

Camarillo Airport



ALP Update and Narrative Report

Chapter 1

Introduction and Inventory

The FAA requires federally obligated airports, like Camarillo Airport (CMA), to periodically update their local planning documents (i.e., master plan or airport layout plan & narrative report). Those local planning documents include a required set of technical drawings, collectively called the airport layout plan (ALP) set, that depict the current and the planned future condition of the airport. Any projects for which the airport may request FAA grant funding must be depicted on the ALP; therefore, the FAA uses these documents to aid in funding decisions for eligible capital improvement projects.

This study is officially called an Airport Layout Plan and Narrative Report commonly referred to as an ALP Update. It differs from a master plan in scope and duration. Where a master plan covers a 20-year timeframe, the ALP Update covers five to seven years. The ALP Update has a narrower scope in that potentially major changes that require significant analysis such whether the current role of the airport still meets the forecasted needs or if anticipated changes merit consideration of a different role for the airport (e.g., general aviation to commercial service) or a longer runway are not considered. Ultimately, the Camarillo Airport will need to update its master plan, but not within the lifetime of this study. Even when a master plan is done, the final recommendations very well may be similar to those in this study. This ALP update meets the requirements of FAA Grant Assurance #29 which stipulates that airports will maintain an up-to-date FAA approved ALP at all times.



Following a qualifications-based consultant selection process, Coffman Associates, Inc., a national airport consulting firm that specializes in airport planning studies, was selected to undertake this study. The ALP update is a structured document organized following FAA guidelines. The ALP Update includes forecasts of aviation demand, facility requirements to meet the future demand, and analysis of safety standards, which have changed significantly since the ALP was last updated in 2007. The ALP Update also includes several development alternatives, a final recommended alternative, and a capital improvement program.

As part of the project, a robust public involvement program is established. A public website is established (CMA-ALP-Update.airportstudy.net) where interested parties can seek answers to questions, review draft materials, and provide comments. The project website will be active throughout the planning process. In addition, during the study, the findings to date will be presented to the public during three planned public information workshops.

AIRPORT BACKGROUND

The Camarillo Airport was established in 1942 when the California State Highway Department constructed a landing field with a 5,000-foot-long runway at the current site. In 1951, the U.S. Army Corps of Engineers extended the runway to 8,000 feet in length to support Cold War air defenses. In 1969, the Department of Defense deactivated the Oxnard Air Force Base and along with it, the Camarillo auxiliary airfield. The County of Ventura pursued acquisition of the airfield with the intent of operating a public airport available for commercial and general aviation activity. City of Camarillo representatives had a different vision for the airfield. Ultimately, an agreement was reached which provided for an airport limited to general aviation with a maximum runway length of 6,000 feet. In 1976, approximately 650 acres of airport property, including the runway system, were transferred to the County of Ventura via quitclaim deed from the federal government. In 1985, County of Ventura Department of Airports was created to manage and operate both Camarillo Airport and Oxnard Airport. Today the Camarillo Airport is a thriving general aviation facility supporting and facilitating economic growth in the region.

The airport is situated at the southwest corner of the City of Camarillo. It is approximately 20 miles east of Oxnard and 50 miles northwest of Los Angeles. The airport sits at an elevation of 77 feet above mean sea level (MSL). Primary access to the airport is from Pleasant Valley Road, which runs on the southside of the airport. Las Posas Road defines the eastern boundary of the airport. There are no boundary roads on the north or west sides of the airport. U.S. Highway 101 runs parallel to the airport approximately one-quarter mile to the north. Today, the airport encompasses approximately 663 acres of land. **Exhibit 1A** depicts the regional setting of the airport.

AIRPORT ECONOMIC IMPACT

In 2019, the County of Ventura completed an economic benefit analysis for the Camarillo Airport. Airports bring many benefits that extend beyond the aviation community to impact economic growth and development as well as the quality of life of residents. The availability of air transportation is invariably listed by business executives as a key criterion for business location and expansion. Airports contribute to public safety by supporting police operations, firefighting teams, and border security. Private aviation firms provide medical transport and assist businesses with mapping, aerial photography, and transport to reach customers quickly and efficiently.



Although qualitative advantages created by an airport are important, they are also challenging to measure. In studying the economic benefits of airports and aviation, analysts have emphasized economic benefits that can be quantified:

- **Employment** is the number of jobs supported by economic activity created by the presence of the airport.
- **Payroll** includes income to workers as employee compensation (the dollar value of payments received by workers as wages and benefits) and proprietor's income to business owners.
- **Output** is the value of the production of private firms and public agencies. For a private firm, output is equal to the annual value of revenue or gross sales at producer prices (before addition of further margins or transportation costs), including sales or excise taxes. Output, revenue, and sales are interchangeable synonymous terms used throughout this study and in turn, these are equal to spending or expenditures from the perspective of the buyer. For government units, the agency budget is used as the measure of output.

Analysis of economic benefits is related to measurement of the economic contribution of an industry or a particular component of the economy. This methodology was standardized in the publication by the Federal Aviation Administration, *Estimating the Regional Economic Significance of Airports*, Washington DC, 1992, and has been closely followed in recent years by public and private sector aviation analysts. Consistent with the FAA methodology, this study views Camarillo Airport as a source of measurable benefits that impact Camarillo and Ventura County. Aviation activity creates revenues for firms and employment and income for workers on and off the airport.

On-airport activity by private aviation related firms and government agencies located on the airport is a source of output, jobs, and worker payrolls. Business spending on the airport injects revenues into the community when firms and public sector agencies buy products from local and regional suppliers and again when employees of the airport spend for goods and services in their communities.

Included in on-airport economic benefits are capital improvement projects that provide for growth and enhance air safety, as well as expenditures by tenants for modernization or expansion of existing space and facilities.

Off-airport spending by visitors that arrive by itinerant general aviation aircraft is a second source of economic benefits. Air visitor spending creates jobs, income, and revenues in the regions lodging, food service, ground transportation, retail, and recreation industries.

Economic activity (such as purchase of fuel by an aircraft pilot) creates an initial economic impact or direct benefit when the purchase is made. The spending by the pilot provides revenue to the fixed base operator (FBO), a portion of which is retained as margin and the remainder is used for payments to suppliers or to pay salaries to workers (who then spend their wages in their home communities). As payments are received by suppliers or spent by workers, the initial direct spending from the fuel purchase recirculates in the economy bringing secondary benefits known as multiplier or "ripple effects." These combined direct and secondary benefits summed together provide a measure of total economic benefits.

Camarillo Airport created total 2018 economic benefits of \$230.8 million of output, 1,764 total jobs supported, and payrolls of \$115.3 million for workers (**Figure A**). The total benefits include both direct and secondary benefits, measuring the airport’s overall contribution to the regional economy.



Figure A: Economic Impact of Camarillo Airport (2018)

Government Revenue Benefits

Because of the output, jobs, and income created by the presence of Camarillo Airport, the facility is an important source of public revenues. Estimated tax revenues are shown in **Table 1A**. Revenues were derived from the IMPLAN model, using average tax rates for Ventura County and California for profits, personal income, property, and sales taxes. Federal taxes are calculated using current federal rates for Social Security taxes, income, profits, and other federal taxes and fees.

The largest federal component was the social security tax, with contributions from employers and workers of \$13.0 million in 2018. The second largest federal tax category was the personal income tax paid by workers and proprietors of \$10.0 million. Overall, federal tax revenues estimated due to economic activity associated with Camarillo Airport were calculated to be \$25.0 million for 2018.

TABLE 1A | Government Revenue Benefit

Federal Taxes	
Corporate Profits Tax	\$1,249,000
Personal Income Tax	\$10,039,000
Social Security Tax	\$12,995,000
All Other Federal Taxes	\$737,000
Total Federal Taxes	\$25,020,000
State and Local Taxes	
Corporate Profits Tax	\$326,000
Property Tax	\$2,873,000
Sales Tax	\$2,561,000
Personal Income Tax	\$3,433,000
All Other State and Local Taxes	\$1,672,614
Total State and Local Taxes	\$10,866,000
Total All Taxes	\$35,886,000

Source: Calculations from the IMPLAN input-out-put model based on tax rates for Ventura County and California and current federal rates. All figures are in 2018 dollars.

State and local tax revenues, shown in the lower portion of the table, summed to \$10.9 million for 2018. The largest component was the personal income tax of \$3.4 million. Property taxes due to the presence of the airport were estimated to be \$2.9 million. Combined federal, state, and local government tax revenues created by Camarillo Airport were \$35.9 million at the 2018 level of airport activity and visitor spending.

AIRPORT ADMINISTRATION

Camarillo Airport is owned by Ventura County and operated by the Ventura County Department of Airports, which is charged with the day-to-day operation, repair, maintenance, and administration of the airport. The Department of Airports oversees Oxnard and Camarillo Airports and is staffed with 37 employees. There are 16 administrative positions which are led by professional staff including a Director of Airports, a Deputy Director for Business Operations, and a Deputy Director for Operations and Maintenance. There are 11 staff members in the maintenance divisions and 10 staff members on the operations team.

The airport is overseen by the County Executive Officer (CEO) and the Ventura County Board of Supervisors. The Board receives recommendations from the Ventura County Aviation Advisory Commission, and the Camarillo Airport Authority.

The Aviation Advisory Commission, which makes recommendations on both Oxnard and Camarillo Airports, consists of 10 appointed members. The members are appointed by the County Board of Supervisors. Each supervisor appoints two individuals to serve on this commission.

The Camarillo Airport Authority is responsible for only Camarillo Airport and consists of five members - two from the Board of Supervisors, two from the Camarillo City Council, and one at-large member to be selected by the other four members. The Oxnard Airport Authority is responsible for the Oxnard Airport.

Joint Powers Agreement (JPA)

The Camarillo Airport currently operates under an “Agreement Between County of Ventura and City of Camarillo Pertaining to Camarillo Airport Development and Surrounding Land Use”, commonly known as the Joint Powers Agreement (JPA). Signed in 1976, the JPA outlines the creation of a joint powers body representing both the county and the city to oversee airport development. The Camarillo Airport Authority (CAA) was created pursuant to execution of the JPA. Any matter pertaining to development, operation or any other matter at the Camarillo Airport must be reviewed by the CAA prior to approval by the Ventura County Board of Supervisors.

The JPA outlines the following restrictions:

- 1) The airport shall be operated for general aviation purposes only as defined in the JPA.
- 2) The airport shall be open for public use at all reasonable hours of the day and night, subject to the following restrictions: a) The director of airports may close the airports because of conditions of the landing areas, necessary maintenance, the presentation of special events, and similar causes; b) No aircraft shall depart from the Camarillo Airport between the hours of 12:00 midnight and 5:00 a.m., unless specific authorization is obtained from the Director of Airports, or except in the case of a medical or public safety emergency. (Reference City of Camarillo Ordinance 6506-17, Hours of Operations)

- 3) The usable runway length shall not exceed 6,000 feet and shall be the most westerly 6,000 feet of the existing runway.
- 4) An aircraft weight limitation of 115,000 lbs. (twin wheel) shall be in effect.
- 5) The airport VFR traffic pattern shall be to the south of the airfield as designated in the JPA.
- 6) Airport development shall be guided to ensure that residential areas are not exposed to noise levels greater than 60 CNEL average noise and 90 dBA single event noise.

AIRPORT ROLE

Camarillo Airport is recognized within the FAA’s *National Plan of Integrated Airport Systems (NPIAS)* as a National General Aviation (GA) - Reliever airport. The NPIAS is a compilation of airports within the United States that are viewed as assets to national air transportation by the FAA. There are 3,287 airports included within the NPIAS that are qualified for federal funding through the Airport Improvement Program (AIP). Of that total, 383 are commercial service airports, and the remaining 2,904 are general aviation airports. There are four different categories of GA airports: National, Regional, Local, and Basic. CMA is classified within the National category. National GA airports are critical components of the national airport system, providing communities with access to national and international markets in multiple states and throughout the U.S. National airports have very high levels of aviation activity with many jets and multi-engine propeller aircraft. CMA is one of 107 National GA airports. In addition, 245 GA airports are further given the Reliever designation. Reliever airports are designated by FAA to relieve congestion at a commercial service airport and to provide more general aviation access to the overall community. **Table 1B** summarizes the national system of NPIAS airports.

TABLE 1B | Activity and Development at NPIAS Airports

Airport Category	No. of Airports	% of 2021 Enplanements	% of GA Aircraft	% of Total Operations	% of NPIAS Cost
Large Hub	30	69	1	10	32
Medium Hub	35	18	2	5	14.9
Small Hub	80	9	5	7	9.7
Nonhub	238	3	10	10	12.2
Primary Subtotal	383	99	18	32	68.8
National	107	-	12	11	5.3
Regional	501	-	22	25	9
Local	1,179	-	20	23	10.3
Basic	904	-	3	7	6
Unclassified	213	-	1	2	0
Nonprimary Subtotal	2,904	0.07	58	68	30.6
Total NPIAS Airports	3,287	100	76	100	100

Source: NPIAS 2023-2027

At the state level, CMA is included in the *California Aviation System Plan (CASP-2020)* and falls under the jurisdiction of Caltrans. The CASP has been created by the Caltrans - Division of Aeronautics, which includes every California airport designated in the NPIAS and any other existing or proposed public use

airports, as designated by the division. According to the *Aviation in California Fact Sheet (February 2019)*, there are 215 general aviation airports, 27 commercial service airports, 68 special-use airports, 365 permitted heliports, 22 federal air bases, and one joint use facility in the State of California. The purpose of CASP is to provide a framework for the integrated planning, operation, and development of California's aviation assets. The CASP provides policy guidelines that promote and maintain a safe aviation system in the state, assess the state's airport capital improvement needs, and identify resources and strategies to implement the plan. The CASP provides important insight into how California's airports can remain highly advanced, safe, and responsive to the public's needs today and throughout the 20-year planning horizon. The CASP identifies CMA as a Metropolitan-Business/Corporate airport, which is the highest classification for a GA airport.

Due to the nature of an ALP Update, the conclusions and recommendations will be constrained within the airport's current role.

CAPITAL IMPROVEMENT HISTORY

Historical funding and projects are presented in **Table 1C**. Between 2007 and 2021, CMA received numerous grants from the FAA for a combined total of approximately \$16.4 million. Most recently, in 2020, CMA received a grant for a master plan. That grant was subsequently transitioned to this ALP update.

TABLE 1C | Grant History

Fiscal Year	Project Description	Entitlement	Discretionary	Economic Recovery	CARES General	CARES Local Match	COVID Relief General	Grand Total
2007	Construct Taxiway	\$150,000	\$46,500	-	-	-	-	\$196,500
2007	Expand Apron	-	\$355,716	-	-	-	-	\$355,716
2007	Improve Airport Drainage	-	\$500,000	-	-	-	-	\$500,000
2007	Rehabilitate Apron	-	\$469,161	-	-	-	-	\$469,161
2008	Construct Apron	\$75,000	\$11,250	-	-	-	-	\$86,250
2008	Install Emergency Generator	\$75,000	\$11,250	-	-	-	-	\$86,250
2009	Rehabilitate Apron	\$100,000	-	-	-	-	-	\$100,000
2009	Rehabilitate Apron	\$188,760	\$41,844	\$986,237	-	-	-	\$1,216,841
2010	Acquire Equipment	\$204,190	-	-	-	-	-	\$204,190
2011	Construct Taxiway	\$2,941,407	\$1,114,797	-	-	-	-	\$4,056,204
2012	Misc Airport Improvements	\$719,000	-	-	-	-	-	\$719,000
2012	Rehabilitate Apron	\$237,483	-	-	-	-	-	\$237,483
2013	Rehabilitate Runway	\$750,246	-	-	-	-	-	\$750,246
2013	Rehabilitate Runway Lighting	\$1,655,301	-	-	-	-	-	\$1,655,301
2013	Rehabilitate Taxiway	\$200,000	-	-	-	-	-	\$200,000
2014	Rehabilitate Apron	\$358,621	-	-	-	-	-	\$358,621
2015	Rehabilitate Apron	\$200,857	-	-	-	-	-	\$200,857
2017	Construct Apron	\$3,755,942	-	-	-	-	-	\$3,755,942
2019	Rehabilitate Taxiway	\$318,195	-	-	-	-	-	\$318,195
2020	CARES Act Funds	-	-	-	\$157,000	-	-	\$157,000
2020	Update Planning Study	\$675,000	-	-	-	\$75,000	-	\$750,000
2021	CRRSA Act Funds	-	-	-	-	-	\$57,000	\$57,000
TOTAL		\$12,605,002	\$2,550,518	\$986,237	\$157,000	\$75,000	\$57,000	\$16,430,757

Source: FAA Records accessed on 1.10.23. http://www.faa.gov/airports/aip/grantapportion_data/

CLIMATE DATA

Weather conditions are a vital part to the planning and development of an airport. Temperature is used to determine the length of runways, while wind direction and speed are used to determine the optimal orientation of the runway. The percentage of time that visibility is impaired due to cloud coverage or other meteorological conditions determines the navigational aids and lighting requirements for airports.

In Camarillo, the summers are warm, arid, and clear and the winters are long, cool, wet, and partly cloudy. Over the course of a year the temperature typically varies from 45°F to 78°F and is rarely below 37°F or above 86°F. **Table 1D** summarizes climatic data from the National Oceanic and Atmospheric Administration (NOAA), which is sourced from the on-airport automated surface observation system (ASOS) weather station. The climate averages are for a 30-year period, which is the desired timeframe for FAA studies. This data shows an average annual high temperature of 62.5°F and an average annual low temperature of 52°F. September is the hottest month of the year with mean maximum temperatures reaching 79.6°F. This is an important data point as runway length requirements are a function of the mean maximum monthly temperature.

