CHAPTER 1
Inventory

The inventory of existing conditions is the initial step in the preparation of the *Riverside Airport Master Plan*. The inventory serves as an overview of the airport's physical and operational features, including facilities, users, and activity levels, as well as specific information related to the airspace, air traffic activity, and role of the airport. Finally, a review of existing environmental conditions on and adjacent to the airport are thoroughly detailed, which will provide further input into the study process.

Information provided in this chapter serves as the baseline for the remainder of the master plan, which is compiled using a wide variety of resources, including applicable planning documents and financial reports; on-site visits; interviews with airport staff, tenants, and users; aerial and ground photography; federal, state, and local publications; and project record drawings.

AIRPORT SETTING

LOCATION

The City of Riverside is located in the northwestern corner of Riverside County, approximately 60 miles inland of Los Angeles, California, in the region of southern California known as the Inland Empire. The region is densely populated and includes the cities of Riverside, San Bernardino, and Ontario, which combine to comprise the twelfth largest metropolitan statistical area (MSA) in the United States.[1] The counties included in the MSA are Riverside and San Bernardino Counties. The Inland Empire is a major economic hub for the state, with a local economy historically driven by agriculture in the form of citrus and wine production. Rapid population growth has led to more urbanization, shifting the local economy to a major economic hub for various industries. The northwest region of Riverside County, specifically, is regarded as an industrial and logistics hub due to easy highway access via Interstates 15 and 215 and State Routes 60 and 91. The area is served by Union Pacific and Burlington Northern Santa Fe railroad companies.

[1] U.S. Census Bureau, American Community Survey, ACS 1-Year Estimates Subject Tables, Table S0101, Age and Sex (https://data.census.gov/table/ACSST1Y2024.S0101?q=S0101:+Age+and+Sex&g=010XX00US$3100000), accessed January 19, 2026

The top fastest growing private industries in the northwest portion of Riverside County include transportation and warehousing, healthcare and social assistance, and construction.[2] Riverside County is in the top 1.4 percent of all U.S. counties based on its gross regional product (GRP) of $126 billion.[3]

The City of Riverside is comprised of approximately 81 square miles with urbanized areas concentrated between the corridor of State Route 60 and the Santa Ana River. The city has a current population estimate of 323,757.[4] Major employers within the City of Riverside include the County of Riverside, March Air Force Reserve, University of California-Riverside, Kaiser Permanente Riverside Medical Center, Riverside University Health System, and Riverside Unified School District.[5] Riverside is home to several accredited post-secondary schools, including Embry-Riddle Aeronautical University, the University of California-Riverside, and California Baptist University.

Airport Welcome Signage

Riverside Airport (RAL) is located approximately six miles southwest from the central business district of Riverside and is situated on approximately 525 acres at an elevation of 818.9 feet above mean sea level (MSL). Vehicle access to the airport is gained via Airport Drive, a two-lane north/south road extending from Arlington Avenue to the south of the airport. The terminal is accessed from Airport Drive via Flight Road. **Exhibit 1A** depicts the airport's regional setting.

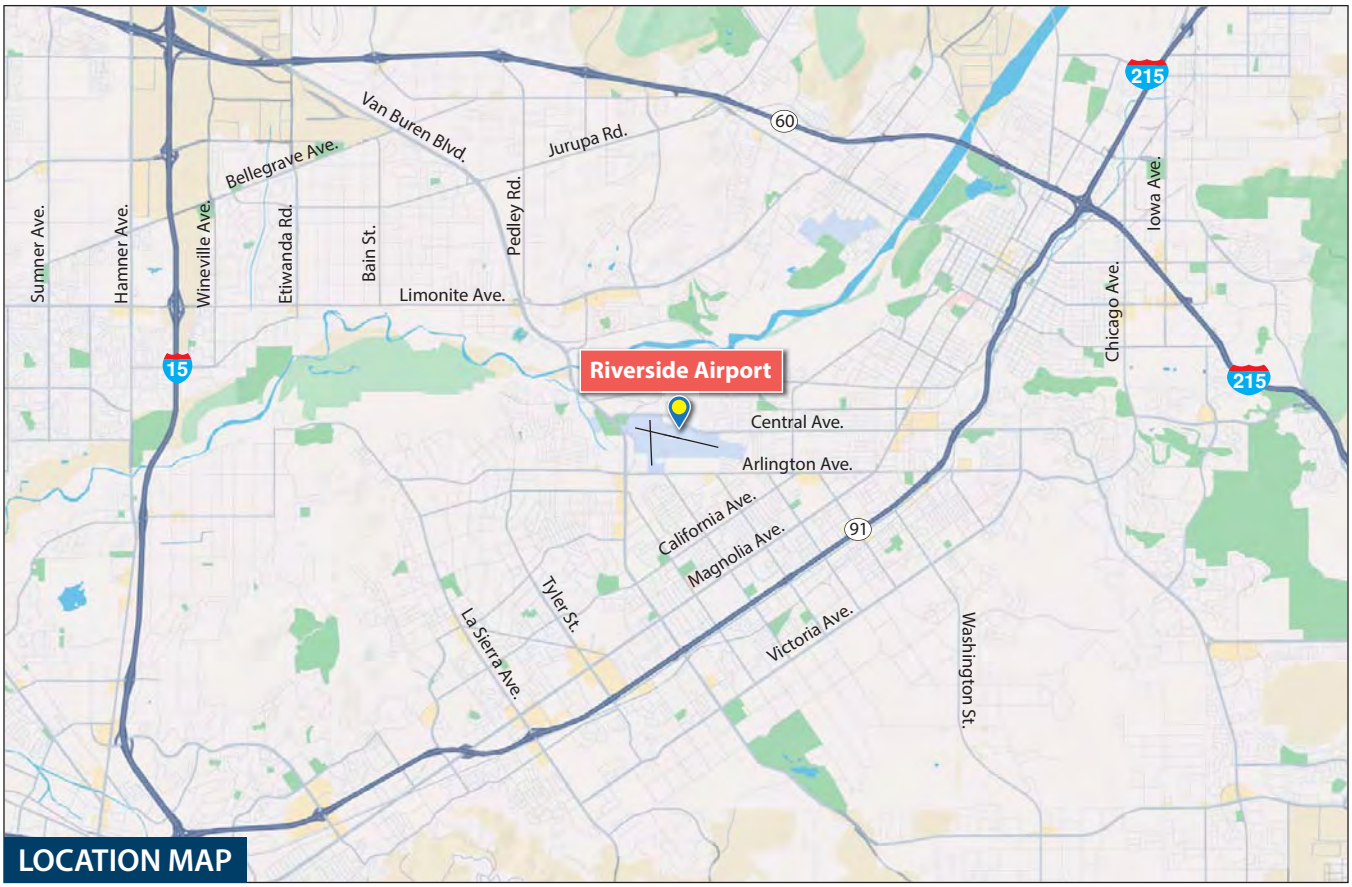
CLIMATE

Climate and local weather conditions are important considerations in the master planning process, as they can significantly impact an airport's operations. For example, high temperatures and humidity can increase runway length requirements for some aircraft, prevailing winds dictate primary runway orientation, and cloud cover percentages and frequency of inclement weather can determine the need for navigational aids and lighting. Knowledge of these weather conditions during the planning process allows the airport to prepare for improvements that may be needed on the airfield.

[2] Riverside County Office of Economic Development, 2025 Riverside County Economic Profile, last updated January 30, 2025
[3] Riverside County Office of Economic Development, 2025 Riverside County Economic Profile, last updated January 30, 2025
[4] U.S. Census Bureau, QuickFacts (https://www.census.gov/quickfacts/riversidecitycalifornia), accessed January 19, 2026
[5] City of Riverside, California, Annual Comprehensive Financial Report for Fiscal Year Ended June 30, 2024

REGIONAL MAP

VICINITY MAP



LOCATION MAP

Riverside experiences hot summers with an average high temperature of 94.9 degrees Fahrenheit (°F) in August. Winters are generally mild; December is the coldest month with an average low temperature of 42.8°F. According to the Köppen Climate Classification System, Riverside is within a hot semi-arid (steppe) climate, which is characterized by high summer temperatures that regularly exceed 90°F. Winters are generally mild with highs in the low to mid-60s. Precipitation is concentrated in the winter months, albeit in generally low amounts. In Riverside, February averages the most rain at 2.74 inches. **Exhibit 1B** summarizes weather and wind patterns at the airport.

Table 1A indicates that visual meteorological conditions (VMC) occur 89.66 percent of the time at RAL. When under VMC, pilots can operate using visual flight rules (VFR) and are responsible for maintaining proper separation from objects and other aircraft. Instrument meteorological conditions (IMC) account for all weather conditions less than VMC that still allow for aircraft to safely operate under instrument flight rules (IFR). Under IFR, pilots rely on instruments in their aircraft to accomplish navigation. IMC occur 5.92 percent of the time at RAL. Less than IMC, or poor visibility conditions (PVC), are present 4.42 percent of the time. Under IMC and PVC, the airport is only accessible by utilizing published precision instrument approach procedures.

TABLE 1A: Weather Conditions at RAL

Condition	Cloud Ceiling	Visibility	Percent of Total
Visual Meteorological Conditions (VMC)	≥ 1,000' AGL	≥ 3 statute miles	89.66%
Instrument Meteorological Conditions (IMC)	≥ 500' AGL and < 1,000' AGL	≥ 1 to < 3 statute miles	5.92%
Poor Visibility Conditions (PVC)	< 500' AGL	< 1 statute mile	4.42%

Table Source: Riverside Airport, NOAA Station USW00003171, January 1, 2016, to December 31, 2025

AGL= above ground level

AIRPORT HISTORY

The following is a brief description of the history of RAL.

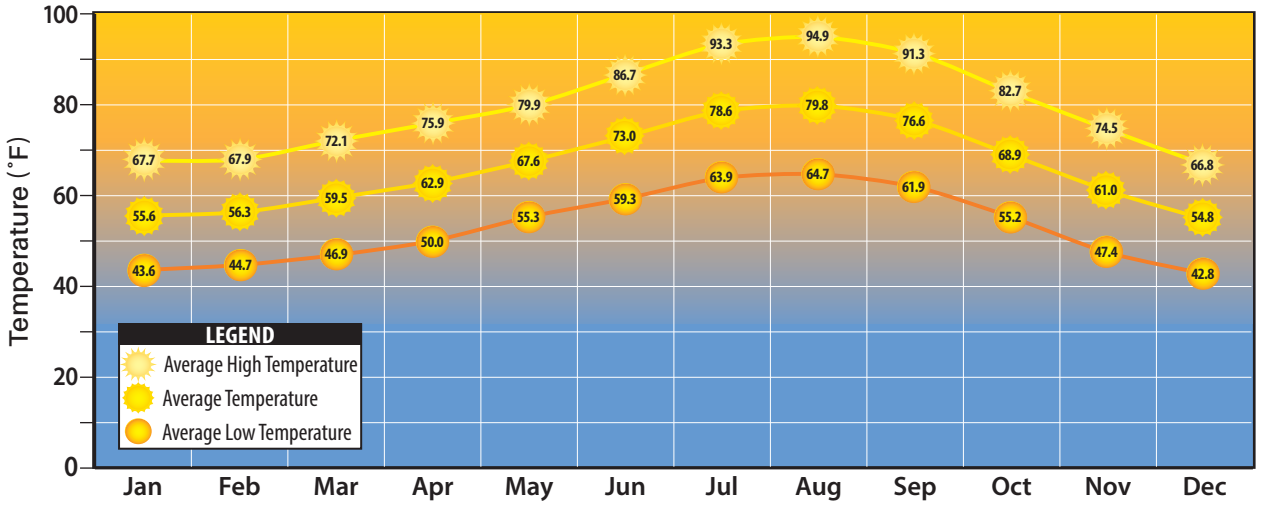
Origins as Arlington Airport (1920s–1952)

Riverside Airport began in the early 1900s as a privately owned dirt runway in the Arlington neighborhood of the newly incorporated City of Riverside. The airport's present day three-letter identifier, RAL, is derived from its earliest name: Riverside Arlington Airport. Riverside was a hub of wealth during this time due to extensive agricultural operations primarily focused on orange production, the Inland Empire region's second largest export. An aircraft manufacturing facility owned by Clarence O. Prest was located near the airport in the 1920s and 1930s, where over 50 aircraft were produced in a former citrus packing facility.[6]

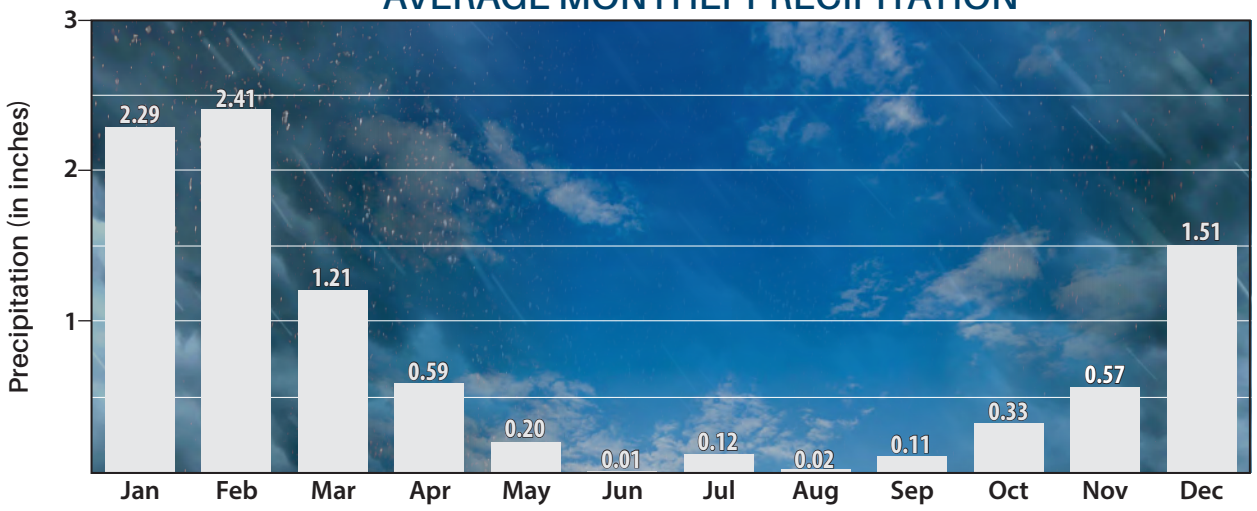
Ownership transfer of the airport property occurred at least once prior to World War II. During World War II, wartime restrictions on private flying led to the closure of the facility. From 1941 to 1952, at least three other managers have been identified from historical records. The airport is described by historians as being a "thriving business in the city" until that time.

[6] Bitetti, Marge and Bitetti, Tony, The Aviation History of Greater Riverside, 2013

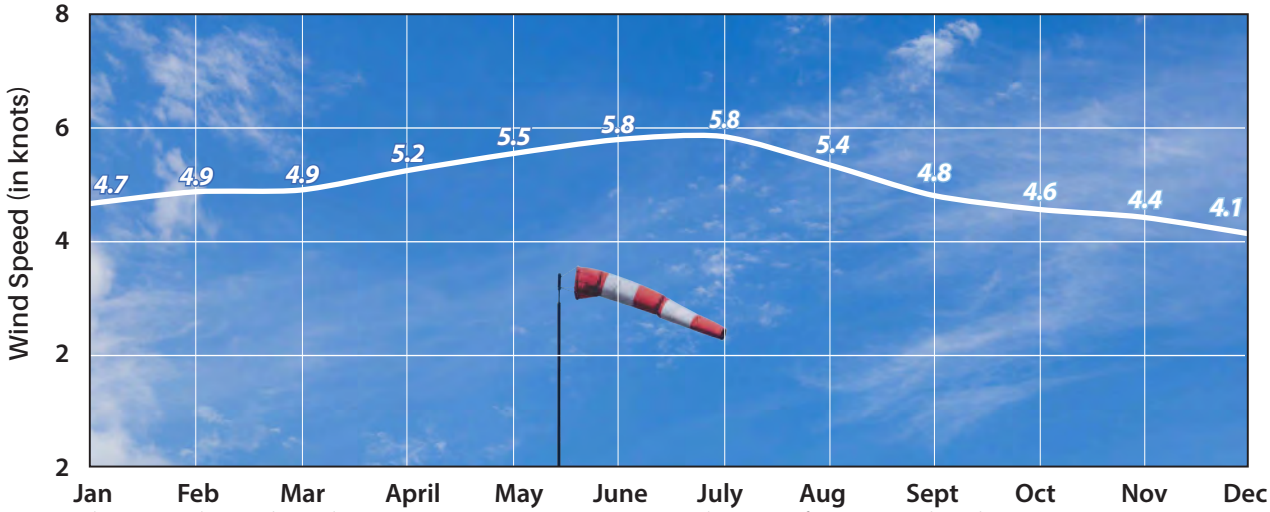
AVERAGE MONTHLY TEMPERATURES



AVERAGE MONTHLY PRECIPITATION



AVERAGE MONTHLY WIND DATA



Source: National Oceanic and Atmospheric Administration (NOAA), Station USW00003171, observations from 1/1/2016 through 12/31/2025

City of Riverside Ownership (1952–Present)

In 1952, by unanimous vote of the city council, the City of Riverside began negotiations to purchase Arlington Airport, which was then renamed Riverside Airport. The Federal Aviation Administration (FAA) contributed $500,000 toward the first pavement project for Runway 9-27, a significant modernization effort for the airport, which led to its dedication in 1956. The pavement project led Bonanza Air Lines to begin commercial operations by offering daily flights to and from Las Vegas, Nevada, and Phoenix, Arizona, served by Fairchild F-27A jets.[7] Bonanza Air Lines merged with West Coast Airlines and Pacific Air Lines to form Air West in 1968, which led to an increase in commercial service options at RAL with additional DC-3 aircraft in the fleet and regional destinations added.[8] The existing terminal building was constructed during this time and was dedicated in 1968; however, as early as January 1971, the Air West (rebranded as Hughes Air West) schedules indicate Riverside operations were consolidated and served through Ontario International Airport. Golden West Airlines, which is now defunct, also offered scheduled commuter flights at RAL in the late 1970s through the early 1980s. The Commemorative Air Force (CAF) Inland Empire Chapter, which was assigned two WWII aircraft (a Piper L-4F Grasshopper and a Ryan PT-22 Recruit) relocated from Corona Airport to Riverside Airport in 1994. The final passenger service operations at Riverside Airport were offered by a regional airline, Western Express Air, based at Bullhead City International Airport. Western Express Air flew Cessna 208 Grand Caravans with scheduled service between Bullhead City International, Phoenix Deer Valley, and Riverside Airports until its business terminated in May 2007.

Today, RAL sits on 525 acres and has two paved asphalt runways and one helipad. Runway 9-27, the primary runway, measures 5,401 feet long and 100 feet wide and can accommodate some business jet traffic. Secondary Runway 16-34 measures 2,850 feet long and 50 feet wide and accommodates smaller general aviation aircraft. Helipad H1 measures 60 feet by 60 feet of designated asphalt. The airport hosts 174 validated based aircraft and reported over 134,410 operations in 2025, up nearly 30 percent from the 102,492 operations reported in 2017. The busy airport is an aeronautical education hub and provides numerous services, as highlighted in the infographic on **Exhibit 1C**.

AIRPORT ADMINISTRATION

The airport is owned and operated by the City of Riverside as an enterprise fund. The airport functions as an independent division of the city manager's office, referred to as the Airport Administration Division. Day-to-day management of the airport is overseen by an airport manager. The airport manager reports to the assistant city manager, who oversees the Office of Sustainability and Riverside Public Utilities. Seven full-time airport employees currently perform day-to-day operations of the airport. The city's adopted *Fiscal Year 2025/26 Budget* includes appropriations for up to eight full-time airport employees, including three airport operations specialists, a custodian, a senior airport operations specialist, an administrative analyst, and an airport operations analyst, in addition to the airport manager.

[7] Bonanza Air Lines System Schedule, Effective April 1, 1968 (https://www.timetableimages.com/ttimages/bo1/bo6804/bo6804.pdf)

[8] Weber, Joe, American Aviation Historical Society, Winter 2002, Airlines: Evolution from Local Service to Global (https://www.aahs-online.org/pubs/journals/files/474260.pdf)

CORPORATE JET FLIGHT TIMES

Fastest Growing Region in California

12th Largest City in California

59th Largest City in the US

10th Largest County in the US

32.6 median age

81.5 square miles

4.6 Million Regional Population

320,785 Riverside Population (2022)

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An airport enterprise fund, which is supported by revenues generated at the airport, is used to manage airport finances. Technical advice and review are provided by a nine-member airport commission appointed by the mayor and city council. Each airport commissioner serves a four-year term with a limit of two consecutive terms. The City of Riverside organizational chart, which identifies the airport, is shown in **Figure 1A**.

