

## Inventory of Existing Conditions



**INTRODUCTION.** Nut Tree Airport (the Airport or VCB) is located in the City of Vacaville, California. Situated 117 feet above sea level in Northern California, the Airport serves Solano County and multiple communities within the Sacramento Valley and East Bay regions. Nut Tree Airport is a public use airport, owned and operated by Solano County, which is open to the general public and to visiting aircraft. Although the Airport does not have any commercial passenger activity, it does provide services such as aircraft maintenance, aircraft mechanics training, fuel service, aircraft rentals, and flight training. The Airport has been in continuous operation at this site since 1955 and is an important element of the national airport system.

**Nut Tree Airport is located in Northern California, within the City of Vacaville, 32 miles southwest of Sacramento and approximately 56 miles northeast of San Francisco, California. The Airport provides a safe operating environment for general aviation aircraft, ranging from light sport aircraft to small corporate jets. The Airport's relative location within the region is illustrated in the following figure entitled *AIRPORT LOCATION MAP*.**

Vacaville is surrounded by several cities, including Dixon, Fairfield, and Winters. Although Vacaville has not grown significantly in the last ten years, the moderate growth of the surrounding communities has influenced Vacaville and the regional transportation system.

The most recent master planning study for Nut Tree Airport was completed in 1993 with the Airport Master Plan, and the last Airport Layout Plan (ALP) Update was completed in 2007. Since that time, aviation issues on the local, regional, and national levels have changed. The FAA typically requires a Master Plan and associated Airport Layout Plan (ALP) to be on file prior to receiving federal aid. The FAA also recommends that an Airport Master Plan be updated every five to ten years.

This 2012 Airport Master Plan is intended to provide a comprehensive evaluation of the Airport, and result in a well-conceived long-term capital facilities plan for the Airport. This initial *Inventory of Existing Conditions* chapter examines three basic elements involved with the existing and future development of Nut Tree Airport. These elements are:

- **Airport facilities** (runways, taxiways, aircraft parking aprons, hangars, ground access, etc.)
- **Relationship of the Airport to the airspace system**
- **The airport environs**

Subsequent chapters will detail the Airport's forecasts of aviation activity, the ability of airport facilities to safely and efficiently meet the needs associated with the projected aviation activity, the compatibility of the Airport with surrounding land uses, and recommended future development within and around airport property.



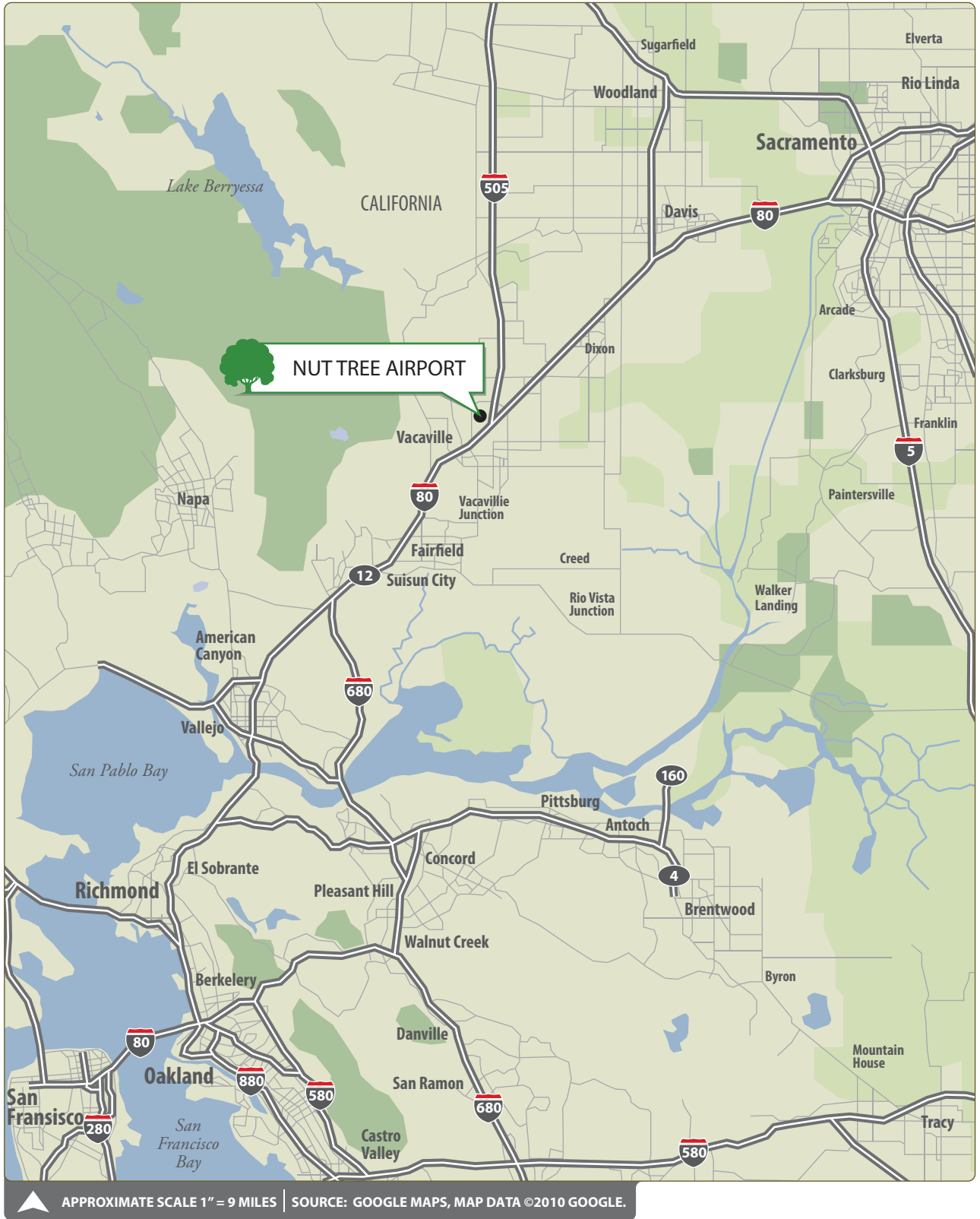


FIGURE B1 Airport Location Map

## Airport Role and Facilities

Nut Tree Airport is owned and operated by the County of Solano, and is a division of the Solano County General Services Department. The Solano County Airport Advisory Committee consists of five members and provides counsel to the Solano County Board of Supervisors and Solano County officials in regard to policy matters for airport operations and management concerns. The Nut Tree Airport Land Use Commission is responsible for review and approval of all off airport land use proposals.