TABLE 1D | Historic Climate Data

Period	Average Precipitation (in.)	Mean Min. Temp. (F)	Average Temp. (F)	Mean Max. Temp. (F)
January	2.9	45.0	56.5	68.0
February	2.9	45.6	56.6	67.6
March	2.0	47.4	58.0	68.5
April	0.6	49.2	60.1	71.0
May	0.3	52.7	62.3	71.9
June	0.1	57.0	65.9	74.7
July	0.0	60.3	69.1	78.0
August	0.0	60.9	70.2	79.5
September	0.1	59.4	69.5	79.6
October	0.5	53.9	65.2	79.4
November	0.9	48.6	60.7	72.8
December	1.7	43.8	55.8	67.7
Total	12.0	52.0	62.5	73.2

Source: Source: National Oceanic and Atmospheric Administration (NOAA) -Climatology of the United States No. 81 (30-years of data from 1990-2020) as sourced from meteorological station ID: Camarillo Airport, ID USW00003974 Key: In - Inches; F - Fahrenheit

AIRSIDE FACILITIES

Airport facilities can be categorized into two separate classifications: airside facilities and landside facilities. The airside facilities are directly associated with aircraft operations. These facilities may include, but are not limited to, runways, taxiways, airport lighting, and navigational aids. Landside facilities pertain to facilities necessary to provide safe and efficient transition from surface transportation to air transportation, as well as support aircraft servicing, storage, maintenance, and safe operation. **Table 1E** and **Exhibit 1B** summarize the airside facilities.

TABLE 1E | Airside Facilities

	Runway 8-26
Runway Length (feet)	6,013'
Runway Width (feet)	150'
Runway Surface Material	Asphalt/Concrete/Rubberized Friction Seal Coat
Condition	Fair
Pavement Markings	Non-Precision
Runway Weight Bearing Capacity	
Single Wheel Weight Bearing Capacity	50,000 lbs
Dual Wheel Weight Bearing Capacity	80,000 lbs
Double Dual Weight Bearing Capacity	125,000 lbs.
Runway Lighting	MIRL
Runway End Identifier Lights (REILs)	Yes
Taxiway Lighting	MITL
Glide Path Approach Aids	PAPI-4L (3° glide path)
Airport Traffic Control Tower/Hours	Yes (7:00 am – 9:00 pm)
Instrument Approach Procedures	RNAV (GPS), VOR
Weather and Navigational Aids	ASOS; CTAF/UNICOM/ATIS; Beacon; Segmented Circle; Lighted Wind Indicator; Supplemental Windcones; Rotating Beacon
ASOS: Automated Surface Observation System ATIS: Automated Terminal Information System CTAF: Common Traffic Advisory Frequency GPS: Global Positioning System MIRL: Medium Intensity Runway Lighting MITL: Medium Intensity Taxiway Lighting	PAPI: Precision Approach Path Indicator REIL: Runway End Identifier Lights RNAV: Area Navigation UNICOM: Universal Communication Frequency VOR: Very High Frequency Omnidirectional and Range

Source: FAA Airport Master Record (Form 5010-1).

RUNWAY 8-26

CMA is served by a single runway (8-26) configuration oriented in an east-west manner. Runway 8-26 is 6,013 feet long by 150 feet wide. The runway is marked as a non-precision instrument runway, which includes landing designation, centerline dash, threshold markings, aiming point, and edge markings. The runway pavement is constructed of asphalt, and it has a rubberized friction seal coat. Runway 8-26 has a gradient of 0.22 percent, sloping upward from west to east.

The strength of the runway pavement is an important consideration for the utility of the runway. Runway pavement strength is described in terms of the load bearing capacity for repeated use of the runway by aircraft with certain landing gear configurations. The pavement strength rating for Runway 8-26 is published as 50,000 pounds single wheel gear (S), 80,000 pounds dual wheel gear (D), and 125,000 pounds double dual wheel gear (DD). The pavement strength is not a maximum limit or restriction, rather it is an indication of the weight level where repeated use by aircraft of that weight will equate with normal wear and tear of the pavement. Occasional operations by heavier aircraft are permissible with prior approval of aircraft management or in case of emergencies.

LEGEND

- - - Airport Property Line
- A Taxiway Designator
- Runway Protection Zone (RPZ)

KEY

- ASOS - Automated Surface Observation Station
- ATCT - Airport Traffic Control Tower
- REIL - Runway End Identifier Lighting
- PAPI - Precision Approach Path Indicator
- VOR/DME - Very High Frequency Omni-directional Range/Distance Measuring Equipment



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 Photo Source: Google Earth 6/2022

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TAXIWAYS

Runway 8-26 is served by a full-length parallel taxiway (Taxiway H) with a separation of 700 feet from runway centerline to taxiway centerline. Taxiway H was constructed in 2013. Taxiway F is also a parallel taxiway that is 300 feet from Taxiway H and 1,000 feet from the runway. Taxiway F extends from the intersection with Taxiway E to the east for 8,000 feet. Taxiways A, B, C, D, and E are connecting taxiways to the runway. Taxiway G is parallel to the eastern portion of Taxiway F and is separated from Taxiway F by 130 feet. Taxiway G serves as a bypass taxiway increasing the efficiency of movement to and from the east hangar areas. Taxiway G1 extends from the east end of Taxiways F and G, north to the east hangar areas. Taxiways G2 and G3 connect Taxiways G and F. **Table 1F** summarizes the taxiway details.

TABLE 1F | Taxiway Data

Taxiway Designation	Description	Width	Edge Lighting (Y/N)	Notes
Taxiway A	Runway 26 Threshold	50'	Yes	-
Taxiway B	Connector	50'	Yes	Wide throat/curved geometry
Taxiway C	Connector	50'	Yes	Curved/angled geometry
Taxiway D	Connector	50'	Yes	Curved/angled geometry
Taxiway E	Runway 8 Threshold	75'	Yes	Curved/angled geometry
Taxiway F	Parallel	50'	Yes	-
Taxiway G	Bypass Taxiway	50'	No	-
Taxiway G1	Connector	50'	No	-
Taxiway G2	Connector	50'	Yes	-
Taxiway G3	Connector	50'	Yes	-

Taxiways typically have pavement markings to help guide pilots and to inform them of upcoming intersections. All taxiways at CMA have standard yellow centerline markings. The taxiways leading to the runway have aircraft hold standard position markings that are 250 feet from the runway centerline. These taxiways also have enhanced centerline markings leading to the hold position marking and then have on-pavement runway identification markings (white on red). Both of these pavement markings are enhancements above what is required for GA airports and are in place to increase pilot awareness at this busy airport.

The table notes that several of the taxiways have an unusual geometry with curves and wide throats that may not meet current standards. In the facility requirements section of this study, these will be examined in further detail to determine if improvements are needed.

All lighted taxiways are equipped with medium intensity taxiway lighting (MITL) except Taxiway G. All MITL utilizes light emitting diode (LED) technology.

AIRFIELD LIGHTING

Airfield lighting systems extend an airport's usefulness into periods of darkness and/or poor visibility. All airfield lighting systems are owned and maintained by the airport. The following describes the airfield lighting systems.

Identification Lighting: The location of the airport at night is identified by a rotating beacon. The rotating beacon projects two beams of light, one white and one green, 180 degrees apart. The rotating beacon at CMA is situated on the top of a water tower adjacent to the intersection of Airport Way and Pleasant Valley Road approximately 3,800 feet southeast of the Runway 26 threshold. The airport is in the process of re-locating the beacon to a location approximately 500 feet southeast of the airport traffic control tower.

Runway and Taxiway Lighting: As mentioned the runway and taxiways (except Taxiway G) have edge lights. The edge lights are set along the sides of the pavement edge to define the lateral limits. This lighting is essential for safe operations during night and/or times of low visibility.

Visual Approach Lighting: Runway 8-26 is equipped with precision approach path indicators (PAPIs) which are a system of colored lights arranged to provide visual descent guidance information during the approach to a runway. PAPI-4L is a system of four light units placed on the left side of the runway in a line perpendicular to the centerline. These aids provide the pilot with an indication of being above, below, or on the correct descent path to the runway. The PAPIs on both ends are set to the standard glide path of three degrees.

Both ends of Runway 8-26 are equipped with runway end identifier light (REILs) systems. Set to either side of the runway thresholds, REILs provide a visual identification of the runway end for landing aircraft. The system consists of two flashing light assemblies located approximately 40 feet to either side of the runway landing threshold. These flashing lights can be seen day or night for up to 20 miles depending on visibility conditions.

Airfield Signage System: Airfield identification signs assist pilots in identifying their location on the airfield and directing them to their desired location. The airfield signs, including the runways, taxiways, and distance-to-go markings, are lighted at Camarillo Airport.

Pilot-Controlled Lighting: When the control tower is closed, the airfield lights are turned off. With the pilot-controlled lighting system (PCL), pilots can turn on the airfield lights from their aircraft through a series of clicks of their radio transmitter. The PCL system at Camarillo Airport will turn on the MIRL and REIL systems. The airfield lights will remain on for approximately 15 minutes.

WEATHER AND COMMUNICATION AIDS

Camarillo Airport has three lighted wind cones, one at each runway end and one within the segmented circle that is adjacent to Taxiway B. The lighted wind cones provide information to pilots regarding wind conditions, such as direction and speed. A segmented circle, which is located to the south of the runway, provides pilots with information about the local airport traffic pattern.

Camarillo Airport is equipped with an automated surface observation system (ASOS). An ASOS will automatically record weather conditions such as wind speed, wind gust, wind direction, temperature, dew point, altimeter setting, visibility, fog/haze condition, precipitation, and cloud height. This information is then transmitted at regular intervals (usually once per hour). Pilots and individuals can call a published telephone number (805-384-9294) and receive the information via an automated voice recording. The ASOS at Camarillo Airport is located between Taxiways A and B approximately 200 feet north of parallel Taxiway F.

Camarillo Airport is also equipped with an automated terminal information service (ATIS), which is a recorded message updated hourly and broadcast on 126.025 MHz. ATIS broadcasts are used by airports to notify arriving and departing pilots of the current surface weather conditions, runway and taxiway conditions, communication frequencies, and other information of importance to arriving and departing aircraft. The ATIS broadcast includes the ASOS information and can be accessed on the same frequency.

CMA is served by a common traffic advisory frequency (CTAF), 128.2 MHz, which can be utilized by pilots to communicate with one another, as well as activate the airport lighting systems by keying the radio microphone.

AIRPORT TRAFFIC CONTROL TOWER (ATCT)

The ATCT is owned and staffed by the FAA. The tower is open from 7:00 a.m. to 9:00 p.m. daily. The tower was constructed in 1992, and it has a top elevation of 78 feet above the ground and a cab-eye elevation of 66 feet. The control tower can be reached at 128.2 Mhz. Camarillo ground control can be reached at 121.8 Mhz. Point Mugu NAS provides approach, departure, and clearance delivery on 124.7 MHz from 7:00 a.m. to 9:00 p.m. When Point Mugu NAS service is unavailable/closed, approach/departure services are provided by the Los Angeles air route traffic control center (ARTCC) on frequency 135.5 Mhz. The Camarillo ATCT controls air traffic within the Class D airspace that surrounds the airport when the tower is open. The ATCT is equipped with D-BRITE airport surveillance radar.

ELECTRONIC 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 in the vicinity of Camarillo Airport include a very high frequency omni-directional range (VOR) facility and the global positioning system (GPS).

The VOR, in general, provides azimuth readings to pilots of properly equipped aircraft transmitting a radio signal at every degree to provide 360 individual navigational courses. Frequently, distance measuring equipment (DME) is combined with a VOR facility (VOR/DME) to provide distance as well as direction information to the pilot. Military tactical air navigation aids (TACANs) and civil VORs are commonly combined to form a VORTAC. The VORTAC provides distance and direction information to both civil and military pilots. A VOR/DME is located at the Camarillo Airport and is located between Taxiways B and C. The VOR/DME broadcasts on VHF frequency 115.8 Mhz, providing the pilot with directional and distance information to and from the airport. The beacon continuously transmits the three-letter identifier "CMA."

The Ventura VOR/DME is located approximately six nautical miles (nm) south-east of the Camarillo Airport and transmits on VHF frequency 108.2 MHz. The beacon transmits a continuous three-letter identifier code "VTU" using International Morse Code. Another VOR/DME used for navigation within the Camarillo Airport airspace is located at Van Nuys approximately 30 nm to the east. The Van Nuys VOR/DME transmits on VHF frequency 113.1 Mhz and continuously broadcasts the three-letter identifier code "VNY."

The Fillmore VORTAC is the only VORTAC located in the vicinity of Camarillo Airport. It is located approximately 14 nm north-east of the airport. The VOR operates on a frequency of 112.5 MHz and the TACAN Channel 72. The beacon transmits a continuous three-letter identifier code “FIM.” These navigational aids incorporate the VOR and DME to function as a single channelized VHF/UHF system. Operating in conjunction with the ground station, a properly equipped aircraft can translate the VORTAC signals into a visual display of both azimuth and distance.

Global Positioning System (GPS) is an additional navigational aid for pilots. GPS was initially developed by the United States Department of Defense for military navigation around the world. GPS differs from a VOR in that pilots are not required to navigate using a specific ground-based facility. GPS uses satellites placed in orbit around the earth that transmit electronic radio signals, which pilots of properly equipped aircraft use to determine altitude, speed, and other navigational information. With GPS, pilots can navigate directly to any airport in the country and are not required to navigate using a ground-based navigational facility.

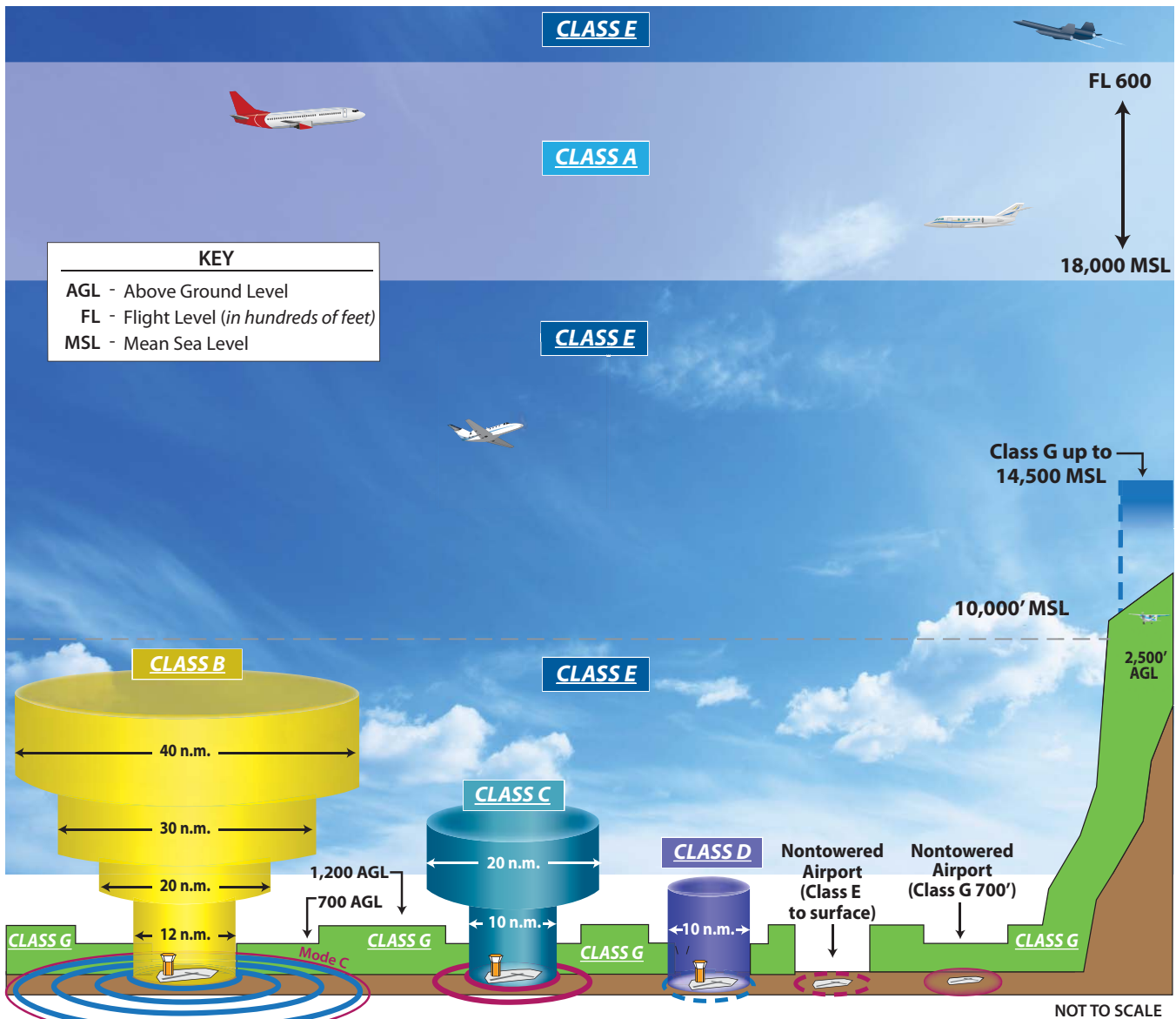
VICINITY AIRSPACE

The airspace within the National Airspace System (NAS) is divided into six different categories or classes. The airspace classifications that make up the NAS are presented on **Exhibit 1C**. These categories are made up of Classes A, B, C, D, E, and G airspace. Each class of airspace contains its own criteria that must be met in terms of required aircraft equipment, operating flight rules (visual or instrument flight rules), and procedures. Classes A, B, C, D, and E are considered controlled airspace, which requires pilot communication with the controlling agency prior to airspace entry and throughout operation within the designated airspace. Pilot communication procedures, required pilot ratings, and required minimum aircraft equipment vary depending upon the class of airspace, as well as the type of flight rules in use. Class G airspace is uncontrolled and extends from the surface to the base of the overlying Class E airspace. Although air traffic control (ATC) has no authority or responsibility to control air traffic within this airspace, pilots should remember there are visual flight rule minimums that apply to Class G airspace.

