

**Background Data:**  
*Blue Canyon Airport  
and Environs*



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# Background Data: Blue Canyon Airport and Environs

## INTRODUCTION

Blue Canyon Airport serves as an important emergency landing field amid mountainous terrain. The airport has existed on the site since the 1930s or '40s. The facility was operated by the state of California prior to 1971 when it was transferred to Placer County. The County continues to operate the airport, although just a 28.41-acre parcel encompassing the south end of the runway is County-owned. The remainder of the airport is U.S. Forest Service land for which a special use permit has been issued to the County.

## AIRPORT MASTER PLAN AND AIRPORT LAYOUT PLAN STATUS

No airport master plan exists for Blue Canyon Airport. An Airport Layout Plan (ALP) drawing was approved June 2003 by the California Division of Aeronautics for State permitting purposes. This ALP was accepted by the Caltrans Division of Aeronautics on January 24, 2013 as the basis of this *Blue Canyon Airport Land Use Compatibility Plan (ALUCP)*. The information contained in the 2003 ALP and supplemental data provided by airport personnel serve as the foundation for this *ALUCP*.

## Airfield Configuration

Aviation facilities at Blue Canyon Airport are limited, consisting only of a 2,900-foot-long runway and a small aircraft parking apron. The Runway length of 2,900 feet is the recent result of a 200-foot runway reduction from each runway end in order to achieve Runway Safety Area compliance. This runway configuration is reflected in the 2003 ALP. Runway approaches are visual only. No changes to the configuration of the airport are anticipated.

## Aircraft Forecasts

Blue Canyon Airport is open to public use, although traffic is minimal. Snow accumulation closes the field during winter months. The airport is also closed sunset to sunrise. No on-site airport personnel are present. However, those familiar with the airport estimate approximately 1,000 annual operations occur

at the airport. For the purposes of this *ALUCP*, it is assumed that those operations could double to 2,000 sometime within the 20-year planning period. Exhibit 5 contains additional details about aviation activity at the airport.

## Aircraft Traffic Patterns

Blue Canyon Airport has standard left traffic patterns to both Runway 15 and 33. The predominant direction of operations is landing and taking off to the south on Runway 15. Although there is not an established helipad at the airport, California Highway Patrol and the California Department of Forestry and Fire Protection helicopters utilize the airport during summer months. The helicopters fly to and from the established runway ends and hover taxi to a parking or staging location.

## SURROUNDING LAND USES

Blue Canyon Airport is situated along the western slopes of the Sierra Nevada Range half way between the City of Auburn and Town of Truckee. A significant portion of the airport environs lies within the Tahoe National Forest and is controlled by the U.S. Forest Service. Unincorporated Nevada County lies 1 mile north of the airfield. The remainder of the airport influence area includes unincorporated Placer County lands.

Land uses in the immediate vicinity of the airport are forests. Low-density residential uses lie one mile to the southwest in the community of Blue Canyon and to the northeast near Lake Putt. Additional residential uses are proposed in these areas.

## EXHIBITS

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

**Exhibit 8A: Airport Features Summary**—Presents information pertaining to the airport configuration, operational characteristics, and applicable planning documents.

**Exhibit 8B: 2003 Airport Layout Plan**—The 2003 ALP depicting the airport configuration and airport building areas. This drawing was accepted by the California Division of Aeronautics as the basis of this *ALUCP* in January 2013.

**Exhibit 8C: Airport Activity Summary**—Presents existing and forecast activity levels for the airport.

**Exhibits 8D and 8E: Compatibility Factors**—Depicts the extents of the four compatibility factors upon which the compatibility zones for Blue Canyon Airport were derived. The four compatibility factors are defined by:

- › *Noise* – Future noise contours reflecting a forecasted aircraft activity level of 2,000 annual operations.
- › *Overflight* – Primary traffic patterns reflecting where aircraft operating at Blue Canyon Airport routinely fly.

- › *Safety* – Sample safety zones for a short general aviation runway as provided in the *California Airport Land Use Planning Handbook* (October 2011).
- › *Airspace Protection* – FAA notification and obstruction surfaces as defined by Federal Aviation Regulation (FAR) 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 5.

**Exhibit 8F: Airport Environs Information** – Summarizes information about current and planned land uses in the environs of the Blue Canyon Airport. Airport land use compatibility policies contained in Placer County’s general plan are also summarized.

**Exhibit 8G: General Plan Land Use Designations** – Shows planned land use designations as reflected in the adopted general plan land use diagram for Placer County (2013).

**Exhibit 8H: Aerial** – An aerial photo of the airport environs.

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**GENERAL INFORMATION**

- **Airport Ownership**
  - › Northern portion of airport, including apron, owned by U.S. Forest Service, operated by County of Placer under Special Use Permit
  - › Southern end of runway owned by County of Placer
- **Property Size**
  - › Placer County property: 28.41 ± acres
  - › Special Use Permit: 149 acres (including lands with nonaviation uses)
  - › Avigation easements: None
- **Airport Classification:** General Aviation
- **Airport Elevation:** 5,284 ft. MSL

**BUILDING AREA**

- **Location**
  - › Center of runway's east side
- **Aircraft Parking Capacity**
  - › No hangars
  - › 13 tiedowns on paved apron
- **Other Major Facilities**
  - › Communications antennas (Special Use Permit)
  - › Private observatory facilities (Special Use Permit)