The Airport is classified as a general aviation (GA) airport by the FAA's National Plan of Integrated Airport Systems (NPIAS). As shown in the previous illustration, entitled *AIRPORT LOCATION MAP*, Nut Tree Airport is located west of Interstate 505 (I-505) and north of Interstate 80 (I-80), on the northeastern edge of Vacaville. More detail is depicted, along with the Airport's more immediate surroundings, in the following figure entitled *AIRPORT VICINITY MAP*.

According to an article in Vacaville Magazine<sup>1</sup>, the first aircraft operation in Vacaville took place in 1929 when Barnstormer, Ernie Smith, made a forced landing in a field behind a small fruit stand along Old Highway 40. Years later in 1955, Ed Power (the son of the owners of that small fruit stand) scraped out a 1,900-foot dirt strip behind the family restaurant. Two years after the dirt strip was constructed, the newly formed Solano County Irrigation District was looking for land to purchase for one of its major water canals. A portion of the land where the dirt strip lay was sold to the irrigation district and the money was used to re-align and pave the runway. Since that time, Nut Tree Airport has grown continually and, in 1969, the Airport was officially donated to Solano County.

Nut Tree Airport historically served as a tourist destination. Those traveling along I-80 in between Sacramento and the San Francisco Bay area would stop at the popular "Nut Tree" (including its restaurants, shops, orchards, gardens, etc.) in Vacaville. A ¼-mile small gauge railroad track was constructed in 1955 running from the Nut Tree Restaurant to the Airport, to provide direct access for pilots visiting the area<sup>2</sup>. The railroad track has since been relocated to the Nut Tree Amusement area for use by new development. Nut Tree Airport now serves the general aviation needs of Solano County by providing many aviation-related services, including: business-related flying, recreational flying, flight training, and other aviation-related activities.

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<sup>1</sup> Vacaville Magazine November/December 2009.

<sup>2</sup>Sources: [http://www.alamedainfo.com/nut\\_tree\\_CA.htm](http://www.alamedainfo.com/nut_tree_CA.htm), <http://www.nuttreeusa.com/>.

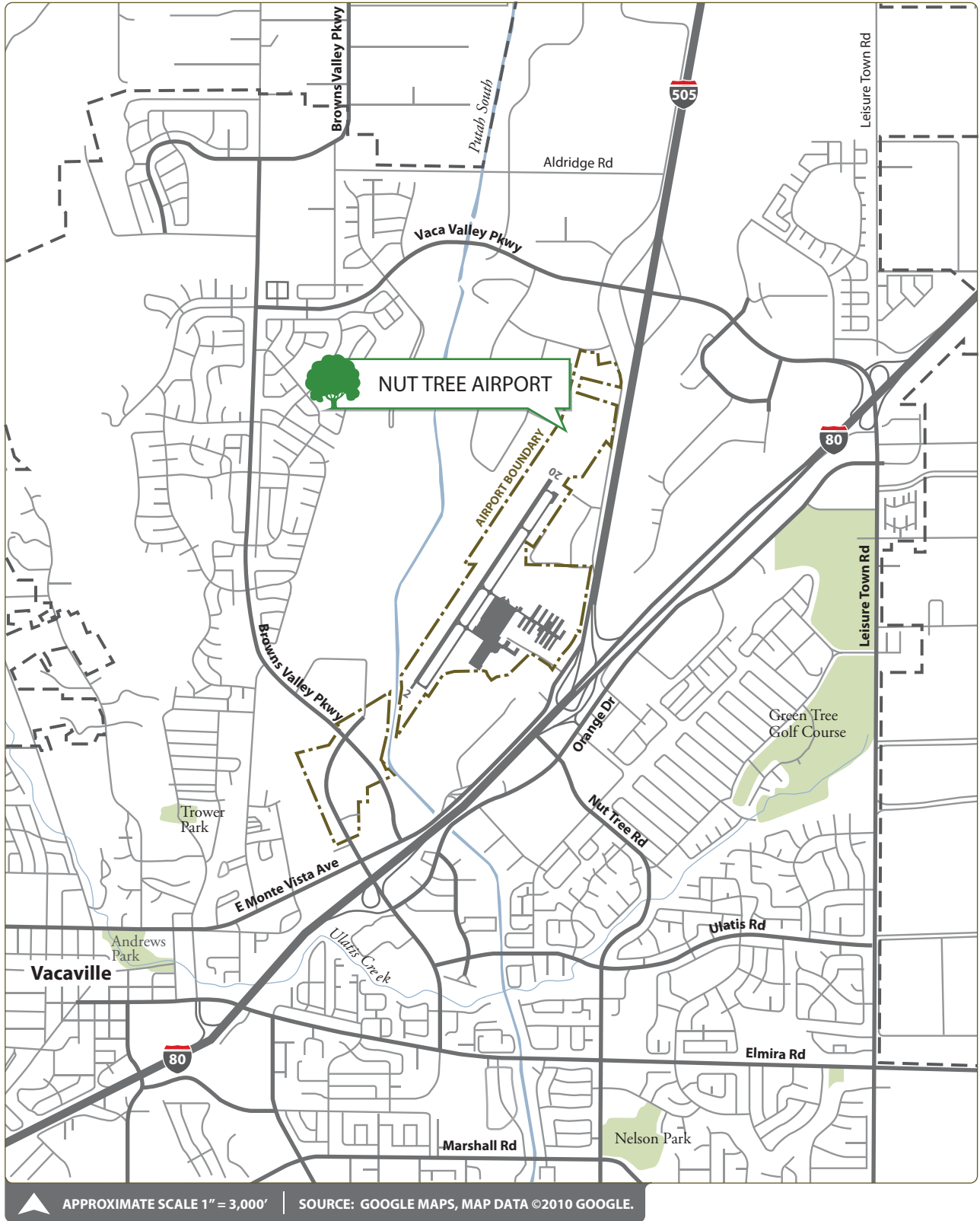


FIGURE B2 Airport Vicinity Map

## Airside Facilities

Nut Tree Airport is operated with one primary runway, oriented in a northeast-southwest direction. One parallel taxiway provides access to the runway from the general aviation development areas. The following figure, entitled *EXISTING AIRPORT LAYOUT*, provides a graphic presentation of the existing airport facilities.