When the CMA tower is open, the airport is located under Class D airspace. The Class D airspace extends to a five nautical mile radius from the tower except to the west and south where it is interrupted by the Oxnard Airport and NAS Point Mugu Class D airspaces. The Camarillo Airport Class D airspace extends from the ground to an elevation of 2,500 feet above ground level (AGL). When the tower is closed, the airport operates in Class E airspace with a floor of 700 feet AGL and extending to 18,000 feet MSL. Class G airspace extends from the surface to the overlying Class E airspace. The Class E airspace surrounding the airport includes most of the region and to the north near Santa Paula. **Exhibit 1D** presents the classifications of airspace within the vicinity of CMA.

INSTRUMENT APPROACH PROCEDURES

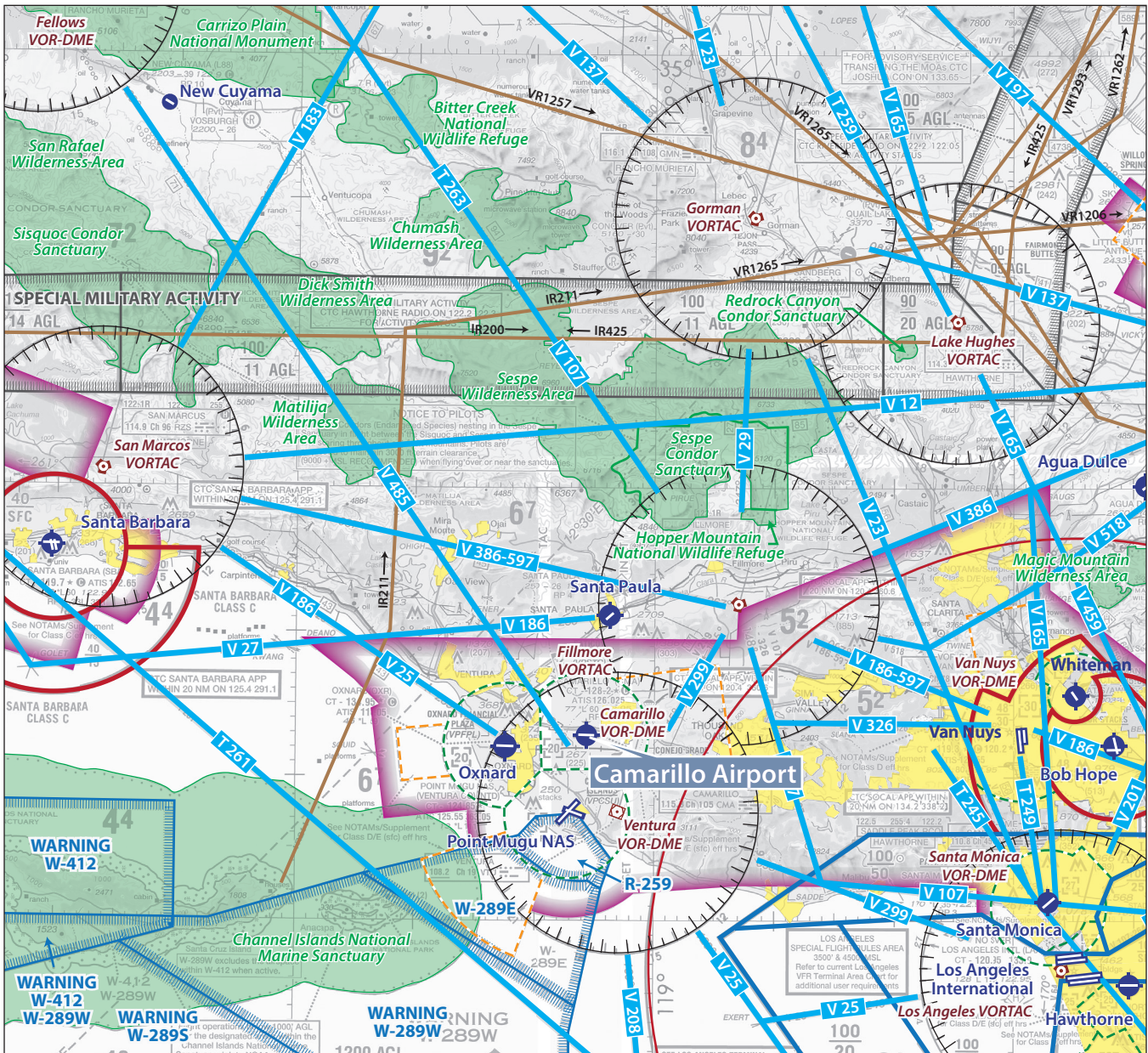
Instrument approach procedures are a series of predetermined maneuvers established by the FAA, using electronic navigational aids that assist pilots in locating and landing at an airport, especially during instrument flight conditions. There are currently four published instrument approach procedures for Camarillo Airport.



DEFINITION OF AIRSPACE CLASSIFICATIONS

- CLASS A** Think A - Altitude. Airspace above 18,000 feet MSL up to and including FL 600. Instrument Flight Rule (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 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: www.faa.gov/regulations_policies/handbooks_manuals/aviation/phak/media/15_phak_ch15.pdf



LEGEND

- | | | | |
|--|---|--|---|
| | Airport with hard-surfaced runways 1,500' to 8,069' in length | | Class E Airspace with floor 700 ft. above surface |
| | Airports with hard-surfaced runways greater than 8,069' or some multiple runways less than 8,069' | | MODE C |
| | VORTAC | | Victor Airways |
| | VOR-DME | | Military Training Routes |
| | Compass Rose | | Prohibited, Restricted, Warning and Alert Areas |
| | Class B Airspace | | Wilderness Areas |
| | Class C Airspace | | Populated Areas |
| | Class D Airspace | | |
| | Class E Airspace | | |



Source: US Department of Commerce, National Oceanic and Atmospheric Administration Los Angeles Sectional Charts, December 5, 2019

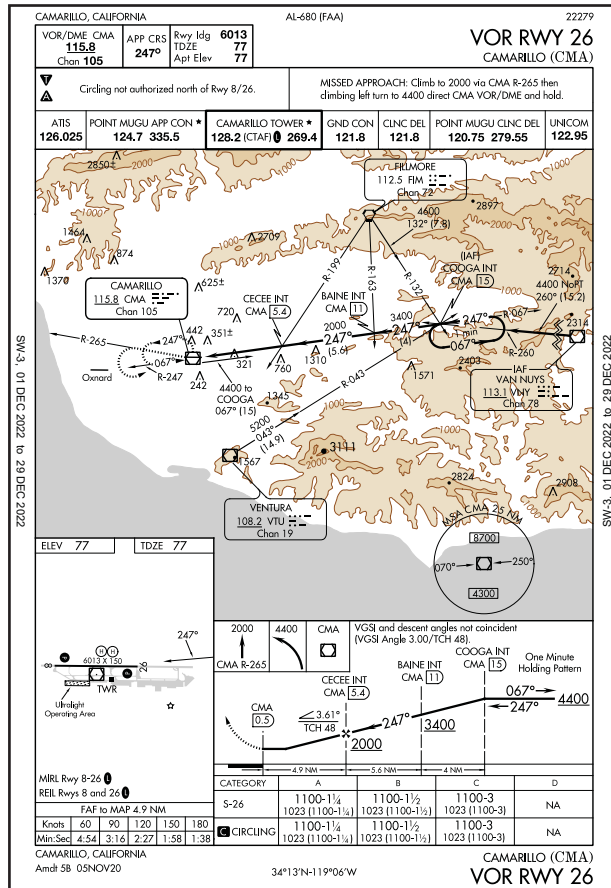
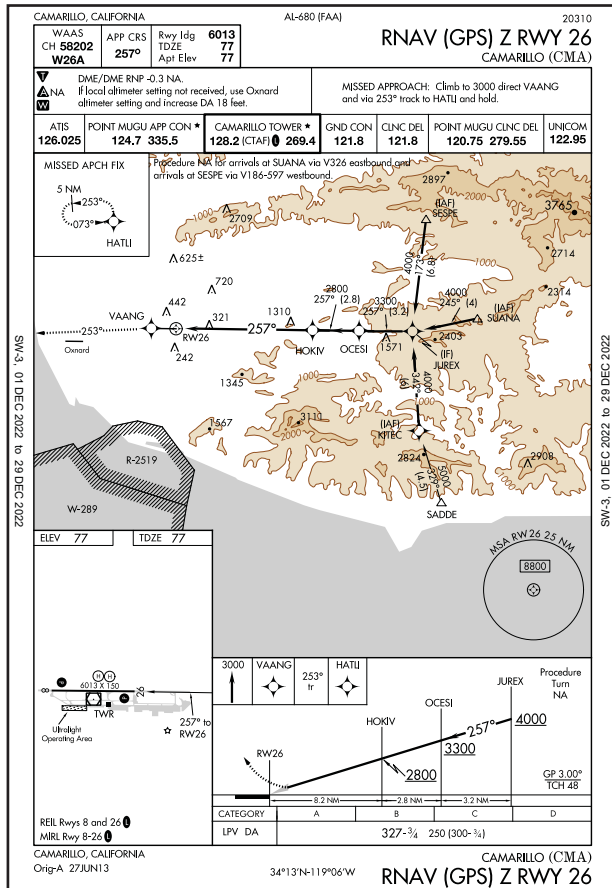
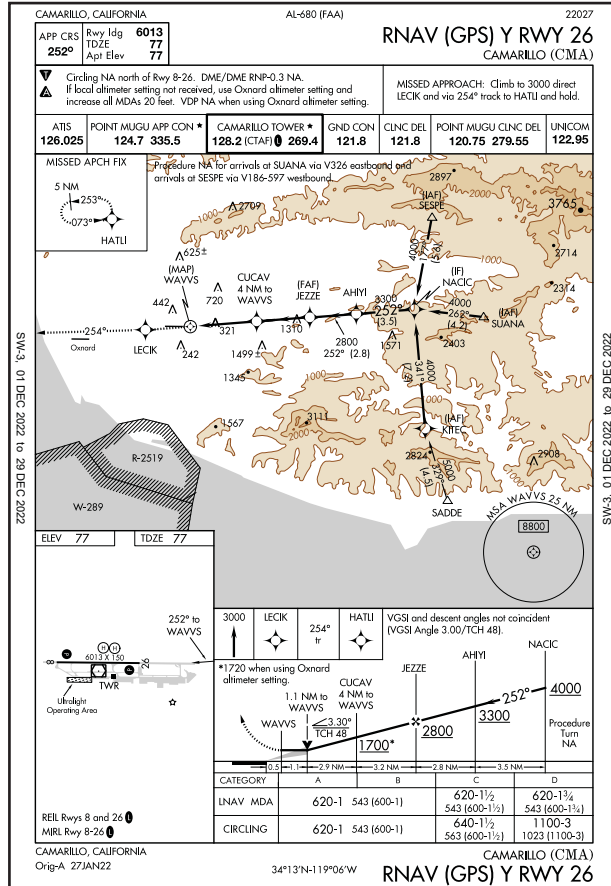
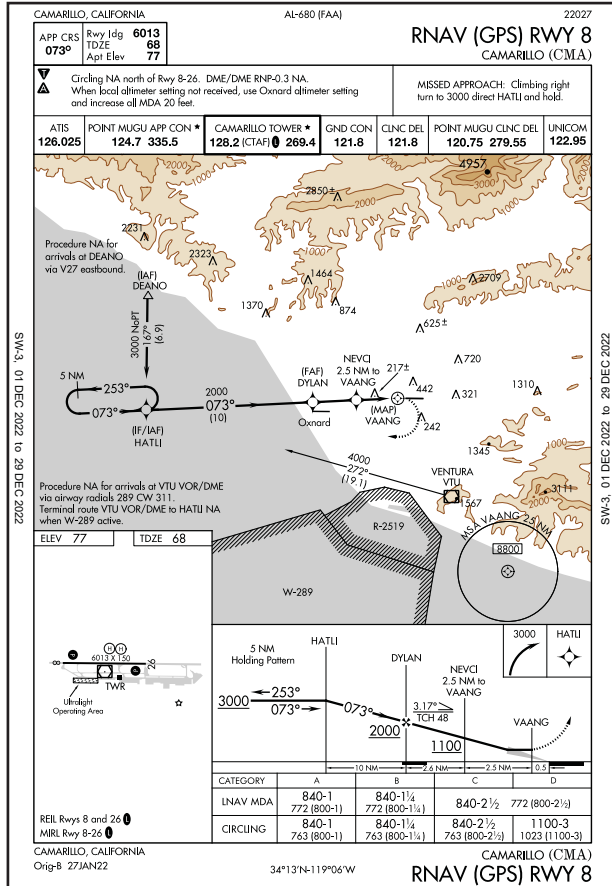
The capability of an instrument approach procedure is defined by the visibility and cloud ceiling minimums associated with the approach. Visibility minimums define the horizontal distance the pilot must be able to see to complete the approach. Cloud ceilings define the lowest level a cloud layer (defined in feet above the ground) can be situated for the pilot to complete the approach. If the observed visibility or cloud ceilings are below the minimums prescribed for the approach, the pilot cannot complete the instrument approach.

The most sophisticated instrument approach procedure at CMA is the RNAV (GPS) Z to Runway 26 which provides for a localizer performance with vertical guidance (LPV) approach. This LPV instrument approach allows for visibility minimums of ¾-mile and cloud ceilings of 250 feet. This instrument approach provides very low minimums, and only an ILS approach (which typically can provide ½-mile visibility and 200-foot cloud ceilings) may have lower minimums. LPV approaches are categorized by the FAA as a non-precision approach, even though they provide vertical guidance. There are several other GPS based instrument approaches available including an approach to Runway 8. **Exhibit 1E** shows the instrument approach plates for the airport, and **Table 1G** summarizes the minimums outlined on those approach plates.

TABLE 1G | Instrument Approach Data

	WEATHER MINIMUMS BY AIRCRAFT TYPE			
	Category A	Category B	Category C	Category D
RNAV (GPS) Z Rwy 26				
LPV-DA Straight-In 26	250'/¾-mile			
RNAV (GPS) Y Rwy 26				
LNAV - MDA	543'/1-mile		543'/1½-mile	543'/1¾-mile
Circling	543'/1-mile		563'/1½-mile	1023'/3-mile
RNAV (GPS) Rwy 8				
LNAV MDA	772'/1-mile	772'/1¼-mile	772'/2½-mile	
Circling	763'/1-mile	763'/1¼-mile	763'/2½-mile	1023'/3-mile
VOR Rwy 26				
Straight-In 26	1023'/1¼-mile	1023'/1½-mile	1023'/3-mile	NA
Circling	1023'/1¼-mile	1023'/1½-mile	1023'/3-mile	NA
Aircraft Categories				
Aircraft categories are based on the approach speed of aircraft, which is determined as 1.3 times the stall speed in landing configuration. The approach categories are as follows:				
Category A:	0-90 knots (e.g., Cessna 172)			
Category B:	91-120 knots (e.g., Beechcraft KingAir)			
Category C:	121-140 knots (e.g., B-737, Regional Jets, Canadair Challenger)			
Category D:	141-166 knots (e.g., B-747, Gulfstream IV)			
Category E:	Greater than 166 knots (e.g., Certain large military or cargo aircraft)			
Abbreviations:				
LPV - Localizer Performance with Vertical Guidance				
VOR - Very High Frequency Omnidirectional Station				
GPS - Global Positioning System				
LNAV/RNAV/VNAV - A technical variant of GPS (Lateral, Area, Vertical Navigation)				
DA - Decision Altitude (Used for vertically guided approaches)				
MDA - Minimum Descent Altitude (Used for non-precision approaches)				
Note: (xxx'/ x-mile) = Visibility (in feet)/Cloud ceiling height (in miles)				

Source: U.S. Terminal Procedures (Effective Nov. 3, 2022)



The approved approaches for the airport are for Categories A, B, C and D aircraft. Category A aircraft are those with approach speeds of less than 91 knots. Category B aircraft have approach speeds of 91 knots or greater, but less than 121 knots. Category C aircraft have approach speeds of 121 knots or greater, but less than 141 knots. Category D aircraft have approach speeds of 141 knots or more but less than 166 knots.

LOCAL OPERATING PROCEDURES

Camarillo Airport is situated at 76.8 feet MSL. The traffic pattern altitude for all single engine aircraft is 800 feet AGL (875 feet MSL) and 1,000-feet AGL (1,075 feet MSL) for multi and turbine engine aircraft. The airport utilizes a non-standard right-hand traffic pattern for Runway 8 and standard left-hand traffic pattern for Runway 26.

Runway use is dictated by prevailing wind conditions. Ideally, it is desirable for aircraft to land directly into the wind. The prevailing wind condition favors Runway 26 the majority of the time. Runway 8 is favored during Santa Ana winds.

