APPENDIX E NCP REVIEW

The current Noise Compatibility Plan (NCP) for Camarillo Airport was approved by the Federal Aviation Administration (FAA) on May 4, 2001. The purpose of the previous Part 150 study was to evaluate noise impacts within the area surrounding Camarillo Airport. The study included Noise Exposure Maps dated 1998, 2003 and 2018, and an NCP which includes fourteen noise abatement measures, four land use measures and five program management measures.

This appendix includes a comparison of the 1998 and 2022 aircraft operations and noise exposure contours, as well as a summary and status of the measures included in the 2001 Noise Compatibility Program.

AIRCRAFT OPERATIONS AND NOISE EXPOSURE CONTOUR COMPARISON

As indicated in **Table E1**, based on information from FAA's Air Traffic Activity System (ATADS) and the most recent Noise Exposure Maps, the number of annual operations at Camarillo Airport has fluctuated since the preparation of the 1998 noise exposure contours. During the years between the two Part 150 studies, operations ranged between a high of 203,941 in 2002 and a low of 132,679 in 2012. The operations assumption for the 1998 noise exposure contours was 188,344, while the 2022 contours are based on 187,076 operations.

TABLE E1 Annual Operations Since 1998 – Camaril	lo Airport
Year	Total Operations⁵
1998	173,078 (188,344¹)
1999	187,572
2000	186,476
2001	179,460
2002	203,941
2003	185,887 (224,800²)
2004	162,889
2005	153,501
2006	149,825
2007	148,518
2008	158,245
2009	162,170
2010	146,863
2011	133,403
2012	132,679
2013	136,510
2014	144,637
2015	147,020
2016	135,517
2017	149,902
2018	140,598 (315,800²)
2019	149,351
2020	158,782
2021	173,970
2022	187,076 (187, 076³)

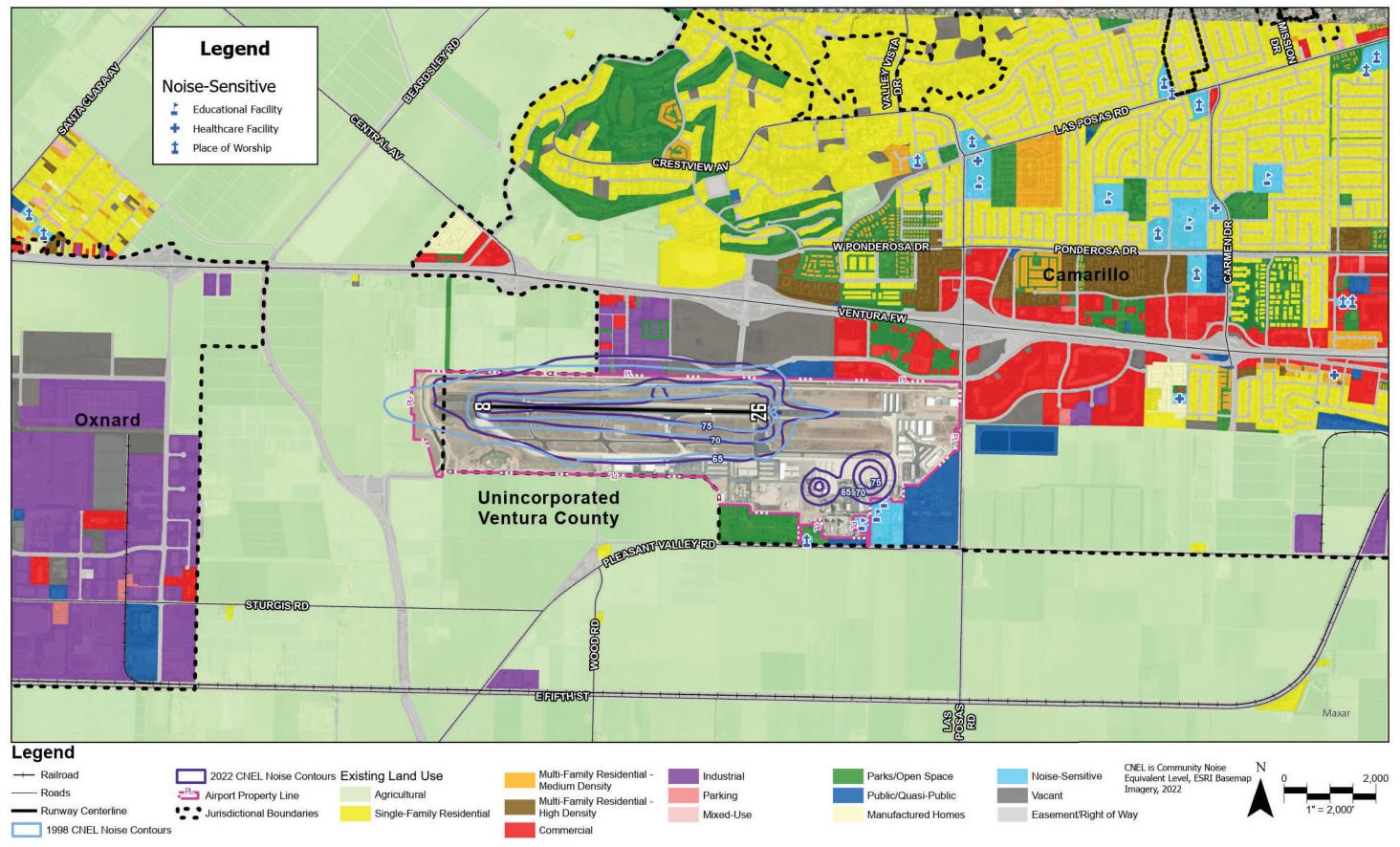
¹ Existing Operations from 1998 Noise Exposure Map