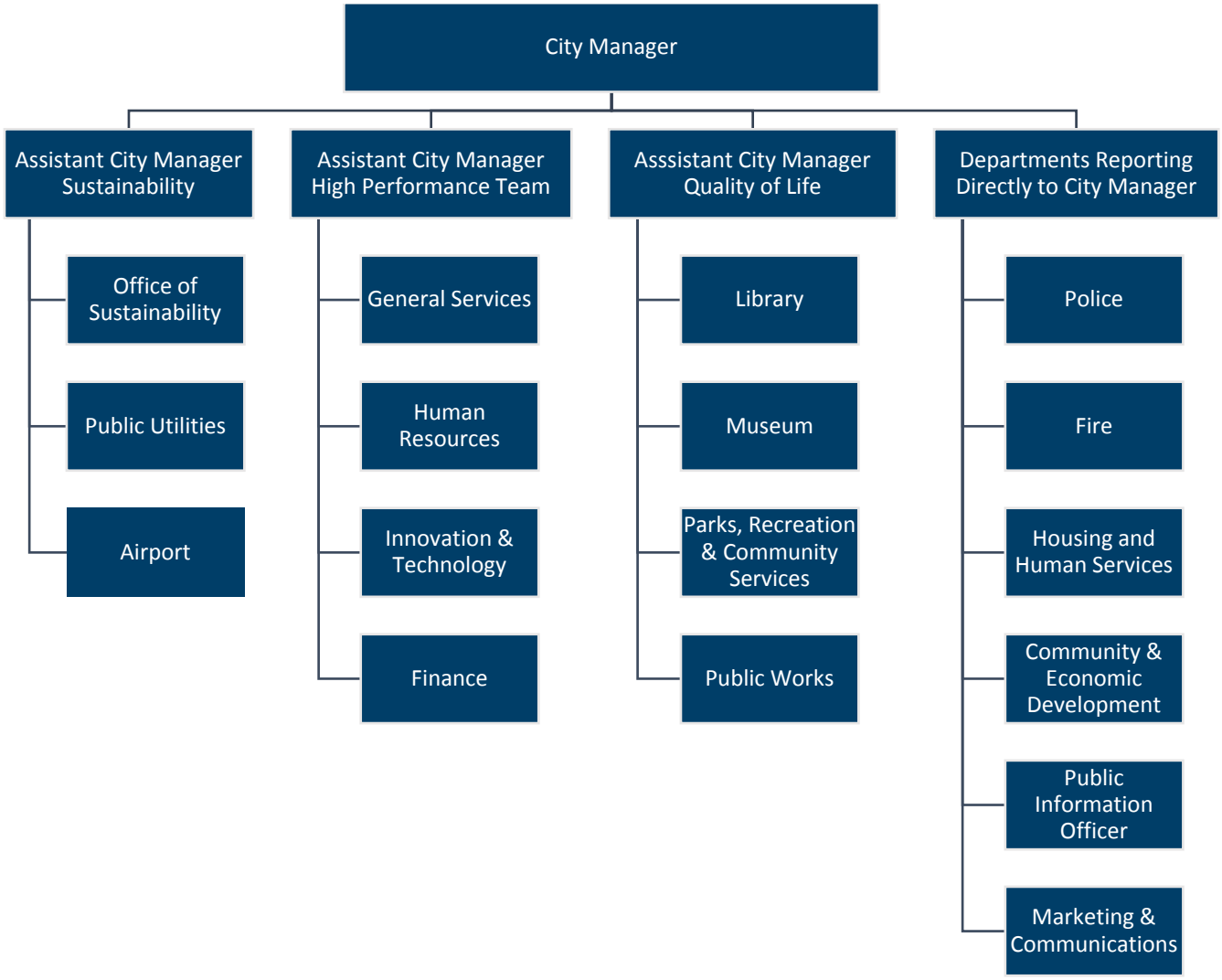


Figure 1A – City of Riverside Organizational Chart

AIRPORT SYSTEM PLANNING ROLE

Airport planning takes place at the federal, state, and local levels, and each level has a different emphasis and purpose.

- **Federal:** RAL is included in the *National Plan of Integrated Airport Systems* (NPIAS), which categorizes overall airport roles and responsibilities based on input from local and state planning efforts (i.e., master plans and state system plans).

- **State:** On the state level, the airport is included in the *California Aviation System Plan* (CASP 2020), which was adopted by the California Transportation Commission on August 18, 2021.

- **Local:** The local planning document is the *Airport Master Plan for Riverside Airport*, which was approved by the City of Riverside City Council in August 2009. The 2009 master plan replaced the previous master plan for RAL, which was approved in November 1999. Other locally drafted planning documents also factor into airport planning on this level.

FEDERAL AIRPORT PLANNING

The NPIAS identifies nearly 3,292 existing and proposed airports that are included in the national airport system, the roles they currently serve, and the amounts and types of airport development eligible for federal funding under the Airport Improvement Program (AIP) over the next five years. The NPIAS contains all commercial service airports, all reliever airports, and select publicly owned general aviation airports.

RAL is designated in the NPIAS as a nonprimary reliever airport (one of 32 in the State of California), meaning it is designated by the Secretary of Transportation to relieve congestion at a commercial service airport and to provide more general aviation access to the overall community.[9] Within the nonprimary designation, there are four airport categories: national, regional, local, and basic. RAL is classified within the regional category (one of 22 in the State of California). Regional airports are critical components of the national airport system, as they provide areas with relatively large populations with access to regional and interstate markets and experience high levels of activity, including some jet and multi-engine propeller aircraft operations. Regional airports average 90 total based aircraft, including three jets.[10]

STATE AIRPORT PLANNING

RAL is included in the CASP 2020,[11] which states:

> "*Aviation as a modal component within the CTP 2050 [California Transportation Plan 2050] provides vital support for the integrated movement of goods and people in California. To continue to contribute to the economy and the social wellbeing of California, aviation activities and facilities need strong and consistent planning, policy, and funding support. The vision of CASP 2020 is for aviation in California to be supported successfully through elements that will maintain its value to the State*."

Within the CASP 2020, RAL is classified as a regional airport, meaning it accommodates a wide variety of general aviation (GA) activities and may have international ranges. As is the case for RAL, regional airports usually serve larger population centers that include multiple cities or counties. RAL is further identified with the business/corporate subcategory based on special services the airport provides.

[9] Title 49 United States Code (USC) § 47102(23)
[10] U.S. Secretary of Transportation, National Plan of Integrated Airport Systems (2025–2029), September 30, 2024
[11] Caltrans, CASP 2020 (https://dot.ca.gov/programs/aeronautics/california-aviation-system-plan)

LOCAL AIRPORT PLANNING

The airport master plan is the primary local planning document that provides a 20-year vision for airport development based on aviation demand forecasts. Given the inevitable uncertainties as a master plan ages, the FAA recommends that airports update their master plans every seven to 10 years, or as necessary to address any significant changes.

RAL's master plan was last updated in 2009; major recommendations from this plan are depicted on **Exhibit 1D** and generally included the following:

- Widen crosswind Runway 16-34 to 60 feet the next time it is reconstructed
- Purchase 10 properties along Hillside Avenue for airport reference code (ARC) C-II runway protection zone (RPZ) control
- Construct a full-length parallel taxiway north of Runway 9-27 at a separation distance of 400 feet
- Extend Runway 9-27 1,000 feet to the east, adding associated declared distances to implement a one-way (takeoff) extension
- Relocate Union Pacific rail spur and installation of engineered materials arresting system (EMAS) to provide runway safety area (RSA) equivalency to the standard of 1,000 feet west of the Runway 9 threshold
- Relocate underground gas pipeline transversing Runway 27 RSA
- Grade Runway 27 RSA during north side parallel taxiway project
- Facilitate development opportunities on the north and south sides of the airport, including redevelopment of fixed base operator (FBO) complex to the south
- Remove buildings in the restricted runway visibility zone (RVZ) to the west of the terminal building
- Construct new large and medium-sized hangars on the north side near planned parallel taxiway

The current airport layout plan (ALP) for RAL is from January 2010 and carries forward the recommendations from the 2009 master plan; however, the ALP was never signed. The Exhibit 'A' property map has been updated as recently as 2024 via a pen and ink change. The draft 2010 ALP is depicted on **Exhibit 1E**.

CAPITAL IMPROVEMENT HISTORY

To assist in ongoing capital improvements, the FAA provides funding (both entitlement and discretionary funding) to RAL through the AIP and various other supplemental funding sources (the *Coronavirus Aid, Relief, and Economic Security Act of 2020* [CARES], *Coronavirus Response and Relief Supplemental Appropriation Act of 2020* [CRRSA], *American Rescue Plan Act of 2021* [ARPA], and *Infrastructure Investment and Jobs Act of 2021* [IIJA]).

05MP11-5A-6/05/08

RUNWAYS	DECLARED DISTANCES			
	ASDA	LDA	TORA	TODA
Runway 9	5,400	5,400	5,400	6,400
Runway 27	6,400	5,400	6,400	6,400

0 800 1600
SCALE IN FEET

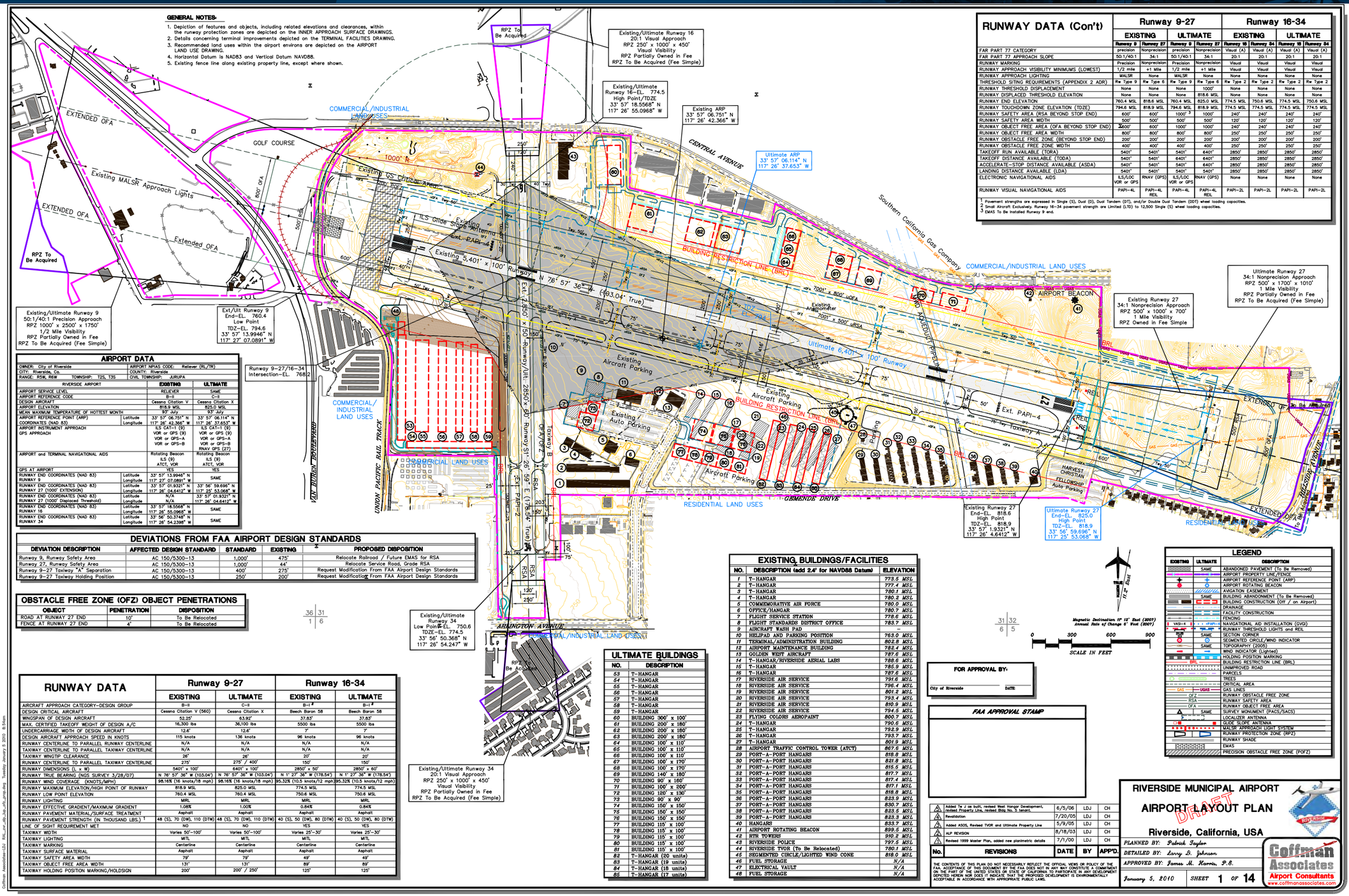
NORTH

Photo Composite:
Airport Property 2007, Surrounding Area 1998.

LEGEND

- Airport Property Line
- Runway Safety Area (RSA)
- Object Free Area (OFA)
- Extended Object Free Area
- Runway Protection Zone (RPZ)
- New Airport Pavement
- New Road/Parking
- New Building
- EMAS Site Prep Area
- EMAS Bed
- Fee Simple Ownership (if available)
- Fee Simple Ownership
- Parcel Designation
- Pavement to be Removed
- New Railroad Track

BRL - Building Restriction Line
TOFA - Taxiway Object Free Area
EMAS - Engineered Materials Arresting System



AIRPORT DATA

OWNER: City of Riverside	AIRPORT NPIAS CODE:	Reliever (RL/TR)
CITY: Riverside, Ca.	COUNTY: Riverside	
RANGE: R5W, R6W TOWNSHIP: T2S, T3S	CIVIL TOWNSHIP: JURUPA	

RIVERSIDE AIRPORT		EXISTING	ULTIMATE
AIRPORT SERVICE LEVEL		RELIEVER	SAME
AIRPORT REFERENCE CODE		B-II	C-II
DESIGN AIRCRAFT		Cessna Citation V	Cessna Citation X
AIRPORT ELEVATION		815.9 MSL	825.0 MSL
MEAN MAXIMUM TEMPERATURE OF HOTTEST MONTH		93° July	93° July
AIRPORT REFERENCE POINT (ARP) COORDINATES (NAD 83)	Latitude	33° 57' 06.751" N	33° 57' 06.114" N
	Longitude	117° 26' 42.366" W	117° 26' 37.653" W
AIRPORT INSTRUMENT APPROACH GPS APPROACH		ILS CAT-I (9) VOR or GPS (9) VOR or GPS-A VOR or GPS-B	ILS CAT-I (9) VOR or GPS (9) VOR or GPS-A VOR or GPS-B RNAV GPS (27)
AIRPORT and TERMINAL NAVIGATIONAL AIDS		Rotating Beacon ILS (9) ATCT, VOR	Rotating Beacon ILS (9) ATCT, VOR
GPS AT AIRPORT		YES	YES
RUNWAY END COORDINATES (NAD 83) RUNWAY 9	Latitude	33° 57' 13.9946" N	SAME
	Longitude	117° 27' 07.0891" W	
RUNWAY END COORDINATES (NAD 83) RUNWAY 27 (1000' EXTENSION)	Latitude	33° 57' 01.9321" N	33° 56' 59.696" N
	Longitude	117° 26' 04.6412" W	117° 25' 53.068" W
RUNWAY END COORDINATES (NAD 83) RUNWAY 27 (1000' Displaced Threshold)	Latitude	N/A	33° 57' 01.9321" N
	Longitude	N/A	117° 26' 04.6412" W
RUNWAY END COORDINATES (NAD 83) RUNWAY 16	Latitude	33° 57' 18.5568" N	SAME
	Longitude	117° 26' 55.0968" W	
RUNWAY END COORDINATES (NAD 83) RUNWAY 34	Latitude	33° 56' 50.3748" N	SAME
	Longitude	117° 26' 54.2398" W	

DEVIATIONS FROM FAA AIRPORT DESIGN STANDARDS

DEVIATION DESCRIPTION	AFFECTED DESIGN STANDARD	STANDARD	EXISTING	PROPOSED DISPOSITION
Runway 9, Runway Safety Area	AC 150/5300-13	1,000'	475'	Relocate Railroad / Future EMAS for RSA
Runway 27, Runway Safety Area	AC 150/5300-13	1,000'	44'	Relocate Service Road, Grade RSA
Runway 9-27 Taxiway "A" Separation	AC 150/5300-13	400'	275'	Request Modification From FAA Airport Design Standards
Runway 9-27 Taxiway Holding Position	AC 150/5300-13	250'	200'	Request Modification From FAA Airport Design Standards

OBSTACLE FREE ZONE (OFZ) OBJECT PENETRATIONS

OBJECT	PENETRATION	DISPOSITION
ROAD AT RUNWAY 27 END	10'	To Be Relocated
FENCE AT RUNWAY 27 END	4'	To Be Relocated

RUNWAY DATA

	Runway 9-27		Runway 16-34	
	EXISTING	ULTIMATE	EXISTING	ULTIMATE
AIRCRAFT APPROACH CATEGORY-DESIGN GROUP	B-II	C-II	B-II [2]	B-II [2]
DESIGN CRITICAL AIRCRAFT	Cessna Citation V (560)	Cessna Citation X	Beech Baron 58	Beech Baron 58
WINGSPAN OF DESIGN AIRCRAFT	52.25'	63.92'	37.83'	37.83'
MAX. CERTIFIED TAKEOFF WEIGHT OF DESIGN A/C	16,300 lbs	36,100 lbs	5500 lbs	5500 lbs
UNDERCARRIAGE WIDTH OF DESIGN AIRCRAFT	12.6'	12.6'	7'	7'
DESIGN AIRCRAFT APPROACH SPEED IN KNOTS	115 knots	136 knots	96 knots	96 knots
RUNWAY CENTERLINE TO PARALLEL RUNWAY CENTERLINE	N/A	N/A	N/A	N/A
TAXIWAY CENTERLINE TO PARALLEL TAXIWAY CENTERLINE	N/A	N/A	N/A	N/A
TAXIWAY WINGTIP CLEARANCE	26'	26'	20'	20'
RUNWAY CENTERLINE TO PARALLEL TAXIWAY CENTERLINE	275'	275' / 400'	150'	150'
RUNWAY DIMENSIONS (L x W)	5401' x 100'	6401' x 100'	2850' x 50'	2850' x 80'
RUNWAY TRUE BEARING (NGS SURVEY 3/28/07)	N 76° 57' 36" W (103.04°)	N 76° 57' 36" W (103.04°)	N 1° 27' 36" W (178.54°)	N 1° 27' 36" W (178.54°)
RUNWAY WIND COVERAGE (KNOTS/MPH)	98.16% (16 knots/18 mph)	98.16% (16 knots/18 mph)	95.32% (10.5 knots/12 mph)	95.32% (10.5 knots/12 mph)
RUNWAY MAXIMUM ELEVATION/HIGH POINT OF RUNWAY	818.9 MSL	825.0 MSL	774.5 MSL	774.5 MSL
RUNWAY LOW POINT ELEVATION	760.4 MSL	760.4 MSL	750.6 MSL	750.6 MSL
RUNWAY LIGHTING	MIRL	MIRL	MIRL	MIRL
RUNWAY EFFECTIVE GRADIENT/MAXIMUM GRADIENT	1.08%	1.00%	0.84%	0.84%
RUNWAY PAVEMENT MATERIAL/SURFACE TREATMENT	Asphalt	Asphalt	Asphalt	Asphalt
RUNWAY PAVEMENT STRENGTH (IN THOUSAND LBS.) [1]	48 (S), 70 (DW), 110 (DTW)	48 (S), 70 (DW), 110 (DTW)	40 (S), 50 (DW), 80 (DTW)	40 (S), 50 (DW), 80 (DTW)
LINE OF SIGHT REQUIREMENT MET	NO	NO	YES	YES
TAXIWAY WIDTH	Varies 50'-100'	Varies 50'-100'	Varies 25'-30'	Varies 25'-30'
TAXIWAY LIGHTING	MITL	MITL	MITL	MITL
TAXIWAY MARKING	Centerline	Centerline	Centerline	Centerline
TAXIWAY SURFACE MATERIAL	Asphalt	Asphalt	Asphalt	Asphalt
TAXIWAY SAFETY AREA WIDTH	79'	79'	49'	49'
TAXIWAY OBJECT FREE AREA WIDTH	131'	131'	89'	89'
TAXIWAY HOLDING POSITION MARKING/HOLDSIGN	200'	200' / 250'	125'	125'

RUNWAY DATA (Con't)

	Runway 9-27				Runway 16-34			
	EXISTING		ULTIMATE		EXISTING		ULTIMATE	
	Runway 9	Runway 27	Runway 9	Runway 27	Runway 16	Runway 34	Runway 16	Runway 34
FAR PART 77 CATEGORY	precision	Nonprecision	precision	Nonprecision	Visual (A)	Visual (A)	Visual (A)	Visual (A)
FAR PART 77 APPROACH SLOPE	50:1/40:1	34:1	50:1/40:1	34:1	20:1	20:1	20:1	20:1
RUNWAY MARKING	Precision	Nonprecision	Precision	Nonprecision	Visual	Visual	Visual	Visual
RUNWAY APPROACH VISIBILITY MINIMUMS (LOWEST)	1/2 mile	1/2 mile	1/2 mile	1/2 mile	Visual	Visual	Visual	Visual
RUNWAY APPROACH LIGHTING	MALSR	None	MALSR	None	None	None	None	None
THRESHOLD SITING REQUIREMENTS (APPENDIX 2 ADR)	Rw Type 9	Rw Type 6	Rw Type 9	Rw Type 6	Rw Type 2	Rw Type 2	Rw Type 2	Rw Type 2
RUNWAY THRESHOLD DISPLACEMENT	None	None	None	1000'	None	None	None	None
RUNWAY DISPLACED THRESHOLD ELEVATION	None	None	None	818.6 MSL	None	None	None	None
RUNWAY END ELEVATION	760.4 MSL	818.6 MSL	760.4 MSL	825.0 MSL	774.5 MSL	750.6 MSL	774.5 MSL	750.6 MSL
RUNWAY TOUCHDOWN ZONE ELEVATION (TDZE)	794.6 MSL	818.9 MSL	794.6 MSL	818.9 MSL	774.5 MSL	774.5 MSL	774.5 MSL	774.5 MSL
RUNWAY SAFETY AREA (RSA BEYOND STOP END)	600'	600'	1000' [3]	1000'	240'	240'	240'	240'
RUNWAY SAFETY AREA WIDTH	500'	500'	500'	500'	120'	120'	120'	120'
RUNWAY OBJECT FREE AREA (OFA BEYOND STOP END)	600'	600'	1000'	1000'	240'	240'	240'	240'
RUNWAY OBJECT FREE AREA WIDTH	800'	800'	800'	800'	250'	250'	250'	250'
RUNWAY OBSTACLE FREE ZONE (BEYOND STOP END)	200'	200'	200'	200'	200'	200'	200'	200'
RUNWAY OBSTACLE FREE ZONE WIDTH	400'	400'	400'	400'	250'	250'	250'	250'
TAKEOFF RUN AVAILABLE (TORA)	5401'	5401'	5401'	6401'	2850'	2850'	2850'	2850'
TAKEOFF DISTANCE AVAILABLE (TODA)	5401'	5401'	5401'	6401'	2850'	2850'	2850'	2850'
ACCELERATE-STOP DISTANCE AVAILABLE (ASDA)	5401'	5401'	5401'	6401'	2850'	2850'	2850'	2850'
LANDING DISTANCE AVAILABLE (LDA)	5401'	5401'	5401'	5401'	2850'	2850'	2850'	2850'
ELECTRONIC NAVIGATIONAL AIDS	ILS/LOC VOR or GPS	RNAV (GPS)	ILS/LOC VOR or GPS	RNAV (GPS)	None	None	None	None
RUNWAY VISUAL NAVIGATIONAL AIDS	PAPI-4L	PAPI-4L REIL	PAPI-4L	PAPI-4L REIL	PAPI-2L	PAPI-2L	PAPI-2L	PAPI-2L

[1] Pavement strengths are expressed in Single (S), Dual (D), Dual Tandem (DT), and/or Double Dual Tandem (DDT) wheel loading capacities.
[2] Small Aircraft Exclusively. Runway 16-34 pavement strength are Limited (LTD) to 12,500 Single (S) wheel loading capacities.
[3] EMAS To Be Installed Runway 9 end.