**RUNWAY/TAXIWAY DESIGN****Runway 15/33**

- **Airport Reference Code:** B-I (small)
- **Critical Aircraft:** Light twin
- **Dimensions:** 2,900 ft. long, 50 ft. wide
- **Runway OFA Width:** 250 ft.
- **Pavement Strength** (main landing gear configuration)
  - › 12,000 lbs. (single wheel)
- **Effective Gradient:** 1.2% (rising to west)
- **Runway Lighting:** Medium-intensity runway edge lighting (out of service indefinitely)
- **Runway Markings:** Basic
- **Primary Taxiways:** None; turnaround area at each end of runway and short taxiway stub for apron access

**APPROACH PROTECTION**

- **Runway Protection Zones (RPZs)**
  - › Runway 15: 250 ft. inner width, 450 ft. outer width, 1,000 ft. long; inner 203 ft. on airport
  - › Runway 33: 250 ft. inner width, 450 ft. outer width, 1,000 ft. long; inner 194 ft. on airport
- **Approach Obstacles**
  - › Runway 15: 20-ft. tree, 750 ft. from runway, 110 left of centerline; 27:1 slope to clear
  - › Runway 33: 15-ft. tree, 400 ft. from runway, 13:1 slope to clear; ±4-ft. brush 100 ft. from runway, 125 ft. left and right of runway centerline

**TRAFFIC PATTERNS AND APPROACH PROCEDURES**

- **Airplane Traffic Patterns**
  - › Runways 15 & 33: Left traffic
  - › Pattern Altitude: 1,000 ft. AGL
- **FAR Part 77 Category:** Visual [A(V)]
- **Instrument Approaches:** None
- **Visual Navigational Aids**
  - › Airport: Rotating beacon (out of service indefinitely)
  - › Runways 15 & 33: None
- **Operation Restrictions**
  - › Closed in winter due to snow and from sunset to sunrise due to out of service runway lights and trees penetrating the airspace surfaces

**AIRPORT PLANNING DOCUMENTS**

- **Airport Master Plan:** None
- **Airport Layout Plan**
  - › Approved by Caltrans Division of Aeronautics for State Permit purposes June 2003
  - › Accepted by Caltrans Division of Aeronautics for basis of this ALUCP on January 24, 2013
- **Placer County General Plan (adopted August 1994)**
  - › Policy 3.F.3 (Transportation and Circulation Element) supports continued use of airport as an emergency airstrip

**PROPOSED FACILITY IMPROVEMENTS**

- **Airfield:** None
- **Building Area:** None

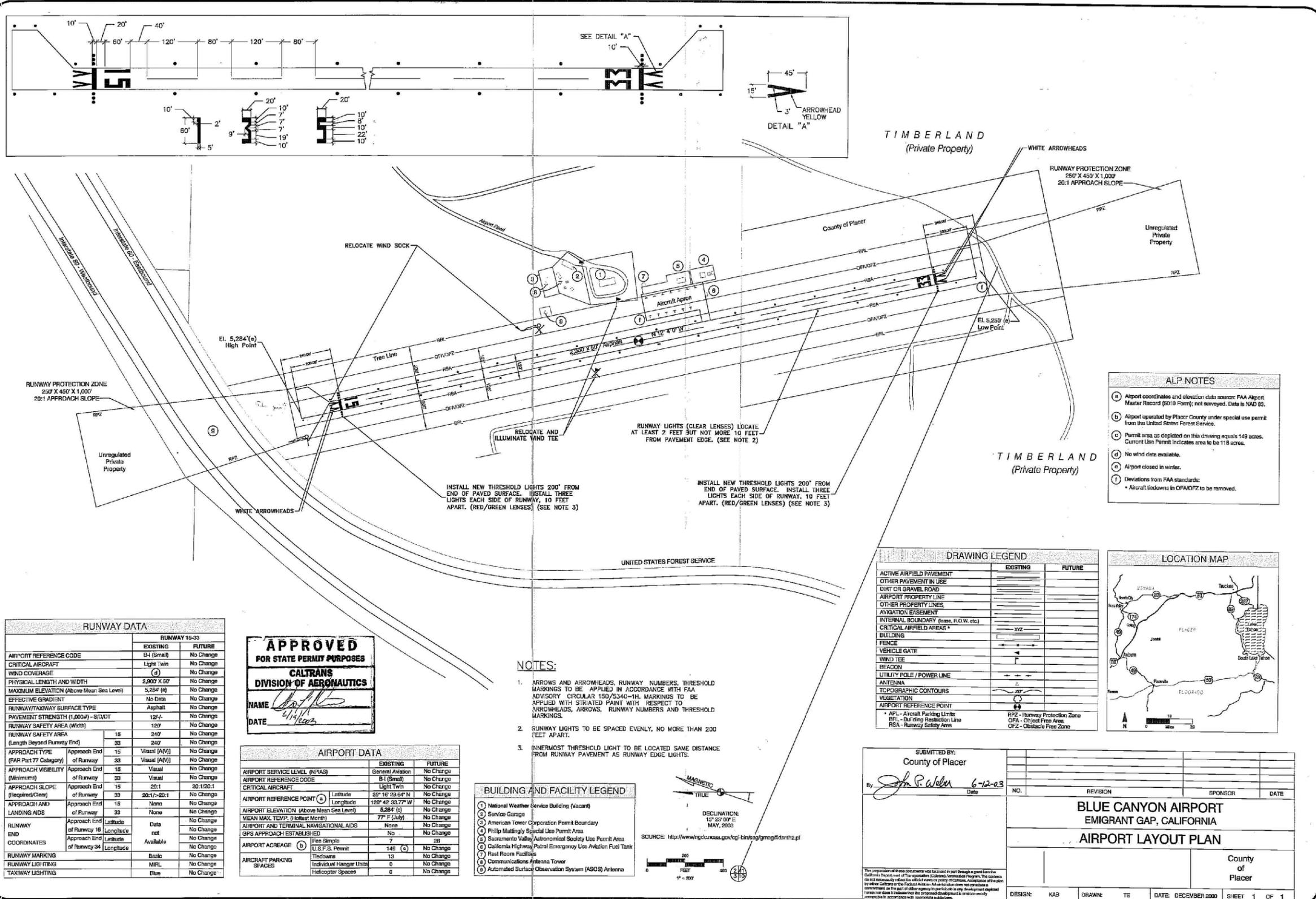
Source: Data Compiled by Mead & Hunt November 2012