The Airport Reference Point (ARP) for Nut Tree Airport is located at Latitude 38° 22' 40.0000" N and Longitude 121° 57' 41.7000" W. The Airport has an elevation of 117 feet above mean sea level (AMSL) and encompasses approximately 262 acres.

**Runway.** The primary runway at the Airport has a designation of 02/20. It is 4,700 feet in length and 75 feet in width. The runway is constructed of asphalt and has a gross weight bearing capacity of 30,000 pounds single wheel main landing gear configuration, and the runway pavement is currently in good condition. The runway is equipped with Medium Intensity Runway Lights (MIRLs), a two-light Precision Approach Path Indicator system (PAPI) and Runway End Identifier Lights (REILs) to each runway end, and is marked with standard/basic non-precision markings on each end.

In addition, Runway 02 has a published left-hand traffic pattern, with Runway 20 having a non-standard right-hand pattern.

**Taxiway.** In addition to the runway, the airside facilities at Nut Tree Airport consist of a taxiway system that provides access between the runway surface and the landside aviation use areas.

A full-length parallel taxiway serves Runway 02/20 (Taxiway "A"), located on the east side of Runway 02/20 and is separated by 240 feet (runway centerline to taxiway centerline). Taxiway "A" is constructed of asphalt and has five connector taxiways that connect to the runway. Taxiway "A" is 40 feet wide and is also constructed of asphalt. Additionally, an aircraft run-up area/holding bay is located on both the northeast and southwest end of Taxiway "A". For night use, the taxiway system is equipped with a Medium Intensity Taxiway Lighting system (MITL).

Five connecting taxiways link access between Runway 02/20, Taxiway "A", and the main aircraft parking apron. Two 40-foot wide taxiways connect the Runway 02 and 20 thresholds to Taxiway "A", and an additional 40-foot wide taxiway located approximately 900 feet southeast of the Runway 20 connecting taxiway also provides access to Taxiway "A".

Two connecting taxiways provide access to the main aircraft parking apron. The taxiway located

on the southern end of the apron is 42 feet wide, and the connecting taxiway located on the northern end of the apron is 46 feet wide.

## Landside Facilities

The primary landside development area at the Airport is located on the east side of airport property. These facilities include an Airport Administration Building, aircraft parking aprons, Fixed Base Operator (FBO) facilities, general aviation aircraft storage hangars, fuel storage facilities, an aircraft maintenance facility, aircraft wash rack, access roadways, and auto parking.

**Airport Administration Building.** The existing Airport Administration Building is a two-story building consisting of 10,000 square feet in total floor area. The existing building contains airport administration, Solano Sheriff Resident Deputy office, public meeting space, public restrooms, a flight school, and other various aviation businesses.

**Aprons.** The main aircraft parking apron at Nut Tree Airport is located east of Taxiway “A”. This apron consists of approximately 460,000 square feet of aircraft parking and movement space (including taxilanes), providing approximately 75 aircraft tie-down positions, four large aircraft parking positions and three helicopter parking positions.

**Hangars and Aircraft Storage.** The layout and location of the various hangar types are illustrated in Figure B3 entitled *EXISTING AIRPORT LAYOUT*. The Airport has approximately 107 hangar units in 25 separate buildings. The Airport leases approximately 61 T-hangars and end hangars and six large box hangars, and the remaining hangars (box and corporate) are privately owned. According to airport staff, there are approximately 24 aircraft owners on the hangar waiting list. Additionally, the Airport has two maintenance facilities, located southeast of the T-hangar apron area.

**Fixed Based Operator (FBO).** An FBO has taken over the fuel concession. The FBO is located in Building #2, which is on the eastern edge of the aircraft parking apron, south of the Airport Administration Building.

**Flight School.** A flight school offers flight instruction and is located at Nut Tree Airport on the northeast area of the apron. The flight school services include flight training, aircraft rental and sales, sightseeing tour flights, and aerial photography services.



▲ APPROXIMATE SCALE 1" = 10 NAUTICAL MILES

FIGURE B3 Existing Airport Layout



**Fuel Storage Facility.** The Airport’s fuel storage facility, which is owned by Solano County and operated by a contract FBO, is located on the southeast side of the aircraft parking apron. Currently, aviation fuels are stored in two underground storage tanks: one 10,000-gallon 100LL AvGas tank and one 10,000-gallon Jet-A tank. AvGas is delivered by a 500-gallon truck, and Jet A fuel is delivered by a 3,000-gallon truck. Solano County is responsible for maintaining the storage tanks to current Environmental Protection Agency (EPA) standards. The fuel sales records for the past four years are presented in the following table entitled *AIRPORT FUEL SALES, 2006-2009*.

Table B1  
**AIRPORT FUEL SALES, 2006-2009**

Year <sup>1</sup>	AvGas (gallons)	Jet A (gallons)	Total (gallons)	Total Net Sales (\$)
2006	82,051	88,086	170,137	\$607,141.60
2007	72,885	90,798	163,683	\$610,073.10
2008	66,221	121,328	187,549	\$878,783.50
2009	73,383	151,905	225,287	\$761,062.90

**Source:** Nut Tree Airport management records.

<sup>1</sup> Fuel sales are based on from January 1<sup>st</sup> to December 31<sup>st</sup> of the Fiscal Year.

**Automated Surface Observing System (ASOS).** The Airport is served by an Automated Surface Observing System (ASOS), which is located approximately 1,150 feet north of the aircraft parking apron and 778 feet east of the runway centerline. This facility measures the following weather parameters: sky condition, visibility, wind, temperature, dew point, relative humidity, pressure, and obstructions to vision (i.e., fog, haze). The ASOS provides up to 12 data updates each hour to airborne pilots via VHF radio frequency. The radio frequency for the Nut Tree Airport ASOS is 134.75 MHz. ASOS data is also available via telephone at (707) 448-1594.