EXISTING BUILDINGS/FACILITIES

NO.	DESCRIPTION (add 2.4' for NAVD88 Datum)	ELEVATION
1	T-HANGAR	773.5 MSL
2	T-HANGAR	777.4 MSL
3	T-HANGAR	780.1 MSL
4	T-HANGAR	780.3 MSL
5	COMMEMORATIVE AIR FORCE	780.0 MSL
6	OFFICE/HANGAR	780.7 MSL
7	FLIGHT SERVICE STATION	778.6 MSL
8	FLIGHT STANDARDS DISTRICT OFFICE	783.7 MSL
9	AIRCRAFT WASH PAD	
10	HELIPAD AND PARKING POSITION	763.0 MSL
11	TERMINAL/ADMINISTRATION BUILDING	802.8 MSL
12	AIRPORT MAINTENANCE BUILDING	782.4 MSL
13	GOLDEN WEST AIRCRAFT	787.6 MSL
14	T-HANGAR/RIVERSIDE AERIAL LABS	788.6 MSL
15	T-HANGAR	785.9 MSL
16	T-HANGAR	787.6 MSL
17	RIVERSIDE AIR SERVICE	791.6 MSL
18	RIVERSIDE AIR SERVICE	796.4 MSL
19	RIVERSIDE AIR SERVICE	801.2 MSL
20	RIVERSIDE AIR SERVICE	793.4 MSL
21	RIVERSIDE AIR SERVICE	810.9 MSL
22	RIVERSIDE AIR SERVICE	794.6 MSL
23	FLYING COLORS AEROPAINT	800.7 MSL
24	T-HANGAR	790.6 MSL
25	T-HANGAR	792.9 MSL
26	T-HANGAR	793.7 MSL
27	T-HANGAR	801.9 MSL
28	AIRPORT TRAFFIC CONTROL TOWER (ATCT)	867.6 MSL
29	PORT-A-PORT HANGARS	818.8 MSL
30	PORT-A-PORT HANGARS	821.8 MSL
31	PORT-A-PORT HANGARS	815.5 MSL
32	PORT-A-PORT HANGARS	817.7 MSL
33	PORT-A-PORT HANGARS	817.4 MSL
34	PORT-A-PORT HANGARS	817.1 MSL
35	PORT-A-PORT HANGARS	818.8 MSL
36	PORT-A-PORT HANGARS	833.9 MSL
37	PORT-A-PORT HANGARS	830.7 MSL
38	PORT-A-PORT HANGARS	833.5 MSL
39	PORT-A-PORT HANGARS	833.8 MSL
40	HANGARS	833.9 MSL
41	AIRPORT ROTATING BEACON	899.5 MSL
42	NTR TOWERS	910.2 MSL
43	RIVERSIDE POLICE	797.5 MSL
44	RIVERSIDE TVOR (To Be Relocated)	780.1 MSL
45	SEGMENTED CIRCLE/LIGHTED WIND CONE	818.0 MSL
46	FUEL STORAGE	N/A
47	ELECTRICAL VAULT	N/A
48	FUEL STORAGE	N/A

ULTIMATE BUILDINGS

NO.	DESCRIPTION
53	T-HANGAR
54	T-HANGAR
55	T-HANGAR
56	T-HANGAR
57	T-HANGAR
58	T-HANGAR
59	T-HANGAR
60	BUILDING 300' x 100'
61	BUILDING 200' x 180'
62	BUILDING 200' x 180'
63	BUILDING 200' x 180'
64	BUILDING 100' x 110'
65	BUILDING 100' x 110'
66	BUILDING 100' x 110'
67	BUILDING 100' x 170'
68	BUILDING 100' x 170'
69	BUILDING 140' x 180'
70	BUILDING 90' x 180'
71	BUILDING 100' x 200'
72	BUILDING 120' x 130'
73	BUILDING 90' x 90'
74	BUILDING 150' x 150'
75	BUILDING 150' x 150'
76	BUILDING 150' x 150'
77	BUILDING 115' x 100'
78	BUILDING 115' x 100'
79	BUILDING 115' x 100'
80	BUILDING 115' x 100'
81	BUILDING 115' x 100'
82	T-HANGAR (20 units)
83	T-HANGAR (19 units)
84	T-HANGAR (18 units)
85	T-HANGAR (17 units)

LEGEND

EXISTING	ULTIMATE	DESCRIPTION
	SAME	ABANDONED PAVEMENT (To Be Removed)
		AIRPORT PROPERTY LINE/FENCE
		AIRPORT REFERENCE POINT (ARP)
		AIRPORT ROTATING BEACON
		AVIGATION EASEMENT
	SAME	BUILDING ABANDONMENT (To Be Removed)
		BUILDING CONSTRUCTION (Off / on Airport)
		DRAINAGE
		FACILITY CONSTRUCTION
		FENCING
VASI-4	PAPI-4	NAVIGATIONAL AID INSTALLATION (GVGI)
REIL	REIL	RUNWAY THRESHOLD LIGHTS and REIL
	SAME	SECTION CORNER
		SEGMENTED CIRCLE/WIND INDICATOR
1080	SAME	TOPOGRAPHY (2005)
		WIND INDICATOR (Lighted)
		HOLDING POSITION MARKING
BRL		BUILDING RESTRICTION LINE (BRL)
		UNIMPROVED ROAD
		PARCELS
		TREES
		CRITICAL AREA
GAS	UGAS	GAS LINES
OFZ		RUNWAY OBSTACLE FREE ZONE
RSA		RUNWAY SAFETY AREA
OFA		RUNWAY OBJECT FREE AREA
	SAME	SURVEY MONUMENT (PACS/SACS)
		LOCALIZER ANTENNA
		GLIDE SLOPE ANTENNA
		MALSR APPROACH LIGHT SYSTEM
		RUNWAY PROTECTION ZONE (RPZ)
		RUNWAY SHADE
		EMAS
		PRECISION OBSTACLE FREE ZONE (POFZ)

No.	REVISIONS	DATE	BY	APP'D.
7	Added Tw J as built, revised West Hangar Development, revised Property Line, revised Bldg No. 5 tenant.	6/5/06	LDJ	CH
6	Revalidation	7/20/05	LDJ	CH
5	Added ASOS, Revised TVOR and Ultimate Property Line	5/9/05	LDJ	CH
4	ALP REVISION	8/18/03	LDJ	CH
3	Revised 1999 Master Plan, added new planimetric details	7/1/00	LDJ	CH

THE CONTENTS OF THIS PLAN DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICY OF THE FAA. ACCEPTANCE OF THIS DOCUMENT BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES OR STATE OF CALIFORNIA TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED HEREIN NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS.

RIVERSIDE MUNICIPAL AIRPORT
AIRPORT LAYOUT PLAN
Riverside, California, USA

PLANNED BY: Patrick Taylor
DETAILED BY: Larry D. Johnson
APPROVED BY: James M. Harris, P.E.
January 5, 2010 SHEET 1 OF 14

Coffman Associates
Airport Consultants
www.coffmanassociates.com

Table 1B summarizes federal grant data of airport capital improvement, maintenance, and planning projects that were undertaken at RAL between fiscal years 2005 and 2025 and were funded via federal sources. During this period, the airport has been awarded over $13 million dollars in federal grants.

TABLE 1B: Federal Grant History

Year	Project Description	AIP Entitlement	AIP Discretionary	CARES Relief	COVID-19 Relief	AIG	Grand Total
2005	Construct Taxiway	$183,666	–	–	–	–	$183,666
2006	Rehabilitate Runway	–	$4,128,452	–	–	–	$4,128,452
2006	Rehabilitate Taxiway	$100,000	$117,914	–	–	–	$217,914
2006	Update Airport Master Plan	$342,303	–	–	–	–	$342,303
2007	Construct Taxiway	–	$1,696,589	–	–	–	$1,696,589
2007	Rehabilitate Taxiway	$150,000	–	–	–	–	$150,000
2011	Conduct Environmental Study	$223,684	–	–	–	–	$223,684
2012	Rehabilitate Apron	$679,398	$212,534	–	–	–	$891,932
2013	Acquire Land for Approaches	$2,596,762	–	–	–	–	$2,596,762
2016	Rehabilitate Apron	$40,500	–	–	–	–	$40,500
2016	Rehabilitate Runway	$65,352	–	–	–	–	$65,352
2017	Rehabilitate Apron	$496,476	–	–	–	–	$496,476
2017	Rehabilitate Runway	$300,000	–	–	–	–	$300,000
2020	Acquire or Rehabilitate Emergency Generator	$270,000	–	$11,666	–	–	$281,666
2020	CARES Act Funds	–	–	$69,000	–	–	$69,000
2020	Install Airfield Guidance Signs	$27,000	–	$11,667	–	–	$38,667
2020	Install Miscellaneous NAVAIDs	$18,000	–	$11,667	–	–	$29,667
2021	CRRSA Act Contract Tower	–	–	–	$34,162	–	$34,162
2021	CRRSA Act Funds	–	–	–	$23,000	–	$23,000
2021	General ARPA	–	–	–	$59,000	–	$59,000
2021	Rehabilitate Taxiway	$133,458	–	–	$14,828	–	$148,286
2024	Reseal Taxiway Pavement	$791,604	–	–	–	–	$791,604
2025	Construct Airport Drainage/ Erosion Control	–	–	–	–	$283,366	$283,366
2025	Update Pavement Management Plan	–	–	–	–	$104,500	$104,500
–	**Totals:**	**$6,418,203**	**$6,155,489**	**$104,000**	**$130,990**	**$387,866**	**$13,196,548**

Table Source: FAA, AIP Grant Histories

AIG = Airport Infrastructure Grants via the *Infrastructure Investment and Jobs Act of 2021* (IIJA)
AIP = Airport Improvement Program
ARPA = *American Rescue Plan Act of 2021*
CARES = *Coronavirus Aid, Relief, and Economic Security Act of 2020*
CRRSA = *Coronavirus Response and Relief Supplemental Appropriation Act of 2020*

AERONAUTICAL ACTIVITY

At airports that primarily serve general aviation activity, the numbers of based aircraft and operations (takeoffs and landings) are key aeronautical activity measures. These indicators will be used in subsequent analyses in this master plan to project future aeronautical activity and determine future facility requirements.

OPERATIONS

Aircraft operational statistics at RAL are recorded by the airport traffic control tower (ATCT). The ATCT is part of the FAA Contract Tower Program, which utilizes non-federal controllers. Robinson Aviation, Inc. is the current ATCT operator. The tower operates from 7:00 a.m. to 8:00 p.m. daily. Among other duties, the ATCT counts aircraft operations, which are defined as either takeoffs or landings.

Aircraft operations are classified as either local or itinerant. Local operations are those that stay within an airport's traffic pattern, such as flight training or touch-and-go operations, while itinerant operations are those that have origins or destinations at others airport. Aircraft operations are further separated into four general categories:

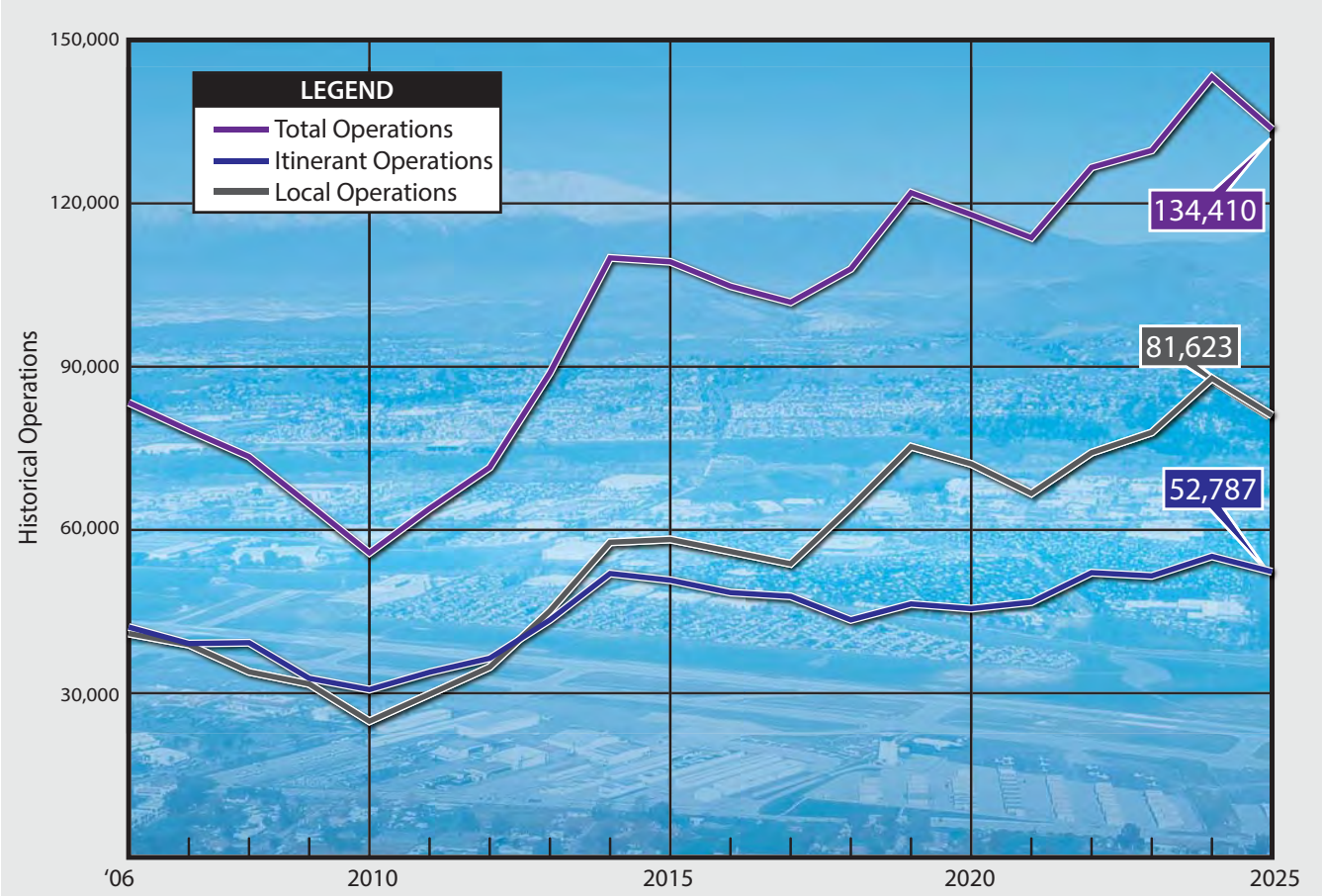
- **Air carrier operations** are performed by commercial airline aircraft with more than 60 seats.
- **Air taxi operations** are associated with commuter aircraft (60 seats and below) and include for-hire general aviation aircraft.
- **Military operations** are conducted by airplanes and helicopters with military identification.
- **General aviation** comprises all other aviation activity, from small ultralight aircraft to large business jets.

Table 1C provides a summary of operational statistics since 2006, including the breakdown of itinerant and local operations and the category of operations. The highest number of operations at RAL in the past 20 years occurred in 2024. In 2025, the airport experienced more than 134,000 operations, down slightly from the 144,000 operations observed in 2024. Historical operations show a significant dip from 2006 to 2010, decreasing to less than half of current operations in 2010. Over the past 10 years, itinerant operations have remained stable while local operations have steadily increased. Historical operations are illustrated on **Exhibit 1F**.

TABLE 1C: Historical Operations

Calendar Year	Itinerant: Air Carrier	Itinerant: Air Taxi	Itinerant: General Aviation	Itinerant: Military	Itinerant: Total	Local: Civil	Local: Military	Local: Total	Total Operations
2006	0	539	41,947	96	42,582	41,376	23	41,399	83,981
2007	0	268	39,173	101	39,542	39,251	85	39,336	78,878
2008	16	165	39,435	76	39,692	34,253	72	34,325	74,017
2009	0	136	32,847	140	33,123	31,984	100	32,084	65,207
2010	0	94	30,897	59	31,050	25,163	53	25,216	56,266
2011	0	111	34,104	32	34,247	30,194	3	30,197	64,444
2012	0	175	36,530	118	36,823	35,155	47	35,202	72,025
2013	119	617	43,022	137	43,895	45,508	60	45,568	89,463
2014	0	1,999	50,011	444	52,454	58,143	71	58,214	110,668
2015	0	3,431	47,335	447	51,213	58,636	96	58,732	109,945
2016	0	4,006	44,533	395	48,934	56,444	72	56,516	105,450
2017	21	3,661	44,075	488	48,245	54,203	44	54,247	102,492
2018	0	2,447	41,077	379	43,902	64,676	57	64,733	108,635
2019	0	2,330	44,207	304	46,841	75,603	253	75,856	122,697

(Table continues)



Calendar Year	Itinerant Operations	Local Operations	Total Operations
2006	42,582	41,399	83,981
2007	39,542	39,336	78,878
2008	39,692	34,325	74,017
2009	33,123	32,084	65,207
2010	31,050	25,216	56,266
2011	34,247	30,197	64,444
2012	36,823	35,202	72,025
2013	43,895	45,568	89,463
2014	52,454	58,214	110,668
2015	51,213	58,732	109,945
2016	48,934	56,516	105,450
2017	48,245	54,247	102,492
2018	43,903	64,733	108,635
2019	46,842	75,856	122,697
2020	45,982	72,672	118,654
2021	47,169	67,230	114,399
2022	52,610	74,743	127,353
2023	52,011	78,472	130,483
2024	55,617	88,475	144,092
2025	52,787	81,623	134,410

Source: FAA Operations and Performance Data (OPSNET), https://www.aspm.faa.gov/opsnet/sys/Main.asp

TABLE 1C (continued): Historical Operations

Calendar Year	Itinerant: Air Carrier	Itinerant: Air Taxi	Itinerant: General Aviation	Itinerant: Military	Itinerant: Total	Local: Civil	Local: Military	Local: Total	Total Operations
2020	0	2,363	43,372	248	45,982	72,425	247	72,672	118,654
2021	0	2,502	44,168	499	47,169	67,158	72	67,230	114,399
2022	139	2,935	49,038	497	52,610	74,480	263	74,743	127,353
2023	1	4,159	47,460	391	52,011	78,387	84	78,472	130,483
2024	0	3,355	51,827	436	55,617	88,426	48	88,475	144,092
2025	11	3,483	48,821	471	52,787	81,358	266	81,623	134,410

Table Sources: FAA Operations and Performance Data (OPSNET) (https://aspm.faa.gov/); RAL Records; Coffman Associates Analysis

BASED AIRCRAFT

Identifying the current number of based aircraft is important to the master plan analysis; however, it is inherently challenging to maintain accurate records due to the transient nature of aircraft storage, so data from the FAA's *Terminal Area Forecast* (TAF) was consulted to provide a broader history. Historical based aircraft levels at RAL, as sourced from the TAF, are shown in **Table 1D**. For the purposes of the master plan and forecasting of aviation demand, only FAA-validated aircraft will be used as the baseline count. The airport currently has 174 validated based aircraft, including 154 single-engine piston aircraft, 14 multi-engine aircraft, five jets, and one helicopter.

TABLE 1D: Based Aircraft History

Year	Based Aircraft
2016	159
2017	195
2018	178
2019	173
2020	187
2021	217
2022	217
2023	221
2024	217
2025	174

Table Sources: FAA Terminal Area Forecast; National Based Aircraft Inventory (www.basedaircraft.com)

AIRSIDE FACILITIES

Airside facilities include runways, taxiways, airfield lighting, and navigational aids. These facilities are identified on **Exhibit 1G** and descriptions of each are included in the following sections. Runway 9-27 is the primary runway and Runway 16-34 serves as a secondary runway. Information pertaining to each runway is included as follows and summarized on the exhibit.

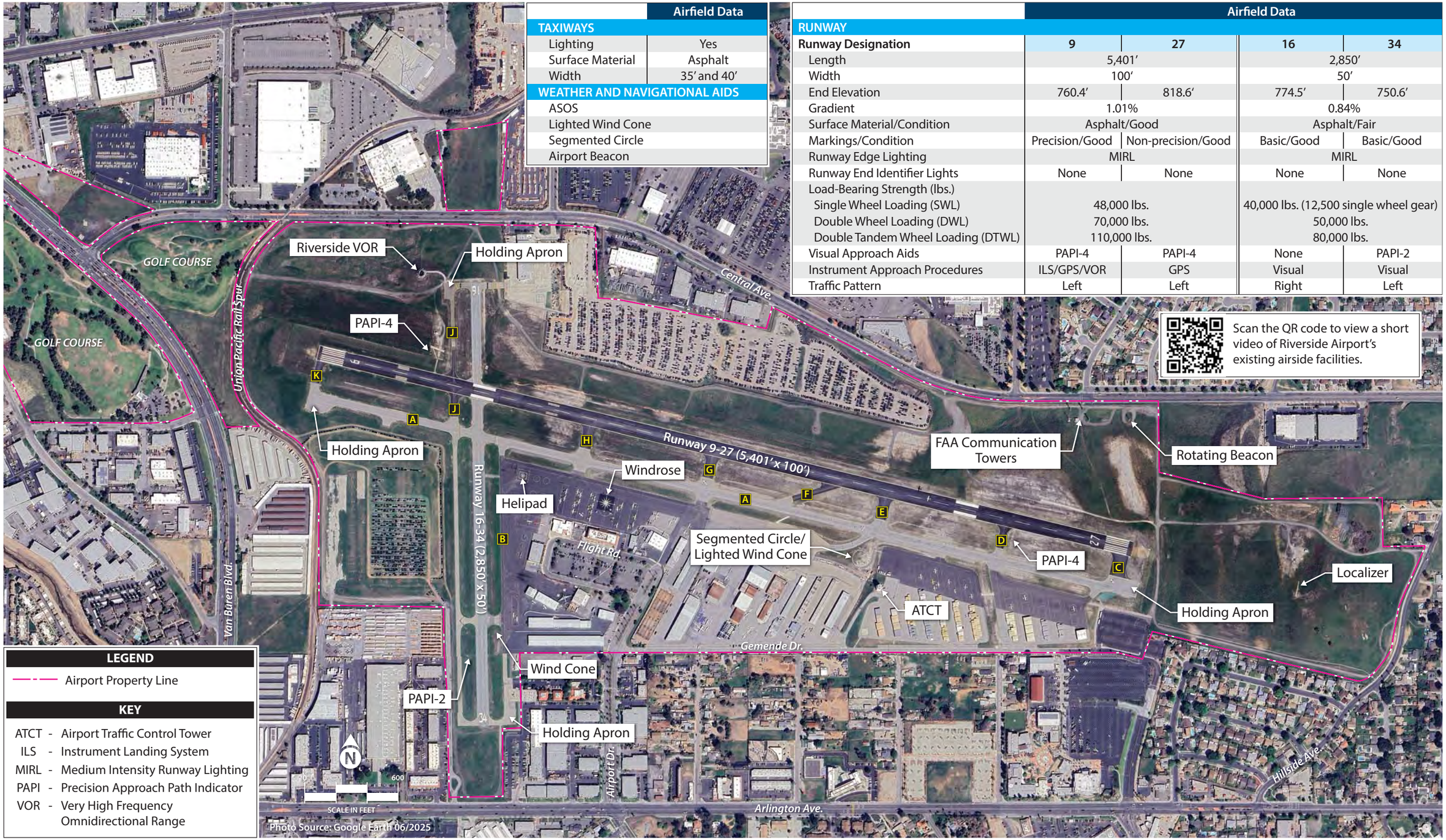
RUNWAYS

Primary Runway 9-27

Runway 9-27 is 5,401 feet long and 100 feet wide and is oriented east/west. The runway surface is constructed of asphalt and is in good condition. The runway has no threshold displacements and no published declared distances. As a result, the full pavement length is usable in all operational situations

	Airfield Data
TAXIWAYS	
Lighting	Yes
Surface Material	Asphalt
Width	35′ and 40′
WEATHER AND NAVIGATIONAL AIDS	
ASOS	
Lighted Wind Cone	
Segmented Circle	
Airport Beacon	

	Airfield Data			
RUNWAY				
Runway Designation	**9**	**27**	**16**	**34**
Length	5,401′		2,850′	
Width	100′		50′	
End Elevation	760.4′	818.6′	774.5′	750.6′
Gradient	1.01%		0.84%	
Surface Material/Condition	Asphalt/Good		Asphalt/Fair	
Markings/Condition	Precision/Good	Non-precision/Good	Basic/Good	Basic/Good
Runway Edge Lighting	MIRL		MIRL	
Runway End Identifier Lights	None	None	None	None
Load-Bearing Strength (lbs.)				
Single Wheel Loading (SWL)	48,000 lbs.		40,000 lbs. (12,500 single wheel gear)	
Double Wheel Loading (DWL)	70,000 lbs.		50,000 lbs.	
Double Tandem Wheel Loading (DTWL)	110,000 lbs.		80,000 lbs.	
Visual Approach Aids	PAPI-4	PAPI-4	None	PAPI-2
Instrument Approach Procedures	ILS/GPS/VOR	GPS	Visual	Visual
Traffic Pattern	Left	Left	Right	Left



Scan the QR code to view a short video of Riverside Airport's existing airside facilities.