A graphic comparison of the 1998 Noise Exposure Map and the 2022 Noise Exposure Map is presented in **Exhibit E1**. Additionally, **Table E2** provides an acreage comparison of the 1998 and 2022 Noise Exposure Maps. As indicated in the exhibit and table, the 2022 noise contours, which were modeled with 187,076 operations, are larger than the 1998 noise contours, which were modeled with 188,344 operations. It should be noted that the graphic depicting the 1998 noise contours was generated based on a second generation copy of the original; therefore, the accuracy of the contours is not the same as the 2022 noise contours. The 1998 noise contours were modeled with INM Version 5.1, while the 2022 noise contours were modeled using AEDT Version 3e. Since the preparation of the 1998 contours, the Integrated Noise Model (INM) software has been replaced with the Aviation Environmental Design Tool (AEDT). Improvements included in AEDT are flight paths with more segments of shorter lengths than INM flight paths, more accurate methods for computing the effects of weather on noise, a lateral attenuation adjustment, and a dynamic grid method for contour computation. AEDT is a more accurate representation of the noise conditions than INM.

² Forecast Operations from 1998 Noise Exposure Map

³Operations from 2022 Noise Exposure Map

⁵ Camarillo Airport Traffic Control Tower Reports recorded tower operations, calendar years 1998-2022





FABLE E2 Comparative Areas of Noise Exposure – Camarillo Airport					
	Area (Acres)				
	1998	2022			
65-70 CNEL	190.62	368.42			
70-75 CNEL	78.23	157.45			
Acreages represent only those areas between the stated contour ranges.					

Source: Coffman Associates analysis, 1998 Camarillo Airport Noise Exposure Maps

NCP RECOMMENDATION STATUS

Camarillo Airport's most recent Noise Compatibility Study was completed in 2001 and contains fourteen noise abatement measures, four land use measures and five program management measures intended to reduce the impact of aircraft noise on the surrounding airport environment. It was submitted to the FAA for review and was approved on May 4, 2001. Following is a summary of each measure, the FAA's response, and the status of each measure.¹

NOISE ABATEMENT ELEMENT

Table E3 is a summary of the status of Noise Abatement Element program measures, followed in more detail by descriptions and actions taken by the airport sponsor for each measure.

TAE	TABLE E3 Noise Abatement Element Program Measures		
Measure			
1	Continue prohibiting formation takeoffs and landings without prior permission from the Director of Airports.	Completed	
2	Continue advising north traffic to fly the downwind leg along U.S. Highway 101.	Ongoing	
3	Continue advising Runway 26 arrivals to make base leg turns west of Las Posas Road.	Completed	
4	Continue advising pattern traffic on Runway 8 to turn to the crosswind leg prior to Las Posas Road.	Completed	
5	Continue advising right traffic on Runway 8 so as to avoid low overflights of the City.	Completed	
6	Advise straight-in VFR approaches to Runway 26 to remain south of U.S. Highway 101 and south of housing areas.	Completed	
7	Advise Runway 26 departures to fly west and north of City when turning right.	Completed	
8	Require aircraft over 80,000 pounds to land on Runway 8 and depart on Runway 26 whenever safe and practicable.	Ongoing	
9	When landings on Runway 26 are necessary, require aircraft over 80,000 pounds to make offset visual approaches from the southeast over farmland.	Ongoing	
10	Promote use of NBAA standard noise abatement departure procedures by jets.	Ongoing	
11	Promote use of AOPA Noise Awareness Steps by light single and twin-engine aircraft.	Ongoing	
12	Continue promoting a standard left hand traffic pattern on Runway 26.	Completed	
13	Designate Runway 26 as the calm wind runway.	Ongoing	
14	Runway 8 departures right turns.	Completed	