**Aircraft Rescue and Firefighting (ARFF).** The Airport does not presently have an Aircraft Rescue and Fire Fighting (ARFF) facility on the field; however, fire protection services for the Airport are provided by the Vacaville Fire Department Station No. 73, located approximately one mile northwest of the north end of the Airport.

## Existing Ground Access and Parking Facilities

**Ground Access.** From a regional perspective, ground access to the Airport Administration Building and main entrance to Nut Tree Airport is provided by County Airport Road, by way of East Monte Vista Avenue, which is located on the east side of the Airport. East Monte Vista Avenue can be accessed directly from I-505 and I-80.

**Parking Facilities.** The main public automobile parking area associated with airport facilities is located directly east of the Airport Administration Building, off County Airport Road. An additional automobile parking area associated with a private corporate hangar is located southeast of the main parking area.

## Existing Airport Utilities and Services

Nut Tree Airport is serviced by most essential utilities, including water, wastewater (sewer), electric, and telecommunication. The following provides a brief description of current utility services and providers to Nut Tree Airport.

**Electricity.** Pacific Gas & Electric (PG&E) provides electrical service to northern and central California, including Solano County. PG&E power lines are located southeast of airport property.

**Water.** Water is provided to the Airport by the City of Vacaville. A 12-inch water line runs along the east, southeast, north, and northeast sides of airport property. A 12-inch water line is proposed to run along the west and southwest areas of airport property, as identified in the 2007 City of Vacaville *General Plan*<sup>3</sup>. A layout of the current Nut Tree Airport Water Master Plan can be found in Appendix B.

**Wastewater.** Wastewater (sewer) service to the Airport is provided by the City of Vacaville with a small portion of the Airport still on a septic system. A City-owned wastewater lift station is located on the east/southeast area of airport property, and a sewer line runs through the southwest portion of airport property. A layout of the current Nut Tree Airport Sewer Master Plan can be found in Appendix B.

**Storm Water.** The Putah South Canal, which intersects the south/southwest area of airport property, originates from the Putah Diversion Dam located at Lake Solano, located

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<sup>3</sup> City of Vacaville *General Plan*, Chapter 5, *Public Facilities, Institutions and Utilities*, Figure 5-1 *Conceptual Water System Improvements*, 2007.

approximately nine miles northwest of Nut Tree Airport. One of the Putah South Canal detention basins for storm water is located on the west/southwest area of airport property<sup>4</sup>. Several other storm water drainage areas are located on airport property, four of which are located along the west, northwest, and northeast sides of airport property, and an additional storm water drainage area is located southeast of the Runway 02 threshold.

**Telephone.** Telephone service to Nut Tree Airport and Vacaville is provided by AT&T. In addition to telephone service, AT&T also provides DSL service and internet services, including private dedicated services to customers throughout the City and County. It is estimated that current telephone services are sufficient to meet the projected growth of the region.

Existing cellular communications' providers to Nut Tree Airport and the City of Vacaville include AT&T Wireless, Verizon Wireless, T-Mobile, and many others. It should be noted that the FAA regulates the siting of towers that exceed 200 feet in height and smaller towers within 20,000 feet of a 3,200-foot runway or longer (i.e., Nut Tree Airport) at a 100:1 slope with filing requirements for FAA Form 7460-1 "Notice of Proposed Construction or Alteration."

Wi-Fi is currently available within the Airport Administration Building and is in the process of expansion to provide wi-fi services to all aircraft hangars on the Airport.

### **Airspace System/Navigation and Communication Aids**

As with all airports, Nut Tree Airport functions within the local, regional, and national system of airports and airspace. The following narrative provides a brief description of Nut Tree Airport's role as an element within these systems.

#### **Air Traffic Service Areas and Aviation Communications**

Within the continental United States, there are some 22 geographic areas that are under Air Traffic Control (ATC) jurisdiction. Air traffic services within each area are provided by air traffic controllers in Air Route Traffic Control Centers (ARTCC). The airspace overlying Nut Tree Airport is contained within the Oakland ARTCC jurisdiction. The Oakland ARTCC includes the airspace in portions of northern and central California and portions of western/central Nevada. Nut Tree Airport can be found on the San Francisco sectional chart. Aviation communication facilities at the Airport include the Common Traffic Advisory Frequency (CTAF)/Aeronautical Advisory Station (UNICOM) on frequency 122.7 (San Francisco Airport District). Clearance delivery is provided by Travis AFB, Air Traffic Control (ATC). Ground to

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<sup>4</sup> City of Vacaville *General Plan*, Chapter 9, *Safety Element*, Figure 9-3, *Vacaville – Flood Hazard*, 2007.

ground radio communications are not currently possible between aircraft awaiting to depart Nut Tree Airport under instrument flight and Travis ATC. Additional radio equipment should be sought by Solano County to enable ground to ATC communications. Additional communications associated with Nut Tree Airport include:

- **Oakland Center [Travis Air Force Base (SUU) Approach/Departure Control]** – Frequency 128.4.
- **University Airport (EDU) Automated Weather Observing System (AWOS)** – Frequency 119.025 or (530) 754-6839.
- **Yolo County Airport (DWA) AWOS** – Frequency 125.775 or (530) 750-2759.
- **Napa County Airport (APC) ASOS** – (707) 252-7916.

Nut Tree Airport does not have an airport traffic control tower (ATCT).

### Surrounding Terrain Description

The airfield property is located in the northeastern portion of Vacaville, within the Sacramento Valley. Rapidly rising terrain associated with the Vaca Mountain Range is located to the west, northwest of Nut Tree Airport. Terrain is relatively flat south and east of the Airport.

### Airspace

Local airspace surrounding the Airport consists of Class E airspace. The Class E Surface Airspace is typically represented as a five-statute mile radius circular area around the Airport and includes any extension necessary to include instrument approach and departure paths. Class E Airspace includes the controlled airspace extending upward from 700 to 1,200 feet above the airport elevation. These areas are generally designated at outlying airports with low activity and with non-precision instrument approach procedures providing high minimum descent altitudes. Radio communications and transponders are not required to operate within these airspace areas under visual flight rule (VFR) conditions; however, Instrument Flight Rule (IFR) flights must be capable of communicating with air traffic control (ATC), which is currently available through Travis Approach and Departure Control on frequency 128.4.