LEGEND

Airport Property Line

KEY

ATCT - Airport Traffic Control Tower
ILS - Instrument Landing System
MIRL - Medium Intensity Runway Lighting
PAPI - Precision Approach Path Indicator
VOR - Very High Frequency Omnidirectional Range

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(takeoff and landing). Runway 27 has non-precision markings, including runway end designations, threshold markings, centerline, edge markings, and aiming points. Runway 9 has precision markings that include all of the above, along with touchdown zone markings, in support of the instrument landing system (ILS) approach that is available to this runway end. The runway slopes down from east at Runway 27 to west at Runway 9 with an elevation change of 58.2 feet, resulting in a runway gradient of 1.1 percent. The runway edges are equipped with medium intensity runway lighting (MIRL) to provide illumination at night and/or during poor meteorological conditions. Both runway ends utilize a standard left-hand traffic pattern.

Runway 9-27 has a pavement strength rating of 48,000 pounds single wheel loading (SWL), which refers to the design of certain aircraft landing gear with a single-wheel main landing gear strut. The runway pavement strength increases to 70,000 pounds dual wheel loading (DWL) and 110,000 pounds double tandem wheel loading (DTWL).

Runway 9
(Source: Google Earth, image date December 2020)

Runway 27
(Source: Google Earth, image date August 2024)

Runway 16-34

Runway 16-34 is 2,850 feet long and 50 feet wide, oriented north/south, and constructed of asphalt that is in fair condition. This secondary runway intersects the primary runway approximately 1,000 feet from the end of Runway 9 to the west. The runway pavement has a strength rating of 40,000 pounds SWL, 50,000 pounds DWL, and 80,000 pounds DTWL. The runway has basic markings that are in good condition, including edge markings. The runway slopes down from the north to the south with an elevation change of 23.9 feet from end to end, resulting in a gradient of 0.84 percent. Runway 34 has a standard left-hand traffic pattern, while Runway 16 has a non-standard right-hand traffic pattern. The runway is equipped with MIRL.

Runway 16
(Source: Google Earth, image date August 2024)

Runway 34
(Source: Google Earth, image date August 2024)

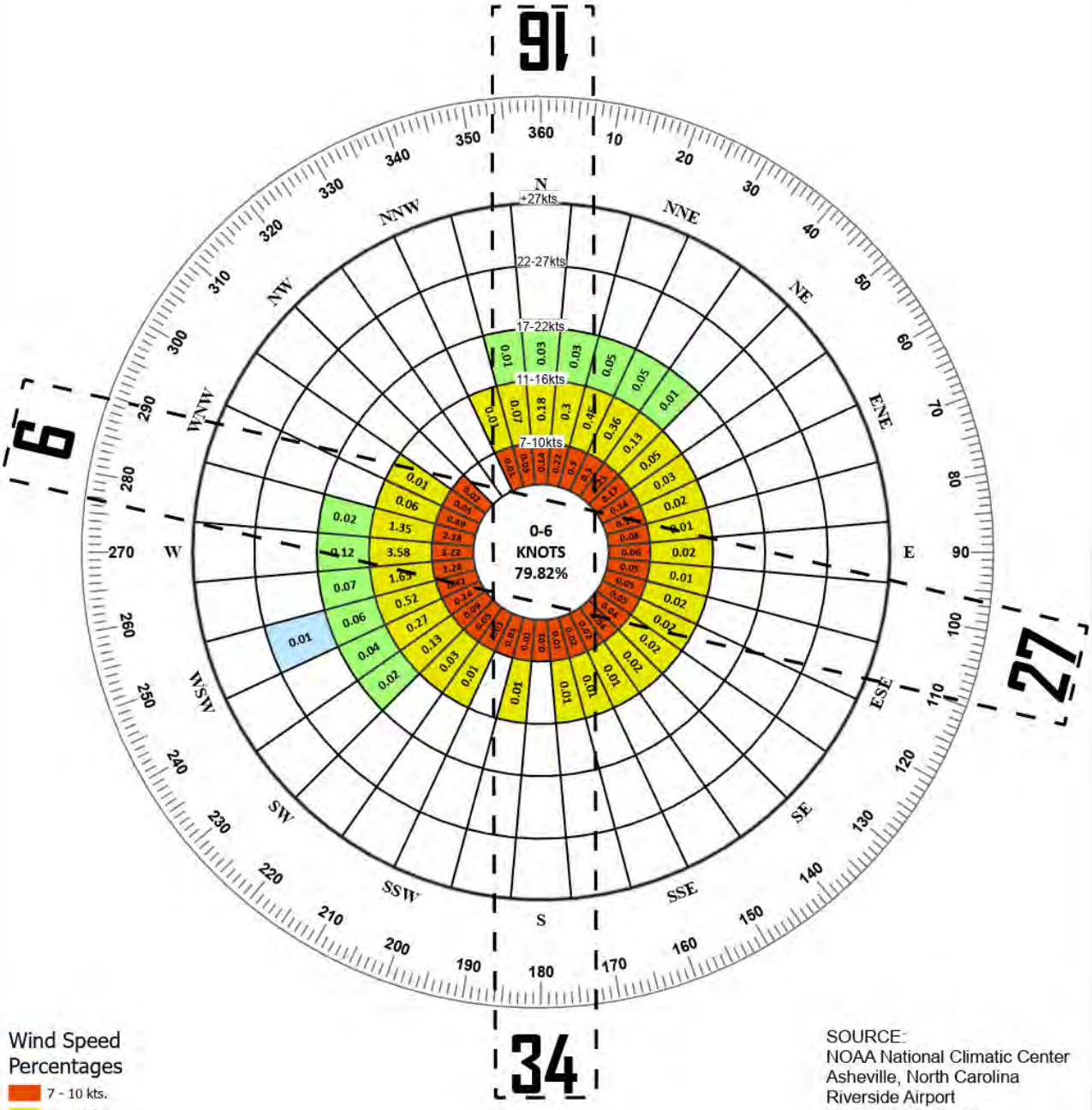
Crosswind Coverage

Prevailing winds are winds that blow predominantly in a given direction. At an airport, the direction of prevailing winds determines the desired alignment, configuration, and usage of a runway. Aircraft can only tolerate limited crosswinds, which are components of wind that blow perpendicular to the runway centerline. Ideally, runways are configured to allow aircraft to take off and land into the wind 100 percent of the time. Because winds change direction, FAA planning standards indicate that an airport's primary runway should be capable of operating under allowable wind conditions at least 95 percent of the time. If a runway does not meet this 95 percent coverage, FAA funding assistance for the development of a crosswind runway may be advisable.

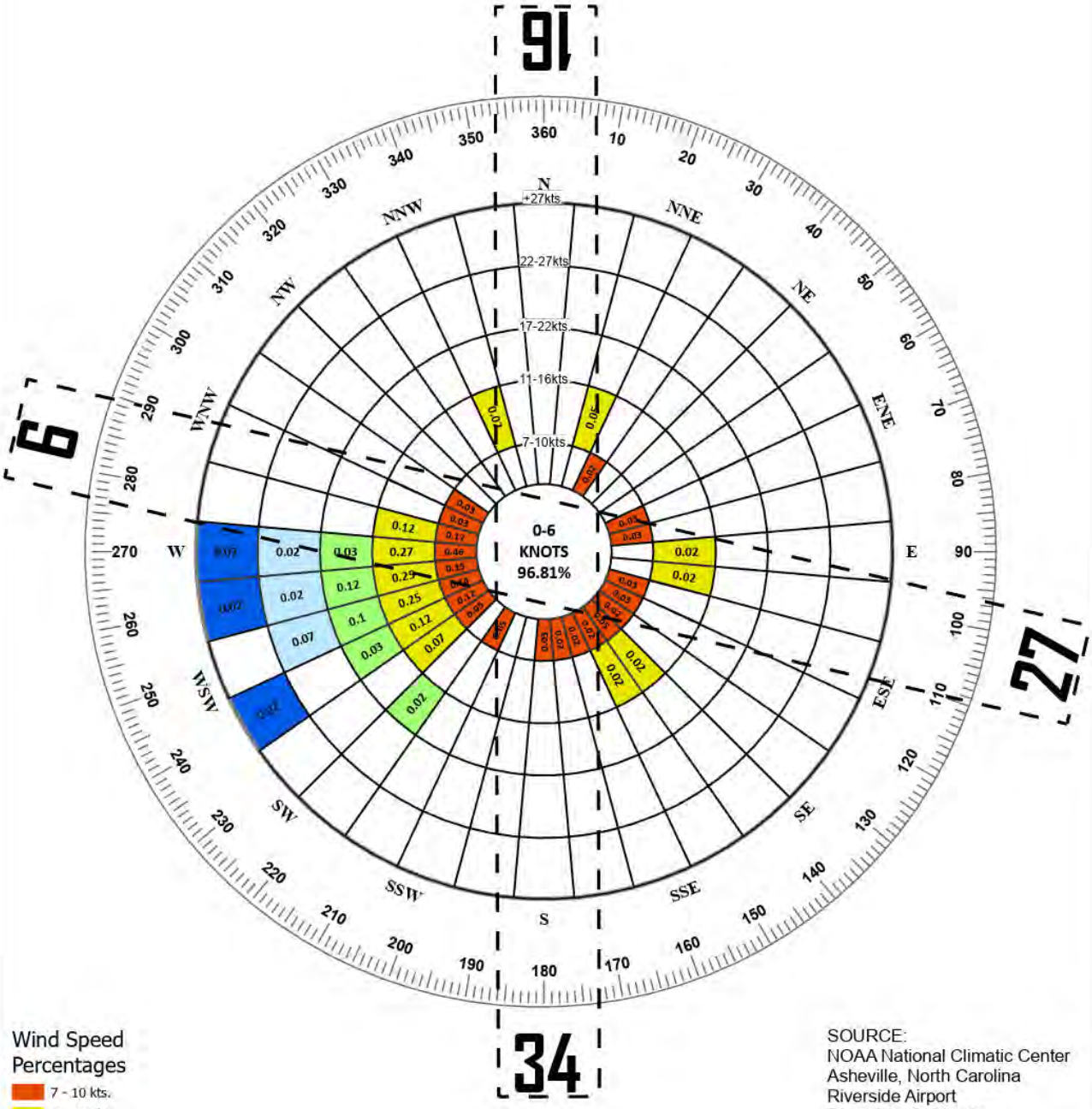
The 95 percent wind coverage is computed on the basis of the crosswind component not exceeding 10.5 knots (12 miles per hour [mph]) for ARC A-I and B-I; 13 knots (15 mph) for ARC A-II and B-II; 16 knots (18 mph) for ARC A-III, B-III, and C-I through D-II; and 20 knots (23 mph) for ARC C-III through D-IV.

Exhibit 1H presents the all-weather wind rose for the airport. Wind data for the previous 10 years were obtained from the on-airport automated surface observing system (ASOS) and have been analyzed to identify wind coverage provided by the existing runway orientations. At RAL, the orientation of the two runways provides 99.70 percent coverage for the 10.5-knot component, 99.95 percent coverage for the 13-knot component, 99.99 percent coverage for the 16-knot component, and 100.00 percent coverage for the 20-knot component. The IFR wind rose (presented on the reverse side of **Exhibit 1H**) shows greater than 99.00 percent coverage in all crosswind components for the runways; thus, the current runway orientation at RAL provides adequate wind coverage for all-weather and IFR conditions. Independently, the main runway (Runway 9-27) provides 98.03 percent coverage for the all-weather 10.5-knot component and 99.67 percent coverage for the IFR 10.5-knot component; therefore, the main runway exceeds the 95 percent threshold for FAA crosswind runway justification. This will be further explored and discussed in Chapter Three of this master plan.

ALL-WEATHER WIND COVERAGE				
Runways	10.5 Knots	13 Knots	16 Knots	20 Knots
Runway 16-34	92.15%	95.14%	99.20%	99.92%
Runway 9-27	98.03%	98.86%	99.74%	99.95%
All Runways	99.70%	99.95%	99.99%	100.00%



IFR WIND COVERAGE				
Runways	10.5 Knots	13 Knots	16 Knots	20 Knots
Runway 16-34	98.51%	98.97%	99.53%	99.80%
Runway 9-27	99.67%	99.86%	99.96%	99.99%
All Runways	99.74%	99.91%	99.98%	99.99%



HELIPAD

RAL has a helipad, which is located west of the main terminal apron and south of Taxiway A. The helipad measures 60 feet by 60 feet and is constructed of asphalt. The helipad is equipped with a perimeter (PERI) lighting system. Four dedicated helicopter parking spaces are located near the helipad.

Helipad, Viewed from the South

TAXIWAYS

A taxiway is a defined path established for the taxiing of aircraft from one part of an airport to another. The taxiway system at RAL consists of parallel, connector, and entrance/exit taxiways that are constructed of asphalt. There are three parallel taxiways: Taxiways A, B, and J. Taxiway A is a full-length parallel taxiway that provides access to both ends of Runway 9-27 and is 50 feet wide. Taxiway A is located 275 feet south of the runway, runway centerline to taxiway centerline. Eight entrance/exit taxiways connect Taxiway A to the runway, one of which is a high-speed exit. Taxiway J is a full-length parallel taxiway that provides access to both ends of Runway 16-34 and Taxiway B is a partial parallel taxiway that provides access to Runway 34. Taxiways J and B are respectively 25 feet and 30 feet wide.

Taxiways J and B are located 150 feet west and east of the runway, runway centerline to taxiway centerline. Four entrance/exit taxiways provide access to the runway on the west side and three entrance/exit taxiways provide access on the east side. All taxiways have yellow centerline markings and are equipped with blue medium intensity taxiway edge lights (MITL).

Taxiway A

Taxiway J

Table 1E summarizes details for each taxiway at RAL. Along with the taxiways referenced in the table, there are several taxiways connecting the four apron areas to Taxiway A and B. The taxiways range in width from 25 feet to 100 feet.

TABLE 1E | Taxiway Characteristics

Designation	Width (feet)	Description
A	50	Full-length parallel taxiway serving Runway 9-27
B	30	Partial-length parallel taxiway serving Runway 16-34
C	100	Connecting taxiway from Taxiway A to Runway 9-27
D	50	Connecting taxiway from Taxiway A to Runway 9-27
E	75	Connecting taxiway from Taxiway A to Runway 9-27
F	35	High-speed exit taxiway from Runway 9-27
G	75	Connecting taxiway from Taxiway A to Runway 9-27
H	75	Connecting taxiway from Taxiway A to Runway 9-27
J	25	Full-length parallel taxiway serving Runway 16-34
K	40	Connecting taxiway from Taxiway A to Runway 9-27

Source: Coffman Associates analysis

TAXILANES

A taxilane is a defined path designed for low speed and precise maneuvering of aircraft. Taxilanes provide access from a taxiway to aircraft parking positions, hangars, and other terminal areas. RAL has several taxilanes throughout the landside areas that range in width depending on the types and sizes of aircraft the adjacent facilities are designed to accommodate.

Taxilanes, View from the Airport Traffic Control Tower
(Source: Google Earth, image date December 2020)

PAVEMENT CONDITION

Pavement condition index (PCI) ratings are determined through visual assessments in accordance with FAA Advisory Circular (AC) 150/5380-6 and range from 0 (failed) to 100 (excellent). The purpose of the report is to provide the airport sponsor with pavement condition information to guide pavement maintenance schedules and ensure airfield surfaces are preserved in good working order. A PCI survey was conducted at RAL in 2015 for the main apron and associated taxilanes; the results are depicted on **Exhibit 1J**. This PCI study was conducted in support of an apron reconstruction that occurred simultaneously with the reconstruction of Runway 16-34 in 2017. A full airfield PCI study has not been completed in recent years; however, the airport has contracted with Mead and Hunt to complete an airport pavement management study (APMS), which will result in a pavement management plan for future maintenance and rehabilitation.

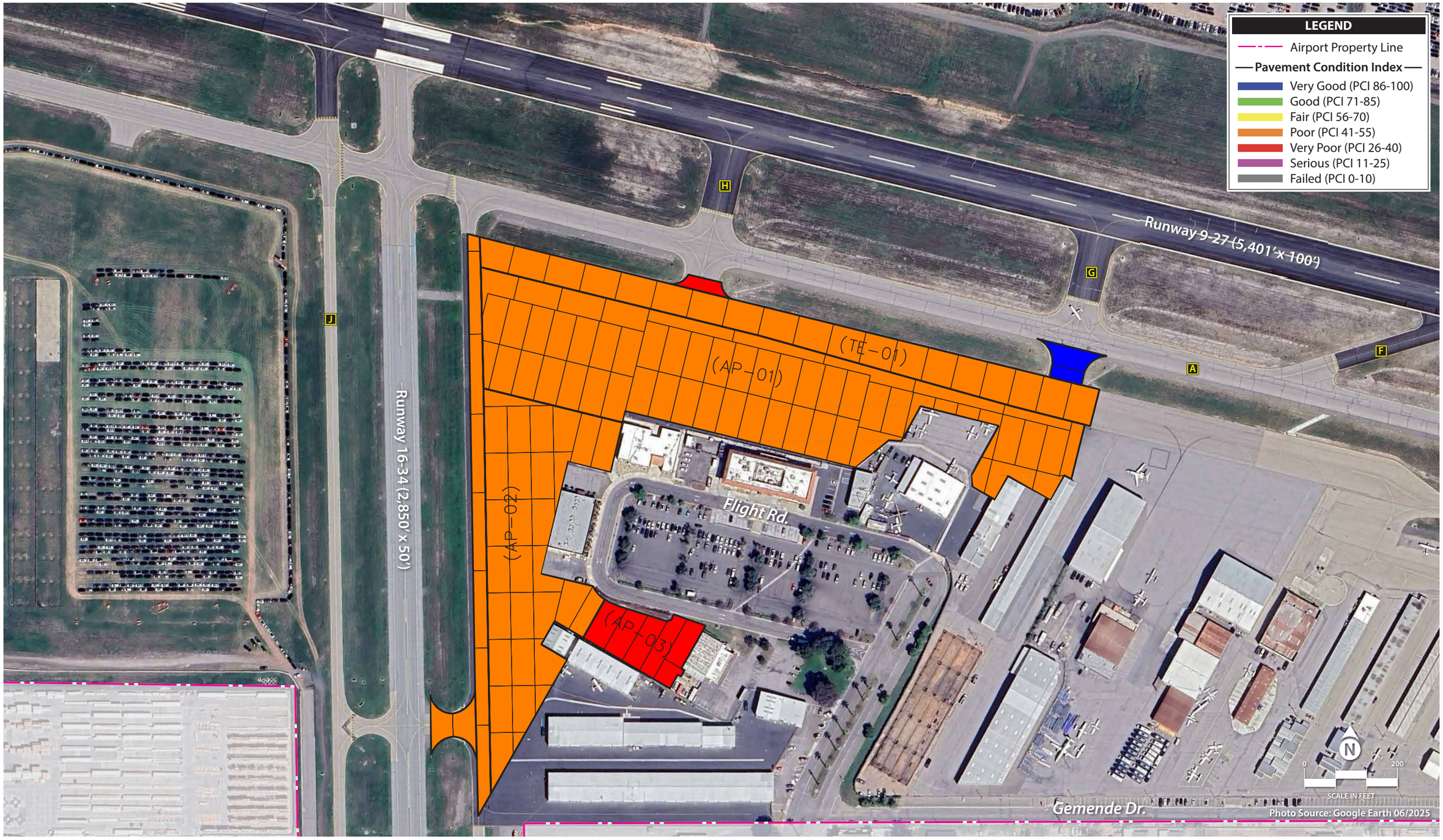
AIRFIELD LIGHTING, SIGNAGE, AND MARKING

Airfield lighting systems extend an airport's usefulness into periods of darkness and/or poor visibility. Various lighting systems are installed at the airport for this purpose. These lighting systems, categorized by function, are summarized in the following section.

Airport Identification Lighting

The location of the airport is universally identified by a rotating beacon at night. The rotating beacon projects two beams of light, one white and one green, 180 degrees apart. The beacon operates from sunset to sunrise and is located directly north of the end of Runway 27 near the airport property line.