Exhibit 8A

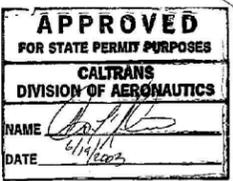
## Airport Features Summary

### Blue Canyon Airport

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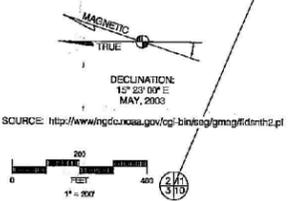
RUNWAY DATA			
	EXISTING	FUTURE	
AIRPORT REFERENCE CODE	B4 (Small)	No Change	
CRITICAL AIRCRAFT	Light Twin	No Change	
WIND COVERAGE	(4)	No Change	
PHYSICAL LENGTH AND WIDTH	2,900' X 50'	No Change	
MAXIMUM ELEVATION (Above Mean Sea Level)	5,284' (e)	No Change	
EFFECTIVE GRADIENT	No Data	No Change	
RUNWAY/TAXIWAY SURFACE TYPE	Asphalt	No Change	
PAVEMENT STRENGTH (F,000 PSI) - S/D/OT	12/A	No Change	
RUNWAY SAFETY AREA (Width)	129'	No Change	
RUNWAY SAFETY AREA (Length Beyond Runway End)	15'	240'	No Change
APPROACH TYPE (FAR Part 77 Category)	Approach End of Runway 33	Visual (AVI)	No Change
APPROACH VISIBILITY (Minimum)	Approach End of Runway 33	Visual	No Change
APPROACH SLOPE (Required/Clear)	Approach End of Runway 33	20:1 / 20:1	20:1/20:1
LANDING AIDS	Approach End of Runway 33	None	No Change
RUNWAY END COORDINATES	Approach End of Runway 34	Latitude Available	No Change
RUNWAY MARKINGS	Basic	No Change	
RUNWAY LIGHTING	MIRL	No Change	
TAXIWAY LIGHTING	Blue	No Change	



AIRPORT DATA			
	EXISTING	FUTURE	
AIRPORT SERVICE LEVEL (NPIAS)	Greatest Aviation	No Change	
AIRPORT REFERENCE CODE	B1 (Small)	No Change	
CRITICAL AIRCRAFT	Light Twin	No Change	
AIRPORT REFERENCE POINT	Latitude 38° 16' 29.64" N	No Change	
	Longitude 120° 42' 33.77" W	No Change	
AIRPORT ELEVATION (Above Mean Sea Level)	5,284' (e)	No Change	
MEAN MAX TEMP. (Highest Month)	77° F (July)	No Change	
AIRPORT AND TERMINAL NAVIGATIONAL AIDS	None	No Change	
GPS APPROACH ESTABLISHED	No	No Change	
AIRPORT ACREAGE	7	38	
	U.S.F.S. Permit	145 (c)	No Change
AIRCRAFT PARKING SPACES	Tiedowns	13	No Change
	Individual Hangar Units	0	No Change
	Helicopter Spaces	0	No Change

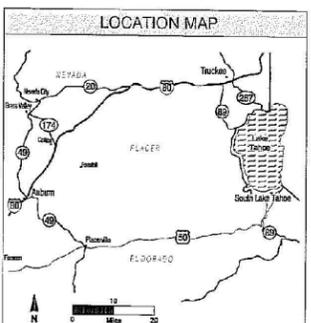
BUILDING AND FACILITY LEGEND	
(1)	National Weather Service Building (Vacant)
(2)	Service Garage
(3)	American Tower Corporation Permit Boundary
(4)	Philip Mattingly Special Use Permit Area
(5)	Sacramento Valley Astronomical Society Use Permit Area
(6)	California Highway Patrol Emergency Use Aviation Fuel Tank
(7)	Fuel Room Facilities
(8)	Communications Antenna Tower
(9)	Automated Surface Observation System (ASOS) Antenna

- NOTES:**
- ARROWS AND ARROWHEADS, RUNWAY NUMBERS, THRESHOLD MARKINGS TO BE APPLIED IN ACCORDANCE WITH FAA ADVISORY CIRCULAR 150/5340-1H. MARKINGS TO BE APPLIED WITH STRIATED PAINT WITH RESPECT TO ARROWHEADS, ARROWS, RUNWAY NUMBERS AND THRESHOLD MARKINGS.
  - RUNWAY LIGHTS TO BE SPACED EVENLY, NO MORE THAN 200 FEET APART.
  - INNERMOST THRESHOLD LIGHT TO BE LOCATED SAME DISTANCE FROM RUNWAY PAVEMENT AS RUNWAY EDGE LIGHTS.



- ALP NOTES**
- (A) Airport coordinates and elevation data source: FAA Airport Master Record (5010 Form); not surveyed. Data is NAD 83.
  - (B) Airport operated by Placer County under special use permit from the United States Forest Service.
  - (C) Permit area as depicted on this drawing equals 149 acres. Current Use Permit indicates area to be 118 acres.
  - (D) No wind data available.
  - (E) Airport closed in winter.
  - (F) Deviations from FAA standards:
    - Aircraft tie-downs in OFA/OZF to be removed.