¹ Federal Register, Volume 66 Issue 99 (Tuesday, May 22, 2001)

Noise Abatement Measure 1: Continue prohibiting formation takeoffs and landings without prior permission from the Director of Airports.

Description: This measure recommends that the Department of Airports continue its existing policy of prohibiting formation takeoffs and landings without prior permission from the Director of Airports. Formation takeoffs and landings produce significantly greater single event noise than do operations by single aircraft. For example, a formation takeoff by two identical aircraft will produce single event noise three decibels louder than a takeoff by a single aircraft. This is an existing county policy which promotes both noise abatement and safety.

FAA Response: Approved as a voluntary measure only.

Status: Completed. Published as a voluntary noise abatement procedure in October 2022 pilot guide and the November 1999 pilot guide.

Noise Abatement Measure 2: Continue advising north traffic to fly the downwind leg along U.S. Highway 101.

Description: This measure recommends that the Department of Airports continue to advise aircraft flying downwind north of the airport to fly along U.S. Highway 101. U.S. Highway 101 is nearly parallel to Runway 8-26. By flying along the highway, aircraft will avoid residential areas to the north.

FAA Response: Approved as a voluntary measure only.

Status: Completed. Published as a voluntary noise abatement procedure in October 2022, January 2002, and November 1999 pilot guides.

Noise Abatement Measure 3: Continue advising Runway 26 arrivals to make base leg turns west of Las Posas Road.

Description: This measure recommends that the Department of Airports continue to advise aircraft arriving on Runway 26 to make base leg turn west of Las Posas Road. This policy is intended to keep the traffic pattern as compact as possible and avoid overflights of residential areas to the east.

FAA Response: Approved as a voluntary measure only.

Status: Completed. Published as a voluntary noise abatement procedure in October 2022, January 2002, and November 1999 pilot guides.

Noise Abatement Measure 4: Continue advising pattern traffic on Runway 8 to turn to the crosswind leg prior to Las Posas Road.

Description: This measure recommends that the Department of Airports continue to advise aircraft operating within the airport traffic pattern for Runway 8 to turn the crosswind leg prior to Las Posas Road. The intent is to ensure that aircraft taking off to the east on Runway 8 turn to the crosswind leg quickly before reaching residential areas to the east.

FAA Response: Approved as a voluntary measure only.

Status: Completed. Published as a voluntary noise abatement procedure in the October 2022, January 2002, and November 1999 pilot guides.

<u>Noise Abatement Measure 5</u>: Continue advising right traffic on Runway 8 so as to avoid low overflights of the City.

Description: This measure recommends that the Department of Airports continue to promote the use of a right-hand traffic pattern on Runway 8 so as to avoid low overflights of the city. A right traffic pattern on Runway 8 helps avoid low overflights of residential areas north of the airport.

FAA Response: Approved as a voluntary measure only.

Status: Completed. Published as a voluntary noise abatement procedure in October 2022, January 2002, and November 1999 pilot guides.

Noise Abatement Measure 6: Advise straight-in VFR approaches to Runway 26 to remain south of U.S. Highway 101 and south of housing areas.

Description: This measure recommends that the Department of Airports advise aircraft on straight in VFR approaches to Runway 26 to remain south of U.S. Highway 101 and south of housing areas. This measure is intended to ensure that approaches from the east to Runway 26 remain south of residential areas east of the airport.

FAA Response: Approved as a voluntary measure only.

Status: Completed. Published as a voluntary noise abatement procedure in October 2022, January 2002, and November 1999 pilot guides.

Noise Abatement Measure 7: Advise Runway 26 departures to fly west and north of City when turning right.

Description: This measure recommends that the Department of Airports advise aircraft departing on Runway 26 to fly west and north of the city when turning right. This measure is intended to ensure that takeoffs to the west on Runway 26 fly past the city before turning north and that if they are headed back to the east or northeast that they avoid direct overflights of the city.