Airport Rotating Beacon


LEGEND
Airport Property Line
Pavement Condition Index
Very Good (PCI 86-100)
Good (PCI 71-85)
Fair (PCI 56-70)
Poor (PCI 41-55)
Very Poor (PCI 26-40)
Serious (PCI 11-25)
Failed (PCI 0-10)
Runway 9-27 (5,401' x 100')
Runway 16-34 (2,850' x 50')
(AP-01)
(TE-01)
(AP-02)
(AP-03)
H
G
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Flight Rd.
Gemende Dr.
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SCALE IN FEET
Photo Source: Google Earth 06/2025

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Pavement Edge Lighting

Pavement edge lighting defines the lateral limits of the pavement to ensure safe operations during the night and/or low-visibility times. This maintains safe and efficient access to and from the runway and aircraft parking areas.

As previously stated, both Runways 9-27 and 16-34 are equipped with MIRL. Each runway end is equipped with threshold lights that emit green light outward from the runway and red light toward the runway. Green lights indicate the landing threshold for arriving aircraft, while red lights indicate the end of the runway for departing aircraft. The taxiway system at RAL is equipped with elevated blue MITL.

Medium Intensity Taxiway Lights (MITL)

Visual Approach Aids

Visual glideslope approach aids provide visual cues to pilots, alerting them as to whether they are on the correct glide path to landing. Runways 9 and 27 are outfitted with four-light precision approach path indicator (PAPI-4) lights with 3.00-degree standard glide paths. Runway 34 is outfitted with a two-light PAPI (PAPI-2) system. Pilots interpret the system of red and white lights, which gives an indication of a pilot's position above, below, or on the designated descent path to the runway.

Two-Light Precision Approach Path Indicator (PAPI-2)

Airfield Signage

Airfield identification signs assist pilots in identifying runways, taxiway routes, and critical areas. The airfield at RAL is equipped with lighted location, directional, and mandatory instruction signs.

Location Signage

Pavement Markings

Pavement markings aid in the safe and efficient movement of aircraft along airport surfaces and identify closed or hazardous areas on the airport. RAL provides and maintains marking systems in accordance with FAA AC 150/5340-1M, *Standards for Airport Marking*, and AC 150/5300-13B, *Airport Design*.

Directional Signage

As previously detailed, Runway 27 has non-precision instrument markings, including runway designation markings, threshold stripes, and aiming points located approximately 1,020 feet from the runway ends. Runway 9 has precision instrument markings, which include the runway designation, threshold stripes, aiming point, and touchdown markings. Runway 16-34 has runway designations at each end. Both runways are equipped with edge and centerline markings. Runway and taxiway markings at the airport indicate holding positions and centerlines. Taxiway markings include centerlines, as well as leadoff lines on normally used exits. Additionally, holding positions for the runways are marked with separations of 200 feet from the runway centerline for Runway 9-27 and 120 feet from the runway centerline for Runway 16-34.

After-Hours Lighting

When the ATCT is closed, pilots can utilize the common traffic advisory frequency (CTAF) at 121.0 megahertz (MHz) to activate the MIRL, the taxiway lights, and the helipad's perimeter lights. The PAPIs are continuously operating.

HOLDING BAY

A holding bay is a designated area on the airfield that is typically located at the end of a taxiway near a runway end. Pilots utilize holding bays to conduct final pre-flight checks prior to takeoff. RAL has four holding bays on the airfield, located near each runway end on Taxiways A, B, and J. The holding bay near Runway 27 also includes a designated run-up area. The run-up area is a designated space on the airfield for pilots to verify engine functioning and complete pre-flight procedures prior to takeoff without obstructing other movement areas. A new run-up area was recently designated on an apron edge taxilane within the non-movement area, near the approach to Runway 27, to accommodate aircraft run-ups while minimizing congestion on Taxiway A.

WEATHER AND COMMUNICATION AIDS

Automated Surface Observing System

RAL is equipped with an automated surface observing system (ASOS), which provides aviation weather observations 24 hours per day. The system updates weather observations every minute, continuously reporting significant weather changes as they occur. Pilots can obtain the weather information via frequency 128.8 MHz or by calling (951) 352-4392. The ASOS reports cloud ceiling visibility, temperature, dew point, wind direction and speed, altimeter setting (barometric pressure), and density altitude (airfield elevation adjusted for temperature). The ASOS equipment is in the midfield area of the airport, approximately 275 feet north of the Runway 9-27 centerline.

Wind Cone and Segmented Circle

RAL has a lighted wind cone and segmented circle, which are located midfield, south of Runway 9-27 near connector Taxiway E. The wind cone informs pilots of wind direction and speed and the segmented circle indicates aircraft traffic pattern information.

Wind Cone and Segmented Circle

Automated Terminal Information Service

RAL provides weather information to airport users with an automated terminal information service (ATIS). ATIS broadcasts are updated hourly and provide arriving and departing pilots with the current surface weather conditions, communication frequencies, and other important airport-specific information. The ATIS frequency at RAL is 128.8 MHz. Pilots can also access information via UNICOM (universal communications) at 122.95 MHz.

AREA AIRSPACE AND AIR TRAFFIC CONTROL

The *Federal Aviation Act of 1958* established the FAA as the responsible agency for the control and use of navigable airspace within the United States. The FAA established the National Airspace System (NAS) to protect persons and property on the ground and establish a safe and efficient airspace environment for civil, commercial, and military aviation. The NAS covers the common network of U.S. airspace, including air navigation facilities; airports and landing areas; aeronautical charts; associated rules, regulations, and procedures; technical information; and personnel and material. The system also includes components shared jointly with the military.

AIRSPACE STRUCTURE

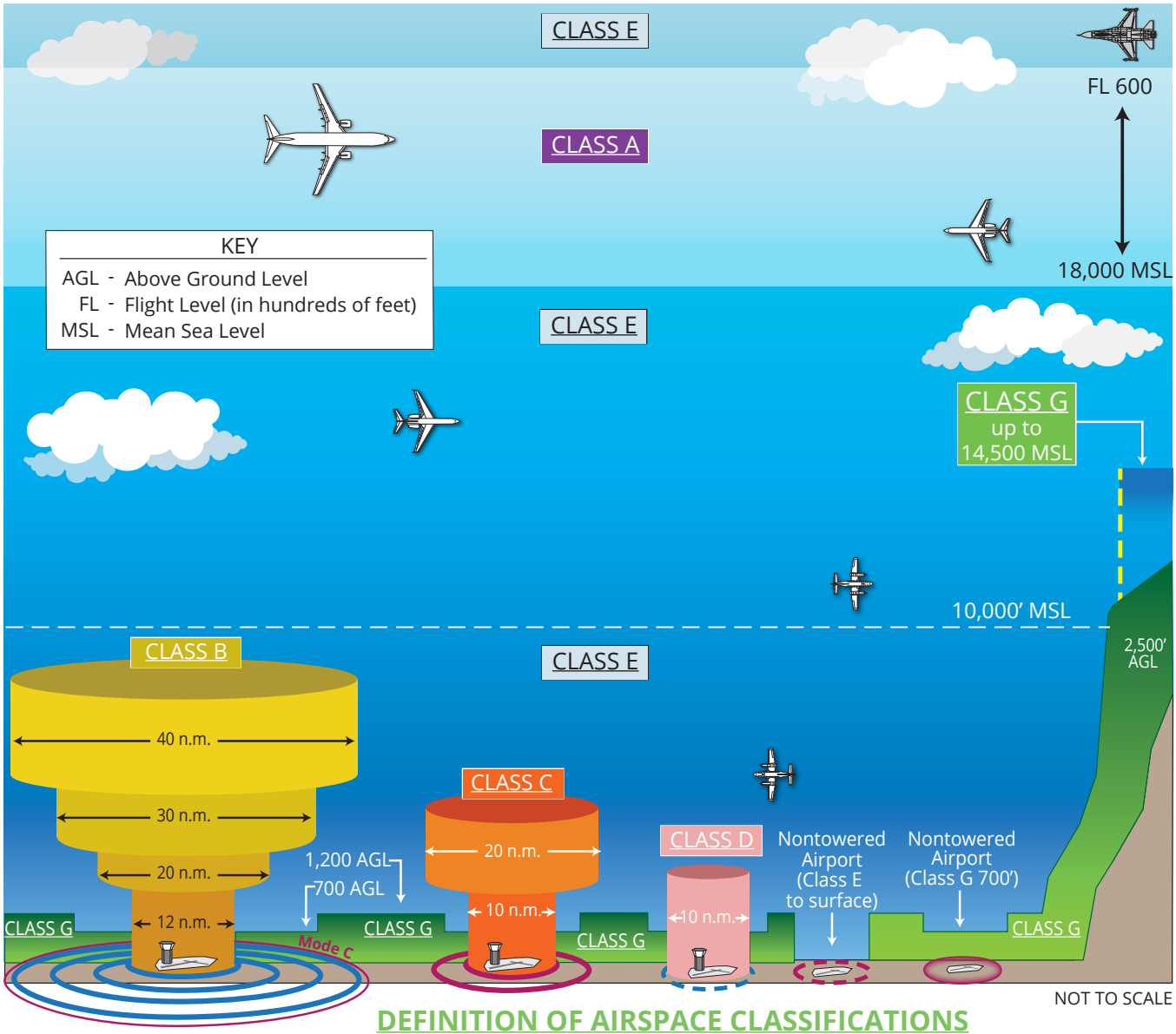
Airspace within the United States is broadly classified as either controlled or uncontrolled. The difference between controlled and uncontrolled airspace relates primarily to requirements for pilot qualifications, ground-to-air communications, navigation and air traffic services, and weather conditions. Six classes of airspace have been designated in the United States, as shown on **Exhibit 1K**. Airspace designated as Class A, B, C, D, or E is considered controlled airspace. Aircraft operating within controlled airspace are subject to varying requirements for positive air traffic control.

Class A Airspace

Class A is controlled airspace and includes all airspace from 18,000 feet MSL to flight level 600 (approximately 60,000 feet MSL). This airspace is designated in Title 14 Code of Federal Regulations (14 CFR) Part 71.193 for positive control of aircraft. The positive control area (PCA) allows only flights governed under IFR operations. An aircraft must have special radio and navigational equipment, and the pilot must obtain clearance from an air traffic control (ATC) facility to enter Class A airspace. Additionally, the pilot must possess an instrument rating to operate in Class A airspace.

Class B Airspace

Class B is controlled airspace surrounding high-activity commercial service airports. Class B airspace is designed to regulate the flow of uncontrolled traffic above, around, and below the arrival and departure airspace required for high-performance passenger-carrying aircraft at major airports. To fly within Class B airspace, an aircraft must be equipped with special radio and navigation equipment and must obtain clearance from ATC. A pilot is required to have at least a private pilot certificate or be a student pilot



NOT TO SCALE

DEFINITION OF AIRSPACE CLASSIFICATIONS

CLASS A — **Think A - Altitude.** Airspace above 18,000 feet MSL up to and including FL 600. Instrument Flight Rules (IFR) flights only, ADS-B 1090 ES transponder required, ATC clearance required.

CLASS B — **Think B - Busy.** Multi-layered airspace from the surface up to 10,000 feet MSL surrounding the nation's busiest airports. ADS-B 1090 ES transponder required, ATC clearance required.

CLASS C — **Think C - Mode C.** Mode C transponder required. ATC communication required. Generally airspace from the surface to 4,000 feet AGL surrounding towered airports with service by radar approach control.

CLASS D — **Think D - Dialogue.** Pilot must establish dialogue with tower. Generally airspace from the surface to minimum 2,500 feet AGL surrounding towered airports.

CLASS E — **Think E - Everywhere.** Controlled airspace that is not designated as any other class of airspace.

CLASS G — **Think G - Ground.** Uncontrolled airspace. From surface to a 1,200 AGL (in mountainous areas 2,500 AGL) Exceptions: near airports it lowers to 700' AGL; some airports have Class E to the surface. Visual Flight Rules (VFR) minimums apply.

Source: Federal Aviation Administration

who has met the requirements of 14 CFR Part 61.95, which requires special ground and flight training for Class B airspace. Aircraft are also required to utilize Mode C transponders within a 30-nautical-mile (nm) range of the center of the Class B airspace. A Mode C transponder allows ATC to track the location and altitude of the aircraft. The nearest Class B airspace to RAL surrounds Los Angeles International Airport (LAX), which is approximately 55 nm to the west.

Class C Airspace

Class C is controlled airspace surrounding lower-activity commercial service and some military airports. The FAA has established Class C airspace at 120 airports around the country as a means of regulating air traffic in these areas. Class C airspace is designed to regulate the flow of uncontrolled traffic above, around, and below the arrival and departure airspace required for high-performance passenger-carrying aircraft at major airports. To operate inside Class C airspace, an aircraft must be equipped with a two-way radio and an encoding transponder, and the pilot must have established communication with ATC. The nearest Class C airspace airports are Ontario International Airport (ONT) and March Air Reserve Base (RIV), which are approximately 10 miles from RAL.

Class D Airspace

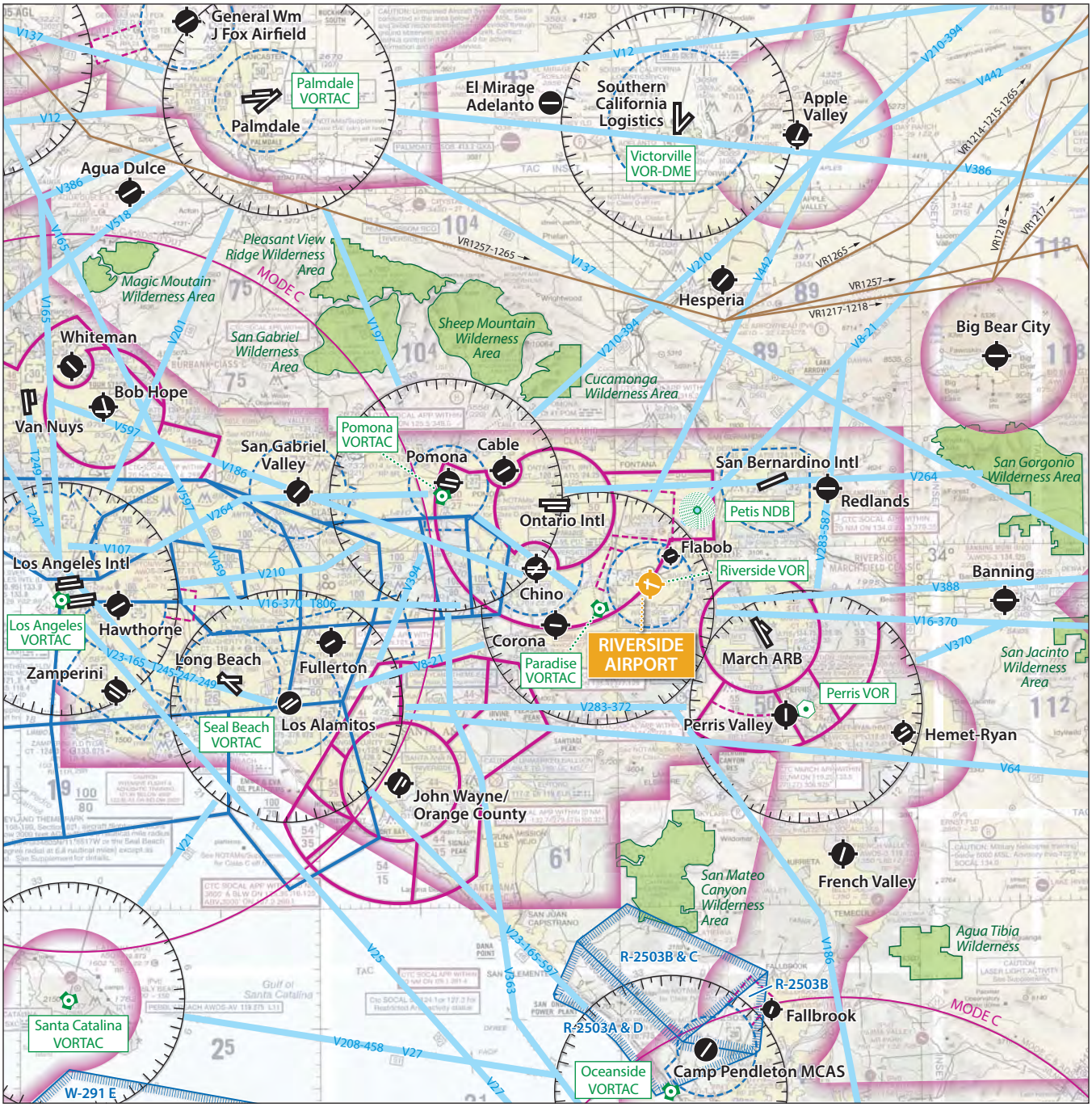
Class D is controlled airspace surrounding most airports with operating ATCTs that are not classified under B or C airspace designations. As shown on **Exhibit 1L**, RAL is a Class D airspace airport. Class D airspace typically constitutes a cylinder with a horizontal radius of four or five nm from the airport, extending from the surface up to a designated vertical limit, which is typically set at approximately 2,500 feet above the airport elevation. If an airport has an instrument approach or departure, the Class D airspace sometimes extends along the approach or departure path. Other nearby Class D airports include Chino Airport (CNO), which is located approximately 11 miles to the northwest of Riverside Airport, and San Bernardino International Airport (SBD), which is located approximately 15 miles to the northeast.

Class E Airspace

Class E is controlled airspace surrounding an airport that encompasses all instrument approach procedures and low-altitude federal airways. Only aircraft conducting instrument flights are required to be in contact with the appropriate ATC facility when operating in Class E airspace. While aircraft conducting visual flights in Class E airspace are not required to be in radio contact with ATC facilities, visual flight can only be conducted if minimum visibility and cloud ceilings exist. Class E airspace with a floor of 700 feet above ground level (AGL) exists in the surrounding area and around smaller nearby airports to the south and east.

Class G Airspace

Class G is uncontrolled airspace that is typically found in rural areas and does not require communication with an ATC facility. Class G airspace lies between the surface and the overlying Class E airspace (700 to 1,200 feet AGL). While aircraft may technically operate within Class G airspace without any contact with ATC, it is unlikely that many aircraft will operate this low to the ground. Furthermore, 14 CFR Part 91.119, *Minimum Safe Altitudes*, specifies minimum altitudes for flight.



LEGEND

- Airport with hard-surfaced runways 1,500' to 8,069' in length
- Airports with hard-surfaced runways greater than 8,069' or some multiple runways less than 8,069'
- Victor Airways
- Military Training Routes
- Compass Rose
- Class B Airspace
- Class C Airspace
- Class D Airspace
- Class E Airspace
- Class E (sfc) Airspace with floor 700 ft. above surface
- Prohibited, Restricted, and Warning Areas
- VORTAC
- VOR
- Non-Directional Radiobeacon (NDB)
- Wilderness Area

Source: Los Angeles Sectional Charts, US Department of Commerce, National Oceanic and Atmospheric Administration 6/12/2025

SPECIAL USE AIRSPACE

Special use airspace is defined as airspace in which activities must be confined because of their nature, or in which limitations are imposed on aircraft not taking part in those activities. Special use airspace identifies for other users the areas in which these non-standard operations may be occurring by outlining active times and/or altitudes to provide separation information for the areas. Most special use airspace is designated on FAA aeronautical charts. The special use airspace in the vicinity of RAL is depicted on **Exhibit 1L**.

Victor Airways

Victor airways are a system of federal airways established for aircraft arriving in or departing from a regional area and navigating by using very high frequency omnidirectional range (VOR) facilities. Victor airways are corridors of airspace eight miles wide that extend upward from 12,000 feet AGL to 18,000 feet MSL and extend between VOR facilities. The Victor airways in the regional area are identified with blue lines marked with a "V" preceding a designation number on **Exhibit 1L**.

Military Operations Areas

A military operations area (MOA) is an area of airspace designated for military training use. An MOA is not restricted airspace; however, pilots who use this airspace should be on alert for the possibility of military traffic. A pilot may need to be aware that military aircraft can be present in high concentrations, conducting aerobatic maneuvers and possibly operating at high speeds and/or at lower elevations. The closest MOA to RAL is the Buckhorn MOA located in the southernmost portion of the R-2508 Complex, which is approximately 60 nm north of RAL. The Buckhorn MOA is associated with Edwards Air Force Base (AFB) and is active Monday through Friday from 6:00 a.m. to 10:00 p.m. and intermittently by Notices to Air Missions (NOTAM). The airspace begins at 200 feet AGL and extends up to 18,000 feet MSL.

Restricted Airspace

Restricted airspace is an area (volume) of airspace typically used by the military, in which the local controlling authorities have determined that air traffic must be restricted (if not continually prohibited) for safety or security concerns. Restricted airspace is depicted on aeronautical charts with the letter "R" followed by a serial number. Restricted areas denote the existence of unusual and often invisible hazards to aircraft, such as artillery firing, aerial gunnery, or guided missiles. Penetration of restricted areas without authorization from the using or controlling agency may be extremely hazardous to the penetrating aircraft and its occupants. Restricted airspace zones may not always be active; in such cases, schedules of local dates and times that specify when the zone is active are typically available to aviators. At other times, the airspace is subject to normal operation for the applicable airspace class.

There are three restricted areas approximately 40 nm south of RAL that are associated with Camp Pendleton Marine Corps Air Station (MCAS). R2503B and R2503C are the nearest restricted airspace to RAL and contain the Quebec, Whiskey, and Zulu impact areas. The Whiskey and Zulu impact areas fall

within R2503B. The operational altitudes for R2503B are from the surface up to but not including 15,000 feet MSL and R2504C has operational altitudes between 15,000 feet MSL and 27,000 feet MSL. The R2503B restricted area is active daily from 6:00 a.m. to 12:00 a.m. and the R2503C airspace, which is used for high-angle artillery, is active intermittently up to 40 hours annually.

Warning Areas

Warning areas are depicted on aeronautical charts to inform non-participating pilots of special use airspace that extends from three nm outward from the coast of the United States. These areas extend over international waters and are not under domestic airspace jurisdiction but are still monitored by appropriate military or civilian air traffic control agencies. These areas are often associated with military training operations. There are no warning areas in the immediate vicinity of RAL.

Military Training Routes

Military training routes (MTRs) are designated airspace established for use by high-performance military aircraft to train below 10,000 feet AGL and at speeds exceeding 250 knots. There are visual (VR) and instrument (IR) designated MTRs; MTRs with no segments above 1,500 feet AGL are designated with VR or IR followed by a four-digit number. MTRs with one or more segments above 1,500 feet AGL are identified by the route designation followed by a three-digit number. The arrows on the route show the direction of travel. MTRs in the vicinity of RAL to the north are depicted on **Exhibit 1L** using brown lines with their identifying numbers.