Military air bases, Military Operations Areas (MOAs), and restricted areas can also impact airspace use in the vicinity of a civil airport. There is one military air base located within a 35-NM radius of Nut Tree Airport; Travis Air Force Base (KSUU) is located approximately seven NMs south of Nut Tree Airport. There are no MOAs or restricted areas in the vicinity of the Airport.

**Travis Air Force Base (AFB) Mid-Air Collision Avoidance (MACA) Program.** The Travis AFB MACA Program was developed to promote flight safety by informing pilots of the midair collision potential between civilian and military aircraft within the vicinity of Travis AFB. Travis AFB has several based large or “heavy” military aircraft, including the KC-10, C-5, and the C-17, which are frequently flown for training operations. In addition to these local military aircraft, heavy transient military aircraft also frequently operate within the Travis AFB Alert Area (A-682), which contains the Travis VHR overhead and IFR radar patterns.

Travis Approach/Departure Control is used by IFR and VFR aircraft from local airports in the vicinity, which includes Nut Tree Airport. Military aircraft in this area frequently fly approaches into Travis AFB from a variety of different altitudes (from 1,800 feet to 10,000 feet AMSL), airspeeds, and directions. The MACA Program stresses extreme caution to pilots flying in the Alert Area due to the wake turbulence generated by these heavy military aircraft, as well as high rate climbs and descents, and random maneuvering by heavy aircraft over the top and within the vicinity of the Alert Area from 1,600 feet to 10,000 feet AMSL. The Alert Area vertical limits extend to 6,000 feet AMSL to the north (of the extended runway centerline), and 3,000 feet to the south.

### Navigational Aids

A variety of navigational facilities is currently available to pilots around Nut Tree Airport, whether located at the field or at other locations in the region. Many of these navigational aids are available to en-route air traffic as well. The navigational aids (NAVAIDS) available for use by pilots in the vicinity of the Airport are VOR/DME, VORTAC, and NDB facilities.

A VOR/DME system is a Very High Frequency Omnidirectional Range Station with Distance Measuring Equipment transmitting very high frequency signals, 360 degrees in azimuth oriented from magnetic north. This DME equipment is used to measure, in nautical miles, the slant range distance of an aircraft from the navigation aid.

A non-directional beacon (NDB) is an L/MF radio beacon transmitting non-directional signals, whereby the pilot of an aircraft equipped with direction finding equipment can determine his bearing to or from the radio beacon and track to or from the station. The operation of the NDB is very simple; however, precisely flying an NDB approach can be difficult. Therefore, NDB approach minimums are typically specified higher than other types of non-precision approaches. There are no NDB facilities located within the airport vicinity. The following table presents navigational facilities located within the vicinity (within a 35-NM radius) of VCB.



Table B2  
**NAVIGATIONAL FACILITIES**

Navigational Facility	Associated Airport	Frequency	Distance to VCB
Travis VOR	Travis Air Force Base (SUU)	116.40 MHz	7.1 NMs S
Sacramento VORTAC	Sacramento Executive Airport (SAC)	115.20 MHz	23.4 NMs E
Concord VOR/DME	Buchanan Field Airport (CCR)	117.00 MHz	23.7 NMs S
Scaggs Island VORTAC	Napa Valley, CA <sup>1</sup>	112.10 MHz	22.8 NMs SW
McClellan VOR/DME	McClellan Airfield (MCC)	109.20 MHz	31.6 NMs NE

**Source:** Airnav.com [www.airnav.com](http://www.airnav.com).

**Notes:** NM = nautical miles.

<sup>1</sup> Not located at an airport.

In addition, several existing visual navigational aids are located on the Airport and available to pilots. These include a rotating beacon and a lighted wind cone with a segmented circle. The beacon is located north of County Airport Road, adjacent to the T-hangar area. The lighted wind cone with a segmented circle is located approximately 1,317 feet northwest of the Runway 02 threshold. Two additional supplemental wind cones are located in the vicinity of the southwest and northwest of Runway 02/20. In addition, both runway ends are equipped with Precision Approach Path Indicators (PAPIs), which provide descent guidance for the visual segment of the approach and Runway End Identifier Lights (REILs), which help pilots positively identify the runway ends.

There is also a network of low-altitude published federal airways (i.e., Victor airways) in the vicinity of Nut Tree Airport, which traverses the area and span between the regional ground-based VOR/DME and VORTAC equipment. Victor airways include the airspace within parallel lines located four NMs on either side of the airway and extend 1,200 feet above the terrain to, but not including, 18,000 feet AMSL. When an aircraft is flying on a federal airway below 18,000 feet AMSL, the aircraft is operating within Class E airspace.

Nut Tree Airport currently has three published instrument approaches to the Airport, as shown in the following table. Runway 20 is equipped with an RNAV Global Positioning System (GPS) approach. The FAA is in the process of certifying and implementing new Global Positioning System (GPS) instrument approach technology [i.e., both Wide Area Augmentation Systems (WAAS) and Local Area Augmentation Systems (LAAS)], and the cost of establishing new or improved instrument approaches at airports will be significantly reduced.

Table B3  
**INSTRUMENT APPROACH PROCEDURES**

<b>Approach</b>	<b>Designated Runway(s)</b>	<b>Ceiling Minimum (AGL)</b>	<b>Visibility Minimums</b>	<b>Aircraft Category</b>
RNAV (GPS) Y L	Straight-in/Runway 20	497' AGL	1¾-mile	A, B, C, D
RNAV (GPS) Z	Straight-in/Runway 20	403' AGL	1-mile 1 ¼-mile	A, B C
RNAV (GPS) Z	Circling	443' AGL	1-mile	A
		463' AGL	1-mile	B
		463' AGL	1 ½-mile	C
VOR/DME-A	Circling	643' AGL	1-mile 1 ¾-mile	A, B C

**Source:** U.S. Terminal Procedures, Southwest (SW), Vol. 2, 11 March 2010 – 8 April, 2010.

### Noise Abatement Procedures

The only published voluntary Noise Abatement Procedures at Nut Tree Airport are included in the remarks section of the Airport’s FAA 5010 Form and are also listed in on [airnav.com/airport/KVCB](http://airnav.com/airport/KVCB). These remarks state “no turns to crosswind below 800 feet MSL; noise sensitive area west of the Airport”. The Airport also has a published non-standard right-hand traffic pattern to Runway 20 in an effort to reduce overflights of noise sensitive land uses located south of the Airport and Interstate 80, and sensitive land uses located to the west of the Airport.