The FAA Airport/Facility Directory identifies several conditions for pilots to be aware of in the vicinity of the airport. An unlighted mountain reaching 1,173 feet mean sea level (MSL) is located approximately five miles east of Runway 26. Another peak reaching 1,814 feet is located to the southeast. Also, the proximity of Oxnard Airport and NAS Point Mugu requires an understanding of the local airspace operational condition.

The Ventura County Department of Airports has established several voluntary noise abatement operational procedures in an effort to reduce aircraft noise for helicopters and fixed-wing aircraft. **Exhibit 1F** depicts noise abatement and generalized traffic pattern information for aircraft operating in the vicinity of the airport.

LANDSIDE FACILITIES

Landside facilities, for purposes of this study, are those that are not directly related to the runway and taxiway system or the area airspace. This includes aircraft hangars, aircraft parking aprons, fueling capabilities, and other support services and structures.

AIRCRAFT HANGARS

CMA has a wide range of hangar space on the airfield. In total there is approximately 1.2 million square feet of hangar space. **Table 1H** summarizes the hangar space. Hangar styles available include T-hangars, box/executive hangars, and conventional hangars. T-hangars are smaller hangars that accommodate one individual aircraft and are commonly “nested” with

TABLE 1H | Approximate Hangar Area (sf)

Conventional	558,000
Box/Executive	461,000
T-Hangar/Port-a-Port	189,000
TOTAL	1,208,000

Source: Coffman Associates analysis.

several individual storage units making up a larger T-hangar complex. Port-a-Ports at the airport are classified as T-hangars for this study. Box/executive hangars provide a larger storage space, generally with an area between 2,500 and 8,000 square feet. Conventional hangars are large, clear span hangars that can range in size from 8,000 square feet to more than 20,000 square feet and accommodate multiple aircraft and other aviation-related activities, such as maintenance. At the time of this writing (December 2022), four new conventional hangars were under construction in the northeast quadrant of the airport. These hangars will encompass approximately 100,000 square feet and are included in the total hangar area calculation. **Exhibit 1G** shows a map of the airport with landside facilities identified.

AIRCRAFT APRONS

Aircraft aprons are necessary for outside parking of aircraft. Private hangar developments often also have dedicated apron space. At CMA there are numerous aircraft apron areas as identified on **Exhibit 1H**. **Table 1J** summarizes the apron areas at CMA. In total there is approximately 106,000 square yards of aircraft parking area. There are 183 tie-down positions and four helicopter parking stands.

TABLE 1J | Aircraft Apron Areas

Map ID	Square Yards (Approx.)	Tie Downs	Helo Parking
1	20,000	NA	NA
2	9,000	27	2
3	2,700	11	NA
4	8,000	NA	NA
5	1,300	6	NA
6	6,900	NA	NA
7	8,300	28	NA
8	20,000	73	2
9	20,000	38	NA
10*	10,000	NA	NA
TOTAL	106,200	183	4

*Northeast conventional hangar development apron area estimate.

Source: Coffman Associates analysis.

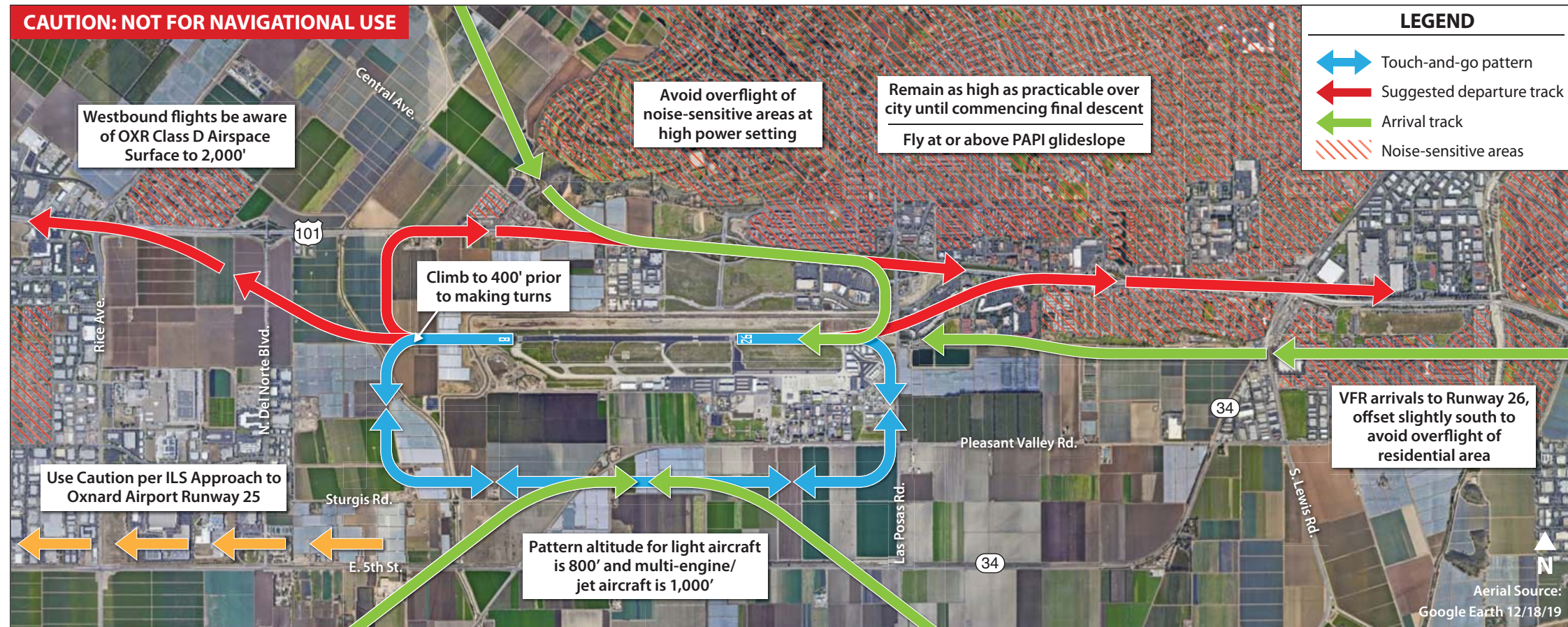
AIRPORT BUSINESSES AND ORGANIZATIONS

Businesses that choose to locate on airport property or adjacent to the airport provide a significant impact not only to the airport, but also to the region. Encouraging businesses to locate in the vicinity of an airport is good practice for several reasons. First, the business will benefit from being near a commerce and transportation hub. Second, the community will benefit because, if planned and executed properly, the airport will develop a buffer of industry and manufacturing that will restrict incompatible land uses, such as residential housing, from locating too close to the airport. Third, business development on and around airports can generate a direct revenue stream to the airport. CMA has done this successfully, leading to airport self-sufficiency.

There is a full range of fixed base operator (FBOs) services and specialty aviation service operators (SA-SOs) located on the airport that provide aviation services, including fueling, line services, aircraft maintenance, rental cars, hangar space/leasing, aircraft parts, flight instruction, aircraft rental and charter services, and other services. These businesses and organizations include:

- **AVEX Aviation** – Full service FBO with fueling services and a pilot supply shop. Specialized FBO with a focus on TBM aircraft sales and maintenance. Exclusive TBM dealer for California, Nevada, Utah, Arizona, New Mexico, and Colorado.

CAMARILLO AIRPORT FLY FRIENDLY PROGRAM



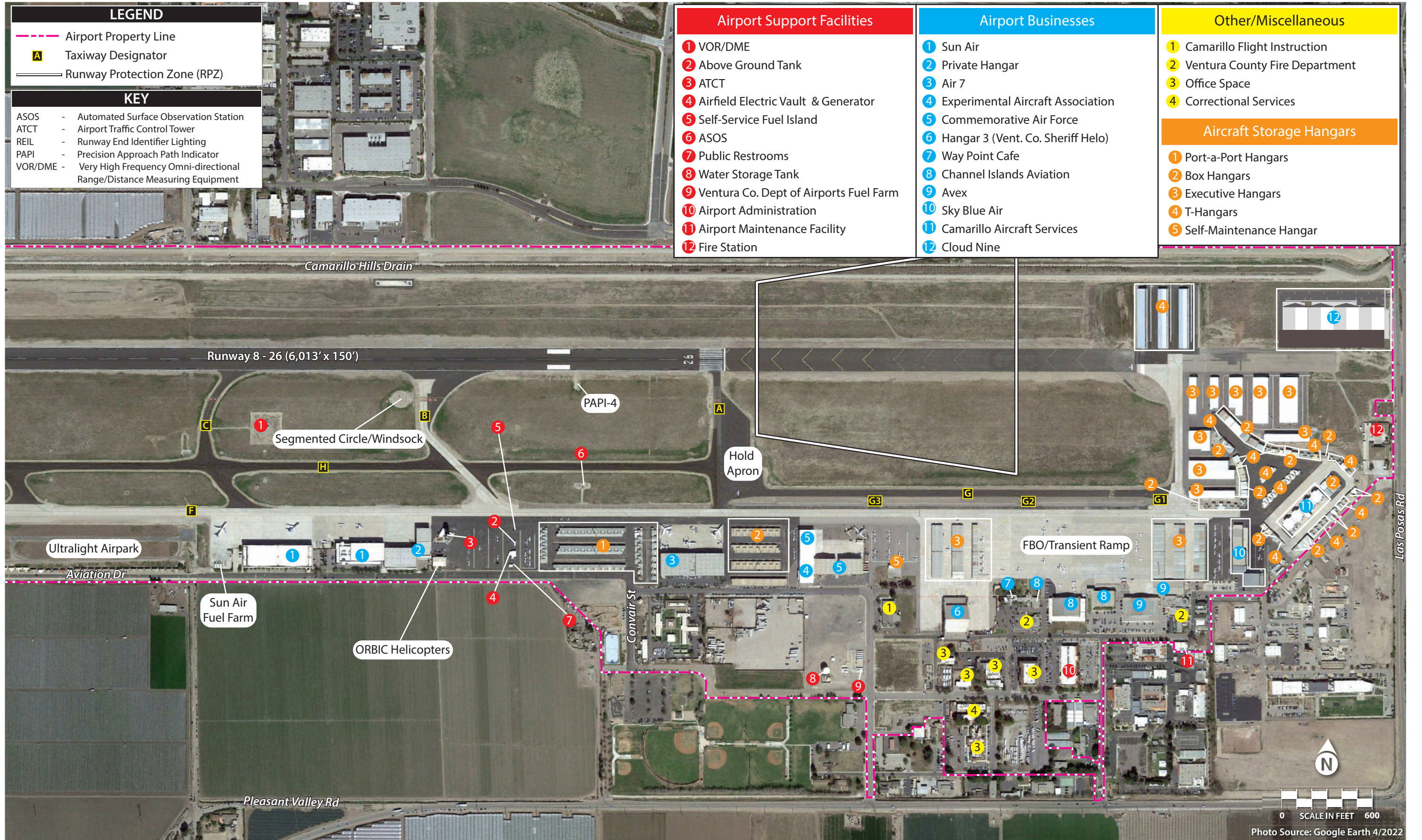
RECOMMENDED VOLUNTARY NOISE ABATEMENT PROCEDURES:

The airport environs are noise-sensitive in all quadrants. Aircraft operators are requested to practice noise abatement fly quiet procedures whenever possible consistent with safety.

- No aircraft departures between 0000-0500 without prior approval from the Airport Director.
- Remain as high as practicable over residential areas during overflight, approaches, and departures.
- Use best rate of climb when departing any runway.
- No formation takeoffs or landings without prior permission from the Airport Director.
- Utilize low energy approaches.
- North traffic fly downwind over Highway U.S. 101.
- Fly at or above PAPI glide slope on final approach.
- When departing Runway 8, use best rate of climb and when altitude permits turn so as to avoid residential overflight before proceeding on course.
- When the control tower is closed, arrivals to Runway 8 should plan RIGHT downwind to avoid overflight of city.
- Exercise extreme caution when departing Runway 8 due to opposite direction instrument approach traffic.
- Runway 8 arrivals use RIGHT traffic to avoid overflight of the City.
- Late night arrivals use GPS Runway 8 approach when wind, weather, and safety permit.
- Runway 8 departure to the east fly over Highway U.S. 101.
- When departing Runway 26, remain on runway heading until beyond the departure end of runway and reaching 400' before proceeding on course.
- When flying straight-in visual approaches to Runway 26, remain at or above PAPI glide path and avoid overflight of noise-sensitive areas north of extended centerline.
- Aircraft should depart on Runway 26 when practicable.
- Follow all ATC instructions.
- Aircraft over published runway weight limit shall contact airport administration for approval and instructions.
- No aircraft operations allowed by aircraft weighing over 115,000 pounds except for emergencies.

Compliance with recommended noise abatement procedures is encouraged. No procedure should be allowed to compromise flight safety.

555 Airport Way, Suite B, Camarillo, California 93010 • phone: 805-388-4372 • vcairports.org/camarillo-airport-noise-abatement-procedures • September 2022



LEGEND	
	Airport Property Line
	Taxiway Designator
	Runway Protection Zone (RPZ)

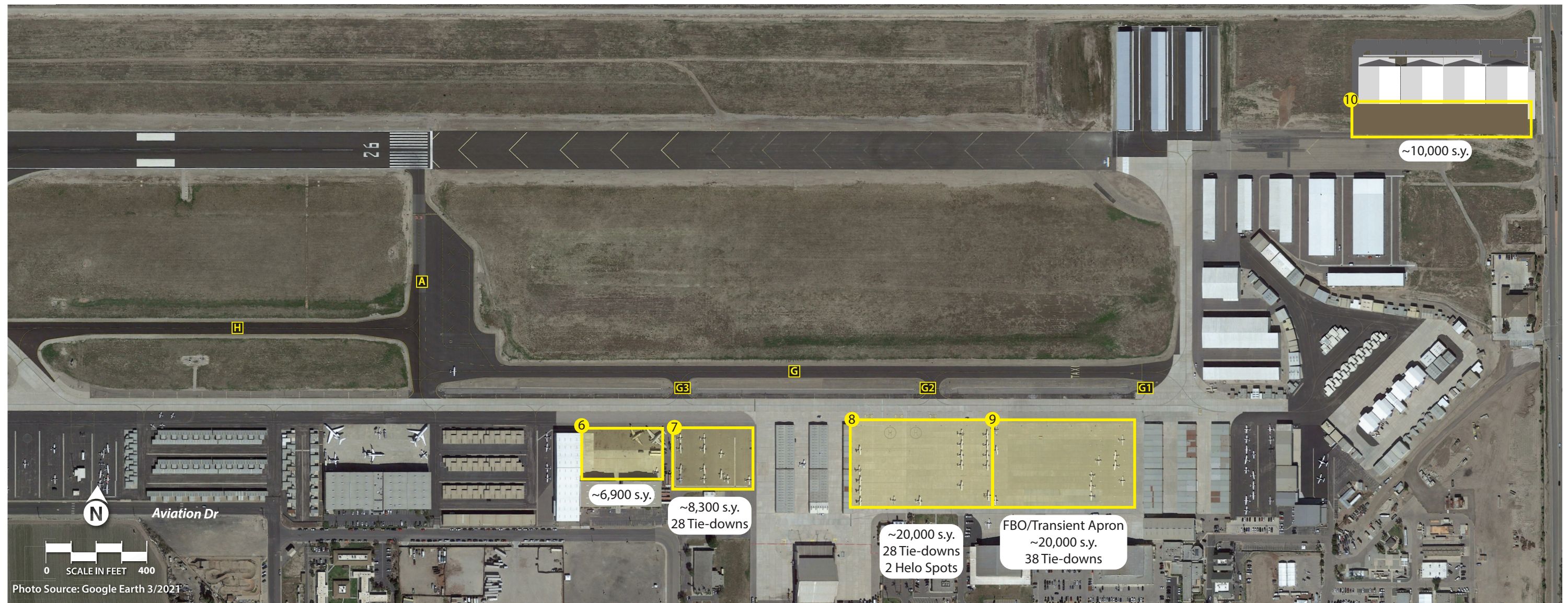
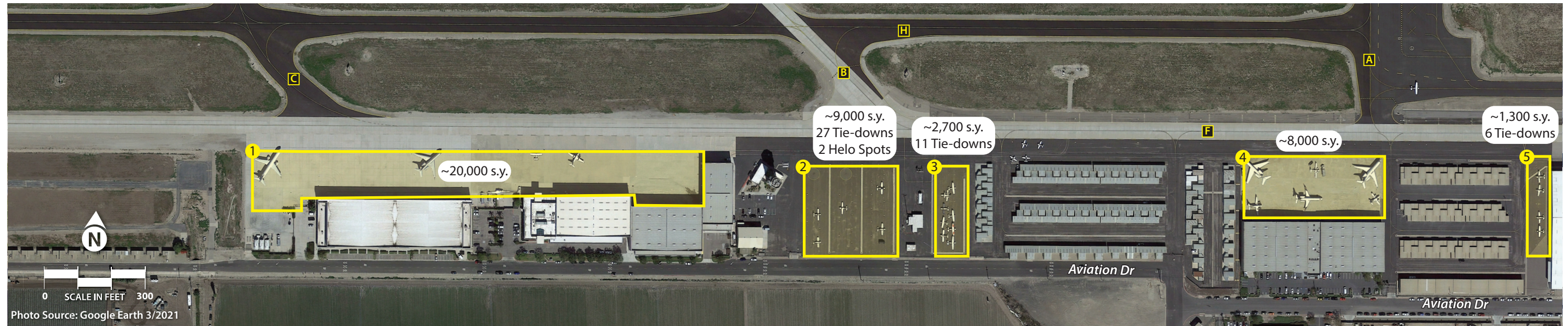
KEY	
ASOS	- Automated Surface Observation Station
ATCT	- Airport Traffic Control Tower
REIL	- Runway End Identifier Lighting
PAPI	- Precision Approach Path Indicator
VOR/DME	- Very High Frequency Omni-directional Range/Distance Measuring Equipment