DRAWING LEGEND		
	EXISTING	FUTURE
ACTIVE AIRFIELD PAVEMENT	[Symbol]	[Symbol]
OTHER PAVEMENT IN USE	[Symbol]	[Symbol]
DIRT OR GRAVEL ROAD	[Symbol]	[Symbol]
AIRPORT PROPERTY LINE	[Symbol]	[Symbol]
OTHER PROPERTY LINES	[Symbol]	[Symbol]
AVIGATION EASEMENT	[Symbol]	[Symbol]
INTERNAL BOUNDARY (fence, H.O.W. etc.)	[Symbol]	[Symbol]
CRITICAL AIRFIELD AREAS *	[Symbol]	[Symbol]
BUILDING	[Symbol]	[Symbol]
FENCE	[Symbol]	[Symbol]
VEHICLE GATE	[Symbol]	[Symbol]
WIND TEE	[Symbol]	[Symbol]
BEACON	[Symbol]	[Symbol]
LIMITY POLE / POWER LINE	[Symbol]	[Symbol]
ANTENNA	[Symbol]	[Symbol]
TOPOGRAPHIC CONTOURS	[Symbol]	[Symbol]
VEGETATION	[Symbol]	[Symbol]
AIRPORT REFERENCE POINT	[Symbol]	[Symbol]



SUBMITTED BY: County of Placer  
 By: *John P. Weber* Date: 6-12-03

NO.	REVISION	SPONSOR	DATE

**BLUE CANYON AIRPORT  
EMIGRANT GAP, CALIFORNIA  
AIRPORT LAYOUT PLAN**

County of Placer

DESIGN: KAB DRAWN: TE DATE: DECEMBER 2000 SHEET 1 OF 1

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<b>BASED AIRCRAFT<sup>a</sup></b>			<b>TIME OF DAY DISTRIBUTION<sup>a</sup></b>		
	<b>Current</b>	<b>Future</b>		<b>Current</b>	<b>Future</b>
<i>Aircraft Type</i>			<i>All Aircraft</i>		
Single Engine	0	0	Day (7 am to 7pm)	95%	no
Multi Engine Piston	0	0	Evening (7 pm to 10 pm)	5%	change
Turboprop	0	0	Night (10 pm to 7 am)	0%	
Turbojet	0	0			
Helicopters	0	0			
<b>Total</b>	<b>0</b>	<b>0</b>			
<b>AIRPORT ACTIVITY<sup>a</sup></b>			<b>RUNWAY USE DISTRIBUTION<sup>a</sup></b>		
	<b>Current</b>	<b>Future</b>		<b>Current</b>	<b>Future</b>
<i>Total</i>			<i>All Aircraft</i>		
Annual	1,000	2,000	Takeoffs		
Average Day	3	5	Runway 15	80%	no
			Runway 33	20%	change
			Landings		
			Runway 15	80%	no
			Runway 33	20%	change
<i>Distribution by Aircraft Type</i>					
Single-Engine	84%				
Twin-Engine Piston	1%	no			
Turboprop	0%	change			
Business Jet	0%				
Helicopter	15%				
<i>Distribution by Type of Operation</i>					
Local (incl. touch-and-goes)	<1%	no			
Itinerant	100%	change			