AIRSPACE CONTROL

The FAA has established 21 air route traffic control centers (ARTCCs) throughout the continental United States to control aircraft operating under IFR within controlled airspace and while en route. An ARTCC assigns specific routes and altitudes along federal airways to maintain separation and orderly traffic flow. The Los Angeles ARTCC controls IFR air traffic en route to and from RAL.

Flight Standards District Office

A Flight Standards District Office (FSDO) is a local field office for the FAA. The FSDO is staffed to assist with airmen certification, aircraft permits and other certification issues, air carrier certification and operations, accident investigations, and enforcement and investigation issues. The Riverside FSDO, one of five offices serving southern California, is located on airport property in a separate building directly west of the terminal. Historically, the Riverside Flight Service Station (FSS) was also located on airport property but was closed several decades ago and is no longer in operation.

Riverside FSDO Entrance

NAVIGATIONAL AIDS

Navigational aids are electronic devices that transmit radio frequencies, which pilots of properly equipped aircraft can translate into point-to-point guidance and position information. The types of electronic navigational aids available for aircraft flying to/from RAL include a VOR facility and global positioning system (GPS).

Riverside VOR

The VOR provides azimuth readings to pilots of properly equipped aircraft by transmitting a radio signal at every degree to provide 360 individual navigational courses. Distance measuring equipment (DME) is frequently combined with VOR (VOR-DME) to provide distance and direction information to pilots. The Riverside VOR is located on the northwest portion of the airfield, approximately 330 feet west of the end of Runway 16.

GPS was initially developed by the United States Department of Defense for military navigation around the world; however, GPS is now used extensively for a wide variety of civilian uses, including civil aircraft navigation. GPS uses satellites placed in orbit around the earth to transmit electronic radio signals, which pilots of properly equipped aircraft can use to determine altitude, speed, and other navigational information. This provides more freedom in flight planning and allows for more direct routing to destinations. GPS provides en-route navigation and non-precision approach with vertical guidance instrument area navigation approaches to both ends of Runway 9-27 at RAL.

INSTRUMENT LANDING SYSTEM EQUIPMENT

Airports offering full ILS approaches are equipped with both a glideslope antenna and localizer antenna array. The glideslope antenna provides vertical guidance to landing aircraft and can be located on either side of the runway; however, it is best to locate the glideslope antenna on the side of the runway with the lowest possibility of signal reflections from buildings, power lines, aircraft, etc. The glideslope antenna at RAL is located on the north side of Runway 9-27, near the approach end of Runway 9, and the localizer antenna is located approximately 1,000 feet to the east, beyond the departure end of the runway.

Localizer Antenna Array Serving Runway 9

FLIGHT PROCEDURES

Flight procedures are a set of predetermined maneuvers established by the FAA that use electronic or visual navigational aids to assist pilots in locating, landing at, or departing from an airport. Flight procedures at RAL include instrument approach procedures and departure procedures.

Instrument Approach Procedures

Instrument approach procedures assist pilots in locating and landing at an airport during low visibility and cloud ceiling conditions. They are categorized as precision, approach with vertical guidance (APV), or non-precision.

Precision instrument approaches provide an exact course alignment and vertical descent path for an aircraft on final approach to a runway with a height above touchdown (HAT) lower than 250 feet and visibility lower than ¾ mile. Examples of precision approaches include an ILS and ground-based augmentation system (GBAS) landing system (GLS). Runway 9 is equipped with an ILS precision instrument approach procedure.

APVs also provide course alignment and vertical descent path guidance but have HATs of 200 feet or more and visibility minimums of ½ mile or greater. Examples include vertical navigation (VNAV), localizer performance with vertical guidance (LPV), and area navigation (RNAV)/required navigation performance (RNP). Runway 9-27 is equipped with LPV and VNAV instrument approach procedures.

Non-precision instrument approach aids provide only course alignment information with no vertical component. Non-precision approaches have HATs of 250 feet or more and visibility minimums of ½ mile or greater. Examples include VOR, RNAV, lateral navigation (LNAV), localizer performance (LP), and localizer (LOC) approaches. Runways 9 and 27 are equipped with LNAV approaches and Runway 9 is equipped with a VOR approach. A VOR-A approach procedure provides circling-only capabilities to each runway end.

Instrument approach minimums are published for different aircraft categories. An instrument approach minimum is comprised of a minimum decision altitude and required visibility. (Aircraft categories are described in greater detail in Chapter 2.) According to 14 CFR 91.175, a pilot must be able to make a safe landing and have the runway in sight, and the visibility requirement must be met. There are no cloud ceiling requirements; the decision altitude is the point at which the pilot must meet all three criteria for landing, otherwise the pilot cannot land using the published instrument approach.

There are currently five published instrument approach procedures at RAL, as detailed in **Table 1F**.

TABLE 1F: Instrument Approach Procedures

Approach	Category	Minimums by Aircraft Approach Category:* A	Minimums by Aircraft Approach Category:* B	Minimums by Aircraft Approach Category:* C	Minimums by Aircraft Approach Category:* D
ILS or LOC Approach (Runway 9)	S-ILS 9	200' – ¾	200' – ¾	200' – ¾	200' – ¾
ILS or LOC Approach (Runway 9)	S-ILS 9	336' – 1	336' – 1	336' – 1	336' – 1
ILS or LOC Approach (Runway 9)	S-LOC 9	485' – 1	485' – 1	485' – 1⅜	485' – 1⅜
ILS or LOC Approach (Runway 9)	S-LOC 9	565' – 1	565' – 1	565' – 1⅜	565' – 1⅜
ILS or LOC Approach (Runway 9)	Circling	541' – 1	861' – 1	981' – 1	1141' – 1
RNAV GPS Approach (Runway 9)	LPV DA	332' – 1⅛	332' – 1⅛	332' – 1⅛	332' – 1⅛
RNAV GPS Approach (Runway 9	LNAV/VNAV DA	666' – 2½	666' – 2½	666' – 2½	666' – 2½
RNAV GPS Approach (Runway 9	LNAV MDA	545' – 1	545' – 1	545' – 1⅜	545' – 1⅜
RNAV GPS Approach (Runway 9	Circling	521' – 1	861' – 1	981' – 1¾	1141' – 2¾

(Table continues)

TABLE 1F (continued): Instrument Approach Procedures

Approach	Category	Minimums by Aircraft Approach Category:* A	Minimums by Aircraft Approach Category:* B	Minimums by Aircraft Approach Category:* C	Minimums by Aircraft Approach Category:* D
RNAV GPS Approach (Runway 27)	LPV DA	418' – 1½	418' – 1½	418' – 1½	418' – 1½
RNAV GPS Approach (Runway 27)	LNAV/VNAV DA	550' – 2	550' – 2	550' – 2	550' – 2
RNAV GPS Approach (Runway 27)	LNAV MDA	1282' – 1¼	1282' – 1½	1282' – 3	1282' – 3
RNAV GPS Approach (Runway 27)	Circling	1282' – 2	1282' – 2	1282' – 3	1282' – 3
VOR Approach (Runway 9)	Straight In – 19	1225' – 1¼	1225' – 1½	1225' – 3	N/A
VOR Approach (Runway 9)	Circling	1201' – 1¼	1201' – 1½	1201' – 3	N/A
VOR-A	Circling	1481' – 1¼	1481' – 1½	1481' – 3	N/A

Table Source: FAA Instrument Flight Procedures Gateway, procedures valid from January 22, 2026, through February 19, 2026

*Example: 250' – ¾ = 250' decision altitude and ¾-mile visibility minimums
DA = decision altitude
GPS = global positioning system
ILS = instrument landing system
LNAV = lateral navigation
LOC = localizer
LPV = localizer performance with vertical guidance
MDA = minimum decent altitude
N/A = not available
RNAV = area navigation
VNAV = vertical navigation
VOR = very high frequency omnidirectional range

Standard Terminal Arrivals (STARs)

A STAR is a preplanned, coded ATC IFR arrival route established for application to arriving IFR aircraft destined for certain airports. STARs simplify clearance delivery procedures and facilitate transitions between en-route and instrument approach procedures. There are currently two published STAR procedures into RAL.

Departure Procedures

Similar to a STAR, a departure procedure is a preplanned procedure for pilots to follow during departure in IFR conditions. These charted routes provide for obstacle clearance and a transition from the terminal area to the appropriate en-route structure. There is one published departure procedure at RAL: Riverside Two.

RUNWAY USE AND TRAFFIC PATTERNS

The traffic pattern at the airport is maintained to provide the safest and most effective use of the airspace. At RAL, Runway 9-27 and Runway 34 have standard left-hand traffic patterns, which means aircraft make left turns when in the pattern for landing. Runway 16 has a non-standard right-hand traffic pattern.

RAL does not have aircraft restrictions, curfews, or a mandatory noise abatement program, as these programs would violate the federal *Airport Noise and Capacity Act of 1990* (ANCA). Federal law requires the airport to remain open 24 hours a day, seven days a week, and accept all civilian and military aircraft

that can be safely accommodated. There are noise abatement procedures in place at RAL in accordance with the 14 CFR Part 150 Noise Exposure Maps (NEM) accepted in 1995 and the Noise Compatibility Program (NCP) approved by the FAA in January 1997.

REGIONAL AIRPORTS

A review of other public-use airports with at least one paved runway within a 30-nm radius of RAL was conducted to identify and distinguish the types of air service provided in the region. It is important to consider the capabilities and limitations of these airports when planning for future changes or improvements to RAL.

Table 1G provides basic information on these airports. It should be noted that only public-use airports with at least 4,000 feet of runway length have been included in the comparison.

TABLE 1G: Regional Airports Within 30 Nautical Miles of Riverside Airport

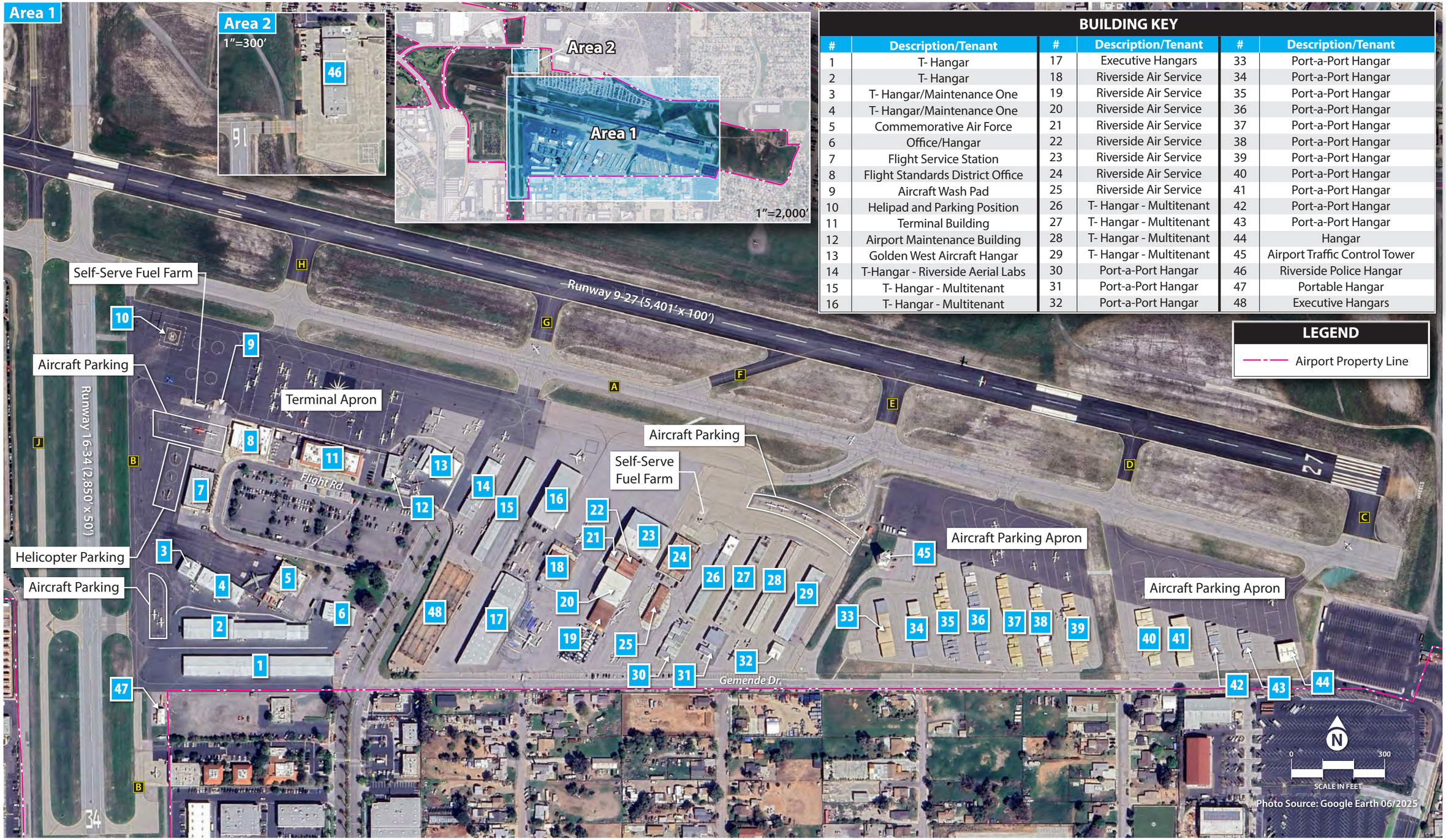
Airport	nm/Direction from RAL[1]	FAA Service Level[2]	Towered[1]	Based Aircraft[2]	2025 Annual Operations[4]	Longest Runway[1]	Visibility Minimum[1]
Riverside Airport (RAL)	**–**	**GA Reliever (Regional)**	**Yes**	**174**	**134,410**	**5,401'**	**¾-mile**
Chino Airport (CNO)	9.6 W	GA Reliever (National)	Yes	689	270,420	7,000'	¾-mile
Ontario Intl Airport (ONT)	10.0 NW	CS Primary (Medium Hub)	Yes	15	112,287	12,197'	½-mile
March Air Reserve Base (RIV)	10.2 ESE	Military Reliever (National)	Yes	3	NA	13,302'	½-mile
San Bernardino International Airport (SBD)	13.5 NE	CS Primary (Nonhub)	Yes	57	65,109	10,000'	¾-mile
Perris Valley Airport (L65)	15.9 SE	None – not included in NPIAS	No	15	NA	5,100'	3-mile
Redlands Municipal Airport (REI)	16.9 ENE	GA Local	No	183	66,800	4,504'	1¼-mile
Brackett Field Airport (POC)	18.7 WNW	GA Reliever (Regional)	Yes	76	134,803	4,840'	⅞-mile
Hemet-Ryan Airport (HMT)	24.8 ESE	GA Regional	No	140	75,444	4,315'	1-mile
John Wayne Airport (SNA)	26.8 SW	CS Primary (Medium Hub)	Yes	367	344,704	5,700'	½-mile
French Valley Airport (F70)	27.6 SE	GA Regional	No	256	89,790	6,700'	⅞-mile
Banning Municipal Airport (BNG)	29.6 E	GA Local	No	24	5,495	4,955'	1-mile

Table Sources: [1]Airnav.com; [2]FAA, National Plan of Integrated Airports System (NPIAS); [3]FAA, Terminal Area Forecast or National Based Aircraft Inventory Program; [4]FAA, OPSNET for Towered Airports, Terminal Area Forecast for Non-Towered Airports

CS = commercial service
GA = general aviation
nm = nautical miles

LANDSIDE FACILITIES

Landside facilities are those that support the aircraft and pilot/passenger-handling functions, as well as other non-aeronautical facilities that typically provide a revenue stream to the airport. These facilities include the general aviation facilities, automobile parking, and other non-aeronautical businesses located at the airport. All landside facilities at RAL are identified on **Exhibit 1M**.



BUILDING KEY

#	Description/Tenant	#	Description/Tenant	#	Description/Tenant
1	T- Hangar	17	Executive Hangars	33	Port-a-Port Hangar
2	T- Hangar	18	Riverside Air Service	34	Port-a-Port Hangar
3	T- Hangar/Maintenance One	19	Riverside Air Service	35	Port-a-Port Hangar
4	T- Hangar/Maintenance One	20	Riverside Air Service	36	Port-a-Port Hangar
5	Commemorative Air Force	21	Riverside Air Service	37	Port-a-Port Hangar
6	Office/Hangar	22	Riverside Air Service	38	Port-a-Port Hangar
7	Flight Service Station	23	Riverside Air Service	39	Port-a-Port Hangar
8	Flight Standards District Office	24	Riverside Air Service	40	Port-a-Port Hangar
9	Aircraft Wash Pad	25	Riverside Air Service	41	Port-a-Port Hangar
10	Helipad and Parking Position	26	T- Hangar - Multitenant	42	Port-a-Port Hangar
11	Terminal Building	27	T- Hangar - Multitenant	43	Port-a-Port Hangar
12	Airport Maintenance Building	28	T- Hangar - Multitenant	44	Hangar
13	Golden West Aircraft Hangar	29	T- Hangar - Multitenant	45	Airport Traffic Control Tower
14	T-Hangar - Riverside Aerial Labs	30	Port-a-Port Hangar	46	Riverside Police Hangar
15	T- Hangar - Multitenant	31	Port-a-Port Hangar	47	Portable Hangar
16	T- Hangar - Multitenant	32	Port-a-Port Hangar	48	Executive Hangars

LEGEND

Airport Property Line

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TERMINAL BUILDING

Terminal Building Entrance

The two-story airport terminal building was constructed in 1968 and dedicated in 1969. The building is situated on a 15,120-square-foot (sf) footprint located at the midpoint of the airfield with access to the main terminal apron. The building contains the airport administration offices, a passenger seating area, and a restaurant. The terminal also serves as office space for seven tenants, including Avtech Exams, Embry Riddle Aeronautical University, Leo Bell, NextGen Flight Academy, Raincross Fuel, Riverside Airport Café, and Tom Hamm. Road access to the terminal is provided via Flight Road, which intersects with Airport Road. The building address is 6951 Flight Road, Riverside, California.

AIRPORT TENANTS

Fixed Base Operator

Riverside Air Service Office/Lounge

Fixed base operators (FBOs) are airport service centers that are responsible for aircraft services, such as passenger handling, aircraft fueling, parking, maintenance, aircraft towing and storage, and other related services. RAL currently has one full-service FBO: Riverside Air Service (RAS) Jetport. RAS provides 100LL and Jet A fuel service on the airfield. A second fuel provider, Raincross Fuel & Oil, Inc., also provides 100LL field on the airfield but does not offer additional FBO services.

Specialty Aviation Service Operators and Other Tenants

Several specialty aviation service operators (SASOs) and other aeronautical businesses are located at the airport, including multiple flight schools and aircraft maintenance providers. Non-aeronautical areas of the airport are limited to a large automobile storage area to the north of Runway 9-27 and west of Runway 16-34. **Exhibit 1M** includes information about the operating businesses and various aeronautical and non-aeronautical tenants located on the airport. Notable tenants include the Commemorative Air Force Inland Empire Wing, California Baptist University (CBU) Aviation Department, and Civil Air Patrol Riverside Senior Squadron 5.

AIRCRAFT HANGAR FACILITIES

Existing hangar facilities at RAL primarily consist of conventional-style hangars, which are used by the FBO and SASOs and are designed to accommodate multiple large aircraft, and box hangars and detached T-hangars that are used to store individual aircraft. Hangars at RAL are identified on **Exhibit 1M**. In total, the city owns 82 individual hangar units, totaling 104,459 sf of aircraft storage hangar capacity. The remaining hangars are privately owned.

AIRCRAFT PARKING APRONS

Aircraft aprons are pavement areas that are sufficiently removed from aircraft taxiways and movement areas to facilitate the safe and efficient transition of passengers from the airside elements (runways and taxiways) to the landside elements.

Hangars

Aprons provide access to the terminal facility, FBO/SASOs, and hangars and provide for short-term and long-term aircraft parking. RAL has four apron areas, which are identified on **Exhibit 1M**. The terminal apron, which comprises approximately 15,200 square yards, is the main area for transient aircraft parking at the terminal. Additional aircraft parking areas located in the vicinity of the terminal and other major hangar complexes provide approximately 113 marked aircraft parking positions, including seven total helicopter parking spaces. Each apron is accessible from the airfield via Taxiways A and B.

Aircraft Parking Apron

VEHICLE PARKING

Vehicle parking spaces supporting the terminal building at RAL consist of a lot located immediately south of the terminal building. The terminal parking lot includes 282 individual parking spaces, including 10 accessible parking spaces and two spaces designated as an electric vehicle charging station. A parking lot to the east of the terminal building provides three public and three private parking spaces. Additional vehicle parking capacity is provided at the various aeronautical tenant facilities throughout the airport through a combination of secured private lots and unsecured street parking along Gemende Drive.

SUPPORT FACILITIES

AIRCRAFT RESCUE AND FIREFIGHTING (ARFF) SERVICES

Riverside Airport is not currently a Part 139 certificated airport, so it is not required to have on-site ARFF facilities/equipment; however, RAL has a fire station and associated ARFF vehicle dedicated to handling airport-related emergencies, which operates out of the airport maintenance facility located east of the terminal. The on-site fire station is staffed seven days per week from 6:00 a.m. to 5:00 p.m. Riverside Fire Station 5 (Airport) is the nearest local fire station and is located at 5883 Arlington Avenue, approximately 1.3 miles from the airport terminal building and 1,900 feet southeast of the end of Runway 27.

FUEL STORAGE

Aviation fuel services at RAL are offered by the airport's only FBO, Riverside Air Service, which owns two fuel storage tanks on the airport, including one 15,000-gallon belowground tank for 100LL AvGas fuel and one 12,000-gallon aboveground tank for Jet A fuel. Riverside Air Service provides both self-fuel and

full-service fueling options. Full service fueling is accomplished using two 5,000-gallon fuel trucks and one 3,000-gallon fuel truck for transporting Jet A fuel, as well as one 1,500-gallon fuel truck and one 1,000-gallon fuel truck for transporting 100LL AvGas. Additionally, Raincross Fuel & Oil, Inc. provides a self-fueling option for 100LL AvGas, utilizing an aboveground tank. The Raincross tanks are privately owned. Historical fuel flowage records indicate the airport averages approximately 238,455 gallons of annual 100LL fuel flowage and 232,645 gallons of annual Jet A fuel flowage. Fuel flowage history is provided in **Table 1H**. Although flowage for both fuel types has fluctuated considerably during the time period analyzed, both 100LL and Jet A fuel flowage have shown net increases over time, with 100LL fuel averaging a 3.75 percent increase annually and Jet A fuel averaging a 7.90 percent increase annually since 2013.