Airport Support Facilities	
1	VOR/DME
2	Above Ground Tank
3	ATCT
4	Airfield Electric Vault & Generator
5	Self-Service Fuel Island
6	ASOS
7	Public Restrooms
8	Water Storage Tank
9	Ventura Co. Dept of Airports Fuel Farm
10	Airport Administration
11	Airport Maintenance Facility
12	Fire Station

Airport Businesses	
1	Sun Air
2	Private Hangar
3	Air 7
4	Experimental Aircraft Association
5	Commemorative Air Force
6	Hangar 3 (Vent. Co. Sheriff Helo)
7	Way Point Cafe
8	Channel Islands Aviation
9	Avex
10	Sky Blue Air
11	Camarillo Aircraft Services
12	Cloud Nine

Other/Miscellaneous	
1	Camarillo Flight Instruction
2	Ventura County Fire Department
3	Office Space
4	Correctional Services

Aircraft Storage Hangars	
1	Port-a-Port Hangars
2	Box Hangars
3	Executive Hangars
4	T-Hangars
5	Self-Maintenance Hangar



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- **AIR7** – Full service FBO with fueling services, aircraft charter, aircraft sales, and aircraft management.
- **Channel Island Aviation** - Full service FBO with fueling services, flight training (Part 141), pilot lounge, conference room, hangar and office leasing, concierge services, aircraft maintenance and avionics, and charter service.
- **Sun Air Jets** – Full service FBO with fueling services, private jet charter service, aircraft management, executive terminal and hangars, and aircraft maintenance.
- **Camarillo Flight Instruction** – Flight instruction offering private pilot, commercial, CFI/CFII.
- **Brett Lee Aviation** – Aircraft maintenance.
- **Aviation Instruction** – Flight instruction and simulator training center.
- **Orbic Helicopters** – Robinson helicopter R22 and R44 flight instruction, sales and service, and aerial tours.
- **Camarillo Aircraft Service** – Aircraft maintenance.
- **ATP USA, Inc.** – Flight instruction.
- **Skydive Coastal California** – Skydiving center.
- **Skyriders Ultralights** – USUA Ultralight flight training and checkouts.
- **SBEL Worldwide Jet Charter** – Aircraft charter service.
- **Waypoint Café** – An on-field restaurant with access from both the road network and the aircraft apron.
- **American Aeronautical Foundation** – Restoration and operations of antique aircraft.
- **Experimental Aircraft Association** – National association promoting and supporting flying, building, and restoration of recreational aircraft.
- **Civil Air Patrol Squadron 61** – A volunteer organization of citizen pilots committed to carrying out emergency missions when needed, both in the air and on the ground.
- **Commemorative Air Force** – All volunteer, non-profit organization dedicated to preserving, in flying condition, a complete collection of all combat aircraft flown in WWII.
- **Ventura County Sheriff's Aviation Unit** – A joint venture between the Fire District and the Sheriff's Office providing for public safety. Utilizing a fleet of five helicopters, the missions vary between law enforcement, search and rescue, emergency medical services, and fire suppression.

FUEL STORAGE

The airport currently has 12 above ground fuel storage tanks. Seven of the fuel tanks are owned by the County of Ventura Department of Airports and are located in the consolidated fuel farm near the intersection of Durley Avenue and Aviation Drive. All fuel storage tanks in the fuel farm are 12,000-gallon capacity tanks: three are utilized for 100LL Avgas storage and four for Jet A fuel storage. All tanks are leased to airport FBOs. The FBO's are currently working to supply non-leaded aviation fuels, which will require dedicated storage tanks.

The airport also has five additional above ground fuel storage tanks that are privately owned and maintained. AVEX maintains two storage tanks: one 20,000-gallon capacity tank for Jet A storage and a 10,000-gallon capacity tank for 100LL Avgas storage. Sun Air Jets operates three 20,000-gallon capacity above ground storage tanks for Jet A storage. The final tank is owned by Avex Aviation and is utilized for self-fueling services and it is located adjacent to the ATCT.

UTILITIES

The utility system at Camarillo Airport includes existing water, electric, sanitary sewer, telephone/fiber, and natural gas systems. Water services are provided by the City of Camarillo. Sanitary sewer services are provided by Ventura County. Natural gas and electricity are provided by The Gas Company and Southern California Edison. Telephone services are provided by multiple providers.

AIRPORT MAINTENANCE FACILITY

The airport maintenance facility is the southeastern portion of the terminal area on Durley Avenue. The maintenance shop building is 4,280 square feet, while the storage yard provides another 7,500 square feet of space.

FIRE FIGHTING CAPABILITIES

As a general aviation airport, CMA is not required to have on-field firefighting capabilities. Fire Station 50 is located at the eastern end of the airport, on airport property. It has direct access to Las Posas Road and gate access to the airport. Station 50 responds not only to airport emergencies but also to the western portion of the City of Camarillo and unincorporated portions of the Oxnard Plain. The original fire station was inherited from the U.S. Air Force and leased at no cost to the fire district in exchange for fire protection on the airport. The original fire station, constructed in 1954, was replaced with a new modern facility at its current location in 2001.

Fire Station 50 is currently the district's hazardous materials response station. A paramedic squad is also stationed at this facility. The station houses a pumper (Engine 50); a crash truck (Crash 50); a tractor-trailer Haz-Mat unit; a foam unit pick-up truck; and a utility pickup truck. The station is staffed daily by five firefighters.

FENCING

The airport's perimeter consists of six-foot high chain-link fencing, topped with three-strand barbed-wire. There are access gates in various locations to prevent inadvertent access by unauthorized personnel. The gates are operated by access cards issued by the Department of Aviation to authorized tenants and employees.

ADDITIONAL AIRPORT DOCUMENTS

The airport maintains several procedural documents which provide guidance for airport management on airport issues. The following is a brief description of the major documents.

Spill Prevention Plan: Camarillo Airport has procedures in place to direct airport staff in case of a chemical or fuel spill. These procedures and policies are outlined in the Storm Water Pollution Prevention Program (SWPPP) document. Camarillo Airport also has an approved Spill Prevention, Control, and Countermeasure (SPCC) Plan.

Noise Compatibility Study: In 1999, the airport completed a 14 CFR Part 150 Noise Compatibility Study. The results of the study provide airport administration with guidance on how to mitigate the impacts of aircraft noise on airport neighbors. The procedures developed in this study have been advertised to the pilot community and air traffic control personnel. **Exhibit 1F** depicts the recommended traffic patterns to minimize noise impacts on neighboring noise-sensitive land uses. Concurrent with this ALP Update, the airport is conducting an update to the Part 150 Noise Compatibility Study.

Rules and Regulations: The airport maintains Minimum Operating Standards which provide rules and guidelines for commercial activity conducted on the airport by tenants. The Rules and Regulations for Camarillo Airport apply to all airport tenants for both airside and landside operations. The Minimum Operating Standards are intended to be the threshold entry requirements for those wanting to provide aeronautical services to the public. Ordinance No. 4342 supplements the Minimum Operating Standards and provides operational rules and regulations. The rules set forth in the Ordinance are intended to maintain a reasonable, safe, and efficient use of the airport as well as to protect the surrounding communities and environment.

Rates and Fees: Airport management publish on an annual basis, the current rates and fees charged for airport leases and other services. As of 2022, airport owned hangar and shop space leased for \$0.40 per square foot per month. Office space associated with hangars is \$0.50 per square foot per month, and apron space is \$0.0886 per square foot per month. Aeronautical ground lease space is \$0.975 per square foot per year and is discounted 35 percent due to being restricted to aviation use only. Non-aviation land rent is \$1.50 per square foot per year. The airport charges for use of tie-down positions and the transient apron. Landing fees are assessed for aircraft over 12,500 pounds.

AREA LAND USE

Existing and planned land uses surrounding airports can have a significant impact on airport operations and growth. Understanding the land use issues surrounding CMA will assist in making appropriate recommendations for the future sustainability of the airport in the way of both environmental compatibility and economic development.

EXISTING LAND USE

The airport is located on the western end of the City of Camarillo, California. The airport is surrounded by a variety of land uses, including industrial, agriculture, commercial, and residential developments. To the immediate northwest, west, and southwest, land use is primarily agricultural. To the north and north-east (South of the Ventura Freeway) are commercial and industrial land uses. To the immediate east and southeast are more commercial and industrial uses.

AREA ZONING

The City of Camarillo's Zoning Ordinance, which is administered by the Community Development Department, was adopted by the City Council in 1976 and is updated from time to time. It controls the size of parcels, height of buildings, and landscaping of structures such as fences, buildings, garages, and additions to houses and businesses. The Zoning Ordinance specifies the types of land uses allowed in different parts of the city. The Zoning Ordinance is designed to protect city residents from conflicting activities being conducted near their homes and businesses.

All land in the City of Camarillo is zoned for either residential, commercial, industrial, agricultural, or open space purposes. The Zoning Ordinance describes specific purposes for which land in each zoning category may be used. Specific development conditions may also be mandated by the General Plan, such as the Community Design Element or Scenic Highways Element. Some uses are permitted as a matter of right, while others require a planned development permit or conditional use permit.

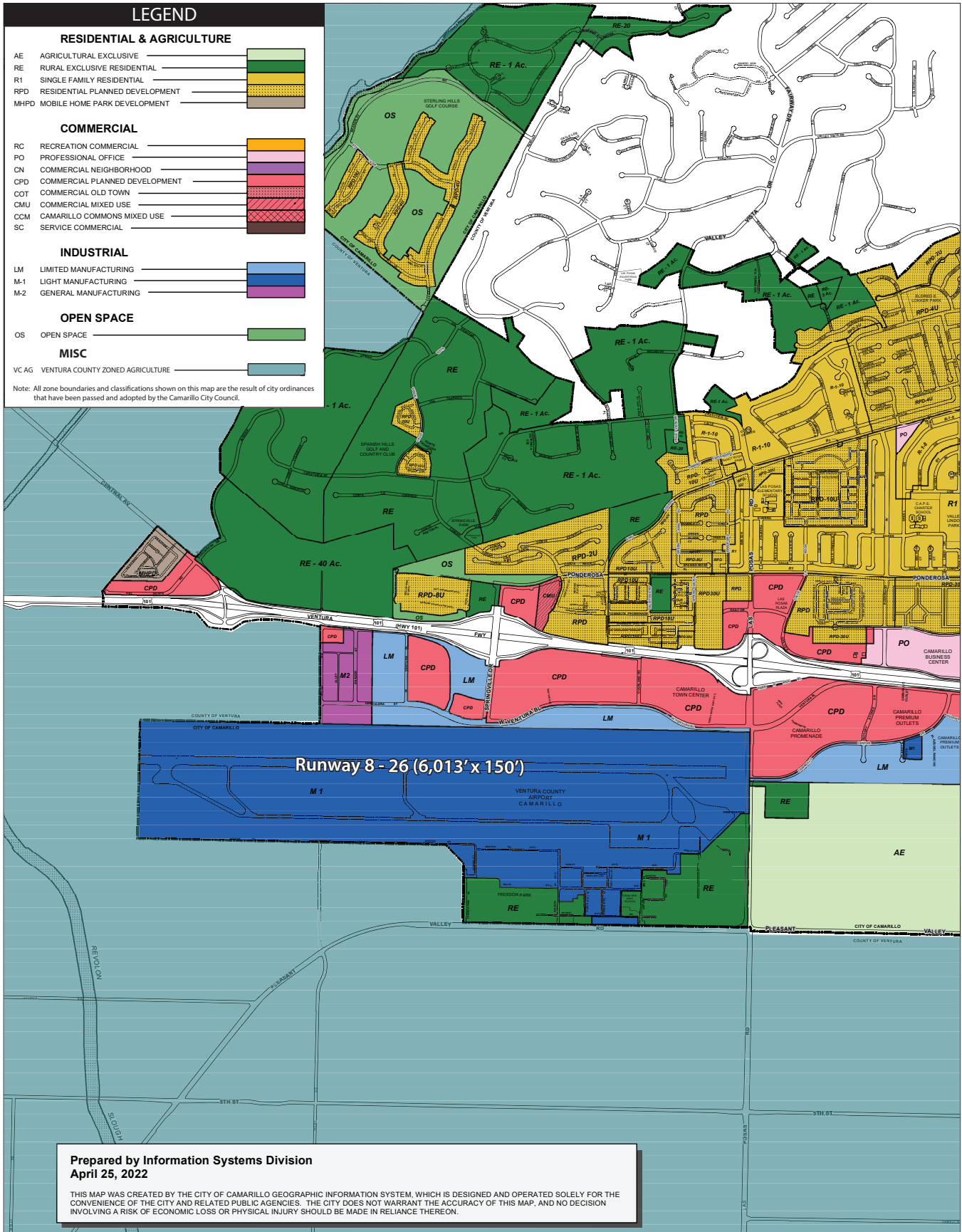
Exhibit 1J shows the City of Camarillo Zoning Map in the area immediately surrounding the airport. The lands surrounding the west end of the airport are Ventura County and are zoned for agricultural purposes.

HEIGHT AND HAZARD ZONING

Height and Hazard zoning is necessary to ensure that objects will not impair flight safety or decrease the operational capability of the airport. Title 14 of the Code of Federal Regulations (CFR) Part 77, *Objects Affecting Navigable Airspace*, defines a series of imaginary surfaces surrounding airports. The imaginary surfaces consist of the approach zone, conical zones, transitional zones, and horizontal zones. Objects such as trees, towers, buildings, or roads, which penetrate any of these surfaces, are considered by the FAA to be an obstruction to air navigation. Current City of Camarillo zoning and land use ordinances adhere to and support the height restriction guidelines as set forth in 14 CFR Part 77. Height restrictions can be accomplished through height and hazard zoning, aviation easements, or fee simple acquisition.

AIRPORT LAND USE COMPATIBILITY PLAN

Airport land use commissions (ALUCs) were first established under the *California State Aeronautics Act* in 1967. Although the law has been amended numerous times since then, the fundamental purpose of ALUCs to promote land use compatibility around airports has remained unchanged. The statute gives



Prepared by Information Systems Division
April 25, 2022

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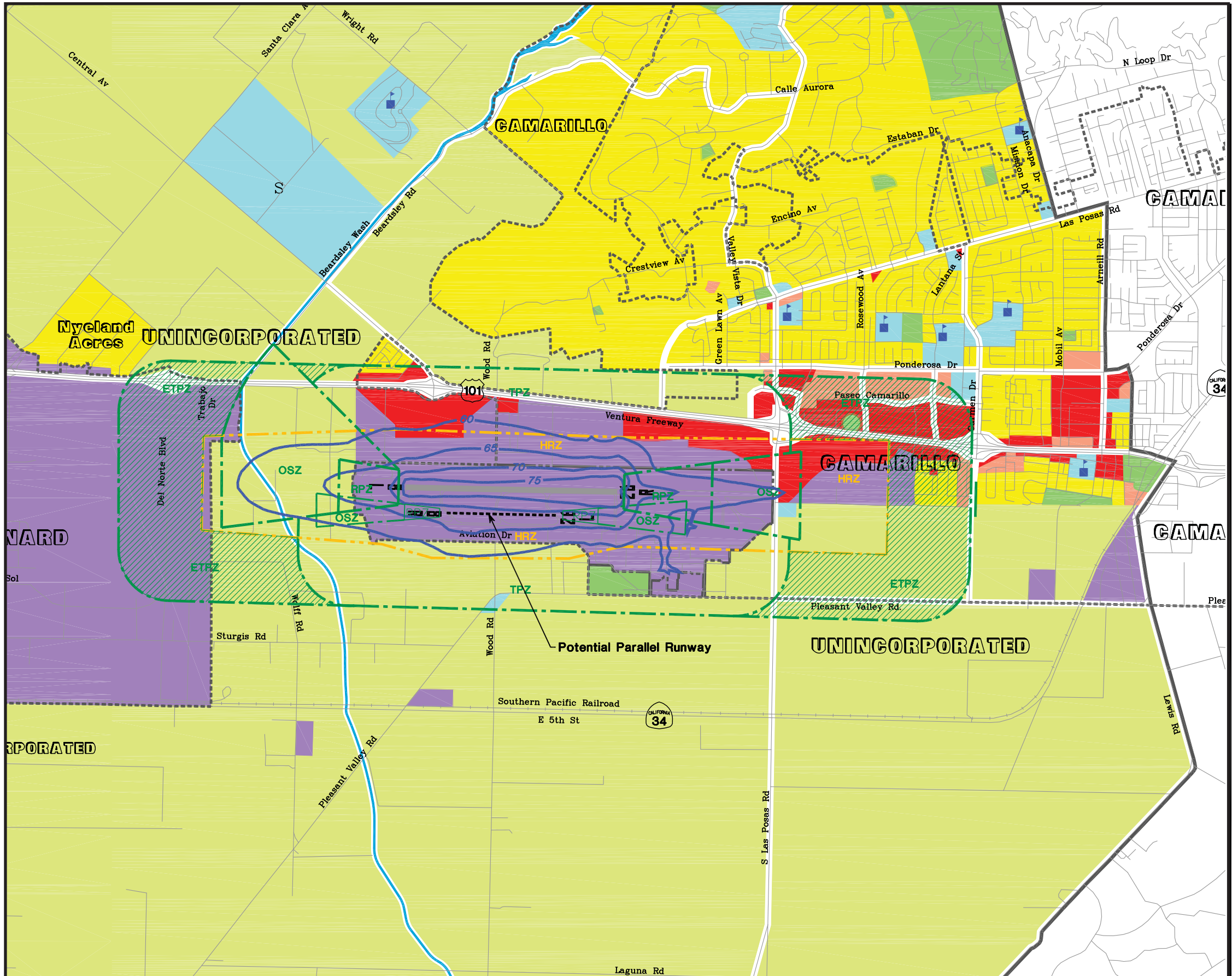
ALUCs two principal powers by which to accomplish this objective. First, ALUCs must prepare and adopt an airport land use compatibility plan. Secondly, they must review the plans, regulations, and other actions of local agencies and airport operators for consistency with that plan.