FAA Response: Approved as a voluntary measure only.

Status: Completed. Published as a voluntary noise abatement procedure in October 2022, January 2002, and November 1999 pilot guides.

<u>Noise Abatement Measure 8</u>: Require aircraft over 80,000 pounds to land on Runway 8 and depart on Runway 26 whenever safe and practicable.

Description: This measure recommends that the Department of Airports require aircraft over 80,000 pounds to land on Runway 8 and depart on Runway 26 whenever safe and practicable. This measure is intended to ensure that takeoffs and landings by large aircraft are made to and from the west whenever possible. This would avoid overflights of residential areas east of the airport.

FAA Response: Approved as a voluntary measure only.

Status: This voluntary measure is not included as part of the pilot guide or FAA Airport Traffic Control Tower procedures in the airport remarks section of the Chart Supplement found at - https://aero-nav.faa.gov/afd/30nov2023/sw_125_30NOV2023.pdf.

<u>Noise Abatement Measure 9</u>: When landings on Runway 26 are necessary, require aircraft over 80,000 pounds to make offset visual approaches from the southeast over farmland.

Description: This measure recommends that the Department of Airports require aircraft over 80,000 pounds to make offset visual approaches from the southeast over farmland when landing on Runway 26. This measure is intended to work together with Measure 8 above to ensure that large aircraft approaches avoid direct overflights of residential areas.

FAA Response: Approved as a voluntary measure only.

Status: This voluntary measure is not included as part of the pilot guide or FAA Airport Traffic Control Tower procedures in the airport remarks section of the Chart Supplement found at - https://aero-nav.faa.gov/afd/30nov2023/sw_125_30NOV2023.pdf.

Noise Abatement Measure 10: Promote use of NBAA standard noise abatement departure procedures by jets.

Description: This measure recommends that the Department of Airports actively encourage jet operators to use the National Business Aviation Association (NBAA) Standard Noise Abatement Departure Procedures, or equivalent quiet flying procedures developed by the aircraft manufacturer.

FAA Response: Approved as a voluntary measure only.

Status: NBAA recommended procedure information is not included as part of the airport sponsor's educational distribution materials.

Noise Abatement Measure 11: Promote use of AOPA Noise Awareness Steps by light single and twinengine aircraft.

Description: This measure recommends that the Department of Airports promote the use of AOPA Noise Awareness Steps and publish them in a convenient format for insertion in pilot manuals and inclusion in a pilot guide. The Aircraft Owners and Pilots Association (AOPA) encourages quiet and neighborly flying by distributing generalized noise abatement procedures for use by propeller aircraft.

FAA Response: Approved as a voluntary measure only.

Status: AOPA noise awareness information is not included as part of the airport sponsor's educational distribution materials.

Noise Abatement Measure 12: Continue promoting a standard left-hand traffic pattern on Runway 26.

Description: This measure recommends that the Department of Airports continue to promote the use of a standard left hand traffic pattern on Runway 26. Currently, a standard left-hand traffic pattern is used on Runway 26 by approximately 75 percent of the traffic at the airport. This promotes noise abatement by keeping aircraft on the south side of the airport, away from the neighborhoods north of the U.S. Highway 101.

FAA Response: Approved as a voluntary measure only.

Status: Completed. Published as a voluntary noise abatement procedure in October 2022 pilot guide.

Noise Abatement Measure 13: Designate Runway 26 as the calm wind runway.

Description: This measure recommends that the Department of Airports adopt a policy noting that Runway 26 is the calm wind runway and the preferred runway for noise abatement. This measure also recommends the Department of Airports request that this policy be reflected in FAA Airport Traffic Control Tower procedures. Runway 26 is currently used approximately 85 percent of the time, primarily because of the prevailing winds from the west. Since the area west of the airport is undeveloped, in contrast with the residential development about one and one-half miles to the east, this runway use promotes noise abatement.

FAA Response: Approved as a voluntary measure only.

Status: Ongoing. The pilot guide recommends aircraft depart Runway 26 when practicable. This voluntary measure is not included as part of FAA Airport Traffic Control Tower procedures.

Noise Abatement Measure 14: Advise departures on Runway 8 to make right turns to avoid overflights of City.

