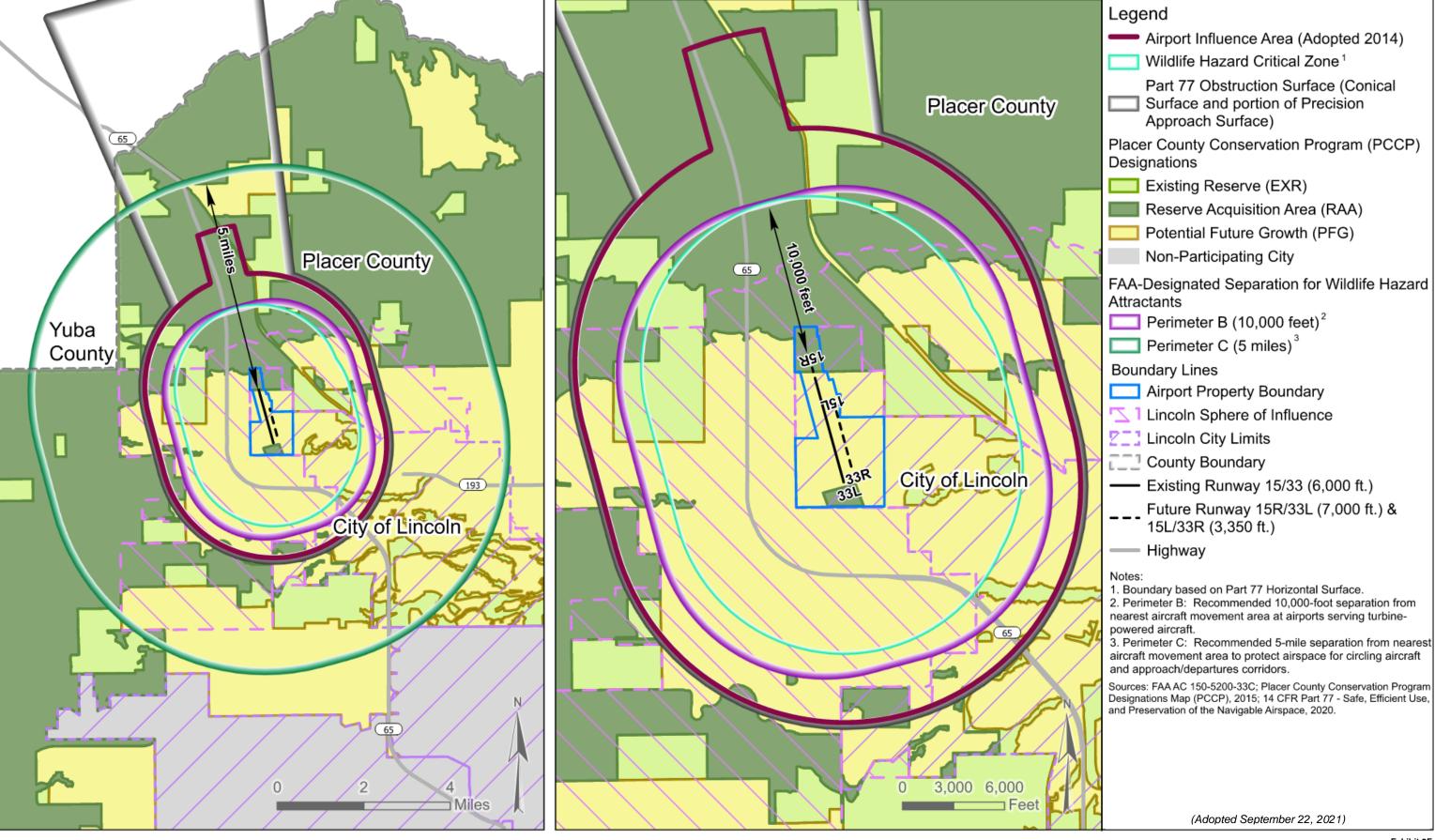
<sup>&</sup>lt;sup>A</sup> Source: Current (2019) and future (2033) aircraft activity data brought forward from the Lincoln Regional Airport Master Plan Update (2007) and Aircraft Noise Assessment Study (2007). Numbers may not equal 100% due to rounding. The Airport Layout Plan Update (2020) revised future traffic counts to 87,000 for facility planning purposes only.