The ALUCs are somewhat limited in their enforcement power. The statute specifically says that ALUCs have no authority over either existing land uses or the operation of airports. Local general plans are the primary mechanism for implementing the compatibility policies set forth in the ALUCs plan. State law allows for the county board of supervisors to designate an existing body to fulfill the role of the ALUC instead of creating an entirely new entity. The Ventura County Transportation Commission (VCTC) has been designated by the Board of Supervisors to act as the ALUC for the county.

On July 7, 2000, the VCTC adopted the Airport Comprehensive Land Use Plan for Ventura County (ACLUP). The ACLUP included the four airports located in the county. **Exhibit 1K** presents the approved compatibility map associated with Camarillo Airport. This map and the recommendations for land use compatibility have subsequently been included in the City of Camarillo Zoning Code (Article VI, Chapter 19.170, Airport Protection Overlay Zone [AP]) as of March 2006.

The compatibility map defines several zones and provides recommended land uses. A summary of the recommended land uses by zones are as follows:

- Runway Protection Zone (RPZ) – should be free of any land uses that will generate congregations of people on the ground. Unacceptable uses include residential, public/institutional, commercial, industrial (except utilities and auto-mobile parking), and recreation/open space (with the exception of golf courses).
- Outer Safety Zone (OSZ) – Roughly corresponds to the 14 CFR Part 77 approach surface extending between the RPZ and the base of the 14 CFR Part 77 horizontal surface. The size of this area will differ based on the type(s) of instrument approach(es) and local operating procedures. For example, the Camarillo OSZ was enlarged to cover the area beneath a commonly used right turning flight track on Runway 26 departures. Residential and public/institutional uses are unacceptable in the OSZ. Some commercial, industrial, transportation, communication, utilities, and recreation/open space uses are conditionally acceptable pursuant to meeting specific guidelines. Conditionally acceptable uses should have aviation easements and fair disclosure agreements.
- Traffic Pattern Zone (TPZ) – Roughly rectangular area centered on the airport. It is an area commonly traversed by low altitude aircraft overflights and touch-and-go traffic in the pattern. At Camarillo, the TPZ extends 3,400 feet to either side of the runway. Most land uses are conditionally acceptable in the TPZ including residential, commercial, and industrial uses; whereas, some uses are fully acceptable including transportation terminals, utilities, automobile parking, and most outdoor recreational/open space uses with the exception of those creating large gatherings of the public (sports arenas, amphitheaters, etc.). Public/institutional uses are unacceptable in the TPZ. Conditionally acceptable uses should have aviation easements and fair disclosure agreements.
- Extended Traffic Pattern Zone (ETPZ) – Based on the area which is beneath the extended traffic pattern on a typical or average busy day at the airport. All land uses are acceptable in the ETPZ; however, some uses are conditionally acceptable. Conditionally acceptable uses should have aviation easements and fair disclosure agreements.

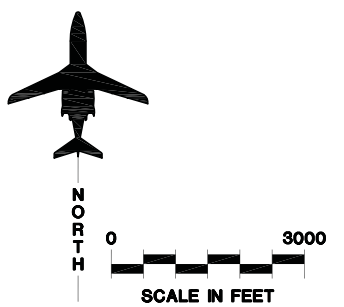


LEGEND

- Detailed Land Use Study Area
 - - - Municipal Boundary
 - Airport Property
 - - - Potential Parallel Runway ●
 - Composite CNEL Contour (2003,2018)
 - RPZ Runway Protection Zone
 - OSZ Outer Safety Zone
 - HRZ Height Restriction Zone
 - TPZ Traffic Pattern Zone
 - ETPZ Extended Traffic Pattern Zone
- Future Land Use Per General Plan**
- Low Density Residential
 - Medium/High Density Residential
 - Commercial
 - Industrial
 - Agriculture
 - Parks/Natural Open Space
 - Public/Quasi-Public
 - Schools
 - Future School Site

Source: Future land use from City of Camarillo, 1996, City of Oxnard, 1990.

● The parallel runway is being included in the CLUP for information purposes only.



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SOCIOECONOMIC CHARACTERISTICS

Socioeconomic characteristics provide valuable information and insight about growth and the economic well-being of the study area. This information can contribute to the understanding and determination of the aviation service level requirements, as well as forecasting future operation and based aircraft levels. Trends in population, employment, and personal income are traditional variables used in aviation demand forecasting as outlined in FAA Advisory Circular 150/5070-6B, *Airport Master Plans*, which also provides guidance for ALP Updates. The AC identifies several suitable sources of socioeconomic data including *The Complete Economic and Demographic Data Source* by Woods & Poole Economics. **Table 1K** summarizes historical data for both Ventura County and the State of California for three commonly utilized parameters.

TABLE 1K | Historical Demographic Data

Local	YEAR				CAGR 2000-2022
	2000	2010	2020	2022	
Population					
Ventura County	756,506	825,144	842,921	843,696	0.50%
State of California	33,987,977	37,319,550	39,499,738	39,522,028	0.69%
Employment					
Ventura County	395,385	424,867	448,378	484,907	0.93%
State of California	19,228,897	19,642,445	22,743,903	24,923,822	1.19%
PCPI					
Ventura County	\$43,743	\$47,893	\$60,508	\$61,051	1.53%
State of California	\$42,784	\$45,170	\$62,897	\$62,867	1.76%

CAGR: Compound Annual Growth Rate
 PCPI: Per Capita Personal Income (\$2012)

Source: The Complete Economic and Demographic Data Source, Woods and Poole, 2022.

ENVIRONMENTAL INVENTORY

This environmental inventory addresses existing conditions at Camarillo Airport and its environs. The inventory is intended to help identify relevant environmental issues that should be considered during the preparation of the Airport Layout Plan narrative report. The inventory is organized using the resource categories contained in FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures* (2015). Available information regarding the environmental conditions at the airport and within the surrounding area has been derived from internet resources, agency maps, and existing literature. A comprehensive list of the resources is included in this section.

AIR QUALITY

The concentration of various pollutants in the atmosphere describes the local air quality. The significance of a pollution concentration is determined by comparing it to the state and federal air quality standards. The National Ambient Air Quality Standards (NAAQS) consist of primary and secondary standards set by the United States (U.S.) Environmental Protection Agency (U.S. EPA) for the following criteria pollutants: ozone (O₃), carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), coarse particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), and lead (Pb).

Based on the NAAQS, 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. The airport is in South Central Coast air basin, which is managed by the Ventura County Air Pollution Control District (VCAPCD). Ventura County is in nonattainment for the federal 8-hour O₃ 2008 and 2015 standards (Serious) under the NAAQS (as of November 30, 2022).¹

BIOLOGICAL RESOURCES

Biotic resources include the various types of plants and animals that are present in an area. The term also applies to rivers, lakes, wetlands, forests, and other habitat types that support plants and animals. The most common vegetative community at the airport is ruderal vegetation, which is widespread due to regular mowing and high traffic uses of the airport infield. Ruderal areas were observed in and around drainage basin, along the taxiway and runway shoulders, bordering developed areas, and along the engineered channel of the Camarillo Hills drain.

Other vegetative communities include annual brome grassland within the infields. Vegetation within this type of habitat consists primarily of non-native and naturalized annual species, including wild oats (*Avena fatua*), softchess brome (*Bromus hordeacous*), rip-gut brome (*Bromus diandrus*), Bermuda grass (*Cynodon dactylon*), and foxtail (*Hordeum murinum*). Native grass species observed in this habitat consists of giant wild rye (*Elymus condensatus*) and creeping wild rye (*Elymus triticoides*).

The Camarillo Hills Drain, an earthen flood control channel that is partially covered with concrete and/or rock slope protection, is located along the northern and western airport boundary. Additionally, the Camarillo Hills Drain supports hydrologic conditions that are appropriate for coastal and valley freshwater marsh and a few coastal freshwater marshes that sporadically occur within the drain. However, these sporadic occurrences of hydrophytic plants are not contiguous and therefore, do not constitute a vegetative community.

U.S. Fish and Wildlife Service (USFWS) is charged with overseeing the requirements contained within Section 7 of the federal *Endangered Species Act* (ESA). The ESA was put into place to protect animal or plant species whose populations are threatened by human activities. Along with FAA, USFWS reviews projects to determine if a significant impact to protected species would result from a proposed project. Significant impacts occur when a proposed action could jeopardize the continued existence of a protected species or would result in the destruction or adverse modification of federally designated critical habitat in the area.

In November 2022 a reconnaissance-level biological survey of the airport was conducted by a qualified biologist to determine the presence of endangered and/or threatened species, other special-status species, or their habitat. According to the USFWS Information for Planning and Consultation (IPaC) resources report, 11 federally listed plant or wildlife species have a potential to occur within the airport property (**Table 1L**). As shown in the table, it is unlikely for any of these species to occur at the airport due to a lack of suitable habitat conditions or known occurrences. In addition, no designated critical habitat is present.

¹ U.S. EPA, Green Book, California Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants (https://www3.epa.gov/airquality/greenbook/anayo_ca.html)

TABLE 1L | Federally Listed Species Investigated for Potential Occurrence - Camarillo Airport

Species Name (<i>Scientific name</i>)	Habitat and Distribution ¹	Federal Legal Status	Potential for Occurrence within Airport
Flowering Plants			
marsh sandwort (<i>Arenaria paludicola</i>)	A perennial herb that occurs in marshes and swamps at elevations of 33-558 ft (amsl).	Endangered	None. No suitable habitat present or occurrences.
spreading navarretia (<i>Naverretia fossalis</i>)	An annual herb that occurs in chenopod scrub, marshes and swamps, playas, and vernal pools at elevations of 100-2,150 ft amsl.	Threatened	None. No suitable habitat present or occurrences.
California Orcutt grass (<i>Orcuttia californica</i> var. <i>californica</i>)	An annual herb that occurs in vernal pools at elevations of 50-2,165 ft amsl.	Endangered	None. No suitable habitat present or occurrences.
Gambel's watercress (<i>Rorippa gambellii</i>)	A rhizomatous herb that occurs in marshes and swamps with fresh or brackish water at elevations of 10-164 ft amsl.	Endangered	None. No suitable habitat present or occurrences.
Branchiopods			
vernal pool fairy shrimp (<i>Branchinecta lynchi</i>)	Vernal pool habitats, including depressions in sandstone, to small swale, earth slump, or basalt-flow depressions with a grassy or, occasionally, muddy bottom in grassland.	Threatened	None. No suitable vernal pool habitat present.
Riverside fairy shrimp (<i>Streptocephalus woottoni</i>)	Seasonal pools filled by winter/spring rains. Hatch in warm water later in season.	Endangered	None. No suitable aquatic habitat present.
Insects			
monarch butterfly (<i>Danaus plexippus</i>)	A migratory species found in a variety of habitats; monarch butterfly requires milkweed (<i>Asclepias</i> 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).	Candidate	Potential for occurrence. Roosting habitat (such as trees) may be present at the airport. Additional habitat surveys may be necessary to determine the presence of this species or its habitat.
Birds			
marbled murrelet (<i>Brachyramphus marmoratus</i>)	Offshore or near-shore aquatic environments near coniferous forests.	Threatened	None. No suitable habitat present.
southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	Riparian woodlands of southern California with habitat patches at least 0.25 acres in size and at least 30 ft wide.	Endangered	None. No suitable habitat present.
coastal California gnatcatcher (<i>Polioptila californica californica</i>)	Permanent resident in coastal sage scrub habitats of southern California, typically below 2,500 ft amsl.	Threatened	None. No suitable habitat present.
least Bell's vireo (<i>Vireo bellii pusillus</i>)	Low riparian areas in the vicinity of water or in dry river bottoms below 2,000 ft amsl. Nests along the margins of bushes or twigs of willow, Baccharis or mesquite.	Endangered	None. No suitable habitat present.
yellow-billed cuckoo (<i>Coccyzus americanus</i>)	Riparian woodland, especially in dense stands of cottonwood and willow, as well as mesquite and salt cedar in some areas.	Threatened	None. No suitable habitat present.
California condor (<i>Gymnogyps californianus</i>)	Open or semi-open grasslands and woodlands, rocky open scrubland, coniferous and deciduous forests, and coastal dunes. Nests along cliffs, rocky outcrops, and large trees.	Endangered	None. No suitable habitat present. The project area does not contain nesting habitat for the species, and individual condors are likely to avoid the airport due to aviation activity. In addition, any carrion present within the active areas of the airport is removed by airport maintenance staff.

¹ Habitat and distribution data provided by California Natural Diversity Database.
ft = feet; amsl = above mean sea level

Source: SWCA Environmental Consultants, 2022_. *Biological Resources Assessment for the Camarillo Airport Layout Plan, Camarillo, Ventura County, California*; U.S. Fish & Wildlife Service – IPaC resource list (<https://ipac.ecosphere.fws.gov/location/HR5UBEL2WFB2ZMGIPVMYH7UTHQ/resources>)

Additional federal laws that may be applicable to the airport are the *Bald and Golden Eagle Protection Act* (BGEPA) and the *Migratory Bird Treaty Act* (MBTA), which prohibit activities that would harm eagles and other migratory birds, their eggs, or nests. Birds protected under the BGEPA or MBTA may nest, winter, or migrate throughout the area. Under the requirements of the BGEPA and MBTA, all project proponents are responsible for complying with the appropriate regulations protecting birds when planning and developing a project.

The IPaC report lists several migratory bird species that are identified by the USFWS as Birds of Conservation Concern (BCC) (meaning that they are migratory, non-game birds that, without additional conservation actions, are likely to become candidates for listing under the ESA). These birds may nest and/or forage at the airport (**Table 1M**) and include 17 different species.

TABLE 1M | Birds of Conservation Concern Protected Under the *Migratory Bird Treaty Act* - Camarillo Airport

Species Name	Scientific Name	Breeding Season
Allen’s hummingbird	<i>Selasphorus sasin</i>	February 1 to July 15
bald eagle	<i>Haliaeetus leucocephalus</i>	January 1 to August 31
Belding’s savannah sparrow	<i>Passerculus sandwichensis beldingi</i>	April 1 to August 15
Bullock’s oriole	<i>Icterus bullockii</i>	March 21 to July 25
California gull	<i>Larus californicus</i>	January 1 to July 31
California thrasher	<i>Toxostoma redivivum</i>	January 1 to July 31
common yellowthroat	<i>Geothlypis trichas sinuosa</i>	May 20 to July 31
Lawrence’s goldfinch	<i>Carduelis lawrencei</i>	March 20 to September 20
marbled godwit	<i>Limosa fedoa</i>	Breeds elsewhere
Nuttall’s woodpecker	<i>Picoides nuttallii</i>	April 1 to July 20
oak titmouse	<i>Baeolophus inornatus</i>	March 15 to July 15
olive-sided flycatcher	<i>Contopus cooperi</i>	May 20 to August 31
short-billed dowitcher	<i>Limnodromus griseus</i>	Breeds elsewhere
tricolored blackbird	<i>Agelaius tricolor</i>	March 15 to August 10
western grebe	<i>Aechmophorus occidentalis</i>	June 1 to August 31
willet	<i>Tringa semipalmata</i>	Breeds elsewhere
wrentit	<i>Chamaea fasciata</i>	March 15 to August 10

Source: USFWS, Information for Planning and Consulting (<https://ipac.ecosphere.fws.gov/location/HR5UBEL2WFB2ZMGIPVMYH7UTHQ/re-sources>) December 2022

Additionally, there are some bird species like the burrowing owl (*Athene cunicularia*), California horned lark (*Eremophila alpestris actia*), and northern harrier (*Circus cyaneus*) that are protected by both the *Migratory Bird Treaty Act* (MBTA) and by state law as Species of Special Concern.

There are four known documented occurrences of the burrowing owl at the airport, according to California Natural Diversity Database (CNDDB) records. The burrowing owl prefers open grasslands, prairies, and occasionally, open areas such as vacant lots. It spends much of its time on the ground or on low perches and nests in abandoned burrows, such as prairie dog, ground squirrels, fox, or woodchuck burrows. In California, the breeding season for the burrowing owl occurs between February 1 and August 31; however, there has been documentation of breeding in December. The burrowing owl is typically present in coastal California during the wintering season or the non-breeding season (September 1 to

January 31).² The documented occurrences of burrowing owl on and near the airport occurred in December, January, February, and March. A burrowing owl observed on and near the airport has been seen utilizing California ground squirrel burrows as a place to roost.

Suitable foraging and nesting habitat (i.e., short grass prairies, coastal plains, and fallow fields) for the California horned lark is also present. Northern harrier was observed during the field survey and foraging habitat is present; however, suitable nesting substrate (i.e., shrubby vegetation) for northern harrier is not present at the airport. Preconstruction surveys for these MBTA-protected species are recommended to avoid potential impacts as the burrowing owl and northern harrier are known to utilize habitat within Camarillo Airport property.