### Airport Environs

An understanding of the existing land uses, zoning patterns, and the various land use planning and control documents used to guide development of property surrounding the Airport is an important element in the airport planning process.

Nut Tree Airport is located in the northwest portion of Solano County, within the City of Vacaville. The land uses associated with the immediate areas surrounding the Airport are generally industrial, business park, commercial, and public park/recreational land uses. Because the operation of an airport influences surrounding land use and surrounding land use has an influence on the operation of an airport, it is critical in any airport planning study to gain an understanding of existing and proposed land use types in the area near that airport. The following text and illustrations describe zoning and land use in the airport environs.

## Zoning

Zoning is the public regulation of the use of land. It involves the adoption of ordinances that divide a community into various districts or zones. Each district will allow a certain use of land within that zone, such as residential, commercial, and industrial (and many others). Typical zoning regulations address things such as the height of a building, number of people that can occupy a building, a lot area, setbacks, parking, signage, and density.

The City of Vacaville 2008 *Zoning Map*, developed by the Community Development Department, classified areas to the west of the Airport as Community Facilities and Open Space; Industrial Park and Community Facilities to the north; Business Park and General Commercial to the east; and, General Commercial and General Commercial with a Residential Overlay district to the south of the Airport. The City of Vacaville *Zoning Map* also classifies the Airport as Community Facility. Existing zoning within the vicinity of the Airport is illustrated below on the following figure entitled *GENERALIZED EXISTING ZONING*.

## Land Use

Nut Tree Airport currently occupies 285 acres of land within the city limits of Vacaville. The Airport, in its entirety, is owned by Solano County. According to the *Land Use Plan Element* (Chapter 2) in the City of Vacaville's 2007 *General Plan*, the Airport is bordered to the west by a local public park, open space, and a small portion of industrial park land uses; to the north by mostly industrial park development; to the east by I-505, business park, and commercial development; and, to the south by I-80, commercial/highway, and commercial development land uses. Airport property is designated public/institutional. Similarly, the Airport is designated as a public/quasi-public land use in the 2008 Solano County *General Plan Land Use Diagram*<sup>5</sup>.

Guiding land use policies, described in the 2007 City of Vacaville *General Plan* and in the *Draft 2012 General Plan*, focus on Urban Service Area development within an established "Growth Boundary". Nut Tree Airport is located within the City of Vacaville's 20-year Urban Service Area Boundary<sup>6</sup>. Further, the 2007 *General Plan* indicates that areas within the City where significant land use changes or major projects may be considered will have required policy plans. Nut Tree Airport falls under the Airport Business Area Policy Plan within the 20-year Urban Service Area Boundary. As stated in the 2007 City of Vacaville *General Plan*, "land use changes and development proposals within the Vacaville planning area shall be consistent with the

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<sup>5</sup> The Solano County Land Use Plan (as depicted on the *Land Use Diagram*) provides guidance for future County growth and the resources conserved through 2030.

<sup>6</sup> City of Vacaville *General Plan*, Chapter 2, *Land Use Element*, 2007.



*Nut Tree Airport Land Use Plan*”, and “*are subject to review per the Solano County Airport Land Use Compatibility Review Procedures*”. Nut Tree Airport land use compatibility requirements are described in the following sections.