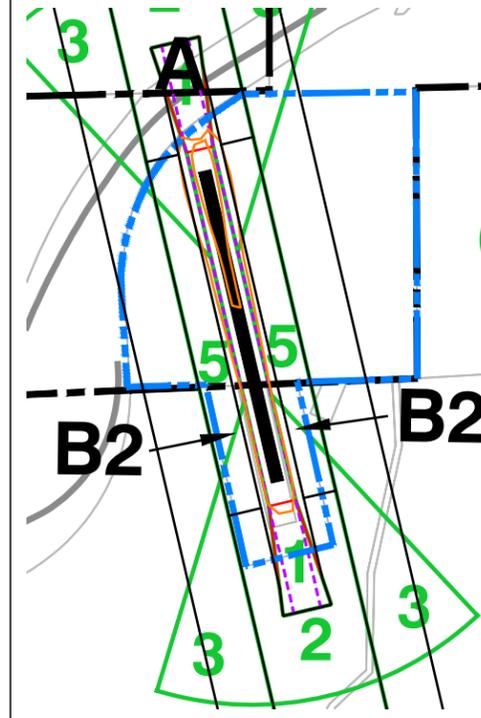
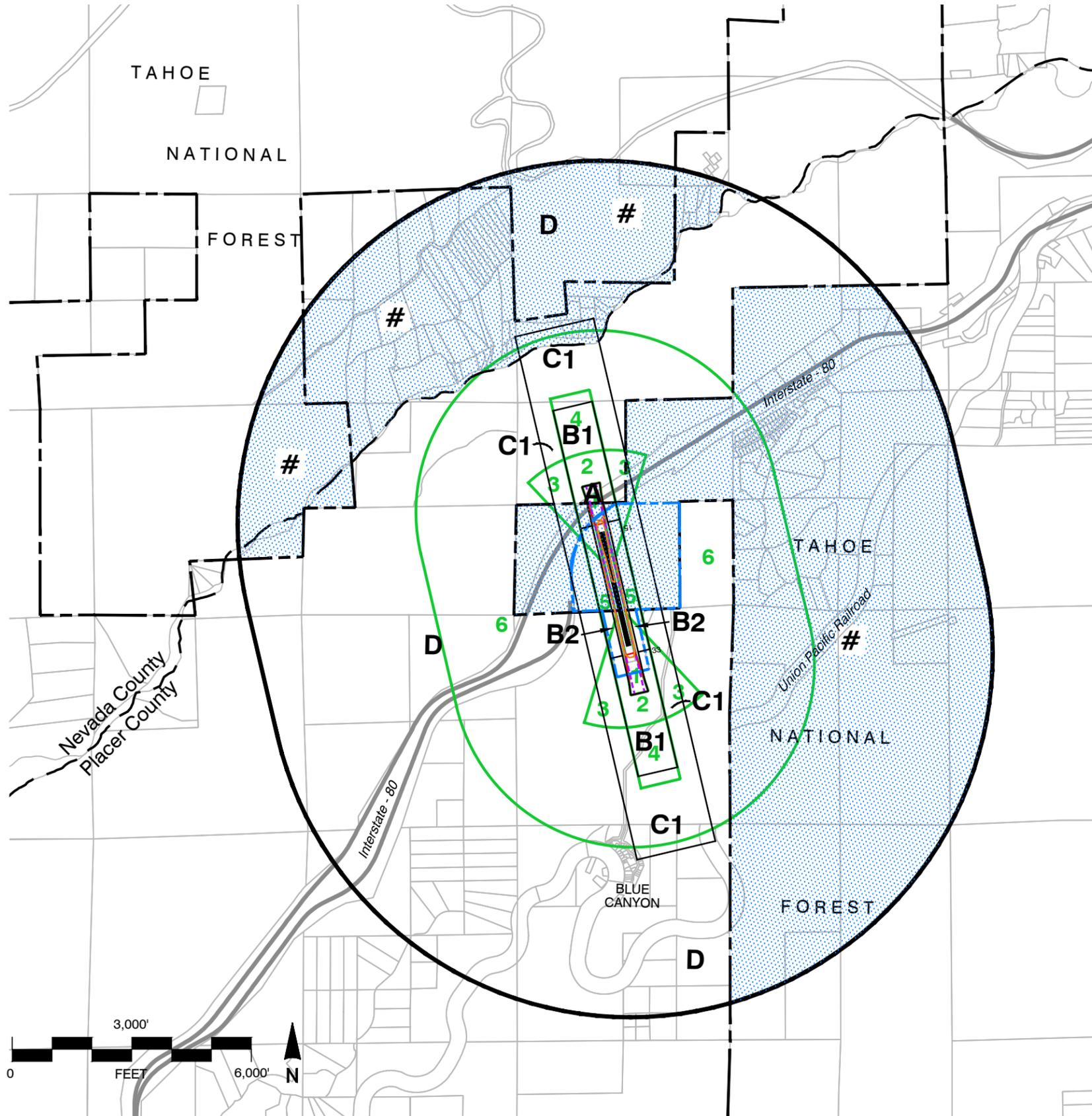
**NOTES**

<sup>a</sup> Source: Current (2012) and future (2033) aircraft activity data brought forward from the Placer County Airport Land Use Compatibility Plan (October 2000) and verified by airport management for use in this ALUCP.

**Exhibit 8C**

**Airport Activity Summary**  
Blue Canyon Airport

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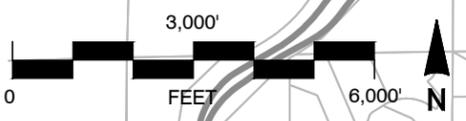


- Legend**
- Boundary Lines**
- Placer County Limits
  - - - Tahoe National Forest
  - Existing Airport Property Line
  - - - Future Airport Property Line
  - Existing Runway 15-33 (2,900 ft.)
  - Airport Influence Area (Adopted 2014)
  - Compatibility Policy Zones (Adopted 2014)
  - # See Special Conditions Policy 5.2.3.
- Runway Factors<sup>1</sup>**
- Runway Protection Zone (RPZ)
  - - - Runway Object Free Area (ROFA)
- Noise Factors<sup>2</sup>**
- 50 dB CNEL } 2,000 Annual Operations (entirely on airport property)
- Safety Factors**
- Generic Safety Zones (Short General Aviation Runway)<sup>3</sup>
    - Zone 1, Runway Protection Zone
    - Zone 2, Inner Approach/Departure Zone
    - Zone 3, Inner Turning Zone
    - Zone 4, Outer Approach/Departure Zone
    - Zone 5, Sideline Zone
    - Zone 6, Traffic Pattern Zone