TABLE 1H: Fuel Flowage History

Fiscal Year	100LL (gallons)	100LL Annual % Change	Jet A (gallons)	Jet A Annual % Change
2013–2014	211,154	N/A	144,486	N/A
2014–2015	194,836	-7.7%	149,129	3.2%
2015–2016	188,993	-3.0%	171,367	14.9%
2016–2017	189,625	0.3%	245,036	43.0%
2017–2018	208,804	10.1%	242,062	-1.2%
2018–2019	201,212	-3.6%	222,881	-7.9%
2019–2020	240,753	19.7%	167,253	-25.0%
2020–2021	270,316	12.3%	303,719	54.3%
2021–2022	232,564	-14.0%	303,719	17.7%
2022–2023	298,303	28.3%	244,456	-19.5%
2023–2024	302,581	1.4%	246,742	0.9%
2024–2025	295,016	-2.5%	262,731	6.5%

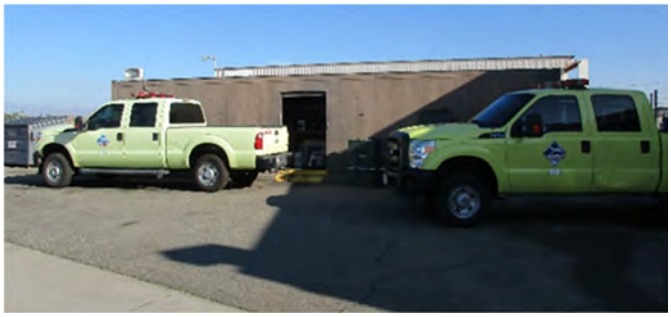
Table Source: RAL Records

N/A = not applicable

AIRPORT MAINTENANCE FACILITIES

The airport has a 3,000-sf airport maintenance facility, which is located east of the terminal building and houses various equipment used in the regular maintenance of the airfield and airport facilities.

Airport Maintenance Facility, Airside View



Airport Maintenance Facility and Vehicles, Landside View

PERIMETER ACCESS ROAD AND FENCING

Ground vehicles authorized by the airport to operate within safety areas are limited to vehicles that are necessary for airport operations. These include airport maintenance vehicles, police patrol vehicles, aircraft fuel and service vehicles, delivery vehicles, and others authorized by the airport, such as FBO vehicles, construction vehicles, FAA vehicles, and airport operations staff vehicles.

Security Signage and Electronic Access Gate

The airport includes a dedicated perimeter service road and the perimeter of the airport is enclosed with security fencing. Six automated vehicle access gates are located at various locations along the perimeter security fencing and are accessed via electronic keypads. The perimeter fence also includes several lock-and-key access gates and one emergency access gate. In the terminal area, the airfield is separated from public access by a six-foot wrought iron fence and concrete wall with glass top.

ENVIRONMENTAL INVENTORY

The purpose of the following environmental inventory is to identify potential environmental sensitivities that should be considered when planning future improvements at the airport. Research was performed for each of the 13 impact categories within FAA Order 1050.1G, *FAA National Environmental Policy Act Implementing Procedures* (§1.2(b)(1)). When considering the effects to the impact categories listed below, the FAA may examine the short-term and long-term effects, beneficial and adverse effects, effects on public health and safety, economic effects, and effects on the quality of life of American people.

1. Aviation Emissions and Air Quality
2. Biological Resources (including fish, wildlife, and plants)
3. Coastal Resources
4. *Department of Transportation Act*, Section 303 (referred to as “Section 4(f)”) and Land and Water Conservation Fund (referred to as “Section 6(f)”)
5. Farmlands
6. Hazardous Materials, Solid Waste, and Pollution Prevention
7. Historical, Architectural, Archaeological, and Cultural Resources
8. Land Use
9. Natural Resources and Energy Supply

10. Noise and Noise-Compatible Land Use
11. Socioeconomic and Children's Health and Safety Risks
12. Visual Effects (including light emissions)
13. Water Resources (including wetlands, floodplains, surface waters, groundwater, and wild and scenic rivers)

AVIATION EMISSIONS AND AIR QUALITY

The concentration of various pollutants in the atmosphere defines the local air quality. The significance of a pollutant's concentration is determined by comparing it to the state and federal air quality standards. In 1971, the U.S. Environmental Protection Agency (EPA) established standards that specify the maximum permissible short-term and long-term concentrations of various air contaminants. The National Ambient Air Quality Standards (NAAQS) consist of primary and secondary standards for criteria pollutants: ozone (O_3), carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), coarse particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), and lead (Pb). Based on federal air quality standards, a specific geographic area can be classified as an attainment, maintenance, or nonattainment area for each pollutant. The threshold for nonattainment designation varies by pollutant.

RAL is in Riverside County, which is in nonattainment for O_3 (2008 and 2015 standards) and $PM_{2.5}$ (1997, 2006, and 2012 standards) and in maintenance for PM_{10} (1987 standard) and NO_2 (1971 standard). RAL is in attainment for the remainder of the federal criteria pollutants.

In addition to federal clean air standards, California has its own set of air quality standards, known as the California Ambient Air Quality Standards (CAAQS). The following pollutants have established CAAQS criteria: PM_{10}, $PM_{2.5}$, O_3, NO_2, sulfate (SO_4^{2-}), CO, SO_2, Pb, hydrogen sulfide (H_2S), vinyl chloride, and visibility-reducing particles. Based on the CAAQS, Riverside County is in nonattainment for $PM_{2.5}$, PM_{10}, and O_3.

BIOLOGICAL RESOURCES

Biological resources include the various types of plants and animals that are present in area. The term also applies to rivers, lakes, wetlands, forests, and other habitat types that support plants and animals. Ruderal grasses are present on the airfield and are routinely mowed.

The U.S. Fish and Wildlife Service (USFWS) is charged with overseeing the requirements of the federal *Endangered Species Act* (ESA), specifically Section 7, which sets forth requirements for a consultation to determine if a proposed project may affect a federally endangered or threatened species. If an agency determines that an action may affect a federally protected species, Section 7(a)(2) requires the agency to consult with the USFWS on any action that is likely to jeopardize the continued existence of the proposed species or result in the destruction or adverse modification of proposed critical habitat. Significant impacts occur when a proposed action could jeopardize the continued existence of a

protected species or result in the destruction or adverse modification of federally designated critical habitat in the area. The USFWS *Information for Planning and Consultation* (IPaC) resource list describes species and habitats protected under the ESA within the vicinity of the airport (**Table 1J**).

TABLE 1J: Species Protected Under ESA Section 7 with Potential to Occur at the Airport

Species Category	Common Name (*Scientific Name*)	Federal Status*	Habitat and Range	Potential for Occurrence
Mammals	Stephens' kangaroo rat (*Dipodomys stephensi*)	Threatened	This species is primarily found in open grasslands and sparsely vegetated scrub.	**May occur.** The airport contains suitable habitat for this species.
Birds	coastal California gnatcatcher (*Polioptila californica californica*)	Threatened	This species is found in the coastal slopes of southern California, from south Ventura County southward to Los Angeles, Orange, Riverside, San Bernardino, and San Diego Counties. It is generally observed in or near coastal sage scrub in areas that are characterized by dry-season deciduous and succulent plants.	**Unknown.** A biological survey is needed to determine the presence of this species.
Birds	least Bell's vireo (*Vireo bellii pusillus*)	Endangered	The least Bell's vireo occupies a variety of habitats, including mesquite scrub with arroyos, palm groves, and hedgerows adjacent to agricultural and residential areas.	**May occur.** The airport is adjacent to residential areas where palm trees are located along the streets.
Reptiles	southwestern pond turtle (*Actinemys pallida*)	Proposed Threatened	This turtle inhabits streams, ponds, lakes, and permanent and ephemeral wetlands. Terrestrial habitats are required for nesting.	**Unlikely to occur.** Based on the aerial imagery from the National Wetlands Inventory, the airport does not contain suitable habitat to support this species.
Amphibians	western spadefoot (*Spea hammondii*)	Proposed Threatened	The western spadefoot inhabits open areas that have sandy or gravelly soils in mixed woodlands, grasslands, floodplains, and mountains. This species breeds in ephemeral pools.	**Would not occur.** The airport does not contain suitable habitat for this species.
Fishes	Santa Ana sucker (*Catostomus santaanae*)	Threatened	This species relies on perennial flows with suitable water and substrate to support breeding, feeding, and sheltering.	**Would not occur.** The airport does not contain suitable habitat for this species.
Insects	monarch butterfly (*Danaus plexippus*)	Proposed Threatened	The monarch butterfly is a migratory species found in a variety of habitats. It requires milkweed (*Asclepias* spp.) for breeding. In the southwestern United States, migrating monarch butterflies often occur near water sources (e.g., rivers, creeks, riparian corridors, roadside ditches, and irrigated gardens).	**Unknown.** A biological survey is needed to determine the presence of this species.
Flowering Plants	Nevin's barberry (*Berberis nevinii*)	Endangered	Nevin's barberry is historically found in Los Angeles, San Bernardino, Riverside, and San Diego Counties. It grows in a variety of topographical conditions that range from flat sandy washes, terraces, and canyon floors to ridges and mountain summits.	**Unknown.** A biological survey is needed to determine the presence of this species.

(Table continues)

TABLE 1J (continued): Species Protected Under ESA Section 7 with Potential to Occur at the Airport

Species Category	Common Name (*Scientific Name*)	Federal Status*	Habitat and Range	Potential for Occurrence
Flowering Plants	San Diego ambrosia (*Ambrosia pumila*)	Endangered	San Diego ambrosia is found in southern California from northwestern Riverside County southward to western San Diego County. This species grows in open habitats in coarse substrates near drainages and in upland areas on clay slopes.	**Unknown.** A biological survey is needed to determine the presence of this species.
Flowering Plants	Santa Ana river woolly-star *(Eriastrum densifolium ssp. sanctorum*)	Endangered	This species grows in sandy areas that receive plenty of sunlight and where there is periodic flooding that contributes to seed dispersal.	**Unknown.** A biological survey is needed to determine the presence of this species.
Flowering Plants	slender-horned spineflower (*Dodecahema leptoceras*)	Endangered	The slender-horned spineflower inhabits areas that are prone to drought and typically grows in isolated patches of large floodplain habitats categorized as alluvial scrub.	**Unknown.** A biological survey is needed to determine the presence of this species.

Table Source: USFWS, IPaC (https://ipac.ecosphere.fws.gov/)

*USFWS Status Definitions:

- Endangered = an animal or plant species that is in danger of extinction throughout all or a significant portion of its range
- Threatened = an animal or plant species that is likely to become endangered within the foreseeable future throughout all or a significant portion of its range
- Proposed Threatened = an animal or plant species that is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and has been proposed to be listed as threatened; proposed threatened species are not protected by the take prohibitions of Section 9 of the ESA

Section 3 of the ESA is used to protect federally designated critical habitat areas. Designated critical habitat areas are geographically defined and have been determined to be essential to the recovery of specific species.

Potential impacts to species protected under the *Migratory Bird Treaty Act* (MBTA) are evaluated by the USFWS in consultation with other federal agencies. Habitat for migratory birds may occur if bushes or other types of ground nesting substrate are present. The typical breeding season for migratory birds that could be present is from January through September.

COASTAL RESOURCES

Federal activities that involve or affect coastal resources are governed by the *Coastal Barriers Resource Act*, the *Coastal Management Act*, and Executive Order (E.O.) 13089, *Coral Reef Protection*.

The airport is not located within a coastal zone. The closest national marine sanctuary is the Channel Islands National Marine Sanctuary, which is located 89 miles southwest of the airport.

DEPARTMENT OF TRANSPORTATION ACT, SECTION 4(F)

Section 4(f) of the *Department of Transportation Act*, which was recodified and renumbered as Section 303(c) of Title 49 United States Code, provides that the Secretary of Transportation will not approve any program or project that requires the use of publicly or privately owned historic sites, public parks or recreation areas, or waterfowl and wildlife refuges of national, state, regional, or local importance unless there is no feasible and prudent alternative to the use of such land and the project includes all possible planning to minimize harm resulting from the use.

Table 1K and **Exhibit 1N** identify potential Section 4(f) resources within one mile of the airport. School playgrounds or athletic fields may be considered Section 4(f) resources if these recreational facilities at the schools are readily available to the public.

There is one National Register of Historic Places (NRHP)-listed resource, the Heritage House, located one mile from the airport.

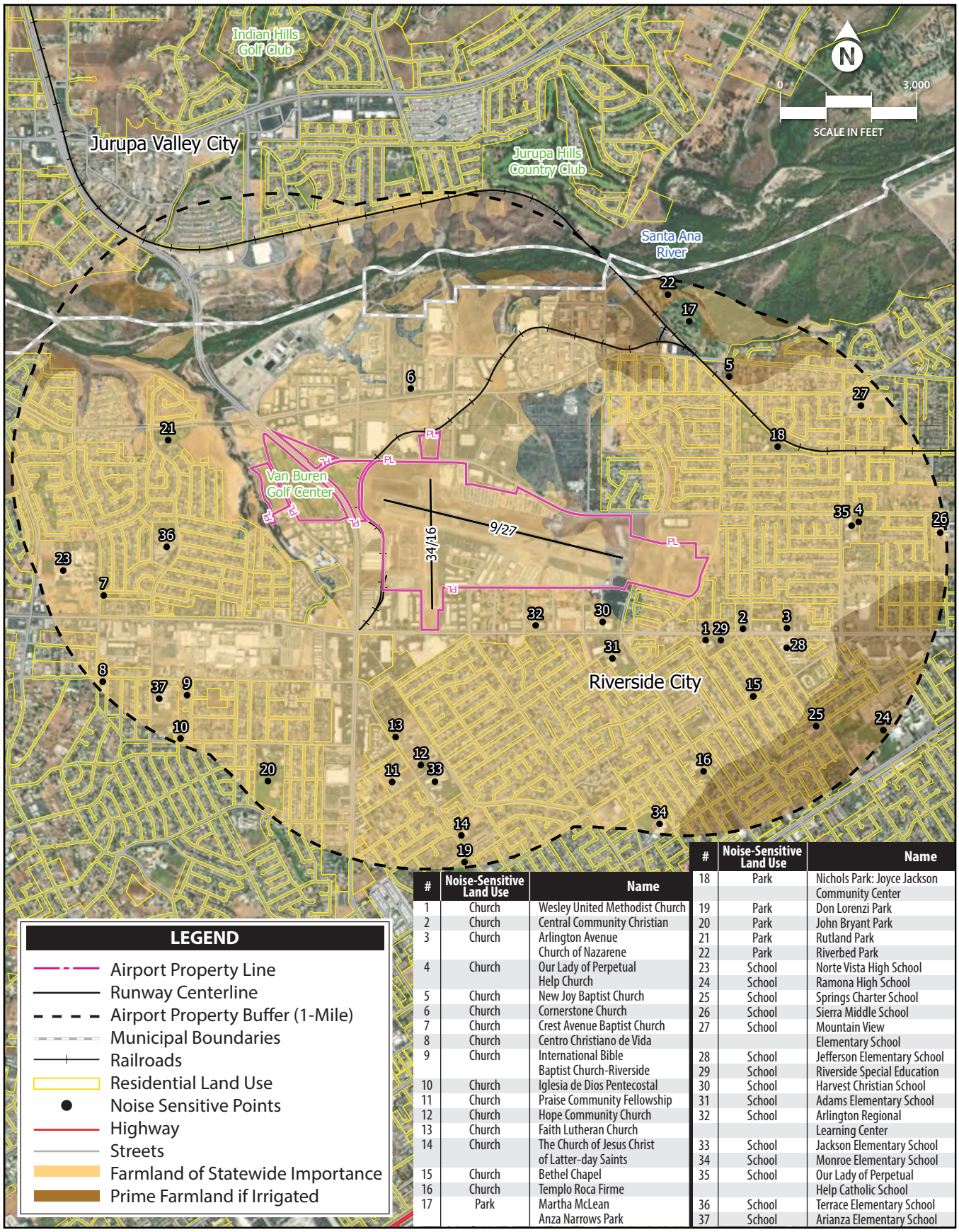
There are no waterfowl and wildlife refuges located within one mile of the airport. The nearest wilderness and national recreation areas are listed below.

- Nearest wilderness area: Cucamonga Wilderness, 18 miles from the airport
- Nearest national recreation area: Santa Monica Mountains, 52 miles from the airport

TABLE 1K: U.S. Dept. of Transportation Section 4(f) Resources Within One Mile of the Airport Vicinity

Resource Type	Potential Resource	Address (Riverside, CA)	Distance from Airport (miles)	Direction from Airport
Public Recreational Facility	Martha McLean–Anza Narrows Park	5759 Jurupa Avenue	0.85 miles	Northeast
Public Recreational Facility	Nichols Park: Joyce Jackson Community Center	5505 Dewey Avenue	0.65 miles	Northeast
Public Recreational Facility	Don Lorenzi Park	4230 Jackson Street	1.00 mile	South
Public Recreational Facility	Bryant Park	7950 Philbin Avenue	0.80 miles	Southwest
Public Recreational Facility	Rutland Park	7000 Rutland Avenue	0.45 miles	West
Public Recreational Facility	Riverbed Park	Santa Ana River Trail (in Martha McLean–Anza Narrows Park)	0.80 miles	Northeast
Public School	Norte Vista High School	6585 Crest Avenue	0.85 miles	West
Public School	Ramona High School	7675 Magnolia Avenue	1.00 mile	Southeast
Public School	Springs Charter School	4020 Jefferson Street	0.70 miles	Southeast
Public School	Sierra Middle School	4950 Central Avenue	0.95 miles	East
Public School	Mountain View Elementary School	6180 Streeter Avenue	0.75 miles	Northeast
Public School	Jefferson Elementary School	4285 Jefferson Street	0.40 miles	Southeast
Public School	Adams Elementary School	8362 Colorado Avenue	0.30 miles	South
Public School	Jackson Elementary School	4585 Jackson Street	0.60 miles	South
Public School	Monroe Elementary School	8535 Garfield Street	0.95 miles	South
Public School	Terrace Elementary School	6601 Rutland Avenue	0.55 miles	West
Public School	Arlanza Elementary School	5891 Rutland Avenue	0.85 miles	Southwest

Table Sources: Google Earth Aerial Imagery, October 2025; U.S. Department of the Interior, National Park Service, National Register of Historic Places (https://www.nps.gov/maps/full.html?mapId=7ad17cc9-b808-4ff8-a2f9-a99909164466)



#	Noise-Sensitive Land Use	Name
1	Church	Wesley United Methodist Church
2	Church	Central Community Christian
3	Church	Arlington Avenue Church of Nazarene
4	Church	Our Lady of Perpetual Help Church
5	Church	New Joy Baptist Church
6	Church	Cornerstone Church
7	Church	Crest Avenue Baptist Church
8	Church	Centro Christiano de Vida
9	Church	International Bible Baptist Church-Riverside
10	Church	Iglesia de Dios Pentecostal
11	Church	Praise Community Fellowship
12	Church	Hope Community Church
13	Church	Faith Lutheran Church
14	Church	The Church of Jesus Christ of Latter-day Saints
15	Church	Bethel Chapel
16	Church	Templo Roca Firme
17	Park	Martha McLean Anza Narrows Park
18	Park	Nichols Park: Joyce Jackson Community Center
19	Park	Don Lorenzi Park
20	Park	John Bryant Park
21	Park	Rutland Park
22	Park	Riverbed Park
23	School	Norte Vista High School
24	School	Ramona High School
25	School	Springs Charter School
26	School	Sierra Middle School
27	School	Mountain View Elementary School
28	School	Jefferson Elementary School
29	School	Riverside Special Education
30	School	Harvest Christian School
31	School	Adams Elementary School
32	School	Arlington Regional Learning Center
33	School	Jackson Elementary School
34	School	Monroe Elementary School
35	School	Our Lady of Perpetual Help Catholic School
36	School	Terrace Elementary School
37	School	Arianza Elementary School

FARMLANDS

Under the *Farmland Protection Policy Act* (FPPA), federal agencies are directed to identify and consider the adverse effects of federal programs on the preservation of farmland, consider appropriate alternative actions that could lessen adverse effects, and ensure such federal programs are compatible with state or local government programs and policies to protect farmland, to the extent practicable. The FPPA guidelines were developed by the U.S. Department of Agriculture (USDA) and apply to farmland classified as prime, unique, or of state or local importance, as determined by the appropriate government agency with concurrence by the Secretary of Agriculture.

The USDA Natural Resources Conservation Service (NRCS) Web Soil Survey shows the types of soils on the airport, as well as their farmland classifications. The airport contains soils that are classified as the following ratings (as depicted in **Table 1L** and on **Exhibit 1P**):

- Not prime farmland
- Farmland of statewide importance

RAL is located inside a designated urbanized area boundary.[12] Furthermore, based on the California Department of Conservation's *California Important Farmland Finder* website, portions of the airport that include the existing runway system are designated as urban and built-up land.