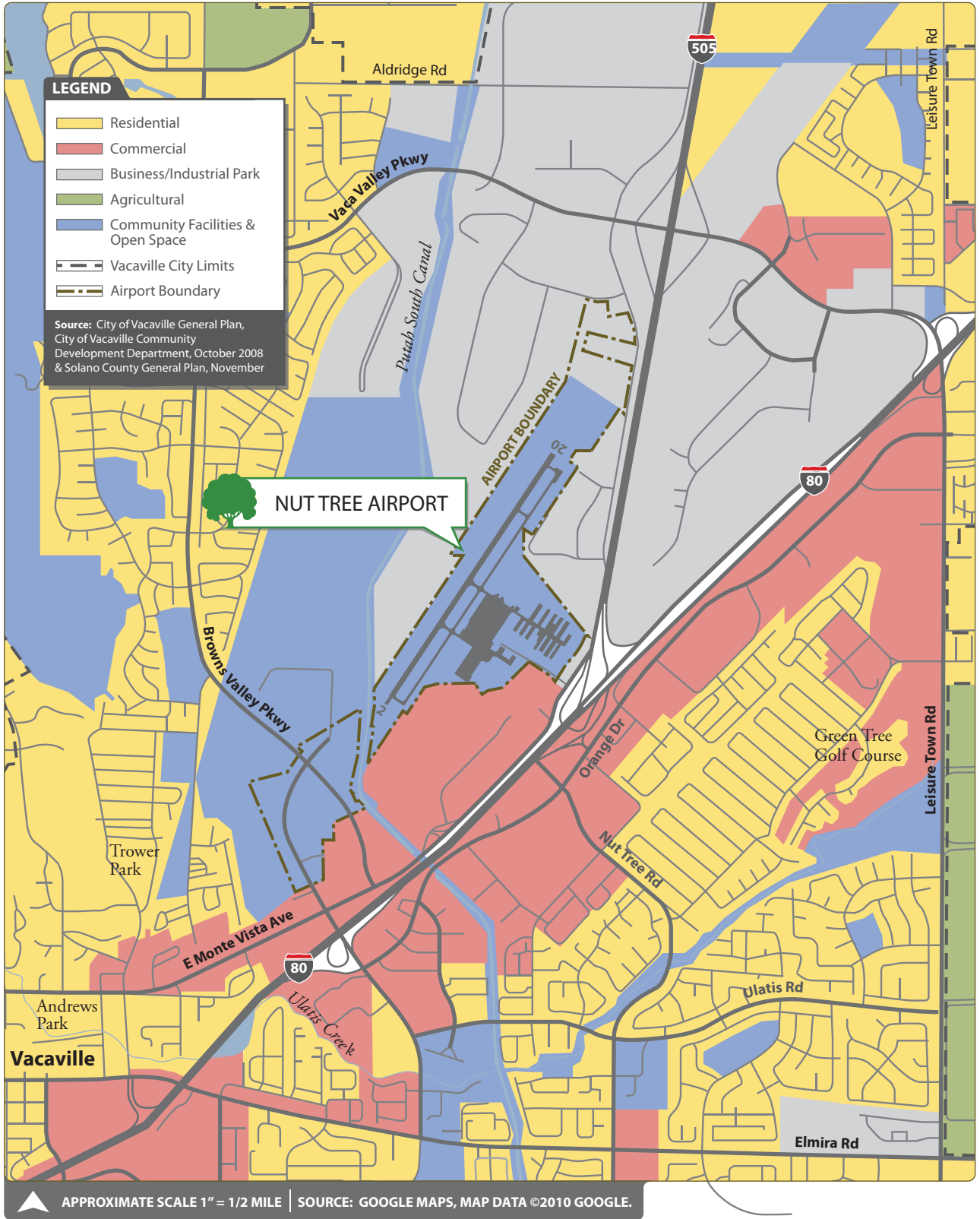


FIGURE B4 Generalized Existing Zoning

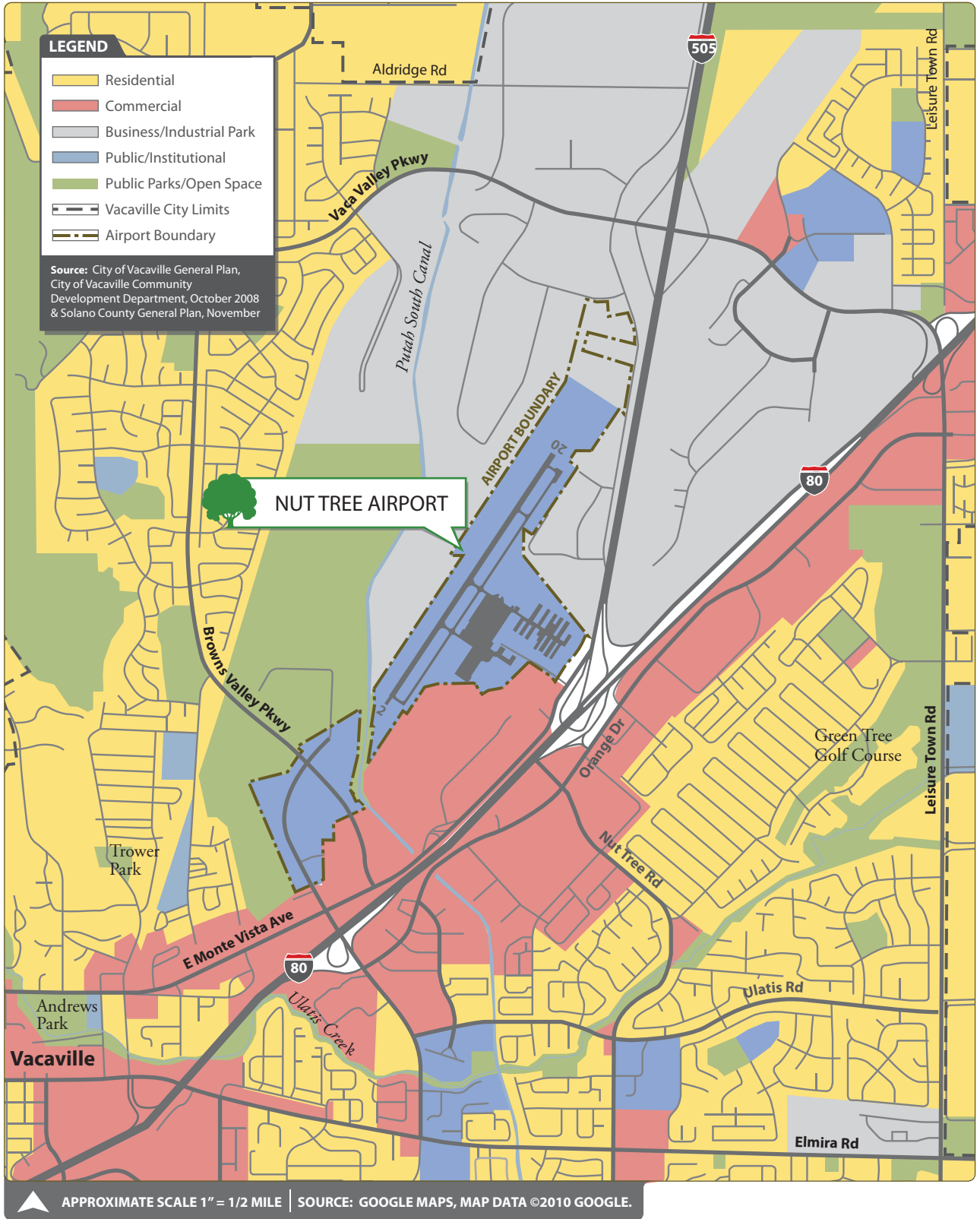


FIGURE B5 Generalized Land Use

## Nut Tree Airport/Land Use Compatibility Plan

The State of California Public Utilities Code (under the California *State Aeronautics Act*) requires the creation of an Airport Land Use Commission (ALUC), which is responsible for developing a land use compatibility plan for each county's public use airport. The Solano County ALUC oversees and adopts land use compatibility planning standards to prevent land use conflicts and facilitate compatible development within the airport environs. Solano County airport land use compatibility plans address current airport facilities throughout the County, which include Nut Tree Airport, Rio Vista Municipal Airport, and Travis AFB.

The purpose of the 1988 *Airport/Land Use Compatibility Plan* (ALUCP) for Nut Tree Airport is to set forth the criteria that the ALUC will use in evaluating land use plans and proposed development in the vicinity of Nut Tree Airport<sup>7</sup>. It is the purpose of the ALUC's review to assure that future action involving land uses in the environs of the Airport take into account the need for compatibility with airport activities. The ALUC has no authority over existing land uses, even if such uses are considered incompatible with airport activity. Also, the ALUC has no authority over the operation of the Airport and the ALUC is concerned only with the safety, overflight impacts, and airspace protection requirements of the Airport. Other impacts sometimes created by the operation of an airport (e.g., air pollutants, automobile traffic, etc.) are not topics of concern.