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**Compatibility Factors Map: Airspace and Overflight** Lincoln Regional Airport



#### **AIRPORT SITE**

- Location
  - Western Placer County
  - Northwestern corner of Lincoln city limits, 3 miles from city center
- Topography
  - Situated eastern edge of Sacramento Valley
  - Land in vicinity is relatively flat
  - Highway 65 Bypass 1 mile west of airport

### **AIRPORT ENVIRONS LAND USE JURISDICTIONS**

- County of Placer
  - Lands north, west and south of airport within unincorporated county jurisdiction
- City of Lincoln
  - Airport and some adjacent private property in city limits
  - Most of area to east inside city
  - Majority of unincorporated land in vicinity of airport in city sphere of influence

#### **EXISTING AIRPORT AREA LAND USES**

- General Character
  - Predominantly agricultural and open pasture lands
  - Industrial uses inside city to east
- Runway Approaches
  - North (Runway 15): Open rangeland; community of Sheridan located 4.5 miles from airport
  - South (Runway 33): Rural residential 0.5 mile from runway end; agriculture beyond
- Traffic Pattern
  - Northeast: Open rangeland
  - East: Light industrial and undeveloped property; residential area 1 mile from runway
  - West: Agricultural land

### PLANNED AIRPORT AREA LAND USES

- County of Placer
  - Continued rural residential (1 to 10-acre lots) south of airport
  - Continued residential development in community of Sheridan north of airport
  - New business/industrial park planned
  - Other areas north, west and south of airport continue to be designated agriculture (20- to 80acre lots); but Highway 65 Bypass west of airport anticipated to promote growth in area

- City of Lincoln
  - Industrial development planned to east and west, both on and off airport property
  - Continued residential development 1 mile east and west of airport
  - Planned development along Highway 65 Bypass of 198.4 acre proposed SPA bordered by Nicolaus Rd to north, Nelson Lane to west, Hwy 65 bypass to south and City of Lincoln to east. (City of Lincoln Land Use 4.10.1.1)

#### STATUS OF COMMUNITY PLANS

- County of Placer
  - General Plan Policy Document and General Plan Land Use Diagram approved May 21, 2013
  - Sheridan Community Plan adopted in 1976; update completed in January 2016.
  - Housing Element Adoption Draft March 2021;
    PCALUC consistency determination with 2014
    ALUCP obtained April 2021
  - Health and Safety Element Adoption Draft June 2021; PCALUC consistency determination with 2014 ALUCP obtained May 2021
- City of Lincoln
  - General Plan and Land Use Diagram March 2008
  - Housing Element adopted November 2013
  - Housing Element Adoption Draft February 2021;
    PCALUC consistency determination with 2014
    ALUCP obtained January 2021
  - Health and Safety Element Public Review Draft December 2020; PCALUC conditionally consistent determination with 2014 ALUCP obtained January 2021
  - Village 5 Specific Plan approved January 2018;
    PCALUC conditionally consistent determination with 2014 ALUCP obtained December 2016
  - Village 7 Specific Plan approved June 2010; amended 2016; PCALUC consistency determination with 2000 ALUCP obtained September 2016
  - SUD-B Northeast Quadrant Specific Plan approved March 2019; PCALUC conditionally consistent determination with 2014 ALUCP obtained December 2018
  - Lincoln Code of Ordinances, Title 18 Lincoln Municipal Airport Hazard Zone and Title 20 Lincoln Municipal Airport
  - Lincoln Land Use Circulation Map
  - Lincoln Zoning Map, October 2012

## ESTABLISHED AIRPORT COMPATIBILITY MEASURES County of Placer

- General Plan
  - Requires 2,000- ft. buffer between airports and new residential development (Land Use and Circulation, Section 4.B.1.)