COASTAL RESOURCES

Federal activities involving or affecting coastal resources are governed by the *Coastal Barriers Resource Act* (CBRA), the *Coastal Zone Management Act* (CZMA), and Executive Order (E.O.) 13089, *Coral Reef Protection*.

Camarillo Airport is not within the California Coastal Zone, which is five miles to the west. The airport is seven miles from the Pacific Ocean at its closest point. The closest National Marine Sanctuary is Channel Islands National Marine Sanctuary, 13 miles west of the airport.

CLIMATE

Increasing concentrations of greenhouse gases (GHG) can affect global climate by trapping heat in Earth's atmosphere. Scientific measurements have shown that Earth's climate is warming with concurrent impacts, including warmer air temperatures, rising sea levels, increased storm activity, and greater intensity in precipitation events. Climate change is a global phenomenon that can also have local impacts. GHGs, such as water vapor (H₂O), carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and O₃, are both naturally occurring and anthropogenic (man-made). The research has established a direct correlation between fuel combustion and GHG emissions. GHGs from anthropogenic (i.e., human made) sources include CO₂, CH₄, N₂O, hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF₆). CO₂ is the most important anthropogenic GHG because it is a long-lived gas that remains in the atmosphere for up to 100 years.

The U.S. EPA's *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2020* shows total transportation emissions, including aviation, decreased largely due to coronavirus (COVID-19), and the combined impacts of long-term trends in population, economic growth, energy markets, technological changes, and changes in energy efficiency. The inventory included aviation as a part of the 13.3 percent decrease in transportation sector GHG emissions leading up to 2020.³

² SWCA Environmental Consultants, Biological Resources Assessment for the Camarillo Airport Layout Plan, Camarillo, Ventura County, California, January 2023).

³ Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2020 (<https://www.epa.gov/system/files/documents/2022-04/us-ghg-inventory-2022-main-text.pdf>)

GHG emissions at Camarillo Airport occur from the combustion of jet fuel and aviation gasoline consumed by business jets, general aviation, military aircraft, and miscellaneous ground service equipment, such as fuel trucks. GHGs, including water vapor (H₂O), carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and O₃, are both naturally occurring and anthropogenic (human-made). Most GHG emissions from transportation systems are CO₂, which is the most important anthropogenic GHG because it is a long-lived gas that remains in the atmosphere for up to 100 years. Relatively insignificant amounts of CH₄, N₂O, and other GHGs are emitted during fuel combustion.

Increasing concentrations of GHGs can affect global climate by trapping heat in the Earth's atmosphere. Scientific measurements have shown that Earth's climate is warming with concurrent impacts, including warmer air temperatures, rising sea levels, increased storm activity, and greater intensity in precipitation events. Climate change is a global phenomenon that can also have local impacts.

DEPARTMENT OF TRANSPORTATION ACT, SECTION 4(f)

Section 4(f) of the *Department of Transportation Act* (DOT Act), which was recodified and renumbered as Section 303(c) of Title 49 United States Code (USC), provides that the Secretary of Transportation will not approve any program or project that requires the use of any publicly or privately owned historic sites, public parks, recreation areas (including public schools playgrounds or athletic fields if open to the public), 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 1N summarizes resources that may be protected under Section 4(f) of the DOT Act within the vicinity of the airport (defined here as within one mile of the airport). Where a specific type of Section 4(f) resource is not located within a one-mile radius, the closest known resource is listed.

TABLE 1N Department of Transportation Act, Section 4(f) Resources - Camarillo Airport		
Facility	Distance from Airport (miles)	Direction from Airport
National Register of Historic Places/California Register of Historic Resources		
Camarillo Ranch House	3.0	East
Waterfowl or Wildlife Refuge		
Channel Islands National Marine Sanctuary	12.7	West
National Public Parks/Recreation Areas		
Channel Islands National Park	12.7	West
Santa Monica Mountains National Recreation Area	4.0	South
Local Public Parks		
Freedom Park	0.0	South
Springville Park	0.7	North
Nancy Bush Park	1.0	Northeast
Mel Vincent Park	0.45	North
Carmentia Park	1.0	East
Valle Lindo Park	1.0	Northeast

Sources: National Register of Historic Places database; Google Earth Aerial Imagery

There are no lands at the airport that have been granted to the county under Section 6(f) of the *Land and Water Conservation Fund Act*. This act provides funds for buying or developing public use recreational lands through grants to local and state governments.

Table 1N shows that there are no historic resources listed on the National Register of Historic Places (NRHP) or California Register of Historic Resources (CRHR) within or near the airport. Also, based on cultural resources record search and on-ground survey, no archaeological resources were identified at the airport.⁴ Additionally, no waterfowl or wildlife refuge areas are near the airport nor are there any national public parks or recreation areas.

FARMLANDS

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

USDA's Natural Resources Conservation Service (NRCS) Web Soil Survey indicates that soils are present on the airport property that are prime farmland if irrigated, and farmland of statewide importance. However, the airport is fully developed with airfield infrastructure or support or landside development and is not currently farmed or irrigated. **Table 1P** describes the farmland classification based on the soils within the airport's boundaries.

Table 1P | Farmland Classification – Summary by Map Unit Ventura Area, California (CA674)

Web Soil Survey symbol	Soil Type	Farmland Rating
Cd	Camarillo loam, 0 to 2 percent slopes	Not rated in Web Soil Survey
Cz	Cropley clay, calcareous variant	Prime farmland if irrigated
Hn	Hueneme loamy fine sand, 0 to 2 percent slopes	Not rated in Web Soil Survey
Pa	Pacheco silty clay loam	Farmland of statewide importance

Source USDA-NRCS Web Soil Survey (<https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>)

The California Department of Conservation's California Important Farmland Finder website shows the airport as Urban and Built-Up Land, while the U.S. Census identifies the City of Camarillo, including the airport, as an urbanized area. Therefore, the FPPA is not applicable to the airport property.

HAZARDOUS MATERIALS, SOLID WASTE, AND POLLUTION PREVENTION

Hazardous Materials. Federal, state, and local laws regulate hazardous materials use, storage, transport, and disposal. These laws may extend to past and future landowners of properties containing these materials. The two statutes of most importance to airport projects are the *Resource Conservation Recovery*

⁴ SWCA Archaeological Survey Report for the Camarillo Airport ALP Update/Narrative Report, August 2022

Act (RCRA) (as amended by the *Federal Facilities Compliance Act of 1992*) and the *Comprehensive Environmental Response, Compensation, and Liability Act* (CERCLA or Superfund), as amended. According to the U.S. EPA's EJSCREEN website, the airport does not contain any areas listed as active Superfund (i.e., National Priorities List [NPL]) or brownfield⁵ sites.

Disrupting sites containing hazardous materials or contaminants may cause significant impacts to soil, surface water, groundwater, air quality, and the organisms using these resources. The California Department of Toxic Substances Control (DTSC) EnviroStor website identifies one Formerly Used Defense Site (FUDS) associated with previous military use of the airport, i.e., Oxnard Flight Strip (80000858). The site is listed as inactive and is not on the NPL. The DTSC Regulatory Profile notes that past uses of the Oxnard Flight Strip that caused contamination are a firing range (artillery, firing range, small arms, etc.) with potential contaminants of concern of explosives (UXO, MEC), munitions debris (MD), and RDX (cyclonite).

In addition, voluntary cleanup activity has occurred within the southeast portion of airport property to address groundwater contamination. This resulted in trichloroethylene (TCE) groundwater cleanup activities, as well as a post-remedy human health risk assessment. The site is listed as active and is a formerly used defense facility. The DTSC Regulatory Profile notes that past uses of the former defense site that caused contamination are agricultural (row crops), aircraft maintenance, airfield operations, firing range (small arms), fuel (aircraft storage/refueling, and vehicle storage/refueling), landfill (domestic, open burn/open detonation, pesticide, etc.) with UXO, MEC, MD, petroleum, polynuclear aromatic hydrocarbons (PAHS), and TCE. Land use restrictions⁶ and ongoing groundwater monitoring are overseen by DTSC.

The airport has two fuel farms with aboveground storage tanks. Airport operations and fixed base operators handle hazardous materials and waste in accordance with their individual permits and conditions. Hazardous waste is collected separately and disposed at facilities approved to handle hazardous materials.

Solid Waste. Existing solid waste in the Camarillo area is generally collected and disposed via the Gold Coast Recycling and Transfer Station in Ventura. A second transfer station is the Del Norte Regional Recycling and Transfer Station in Oxnard. Refuse incapable of being recycled is then hauled to county landfills (i.e., the Simi Valley Landfill & Recycling Center [SVLRC] or the Toland Road Sanitary Landfill). The county's Integrated Waste Management Division (IWMD) enforces recyclable construction material provisions as part of its building permit process, as well as diversion requirements for green materials such as wood waste and vegetation removal.

The Simi Valley Landfill is a fully permitted non-hazardous municipal solid waste landfill and recycling facility that provides approximately 60 percent of the county's daily refuse disposal needs. According to Simi Valley Landfill's Waste Management System, the landfill is permitted to accept up to 3,000 tons per day of refuse and can accept 6,250 tons of recyclable materials.⁷ According to the California Department of Resources Recycling and Recovery (CalRecycle), as of January 2023, the landfill has a remaining capacity of just under 83,000,000 cubic yards (cy); its "cease operation" date is listed as March 31, 2063.⁸

⁵ The U.S. EPA defines a brownfield as a property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.

⁶ Site management requirements include: prohibitions on specific uses (day care centers, elder care centers, hospitals, residences, and schools for persons under age 21); land use covenants; notification prior to any land use changes; groundwater monitoring; and restrictions on groundwater extraction without prior approval.

⁷ Waste Management – Simi Valley Landfill (<https://www.wm.com/location/california/ventura-county/landfill/index.jsp>)

⁸ CalRecycle – Solid Waste Information System (SWIS) Facility/Site Summary (<https://www2.calrecycle.ca.gov/SolidWaste/Site/Summary/3954>)

The Toland Road Sanitary Landfill is in Santa Paula and is operated by the Ventura Regional Sanitation District (VRSD). It accepts only non-hazardous wastes from residents in the Santa Clara Valley and commercial loads processed through a Ventura County transfer station or materials recycling facility. According to CalRecycle, as of January 2023, the Toland Road Sanitary Landfill had a remaining capacity of just over 16,000,000 cy; its “cease operation” date is listed as April 30, 2033.⁹

Pollution Prevention. The airport’s onsite aircraft rescue and firefighting (ARFF) station is a hazardous materials response station. The airport also has procedures outlined in its storm water pollution prevention program (SWPPP) to address chemical or fuel spills. 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). In addition, the *Antiquities Act of 1906*, the *Historic Sites Act of 1935*, and the *American Indian Religious Freedom Act of 1978* also protect historical, architectural, archaeological, and cultural resources. Impacts may occur when a proposed project causes an adverse effect on a resource which has been identified (or is unearthed during construction) as having historical, architectural, archaeological, or cultural significance.

In August 2022, an archaeological field survey of the airport was conducted to determine if historically significant artifacts are present. Based on that survey effort, no archaeological resources were identified within the study area. Furthermore, archival research revealed that 50 percent of the study area had been previously subjected to a cultural resources study, and no prehistoric or historic archaeological resources were identified within the study area because of those prior efforts.

In addition to on-ground artifacts, the airport’s “as built” environment includes buildings or structures that are more than 50 years in age, making them potentially eligible for listing on the NRHP or CRHR. Future projects should be reviewed to determine the presence of historic built environment resources and/or the potential for a future project to affect such resources.

In the past, FAA has contacted three federally recognized Native American tribes in connection with airport development projects: Barbareno/Ventureno Band of Mission Indians; Coastal Band of the Chumash Nation; and Santa Ynez Band of Mission Indians.¹⁰

⁹ CalRecycle – SWIS Facility/Site Summary (<https://www2.calrecycle.ca.gov/SolidWaste/Site/Summary/3952>)

¹⁰ U.S. Department of Transportation, Federal Aviation Administration – *Final Environmental Assessment for Camarillo Airport Proposed Northeast Hangar Development*, page 3-10 (June 2017)

LAND USE

The airport and surrounding environs are within the jurisdiction of County of Ventura and the City of Camarillo. Land uses surrounding the airport include commercial, office, light industrial, and agriculture. Solar arrays are located in the northwest and western portion of the airport. The Camarillo Premium Outlets commercial property is northeast across Las Posas Road from the airport. The closest residential areas are located 0.3 mile away to the north and are separated from the airport by U.S. Route 101.

Within airport property boundaries south of the airport, is a mixed-use area that contains a few noise-sensitive lands uses such as two public high schools (Frontier High School and Phoenix School), and a grade 6-12 school (Gateway Community School).

The county's General Plan Land Use Map and Community Character Element shows the airport as located within an urban area.¹¹ The airport is designated by the City of Camarillo as Public, with Agriculture designated to the south, east and west; north of the airport is a combination of Commercial Mixed-Use, Industrial, Research and Development, and Office.¹²

The airport is zoned by the city as M-1, Light Manufacturing, while the off-airport portion of the mixed-use area located on the north side of Pleasant Valley Road is zoned Rural Exclusive (RE). Areas east and north of the airport are zoned Agriculture Exclusive (AE), Commercial Planned Development (CPD), or Limited Manufacturing (LM) and reflect the existing land uses discussed above.¹³

NATURAL RESOURCES AND ENERGY SUPPLY

E.O. 13423, *Strengthening Federal Environmental, Energy, and Transportation Management* instructs federal agencies to advance the nation's energy security and environmental performance by achieving specified goals. Natural resources and energy supply provide an evaluation of a project's consumption of natural resources. It is the policy of FAA Order 1053.1, *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.

Water at the airport is supplied by the City of Camarillo. The city's water supply is obtained from both local groundwater sources and imported water sources.¹⁴ The city's imported water is obtained from the Metropolitan Water District of Southern California and is purveyed to the city by the Calleguas Municipal Water District. Several other water companies provide water service to portions of Camarillo, such as the Camrosa Water District, Crestview Mutual Water Company, and the Pleasant Valley Mutual Water Company. For water service to be approved by the city for a proposed development, the Applicant must prepare a water impact study which demonstrates that the proposed project would not create a new demand on the city's water system. Project domestic water can then be obtained from a public water purveyor operating with a valid permit.¹⁵

¹¹ Ventura County 2040 General Plan – Chapter 2 Land Use and Community Element

¹² City of Camarillo – Planning – General Plan Map

¹³ City of Camarillo Zoning Map (https://cms7files.revize.com/camarilloca/Zoning_April25_22_24x52_wall.pdf)

¹⁴ City of Camarillo Water Supply – (https://www.cityofcamarillo.org/departments/public_works/water_service/water_supply.php), January 2023

¹⁵ City of Camarillo Water Supply – City of Camarillo resolution NO. 2016-90 (https://www.ci.camarillo.ca.us/departments/public_works/water_service/water_supply.php)

The California Environmental Protection Agency (CalEPA) was formally established July 17, 1991, and was created to preserve, conserve, and enhance the environment, to ensure public health, environmental quality, and economic vitality. CalEPA consists of the California Air Resources Board (CARB), the Department of Pesticide Regulation (DPR), CalRecycle, DTSC, the Office of Environmental Health Hazard Assessment (OEHHA), and the State Water Resources Control Board (SWRCB).¹⁶

NOISE AND NOISE-COMPATIBLE LAND USE

Federal land use compatibility guidelines are established under 14 Code of Federal Regulations (CFR) Part 150, *Airport Noise Compatibility Planning*. According to 14 CFR Part 150, residential land use and schools are noise-sensitive land uses that are not considered compatible with a Day-Night Average Sound Level (DNL or L_{dn}) of 65 decibel (dB). Other noise-sensitive land uses (such as religious facilities, hospitals, or nursing homes), if located within a DNL 65 dB contour, are generally compatible when an interior noise level reduction of 25 dB is incorporated into the design and construction of the structure. 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 area in question. A 14 CFR Part 150 Study for Camarillo Airport is currently being conducted (as of January 2022).