The 1988 ALUCP defines the airport compatible land use zones<sup>8</sup> around the Airport, as shown in the following figure entitled *AIRPORT LAND USE COMPATIBILITY ZONES*. New development in these zones must be compatible with the plan. The six compatibility zones, the associated impact element, maximum densities, and required percentage are provided for by the 1988 ALUCP including supporting policies related to aircraft noise, airspace protection, and aircraft overflights<sup>9</sup>.

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<sup>7</sup> *Nut Tree Airport/Land Use Compatibility Plan*, May 1988.

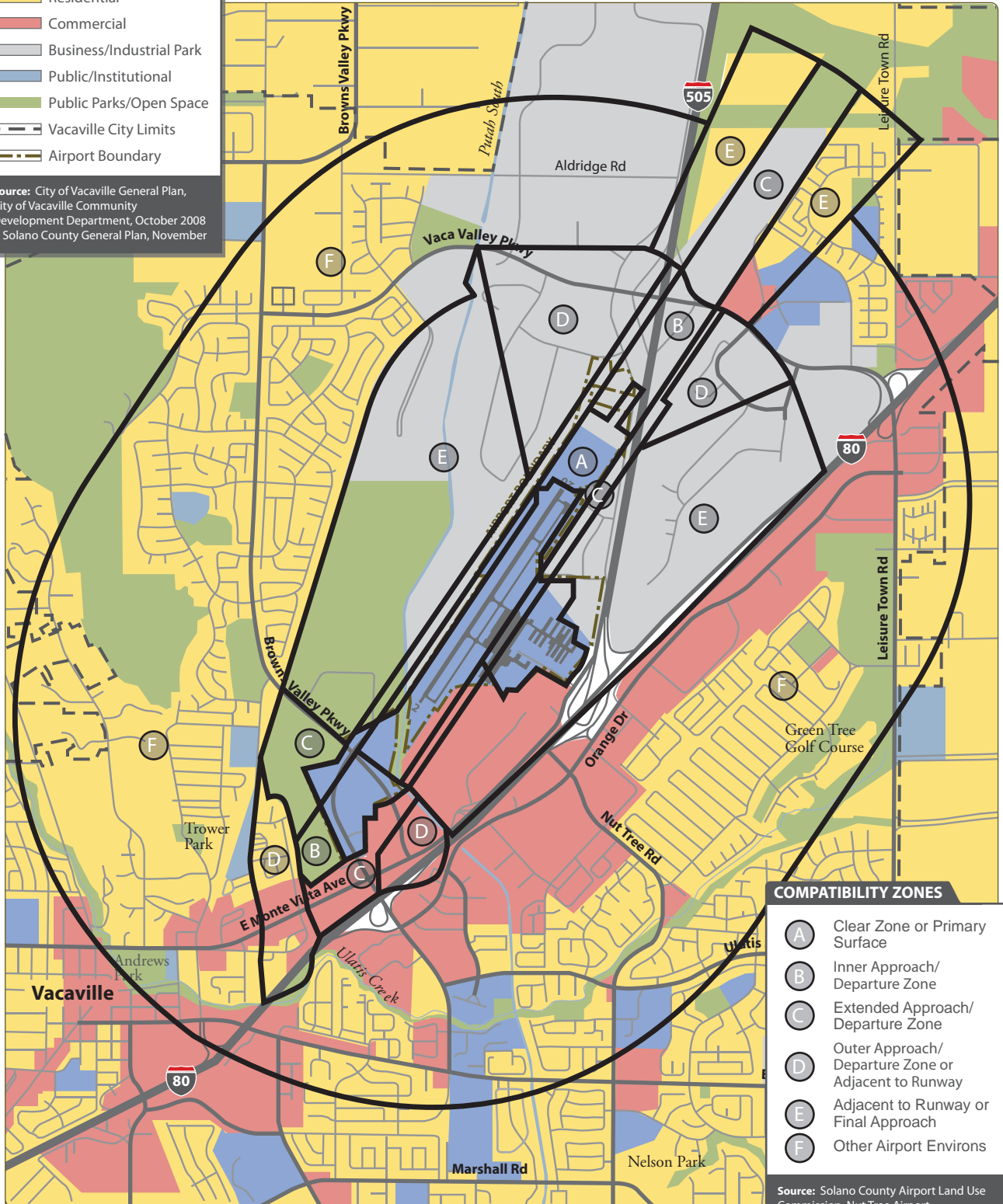
<sup>8</sup> Identified as the "Compatibility District Boundary" in the *City of Vacaville General Plan* (Figure 6-4, *Airport Land Use Compatibility Districts*, 2007), and as the "Airport Influence Area" in the *Solano County General Plan* (Figure LU-6, *Airport Influence Areas*).

<sup>9</sup> Overflights are defined by the FAA as a terminal instrument flight rules (IFR) that originated outside the TRACON/RAPCON/Radar Airport Traffic Control Tower's area, passing through the area without landing. <http://aspmhelp.faa.gov/index.php/Glossary>.

**LEGEND**

- Residential
- Commercial
- Business/Industrial Park
- Public/Institutional
- Public Parks/Open Space
- Vacaville City Limits
- Airport Boundary

Source: City of Vacaville General Plan, City of Vacaville Community Development Department, October 2008 & Solano County General Plan, November



**COMPATIBILITY ZONES**

- A Clear Zone or Primary Surface
- B Inner Approach/Departure Zone
- C Extended Approach/Departure Zone
- D Outer Approach/Departure Zone or Adjacent to Runway
- E Adjacent to Runway or Final Approach
- F Other Airport Environs

Source: Solano County Airport Land Use Commission, Nut Tree Airport Compatibility Map, 1988.



APPROXIMATE SCALE 1" = 3,000'

SOURCE: GOOGLE MAPS, MAP DATA ©2010 GOOGLE.

**FIGURE B6** Airport Land Use Compatibility Zones