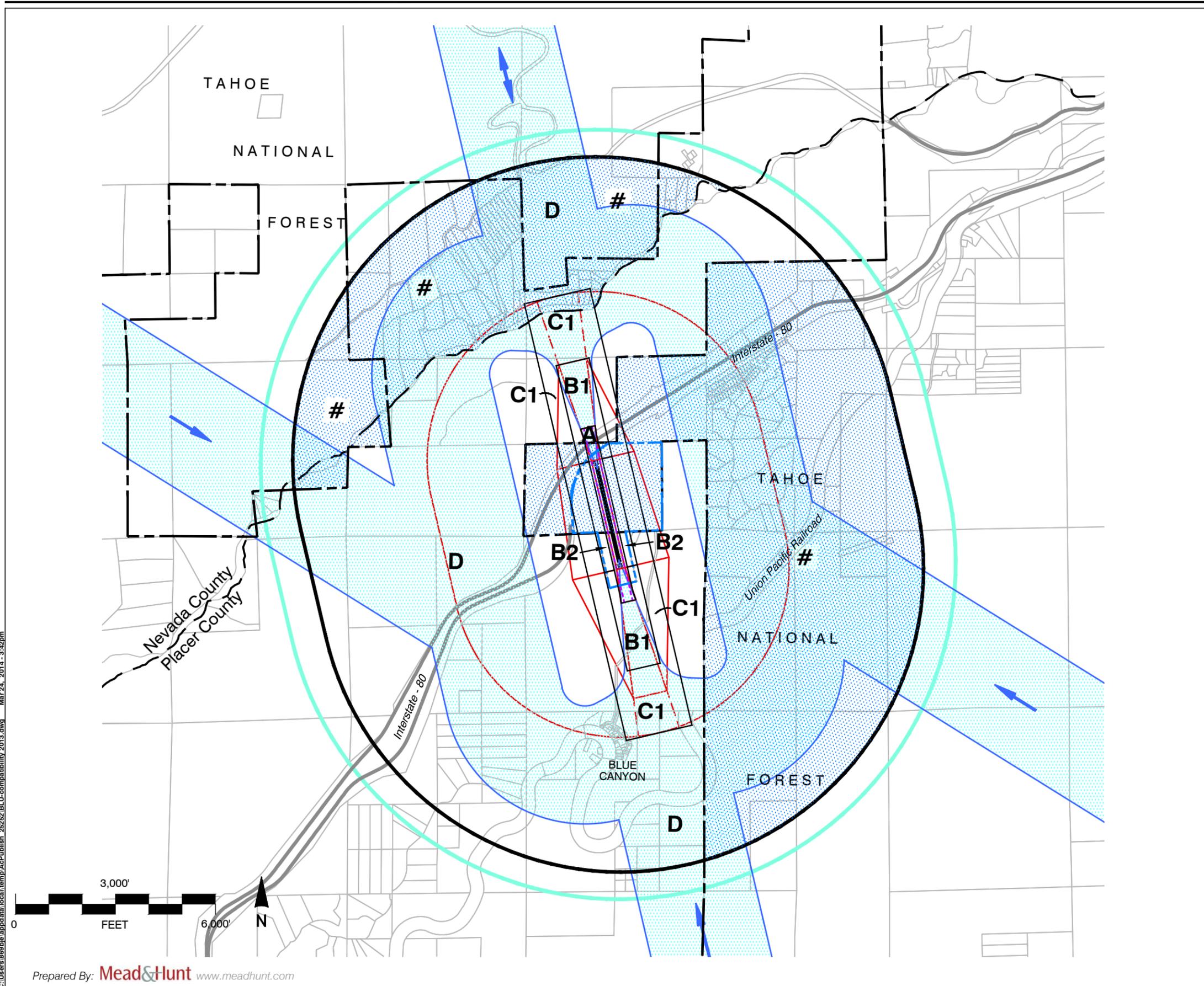
- Notes:**
1. Source: Blue Canyon Airport Layout Plan, approved June 2003.
  2. Source: Placer County Airport Land Use Compatibility Plan, adopted October 2000 and airport management.
  3. Source: California Airport Land Use Planning Handbook published October 2011. Zone 1 modified to reflect RPZs.

**Blue Canyon Airport**  
**Land Use Compatibility Plan**  
 (Adopted February 26, 2014)

Exhibit 8D  
**Compatibility Factors Map:**  
**Noise and Safety**  
 Blue Canyon Airport



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**Legend**

**Boundary Lines**

- Placer County Limits
- - - Tahoe National Forest
- Existing Airport Property Line
- - - Future Airport Property Line
- Existing Runway 15-33 (2,900 ft.)
- Airport Influence Area (Adopted 2014)
- Compatibility Policy Zones (Adopted 2014)
- # See Special Conditions Policy 5.2.3.

**Runway Factors<sup>1</sup>**

- ▭ Runway Protection Zone (RPZ)
- - - Runway Object Free Area (ROFA)

**Airspace Factors<sup>2</sup>**

- FAA Height Notification Boundary (10,000 ft. radius; 50 to 1 slope)
- FAA Obstruction Surfaces<sup>3</sup>

**Overflight Factors**

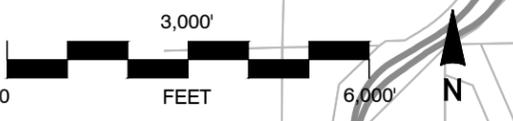
- ➔ General Traffic Pattern Envelope/Flight Direction<sup>3</sup> (approximately 80% of aircraft overflights estimated to occur within these limits)

- Notes:**
1. Source: Blue Canyon Airport Layout Plan, approved June 2003.
  2. Source: Federal Aviation Regulation (FAR) Part 77, Safe, Efficient Use and Preservation of Navigable Airspace (January 2011).
  3. Source: Placer County Airport Land Use Compatibility Plan, adopted October 2000 and airport management.