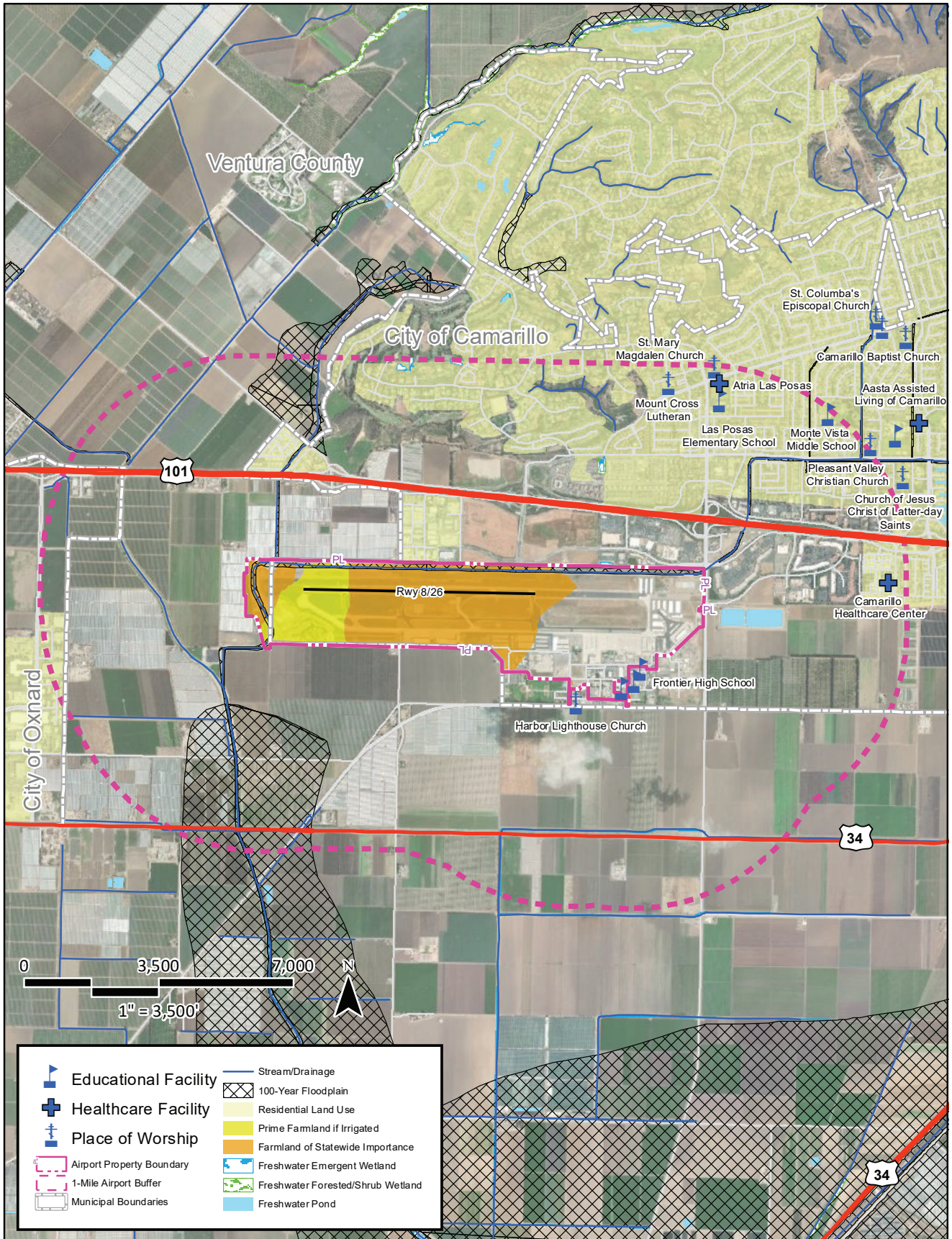
Table 1Q below identifies noise-sensitive land uses within one mile of the airport. These land uses are also shown on **Exhibit 1L**. The closest residential areas are located 0.3 mile away to the north and are separated from the airport by U.S. Route 101.

Table 1Q | Noise-Sensitive Land Uses within One Mile of Airport

Facility	Location	Distance from Airport (Miles)	Direction from Airport
Schools			
Gateway Community School	200 Horizon Circle	Within airport boundaries.	Southeast
Frontier High School	545 Airport Way	Within airport boundaries.	Southeast
Phoenix School	500 Airport Way	Within airport boundaries.	Southeast
Las Posas Elementary	75 E Calle La Guerra	0.8	Northeast
Camarillo Academy of Progressive Education (CAPE) Charter School	777 Aileen Street	0.7	Northeast
Monte Vista Middle School	888 Lantana Street	1.0	Northeast
Places of Worship			
Mount Cross Lutheran Church	102 Camino Esplendido	1.0	Northeast
St. Mary Magdalen Church	25 N Las Posas Road	1.0	Northeast
Pleasant Valley Bible Church and Christian Pre-School	1101 E Ponderosa Drive	1.0	Northeast
Church of Jesus Christ of Latter-day Saints	1201 Paseo Camarillo	1.0	Northeast
Harbor Lighthouse Church	400 Skyway Drive	0.0	South
Health Care Facilities			
Atria Las Posas	24 Las Posas Road	0.9	Northeast
Camarillo Healthcare Facility	205 Granada Street	0.9	East

Source: EPA EJScreen (<https://ejscreen.epa.gov/mapper/>); Google Earth Aerial Imagery (January 2023)

¹⁶ California Environmental Protection Agency (CalEPA) (<https://calepa.ca.gov/about/>), January 2023



Source: ESRI Basemap Imagery (2022), FEMA, USDA, USGS, TigerLine, City of Camarillo

SOCIOECONOMICS, ENVIRONMENTAL JUSTICE, AND CHILDREN'S ENVIRONMENTAL HEALTH AND SAFETY RISKS

Socioeconomics | *Socioeconomics* is an umbrella term used to describe aspects of a project that are either 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 and alternative(s).

FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures* specifically requires that a federal action causing disproportionate impacts to an environmental justice population (i.e., a low-income or minority population) be considered, as well as an evaluation of environmental health and safety risks to children. The FAA has identified factors to consider when evaluating the context and intensity of potential environmental impacts.

Would the proposed action?

- Induce substantial economic growth in an area, either directly or indirectly;
- Disrupt or divide the physical arrangement of an established community;
- Cause extensive relocation when sufficient replacement housing is unavailable;
- Cause extensive relocation of community business what would cause severe economic hardship for affected communities;
- Disrupt local traffic patterns and substantially reduce the levels of service of roads serving an airport and its surrounding communities; or
- Produce a substantial change in the community tax base.

Environmental Justice | *Environmental justice* is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental, and commercial operations or policies.

Meaningful Involvement ensures that:

- People have an opportunity to participate in decisions about activities that may affect their environment and/or health;
- The public's contribution can influence the regulatory agency's decision;
- Their concerns will be considered in the decision-making process; and
- The decision-makers seek out and facilitate the involvement of those potentially affected.¹⁷

The closest residential areas are located 0.3 mile away to the north and are separated from the airport by U.S. Route 101. According to the 5-Year 2016-2020 American Community Survey (ACS) estimates, the population within one mile of the airport is 11,413 persons, of which 17 percent of the population is considered low-income and 53 percent are people of color. Indicated in **Table 1R**, approximately 29 percent of the population has identified as Hispanic or Latino.

¹⁷ U.S. EPA website - Environmental Justice (<https://www.epa.gov/environmentaljustice>)

Table 1R | Population Characteristics Within One Mile of the Airport

Characteristic	
Total Population	11,413
Population by Race ¹	
White	64%
Black	7%
American Indian	1%
Asian	13%
Pacific Islander	0%
Some Other Race	4%
Population Reporting Two or More Races	11%
Total Hispanic population (of any race)	29%

Source: U.S. EPA EJSCREEN ACS Summary Report (5-Year 2016-2022) (<https://ejscreen.epa.gov/mapper/>)

¹ Percentages do not add up to 100 percent. Hispanic or Latino is treated by the U.S. Census as a question separate from Race.

Children’s Environmental Health and Safety | Federal agencies are directed, per E.O. 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, to make it a high priority to identify and assess the environmental health and safety risks that may disproportionately impact children. Such risks include those that are attributable to products or substances that a child is likely to encounter or ingest (air, food, water – including drinking water) or to which they may be exposed.

According to the 2016-2020 ACS estimates, 22 percent of the population within one mile of the airport are age 17 or under. This equated to 2,543 children. See **Tables 1N** and **1Q** for lists of schools and recreational facilities that are used by children within one mile of the airport.

VISUAL EFFECTS

Visual effects deal broadly with 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 the visual character of the existing environment. Each jurisdiction will typically address outdoor lighting, scenic vistas, and scenic corridors in zoning ordinances and their general plan.

Light Emissions | *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 would interfere with normal activities. Generally, local jurisdictions will include ordinances in the local code addressing outdoor illumination to reduce the impact of light on surrounding properties.

Airfield lighting at the airport include a rotating beacon, runway and taxiway edge lighting, precision approach path indicator (PAPIs) system along Runway 8-26, and runway end identifier lights (REILs) at both ends of Runway 8-26. In addition to this, the airport is equipped with pilot-controlled lighting which allows pilots to activate a lighting system along both runways through a series of clicks on their radio transmitter.

Visual Resources and Visual Character | *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 a visual character defined by the surrounding landscape features, such as open grass fields, forests, mountains, deserts, etc.

Visual resources include buildings, sites, traditional cultural properties, and other natural or manmade 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).

Although the airport environment is within an urban area, visually it is characterized not only by buildings and streets, but by trees and open vegetated areas. Views of the airport are accessible from surrounding roadways due to the vegetation being spread out rather than densely put together. In addition to this, long-range views are not readily available due to the relatively flat topography of the airport environs and surrounding mixed-used development on and adjacent to the southern portion of airport property.

The state of California has a designated department called the California Department of Transportation (Caltrans) which manages the state scenic Highway Program.¹⁸ According to the Scenic Highway Program, the development of scenic highways is to not only add to the pleasure of residents in California but should further encourage the growth of both recreation and tourist industries. Existing legislation provides Caltrans with full possession and control of all state highways, with a county highway component later added to the Scenic Highway Program in Section 154 of the Streets and Highways Code.

Currently, Ventura County has no officially designated county scenic highways.¹⁹ However, according to the City of Camarillo's 2021 General Plan Annual Progress Report there are a few scenic corridors near the airport such as U.S. Route 101 (near the northern boundary of airport property lines) and Las Posas Road (along the eastern boundary airport property lines).²⁰ According to the City of Camarillo, a scenic corridor consists of land that is visible from, adjacent to, and outside of, the right-of-way that contributes to Camarillo's scenic character.

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 adjacent wetlands, under Section 404 of the *Clean Water Act* (CWA). Wetlands are defined in E.O. 11990, *Protection of Wetlands*, as "those areas that are inundated by surface or groundwater with a frequency sufficient to support and under normal circumstances does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction." Wetlands exhibit three characteristics: the soil is

¹⁸ Caltrans – California State Scenic Highways (<https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>)

¹⁹ Officially Designated County Scenic Highways (<https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>)

²⁰ City of Camarillo – General Plan – (https://www.ci.camarillo.ca.us/departments/community_development/general_plan.php)

inundated or saturated to the surface at some time during the growing season (hydrology), has a population of plants able to tolerate various degrees of flooding or frequent saturation (hydrophytes), and soils that are saturated enough to develop anaerobic (absent of air or oxygen) conditions during the growing season (hydric).

Based on information from the USDA-NRCS Web Soil Survey, soils on airport property are either not hydric (Copley clay, calcareous variant, Camarillo loam, 0 to 2 percent slopes, and Hueneme loamy fine sand, 0 to 2 percent slopes) or have a low hydric rating between 1 and 32 percent (Pacheco silty clay loam).²¹ According to the National Wetland Inventory, there are no mapped wetlands or water features at the airport other than along the bottom of the Camarillo Hills Drain located on the north and west portion of the airfield.²²

In 2018, a field investigation was conducted at the airport by a qualified wetland specialist to determine whether any areas on airport property qualify as Waters of the United States (WOTUS). Based on this study, the Camarillo Drain was determined to be Other Waters of the U.S. by the U.S. Corps of Engineers (USACE).

Floodplains. E.O. 11988, *Floodplain Management*, directs federal agencies to take action to reduce the risk of flood loss, minimize the impact 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.

On May 25, 2021, E.O. 14030, *Climate-Related Financial Risk* was established. Section 5(e) of E.O. 14030 reinstates E.O. 13690, *Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input* (originally set forth on January 30, 2015). E.O. 13690 amends E.O. 11988 and mandates that a Federal Flood Risk Management Standard (FFRMS) be created. One of the primary purposes of the FFRMS is to expand the management of floodplains from a “base flood” evaluation to include a higher vertical elevation (and the corresponding floodplain) to protect against future flood risks for federally funded projects.

Under E.O. 13690 and its guidelines, one of several approaches should be used to identify floodplains and their risks to critical²³ or non-critical federally funded actions:

- Climate-Informed Science Approach (CISA) – the elevation and flood hazard area (i.e., 100-year floodplain) using data that integrates climate science with an emphasis on possible future effects on critical actions.
- Freeboard Value Approach – the elevation and flood hazard area and an additional 2 or 3 feet above the base flood elevation depending on whether the proposed federal action is critical or non-critical.
- 500-year Floodplain Approach – all area subject to the 0.2 percent annual chance flood.
- Other methods resulting from updates to the FFRMS.

²¹ Web Soil Survey – Map Hydric Rating by Map Unit (<https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>)

²² National Wetlands Inventory – surface waters and wetlands (<https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/>)

²³ A critical action is defined in E.O. 13690 and the 2015 Guidelines for Implementing E.O. 11988 as any activity for which even a slight change of flooding is too great.

Of the four approaches listed above, federal departments and agencies should use the CISA approach when data to support such an analysis is available.

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 most often relate to the potential for surface runoff and soil erosion, as well as the storage and handling of fuel, petroleum products, solvents, etc. Additionally, Congress has mandated (under the CWA) the National Pollutant Discharge Elimination System (NPDES).

The airport drains into two separate sub watersheds of the Calleguas Creek watershed and the Revolon Slough – Calleguas Creek sub watershed.²⁴ The Revolon Slough - Calleguas Creek sub watershed includes the areas south of the runway. Calleguas Creek and other tributary creeks drain the surface waters of the area westward toward the Pacific Ocean. The Calleguas Creek watershed consists of the Calleguas Creek Reach 4 (Revolon Slough) (State Waterbody) on the southwest portion of the watershed located to the west of the airport. According to the U.S. EPA's *How's My Waterway* website this waterbody is currently impaired.

The area between the runway and the Camarillo Hills Drain, which is located on airport property to the north and west of the airfield, is part of the Beardsley Wash sub watershed. The Beardsley Wash and Revolon Slough, located west and south of the airport, are the closest impaired waters under the CWA, Section 303(d) guidance.²⁵ The county operates under the Los Angeles Regional Water Quality Control Board (RWQCB) NPDES Municipal Stormwater Permit No. CAS004002. In addition, VCWPD enforces Ordinance WP-2, which contains standards and permitting conditions related to new drainage connections within the VCWPD's jurisdiction.

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.²⁶

U.S. EPA's Sole Source Aquifer (SSA) Program was established under Section 1424(e) of the *Safe Drinking Water Act* (SDWA). Since 1977, it has been used by communities to help prevent contamination of groundwater from federally funded projects. It has increased public awareness of the vulnerability of groundwater resources. The SSA program is authorized by Section 1424(e) of the SDWA (Public Law 93-523, 42 U.S.C. 300 et. seq), which states:

*"If the Administrator determines, on his own initiative or upon petition, that an area has an aquifer which is the sole or principal drinking water source for the area and which, if contaminated, would create a significant hazard to public health, he shall publish notice of that determination in the Federal Register."*²⁷

²⁴ United States Environmental Protection Agency – How's My Waterway (<https://mywaterway.epa.gov/community/camarillo%20airport/overview>)

²⁵ 2019 IRWM Plan – Appendix D – Impaired Water Bodies in Ventura County 303d list (<https://watershedscoalition.org/2019-irwm-plans/>)

²⁶ United States Geological Survey – What is Groundwater? (<https://www.usgs.gov/faqs/what-groundwater>)

²⁷ U.S. EPA – Overview of the Drinking Water Sole Source Aquifer Program (<https://www.epa.gov/dwssa/overview-drinking-water-sole-source-aquifer-program#Authority>)

According to the U.S. EPA Sole Source Aquifer for Drinking Water website, there are no sole source aquifers located within airport boundaries. The closest sole source aquifer to Ventura County is the Fresno County sole source aquifer, located 155 miles north.²⁸

The airport is underlain by the Pleasant Valley groundwater basin, which has a surface area of 21,600 acres (33.7 square miles) (California's Groundwater Bulletin No. 118).²⁹ The basin is bounded on the north by the Camarillo and Las Posas Hills and on the south by the Santa Monica Mountains; the eastern boundary is formed by a constriction in Arroyo Santa Rosa, and the basin is bounded on the west by the Oxnard subbasin of the Santa Clara River Groundwater Basin (Ventura County Investigation, Bulletin 12).³⁰

According to the county's *2019 Integrated Regional Water Management Plan (IRWMP)*, groundwater is one of the primary sources of water for this region. Around 65 percent of groundwater is pumped extensively by individual well owners and by a majority of the 166 public and private water purveyors within the county. Since more groundwater is used than is replaced, the county's groundwater reserves are slowly decreasing, and overdraft conditions have resulted.³¹

Agriculture accounts for most of the demand for groundwater in the county. Saline intrusion from surrounding sediments and salinity associated with high groundwater levels are the primary water quality concern in the Pleasant Valley groundwater basin. This potential for saline intrusion also exists in the depressed groundwater elevations in the Lower Aquifer System of the Pleasant Valley groundwater basin.

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 River 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*, directing federal agencies to consider potential wild and scenic rivers in the comprehensive planning process.

The closest designated Wild and Scenic River to the airport is Sespe Creek, located more than 16 miles north; Piru Creek on the border of Ventura and Los Angeles counties also has a designated river segment.³² There are no other creeks or rivers in Ventura County that are currently under study or on the NRI. Big Sycamore River, located in the Santa Monica Mountains National Recreation Area, is seven miles south of the airport.³³

²⁸ Sole Source Aquifers (<https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=9ebb047ba3ec41ada1877155fe31356b>)

²⁹ California Department of Water Resource – California's Groundwater (Bulletin 118) (<https://water.ca.gov/Programs/Groundwater-Management/Bulletin-118>)

³⁰ California Water Library (<https://cawaterlibrary.net/document-type/bulletin/>)

³¹ Watersheds Coalition of Ventura County – 2019 IRWM Plan – Appendix J Ventura County Stormwater Resources Plan (<https://watershedscoalition.org/2019-irwm-plans/>)

³² National Wild and Scenic Rivers System (<https://www.rivers.gov/california.php>)

³³ Nationwide Rivers Inventory (<https://www.nps.gov/maps/full.html?mapId=8adbe798-0d7e-40fb-bd48-225513d64977>)