Description: This measure recommends that the Department of Airports establish a policy of advising aircraft departing Runway 8 to turn right to avoid overflights of residential areas. This measure also recommends that this policy be published in policy advisories, published in a pilot guide, and be coordinated with the FAA Airport Traffic Control Tower.

FAA Response: Approved as a voluntary measure only.

Status: Completed. Published as a voluntary noise abatement procedure in October 2022, January 2002 and November 1999 pilot guides.

LAND USE MANAGEMENT ELEMENT

Table E4 is a summary of the status of Land Use Management Element program measures, followed in more detail by descriptions and actions taken by the airport sponsor for each measure.

TABLE E4 Land Use Management Element Program Measures			
	Measure		
1	Use combined 2003 and 2018 noise contours as basis for noise compatibility planning.	Ongoing	
2	Set 60 CNEL as the threshold for promoting airport compatible development.	Completed	
3	Preserve airport-compatible land use designations within 60 CNEL and beneath the close-in traffic pattern.	Ongoing	
4	Establish noise compatibility guidelines for the review of development projects within the "compatible land use preservation area" and require fair disclosure agreements and covenants for noise-sensitive uses granted a development permit.	Ongoing	

<u>Land Use Management Measure 1</u>: Use combined 2003 and 2018 noise contours as basis for noise compatibility planning.

Description: This measure recommends that the city of Camarillo and Ventura County amend their general plans to show the updated noise contours for Camarillo Airport. In a letter dated July 18, 2000, the county of Ventura indicated that, if approved, this measure will be implemented based on the 2003 NEM (Exhibit 2) accepted by the FAA on September 10, 1998.

FAA Action: Approved.

Status: Ongoing. The City of Camarillo and Ventura County general plans are updated on an annual basis. HAZ-9.6: Airport Noise Compatibility in the County of Ventura General Plan references noise analysis prepared for local airports as an accurate mapping of the long-term noise impact of the airport's aviation activity. In addition, the County restricts new discretionary residential land uses to areas outside of the 60 CNEL aircraft noise contour unless interior noise levels can be mitigated to meet a maximum 45 CNEL. The City of Camarillo's 2011 general plan utilizes noise contours from the 2011 Camarillo Airport Master Plan for existing and ultimate scenarios, reflecting 2015 and 2035 noise contours for Camarillo Airport.

<u>Land Use Management Measure 2</u>: Set 60 CNEL as the threshold for promoting airport compatible development.

Description: This measure recommends that the city of Camarillo and Ventura County amend their general plans to establish 60 CNEL as the threshold for compatible land use planning around airports. In a letter dated July 18, 2000, the county of Ventura indicated that 60 CNEL is to be used as a threshold to promote land use compatibility only and that the standards specified in Table 1 of FAR Part 150, reference 65 CNEL, will continue to be used as the threshold of significance for noise impacts and in compatible land use determinations.

FAA Response: Approved.

Status: Completed. The 60 CNEL contours for Camarillo Airport were adopted by the Ventura County Airport Land Use Commission in the most recent Airport Land Use Plan Update for Ventura County dated July 7, 2000. The City of Camarillo general plan indicates outdoor noise levels for residential land uses and other noise-sensitive land uses are normally acceptable up to 60 CNEL and conditionally acceptable in the range of 60-70 CNEL. The Ventura County general plan prohibits new noise sensitive uses near airports in a CNEL 65 or greater noise contour and permits the same in the 60-65 CNEL noise area only if means are taken to ensure interior noise levels are CNEL 45 or less.

<u>Land Use Management Measure 3</u>: Preserve airport-compatible land use designations within 60 CNEL and beneath the close-in traffic pattern.

Description: This measure recommends that the city of Camarillo and Ventura County retain compatible land use designations, within their respective general plans, within the 60 CNEL noise contour and beneath the close-in traffic pattern.

FAA Response: Approved.

Status: Ongoing. Land within the 2003 noise contour for 60 CNEL addressed in the noise compatibility program is currently zoned Agricultural, Commercial or Manufacturing, which are generally compatible with airport use. The land beneath the close-in pattern in unincorporated Ventura County is currently zoned Agricultural, which is retained as airport-compatible. The majority of City of Camarillo property within the close-in pattern is currently zoned airport-compatible, either Commercial or Manufacturing. A portion of the City of Camarillo south of airport property and within the close-in pattern is currently zoned Single-Family Residential. The status is designated as ongoing as the zoning of individual land parcels is subject to change with approval of the appropriate jurisdictional authority.