TABLE 1L | Farmland Classification: Summary by Map Unit – Western Riverside Area, California (CA679)

Web Soil Survey Symbol	Soil Type	Farmland Rating
ArD	Arlington loam, deep, 5 to 15 percent slopes	Not prime farmland
BhA	Buchenau loam, slightly saline-alkali, 0 to 2 percent slopes, eroded	Farmland of statewide importance
BuC2	Buren fine sandy loam, 2 to 8 percent slopes, eroded	Farmland of statewide importance
FaD2	Fallbrook sandy loam, 15 to 25 percent slopes, eroded	Farmland of statewide importance
FaE2	Fallbrook sandy loam, 15 to 25 percent slopes, eroded	Not prime farmland
PtB	Porterville clay, moderately deep, slightly saline-alkali, 0 to 5 percent slopes	Farmland of statewide importance

Table Source: USDA–NRCS, Web Soil Survey (https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx), accessed October 2025

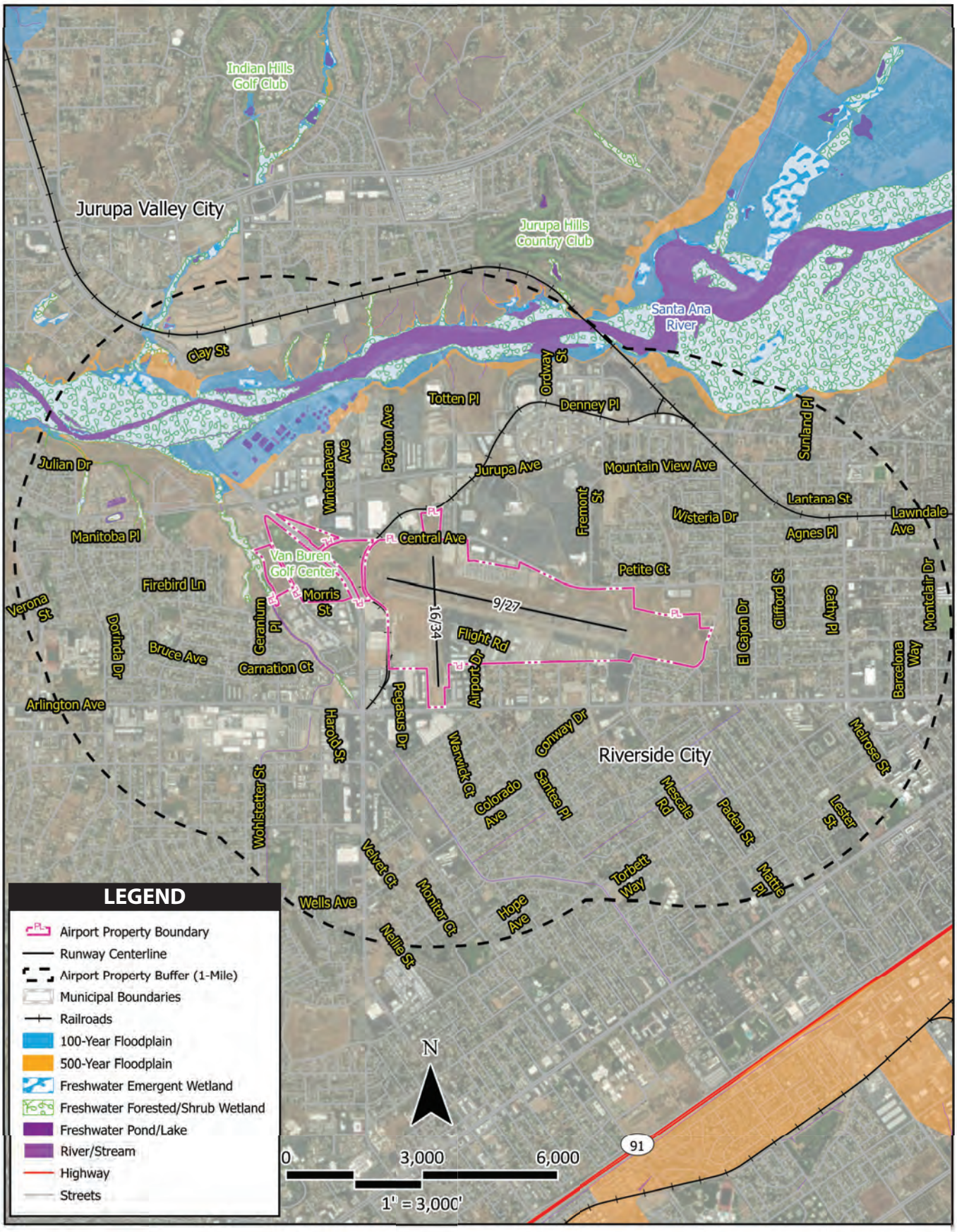
HAZARDOUS MATERIALS, SOLID WASTE, AND POLLUTION PREVENTION

Hazardous Materials

Federal, state, and local laws regulate hazardous materials use, storage, transportation, and disposal. Disrupting sites that contain hazardous materials or contaminants may cause significant impacts to soil, surface water, groundwater, air quality, and the organisms using these resources.

The two statutes of most importance to airport projects are the *Resource Conservation Recovery Act* (RCRA), as amended by the *Federal Facilities Compliance Act of 1992*, and the *Comprehensive Environmental Response, Compensation, and Liability Act* (CERCLA), as amended (also known as Superfund).

[12] NEPAssist (https://nepassisttool.epa.gov/nepassist/nepamap.aspx), accessed October 2025


Indian Hills Golf Club
Jurupa Valley City
Jurupa Hills Country Club
Santa Ana River
Clay St
Ordway St
Totten Pl
Denney Pl
Payton Ave
Winterhaven Ave
Julian Dr
Jurupa Ave
Mountain View Ave
Sunland Pl
Fremont St
Lantana St
Wisteria Dr
Lawndale Ave
Agnes Pl
Manitoba Pl
Central Ave
Van Buren Golf Center
Petite Ct
Firebird Ln
Morris St
9/27
16/34
Verona St
Geranium Pl
Flight Rd
El Cajon Dr
Clifford St
Cathy Pl
Montclair Dr
Bruce Ave
Carnation Ct
Airport Dr
Barcelona Way
Arlington Ave
Pegasus Dr
Conway Dr
Riverside City
Melrose St
Warwick Ct
Colorado Ave
Santee Pl
Mescale Rd
Paden St
Lester St
Wohlstetter St
Velvet Ct
Monitor Ct
Torbett Way
Mattle Pl
Wells Ave
Hope Ave
Nellie St
LEGEND
Airport Property Boundary
Runway Centerline
Airport Property Buffer (1-Mile)
Municipal Boundaries
Railroads
100-Year Floodplain
500-Year Floodplain
Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Freshwater Pond/Lake
River/Stream
Highway
Streets
N
0
3,000
6,000
1" = 3,000'
91

The RCRA governs the generation, treatment, storage, and disposal of hazardous waste. The CERCLA provides for the cleanup of any release of hazardous substance that may endanger public health or the environment. These laws may extend to past and future landowners of properties that contain these materials. Locations identified as Superfund sites are listed on the National Priorities List (NPL).

The California Department of Toxic Substances Control (DTSC) EnviroStor website does not identify any sites that are eligible for listing or listed on the NPL. Furthermore, based on the NEPAssist website, the airport does not contain any areas listed as active Superfund or brownfield sites.

Solid Waste

Existing solid waste in the City of Riverside is generally collected and disposed of via the Badlands Landfill. As of October 2025, this landfill has the remaining capacity to hold 82,300,000 tons of waste. It is estimated to cease operation on January 1, 2059.[13]

Pollution Prevention

The airport operates in conformance with Section 402(p) of the *Clean Water Act*. RAL also holds a National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit for stormwater discharges associated with industrial activity. Procedures to address chemical or fuel spills are outlined in RAL's stormwater pollution prevention program (SWPPP). Additionally, the airport's fuel farms are required to maintain a spill prevention, control, and countermeasure (SPCC) plan.

HISTORICAL, ARCHITECTURAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

Determination of a project's environmental impact to historic and cultural resources is made under guidance in the *National Historic Preservation Act of 1966* (NHPA), as amended, the *Archaeological and Historic Preservation Act of 1974* (AHPA), the *Archaeological Resources Protection Act* (ARPA), and the *Native American Graves Protection and Repatriation Act of 1990* (NAGPRA). The *Antiquities Act of 1906*, the *Historic Sites Act of 1935*, and the *American Indian Religious Freedom Act of 1978* also protect historic, architectural, archaeological, and cultural resources. Impacts may occur when a proposed project causes an adverse effect on a resource that has been identified (or is identified after being unearthed during construction) as having historic, architectural, archaeological, or cultural significance.

According to the National Register of Historic Places (NRHP), there is one NRHP-listed resource, the Heritage House, located within one-mile of the airport.[14] From information available at the time this report was prepared, no systematic airport-wide cultural surveys have been conducted. Much of the airport has been developed or disturbed; however, there is still a chance intact cultural resources may be present on the ground surface or subsurface.

[13] CalRecycle, SWIS Facility/Site Activity Details (https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2280?siteID=2402), accessed October 2025

[14] NRHP (https://www.nps.gov/maps/full.html?mapId=7ad17cc9-b808-4ff8-a2f9-a99909164466), accessed March 2025

The airport was opened in April 1940 and buildings or structures of historic age (i.e., 50 years or older) may still be present within airport property. Based on a review of historic aerials, there may be a historic-aged hangar (i.e., 50 years or older) to the north of Gemende Drive.

The nearest recognized tribal feature is the San Manuel Off-Reservation Trust Land, which is located 18 miles from the airport.

LAND USE

Land use regulations near airports are achieved through local government codes, city policies, and plans that include airport district and planning areas. Regulations are used to avoid land use compatibility conflict around airports.

The airport and surrounding environment are within the jurisdiction of Riverside County and the City of Riverside. Land uses surrounding the airport include a mixture of commercial and residential uses. The closest residential land uses are located along Gemende Drive, adjacent to RAL's southern property line, and residential houses are situated along Central Avenue near RAL's northern property line. These land uses are important to consider in regard to noise and light sensitivity.

Based on the City of Riverside's 2025 zoning map, the airport is zoned as "AIR." Property to the north is zoned as "B/MP" to denote a commercial zone, property to the south and northeast is zoned as "R-I-7000" to classify residential areas, and property to the west is zoned as "PF" (public facilities) and "B/MP" (commercial area).

NATURAL RESOURCES AND ENERGY SUPPLY

Natural resources and energy supply provide an evaluation of a project's consumption of natural resources. It is the policy of FAA Order 1053.1C, *Energy and Water Management Program for FAA Buildings and Facilities*, to encourage the development of facilities that exemplify the highest standards of design, including principles of sustainability.

The California Environmental Protection Agency (CalEPA) was formally established on July 17, 1991. CalEPA was created to preserve, conserve, and enhance the environment and ensure public health, environmental quality, and economic vitality. Continuing its initial mission, CalEPA acts as a regulatory body that monitors the state's natural resources. CalEPA consists of the California Air Resources Board (CARB), the Department of Pesticide Regulation (DPR), CalRecycle, the Department of Toxic Substances Control (DTSC), the Office of Environmental Health Hazard Assessment (OEHHA), and the State Water Resources Control Board (SWRCB).[15]

The City of Riverside relies on groundwater from local aquifers for its water supply. The Riverside, San Bernardino, and Bunker Hill Basins comprise the city's water sources.[16]

[15] CalEPA (https://calepa.ca.gov/about/), accessed October 2025
[16] Riverside Public Utilities (https://riversideca.gov/utilities/residents/our-water/about), accessed October 2025

NOISE AND NOISE-COMPATIBLE LAND USE

Federal land use compatibility guidelines are established under Title 14 Code of Federal Regulations (14 CFR) Part 150, *Airport Noise Compatibility Planning*. According to 14 CFR Part 150, residential land and schools are noise-sensitive land uses that are not considered compatible with a 65-decibel (dB) day-night average sound level (Ldn or DNL). Other noise-sensitive land uses (such as religious facilities, hospitals, or nursing homes), if located within a 65-dB DNL contour, are generally compatible when an interior noise level reduction of 25 dB is incorporated into the design and construction of such structures. Special consideration should also be given to noise-sensitive areas within Section 4(f) properties where the land use compatibility guidelines in 14 CFR Part 150 do not account for the value, significance, and enjoyment of the areas in question.[17]

In California, community noise equivalent level (CNEL) is used in place of DNL. DNL accounts for the increased sensitivity to noise at night (10:00 p.m. to 7:00 a.m.), whereas CNEL also accounts for increased sensitivity during the evening hours (7:00 p.m. to 10:00 p.m.).

Table 1M identifies noise-sensitive land uses within one mile of the airport. These land uses are also shown on **Exhibit 1N.** The closest residential areas are situated along Central Avenue and Gemende Drive, respectively adjacent to the northern and southern airport property lines.

TABLE 1M: Noise-Sensitive Land Uses Within One Mile of RAL

Land Use	Facility	Location	Distance from Airport	Direction from Airport
Place of Worship	Wesley United Methodist Church	5770 Arlington Avenue	0.50 miles	Southeast
Place of Worship	Central Community Christian	5623 Arlington Avenue	0.25 miles	Southeast
Place of Worship	Arlington Avenue Church of Nazarene	5475 Arlington Avenue	0.40 miles	Southeast
Place of Worship	Our Lady of Perpetual Help Church	5250 Central Avenue	0.70 miles	East
Place of Worship	New Joy Baptist Church	5694 Jurupa Avenue	0.60 miles	Northeast
Place of Worship	Cornerstone Church	7101 Jurupa Avenue	0.30 miles	North
Place of Worship	Crest Avenue Baptist Church	6450 Crest Avenue	0.90 miles	West
Place of Worship	Centro Christiano de Vida	5966 Chapel Street	1.00 mile	Southwest
Place of Worship	International Bible Baptist Church – Riverside	5932 Challen Avenue	0.95 miles	Southwest
Place of Worship	Iglesia de Dios Pentecostal	8791 Philbin Avenue	1.00 mile	Southwest
Place of Worship	Praise Community Fellowship	9191 Colorado Avenue	0.65 miles	South
Place of Worship	Hope Community Church	9085 Colorado Avenue	0.55 miles	South
Place of Worship	Faith Lutheran Church	4785 Jackson Street	0.45 miles	South
Place of Worship	The Church of Jesus Christ of Latter-day Saints	4375 Jackson Street	0.85 miles	South
Place of Worship	Bethel Chapel	8045 California Avenue	0.70 miles	Southeast
School	Norte Vista High School	6585 Crest Avenue	0.85 miles	West
School	Ramona High School	7675 Magnolia Avenue	1.00 mile	Southeast
School	Springs Charter School	4020 Jefferson Street	0.70 miles	Southeast
School	Sierra Middle School	4950 Central Avenue	0.95 miles	East
School	Mountain View Elementary School	6180 Streeter Avenue	0.75 miles	Northeast
School	Jefferson Elementary School	4285 Jefferson Street	0.40 miles	Southeast
School	Riverside Special Education	5700 Arlington Avenue	0.25 miles	Southeast

(Table continues)

[17] Title 49 U.S. Code § 47141, Compatible Land Use Planning and Projects by State and Local Governments

TABLE 1M (continued): Noise-Sensitive Land Uses Within One Mile of RAL

Land Use	Facility	Location	Distance from Airport	Direction from Airport
School	Harvest Christian School	6115 Arlington Avenue	0.15 miles	Southeast
School	Adams Elementary School	8362 Colorado Avenue	0.30 miles	South
School	Arlington Regional Learning Center	6511 Arlington Avenue	0.15 miles	South
School	Jackson Elementary School	4585 Jackson Street	0.60 miles	South
School	Monroe Elementary School	8535 Garfield Street	0.95 miles	South
School	Our Lady of Perpetual Help Catholic School	6686 Streeter Avenue	0.55 miles	East
School	Terrace Elementary School	6601 Rutland Avenue	0.55 miles	West
School	Arlanza Elementary School	5891 Rutland Avenue	0.85 miles	Southwest

Table Source: Google Earth Aerial Imagery, October 2025

SOCIOECONOMICS AND CHILDREN'S ENVIRONMENTAL HEALTH AND SAFETY RISKS

Socioeconomics

Socioeconomics is an umbrella term used to describe aspects of a project that are social or economic in nature. A socioeconomic analysis evaluates how elements of the human environment, such as population, employment, housing, and public services, might be affected by the proposed action or alternative(s).

Children's Environmental Health and Safety

Per E.O. 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, federal agencies are directed to make it a high priority to identify and assess environmental health and safety risks that may disproportionately impact children. Such risks include those attributable to products or substances a child is likely to encounter or ingest (air, food, and water, including drinking water) or to which they may be exposed. Residential areas are situated along the northern and southern airport property boundaries.

VISUAL EFFECTS

Visual effects broadly concern the extent to which a proposed action or alternative(s) would either (1) produce light emissions that create an annoyance or interfere with activities or (2) contrast with or detract from the visual resources and/or visual character of the existing environment. Each jurisdiction will typically address outdoor lighting, scenic vistas, and scenic corridors in its zoning ordinances and general plan.

Light Emissions

These impacts typically relate to the extent to which any light or glare results from a source that could create an annoyance for people or interfere with normal activities. Generally, local jurisdictions will include ordinances in local codes that address outdoor illumination to reduce the impact of light on surrounding properties.

Airfield lighting at the airport includes medium intensity runway edge lights (MIRL) along Runway 9-27 and Runway 16-34. Navigation lights include a rotating beacon, which emits white and green light, and four-light precision approach path indicator (PAPI-4) lights on Runways 9 and 27 and PAPI-2 lights on Runway 34. (For further information, see the *Airfield Lighting, Signage, and Marking* section earlier in this chapter.) Landside outdoor lighting includes building and parking lot security lighting.

The airport is surrounded by land uses (such as residential neighborhoods) that would be sensitive to light pollution. The closest residential neighborhoods are adjacent to the southern boundaries along Gemende Drive and adjacent to the northern boundaries along Central Avenue.

Visual Resources and Visual Character

Visual resources include buildings, sites, traditional cultural properties, and other natural or human-made landscape features that are visually important or have unique characteristics. Visual resources may include structures or objects that obscure or block other landscape features. In addition, visual resources can include the cohesive collection of various individual visual resources that can be viewed at once or in concert from the area surrounding the site of the proposed action or alternative(s).

Visual character refers to the overall visual makeup of the existing environment where a proposed action or its alternative(s) would be located. For example, areas near densely populated areas generally have a visual character that could be defined as urban, whereas less developed areas could have visual characters defined by surrounding landscape features (such as open grass fields, forests, mountains, deserts, etc.).

RAL is located within an urban-designated area with commercial land uses to the north and single-family residential neighborhoods to the northeast, east, south, and west. Visually, the airport is characterized by hangar development south of Runway 6-22, a vehicular parking lot to the north, a golf course on the west side of the airfield, and undeveloped parcels of land on the east side of the airfield. Views of RAL are accessible from surrounding roadways, such as Central Avenue, Gemende Drive, and Van Buren Boulevard.

The California Department of Transportation (Caltrans) manages the state Scenic Highway Program.[18] Existing legislation provides Caltrans with full possession and control of all state highways. A county highway was later added to the Scenic Highway Program in Section 154 of the *Streets and Highways Code*. There are no designated highways or highways eligible for listing in the Scenic Highway Program within one mile of the airport.[19]

WATER RESOURCES

Wetlands

The U.S. Army Corps of Engineers regulates the discharge of dredged and/or fill material into waters of the United States, including wetlands with continuous surface connections to traditional navigable waters, under Section 404 of the *Clean Water Act* (CWA). Wetlands are defined in E.O. 11990, *Protection of Wetlands*, and can include swamps, marshes, bogs, sloughs, potholes, wet meadows, river overflows,

[18] California State Scenic Highways (https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways), accessed October 2025

[19] California Department of Transportation, State Scenic Highway Map, (https://experience.arcgis.com/experience/47e2009986264718a5a13a2c81382774),accessed October 2025

mudflats, natural ponds, estuarine areas, tidal overflows, and shallow lakes and ponds with emergent vegetation. Wetlands exhibit three characteristics: (1) the soil is inundated or saturated to the surface at some time during the growing season (hydrology), (2) has a population of plants that are able to tolerate various degrees of flooding or frequent saturation (hydrophytes), and (3) is saturated enough to develop anaerobic (absent of air or oxygen) conditions during the growing season (hydric).

The USFWS manages the National Wetlands Inventory (NWI), which identifies surface waters and wetlands in the nation at a macro level based on aerial photography.[20] Based on the NWI and Google Earth aerial maps, there are no wetlands or waters of the U.S. located at RAL (**Exhibit 1P**).

Floodplains

E.O. 11988, *Floodplain Management*, directs federal agencies to take action to reduce the risk of flood loss; minimize the impacts of floods on human safety, health, and welfare; and restore and preserve the natural and beneficial values served by the floodplains. U.S. Department of Transportation (DOT) Order 5650.2, *Floodplain Management and Protection*, implements the guidelines contained in E.O. 11988.

A review of the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) panels 06065C0705H and 06065C0710H (effective September 12, 2024), indicates that there are no 100-year or 500-year floodplains located within the boundaries of RAL (**Exhibit 1P**).

Surface Waters

The CWA establishes water quality standards, controls discharges, develops waste treatment management plans and practices, prevents or minimizes the loss of wetlands, and regulates other issues concerning water quality. Water quality concerns related to airport development are most often related to the potential for surface runoff and soil erosion, as well as the storage and handling of fuel, petroleum, products, solvents, etc. Additionally, U.S. Congress has mandated the NPDES under the CWA.

The airport is located in one watershed: Hole Lake. There is one impaired waterbody located within this watershed, southeast of the airport.[21]

Groundwater

Groundwater is subsurface water that occupies the space between sand, clay, and rock formations. The term *aquifer* is used to describe the geologic layers that store or transmit groundwater, such as wells, springs, and other water sources. Examples of direct impacts to groundwater could include withdrawal of groundwater for operational purposes or reduction of infiltration or recharge area due to new impervious surfaces.[22]

[20] USFWS, National Wetlands Inventory (https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/)

[21] U.S. EPA, How's My Waterway (https://mywaterway.epa.gov/community/riverside%20municipal%20airport/overview), accessed October 2025

[22] United States Geologic Survey, What is Groundwater? (https://www.usgs.gov/faqs/what-groundwater#:~:text=Groundwater%20is%20water%20that%20exists,does%20not%20form%20underground%20rivers), accessed October 2025

Riverside County relies on groundwater from several basins with the region, including San Bernardino, Bunker Hill, and Riverside Basins. These basins are not located in areas identified as critically overdrafted.[23]

The U.S. EPA's Sole Source Aquifer (SSA) program was established under Section 1424(e) of the *Safe Drinking Water Act* (SDWA). Since 1977, the SSA program has been used by communities to help prevent contamination of groundwater from federally funded projects and has increased public awareness of the vulnerability of groundwater resources.

According to the U.S. EPA *Sole Source Aquifers for Drinking Water* website, there are no sole source aquifers located with airport boundaries. The closest sole source aquifer to RAL is the Campo/Cottonwood Creek Aquifer, which is located 88 miles from the airport.[24]

Wild and Scenic Rivers

The *National Wild and Scenic Rivers Act* was established to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. The Nationwide Rivers Inventory (NRI) is a list of over 3,400 rivers or river segments that appear to meet the minimum *Wild and Scenic Rivers Act* eligibility requirements based on their free-flowing status and resource values. The development of the NRI resulted from Section 5(d)(1) in the *Wild and Scenic Rivers Act*, which directs agencies to consider potential wild and scenic rivers in the comprehensive planning process.

The closest designated national wild and scenic river identified is Bautista Creek, which is located 38 miles from the airport.[25] The nearest NRI feature, Lytle Creek, is 19 miles from the airport.

[23] California Department of Water Resources, Basin Prioritization (https://water.ca.gov/Programs/Groundwater-Management/Basin-Prioritization), accessed October 2025

[24] U.S. EPA, Sole Source Aquifers (https://experience.arcgis.com/experience/1bfab371d71e4b868fc9ae7df62a16fe#data_s=id%3Awidget_22_output_config_default_geocode_0_0%3A1), accessed 2025

[25] National Wild and Scenic Rivers System (https://rivers.gov/california), accessed October 2025; Nationwide Rivers Inventory (https://www.nps.gov/subjects/rivers/nationwide-rivers-inventory.htm), accessed October 2025