**Blue Canyon Airport  
Land Use Compatibility Plan  
(Adopted February 26, 2014)**

**Exhibit 8E  
Compatibility Factors Map:  
Airspace and Overflight  
Blue Canyon Airport**

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**AIRPORT SITE**

- *Location*
  - › Northeast Placer County
  - › Nevada County line 1 mile north
- *Topography*
  - › Situated at 5,284 ft. elevation in Sierra Nevada mountains midway between Auburn and Truckee
  - › Airport sits on ridge line; steep terrain all around, but no elevations above airport within 2± miles

**AIRPORT ENVIRONS LAND USE JURISDICTIONS**

- *County of Placer*
  - › Majority of airport and much of surrounding is federal land within Tahoe National Forest
  - › Remainder of airport vicinity is unincorporated county jurisdiction

**EXISTING AIRPORT AREA LAND USES**

- *General Character*
  - › Forest
- *Runway Approaches*
  - › North (Runway 15): Interstate 80 730 ft. north of runway end; privately owned forest lands north of freeway; Bear River 0.3 miles beyond runway end
  - › South (Runway 33): Forested slopes descending to Union Pacific Railroad line and tiny community of Blue Canyon 1 mile from runway end
- *Traffic Pattern*
  - › Forest in all directions
  - › Low density residential subdivision 1 mile northeast of airport near Lake Putt

**PLANNED AIRPORT AREA LAND USES**

- *County of Placer*
  - › Agriculture/timberland land use designations (10- to 80-acre lot sizes) in immediate airport vicinity
  - › Rural residential (1- to 10-acre lot sizes) and low density residential (3.1-5.1 du/acre) land use designations for community of Blue Canyon to south and residential subdivision to northeast near Lake Putt

**STATUS OF COMMUNITY PLANS**

- *County of Placer*
  - › General Plan Policy Document and General Plan Land Use Diagram approved May 21, 2013

**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.)
  - › County shall work with ALUC to ensure protection of airports from urban encroachment (Transportation 3.F.2.)
  - › 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 FAR Part 77 regulations (Airport Hazards, 8.D.3)
  - › All development projects within airport overflight zone to be reviewed for consistency with ALUC plan (Airport Hazards, 8.8)
  - › 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)
- *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

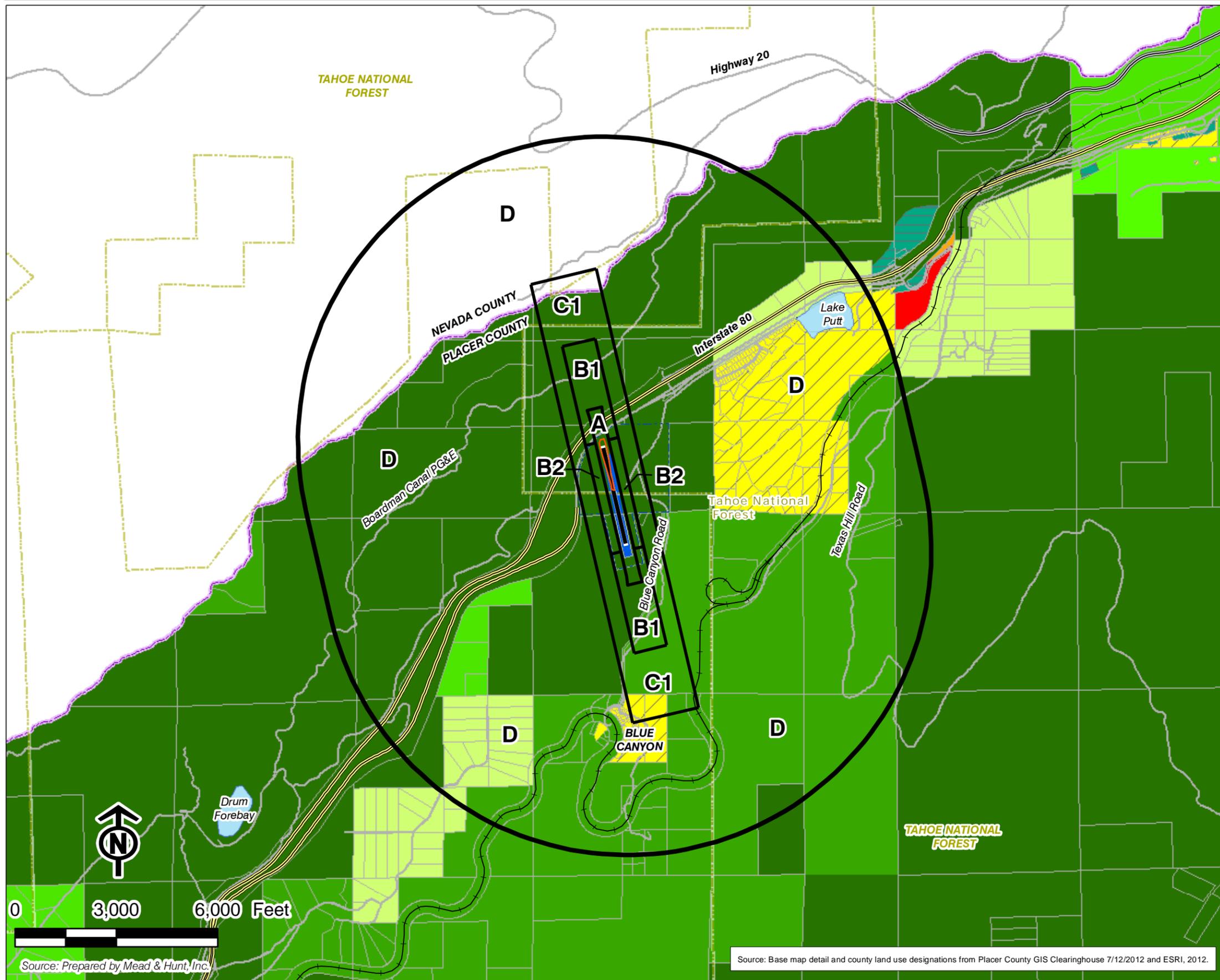
Source: Data Compiled by Mead & Hunt November 2012

Exhibit 8F

## Airport Environs Information

Blue Canyon Airport

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**Legend**

- Placer County Boundary
- U.S. Forest Service
- Existing Airport Property Line
- Existing Runway 15-33 (2,900 ft.)
- Airport Influence Area (Adopted 2014)
- Compatibility Policy Zones (Adopted 2014)

**Planned Land Use Designations (County)**

- Agriculture/Timberland - 10 Ac. Min.
- Agriculture/Timberland - 20 Ac. Min.
- Agriculture/Timberland - 40 Ac. Min.
- Agriculture/Timberland - 80 Ac. Min.
- General Commercial
- Low Density Residential 10,000 Sq. Ft. - 1 Ac. Min. (1-5 DU)
- Medium Density Residential 3,500 - 10,000 Sq. Ft.
- Open Space
- Public Facility
- Rural Residential 1 - 10 Ac. Min.
- Tourist/Resort Commercial 6,000 - 20,000 Sq. Ft.