<u>Land Use Management Measure 4</u>: Establish noise compatibility guidelines for the review of development projects within the "compatible land use preservation area" and require fair disclosure agreements and covenants for noise-sensitive uses granted a development permit.

Description: This measure recommends that the city of Oxnard and Ventura County adopt, through general plan amendments, project review criteria for development projects within the "compatible land use preservation area" which is defined as the area within the 60 CNEL contour and the land near the airport under the close-in traffic patterns.

FAA Response: Approved.

Status: Ongoing. The results of the 1997-1998 noise compatibility study for Camarillo Airport were incorporated into the Airport Comprehensive Land Use Plan for Ventura County, updated by the Ventura County Airport Land Use Commission and adopted in 2000. The City of Camarillo maintains an Airport North Specific Plan since 1986 that has been updated continuously. However, the City of Oxnard and Ventura County have not adopted specific review criteria for a compatible land use preservation area within the 60 CNEL contour or land near the airport under the close-in traffic patterns, or Extended Traffic Pattern Zone (ETPZ).

PROGRAM MANAGEMENT ELEMENT

Table E5 is a summary of the status of Program Management Element program measures, followed in more detail by descriptions and actions taken by the airport sponsor for each measure.

TA	TABLE E5 Program Management Element Program Measure			
Measure		Status		
1	Maintain and enhance system for receiving, analyzing, and responding to noise complaints.	Ongoing		
2	Review Noise Compatibility Plan implementation.	Ongoing		
3	Publish pilot guide.	Completed		
4	Update Noise Exposure Maps and Noise Compatibility Program.	Ongoing		
5	Acquire noise monitors.	Ongoing		

<u>Program Management Measure 1</u>: Maintain and enhance system for receiving, analyzing, and responding to noise complaints.

Description: This measure recommends that the Department of Airports maintain and enhance the system of receiving, analyzing, and responding to noise complaints.

FAA Response: Approved.

Status: Ongoing. The Department of Airports implemented the Vector Noise and Operations Management System (VNOMS) which the public can use to submit noise comments and concerns. Noise complaint data generated by the system is summarized and reported on a monthly basis.

Program Management Measure 2: Review Noise Compatibility Plan implementation.

Description: This measure recommends that the Department of Airports monitor compliance with the noise abatement element and maintain communications with the airport users and planning officials of the city of Camarillo and Ventura County, to follow their progress in implementing the land use management elements of this Noise Compatibility Program.

FAA Response: Approved.

Status: Ongoing. A comprehensive review is currently underway as part of the 2023 Noise Compatibility Study for Camarillo Airport.

Program Management Measure 3: Publish pilot guide.

Description: This measure recommends the Department of Airports prepare and distribute a pilot guide describing airport noise abatement information.

FAA Action: Approved.

Status: Completed. The airport's most recent pilot guide was published in October 2022. The airport distributes noise abatement procedure handouts to pilots, flight schools and aviation businesses operating at Camarillo Airport. A digital version of the pilot guide is also available on the Department of Airports website: http://vcairports.org. Also, the airport uses airfield signs to promote noise abatement procedures. Previous versions were published in January 2002 and November 1999.

Program Management Measure 4: Update Noise Exposure Maps and Noise Compatibility Program.

Description: This measure recommends that the Department of Airports review the Noise Exposure Maps and the Noise Compatibility Program and consider revisions and refinements as necessary.

FAA Response: Approved.

Status: Ongoing. The Noise Exposure Maps and the Noise Compatibility Program will be revised and refined as part of 2023 Noise Compatibility Study for Camarillo Airport.

<u>Program Management Measure 5</u>: Acquire noise monitors.

Description: This measure recommends that the Department of Airports acquire up to two noise monitor and consider installing them at permanent locations, one of each runway end. The permanent monitors would supplement the portable noise monitors which the Department of Airports already owns.

FAA Response: Approved.

Status: Ongoing. Noise monitors have not yet been acquired or installed at permanent locations on each runway end of Camarillo Airport.

ADDITIONAL NOISE ABATEMENT PROCEDURES

There are a number of noise abatement measures in place in 2022 that are not part of the current Noise Compatibility Plan, including the following published voluntary noise abatement procedures:

- No aircraft departures between 0000-0500 without prior approval from the Airport Director.
- Late night arrivals use GPS Runway 8 approach when wind, weather, and safety permit.
- 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.
- No aircraft operations allowed by aircraft weighing over 115,000 pounds except for emergencies.