Exhibit 9G

### **Airport Environs Information**

## ESTABLISHED AIRPORT COMPATIBILITY MEASURES (CONTINUED)

### County of Placer (Continued)

- General Plan (Continued)
  - County shall work with ALUC to ensure protection of airports from urban encroachment (Transportation 3.F.2.)
  - Prohibits new residential and other noise-sensitive land uses in areas exposed to more than 60 dB CNEL unless mitigated to reduce impacts to outdoor activities; indoor noise level cannot exceed 45 dB CNEL; acoustical analysis required (Noise, 9.A.8)
- Draft Safety Element
  - Ensure new development around airports does not create safety hazards (Airport Hazards, 8.D.1); Limit land uses in airport safety zones consistent with ALUC plans (Airport Hazards, 8.D.2); Ensure development within the airport approach and departure zones complies with CFR Part 77 regulations (Airport Hazards, 8.D.3); Require future airport development plans to be compatible with existing and planned land uses that surround airports (Airport Hazards, 8.D.4.)
  - All development projects within Aircraft Overflight (AO) Combining District shall be reviewed for consistency with applicable ALUC plans (Airport Hazards, IM 8.D.1); General Plan amendments, zoning text amendments, building code amendments airport development plans, rezoning applications, and other discretionary entitlements shall be referred to the applicable ALUC (Airport Hazards IM 8.D.2)
- Housing Element
  - Requires residential projects proposed within compatibility Zones C1 and C2 of any municipal airport to conform to the criteria set forth in Table 2A of the ALUCP (2000). Does not count potential development sites within these Zones in housing element inventory of vacant parcels (New Residential Construction, A-8)
- Draft Housing Element
  - Establishes Regional Housing Needs Allocation
  - Requires residential projects proposed within compatibility zones to conform to criteria set forth in the 2014 ALUCP (Airport Land Use Compatibility, HE-A-8)
  - Applies infill policies and provisions in the ALUCP for infill sites located in Compatibility Zones C1, C2 and D (Incentives for Infill Development, HE-8)
  - No housing inventory sites identified in Lincoln Regional Airport Influence Area
- Sheridan Community Plan
  - No compatibility policies pertaining to Lincoln Regional Airport
- Airport Overflight Combining District (17.52.030)
  - Ordinance sets noise, safety, and height compatibility requirements and requires discretionary land use permits applications to be submitted to ALUC for review

#### City of Lincoln

- General Plan
  - Adopted 2014 Placer County Airport Land Use Compatibility Plan (ALUCP) and any subsequent amendments by reference (Page 4-2)
  - Adopted airport buffer to protect airport from encroachment of incompatible uses; requires developers to file an avigation easement with City if project is within ALUCP boundary (LU-2.10)
- Housing Element
  - Identifies community's housing needs, goals, objectives, policies, and programs with regard to housing production, rehabilitation and conservation
  - Establishes Regional Housing Needs Allocation
- Draft Housing Element
  - Establishes Regional Housing Needs Allocation
  - Identifies SUD-B as potential housing site
- Draft Health and Safety Element
  - Restricts new development from creating airport safety hazards; Limits land uses in airport safety zones to ensure compatibility in terms of location, height, residential density, non-residential intensity, and noise; Exceptions allowed only as provided in applicable ALUCP (HS-4.1)
  - Requires development to comply with CFR Part 77 airspace regulations (HS-4.2)
  - Encourages Lincoln Regional Airport to share information with airports and communities of Placer County and Greater Sacramento Area (HS-4.3)
- Village 5 and 7 Specific Plans
  - Guides future development of land south of the airport in city's sphere of influence; both plans reference the Placer County ALUCP
- SUD-B Northeast Quadrant Specific Plan
  - Policy goal is to arrange and create a vibrant community and region serving commercial areas and locations for residential uses that are well incorporated with future highway development and protection of Lincoln Municipal Airport
  - Special Use Districts allow for a mix of residential and commercial land uses
  - General plan requires specific plans for these areas and for future development to be consistent with ALUCP
- Airport Hazard Zone (18.70.010 to 18.70.040)
  - Ordinance sets requirements addressing airspace hazards (physical, visual and electronic)
- Lincoln Land Use Circulation Map
  - Includes 2014 ALUCP Compatibility Zones and Special Conditions Policy 6.2.3, Municipal Wastewater Treatment Facility

Source: Data Compiled by Mead & Hunt, 2014; Amended September 2020

### **Exhibit 9G, Continued**

Prepared By: Mead&Hunt