**Notes**

1. Planned land use designations reflect Placer County General Plan Land Use Diagram (2013). Only designations that appear in map view are listed in legend.

**Blue Canyon Airport**  
**Land Use Compatibility Plan**  
 (Adopted February 26, 2014)

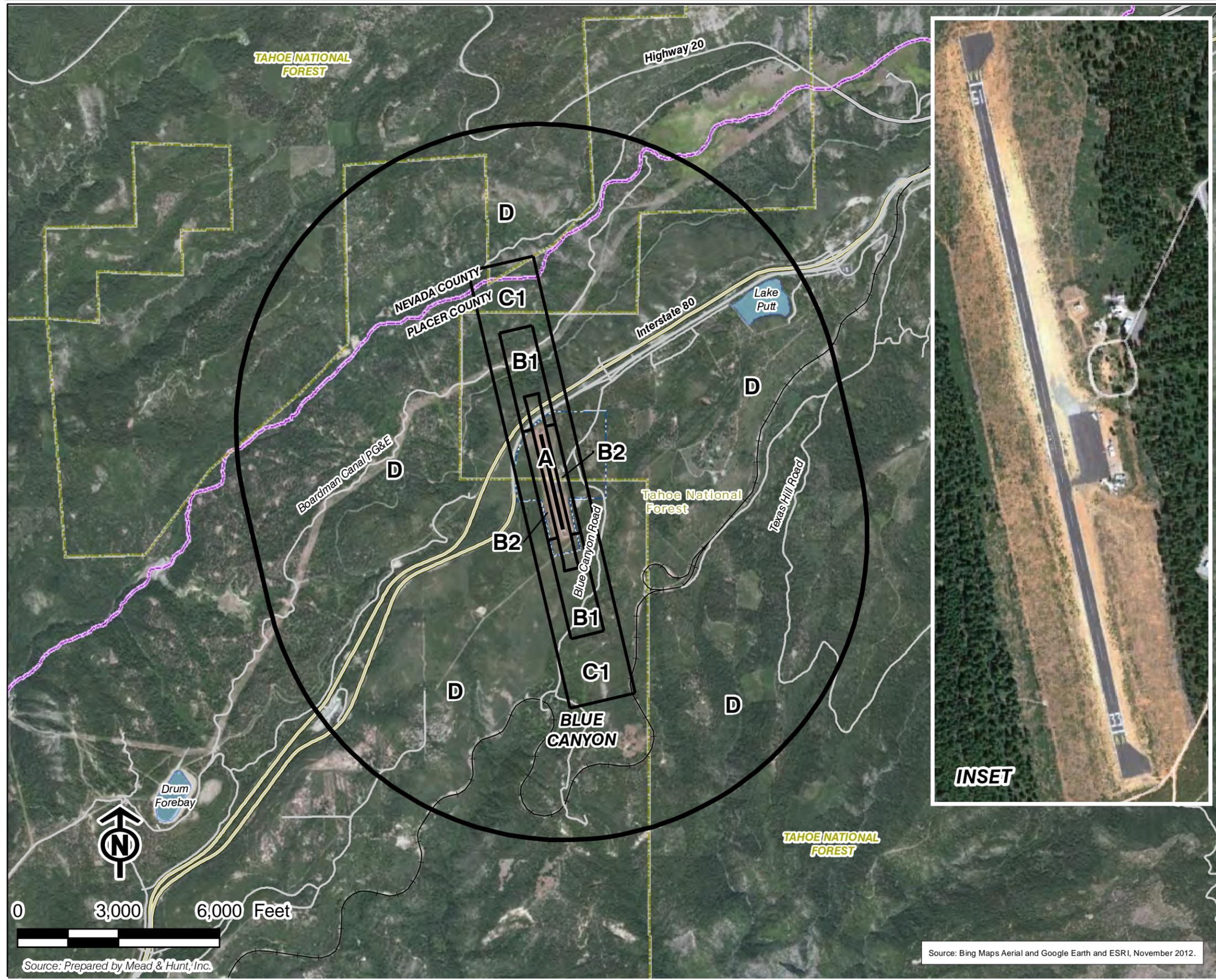
Exhibit 8G

**General Plan Land Uses**  
 Blue Canyon Airport



Source: Prepared by Mead & Hunt, Inc.

Source: Base map detail and county land use designations from Placer County GIS Clearinghouse 7/12/2012 and ESRI, 2012.



- Legend**
- Placer County Boundary
  - U.S. Forest Service
  - Existing Airport Property Line
  - Existing Runway 15-33 (2,900 ft.)
  - Airport Influence Area (Adopted 2014)
  - Compatibility Policy Zones (Adopted 2014)



**Blue Canyon Airport**  
**Land Use Compatibility Plan**  
 (Adopted February 26, 2014)

Exhibit 8H

Source: Prepared by Mead & Hunt, Inc.

Source: Bing Maps Aerial and Google Earth and ESRI, November 2012.